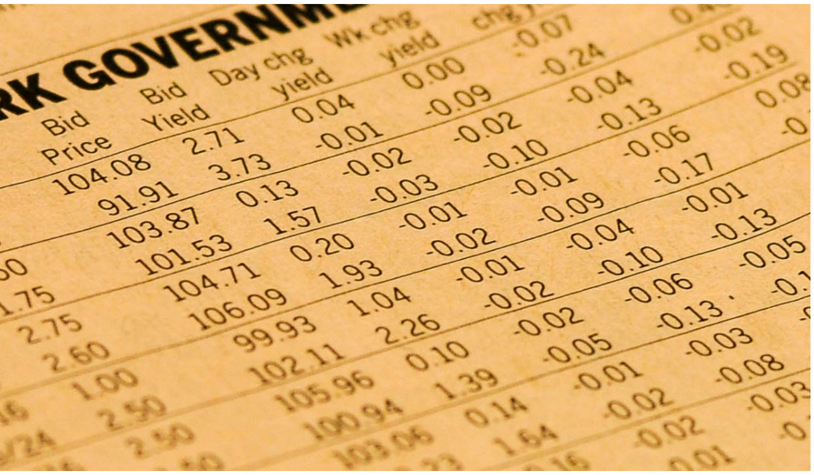

# ASIA BOND MONITOR

## JUNE 2015

ASIAN DEVELOPMENT BANK

The Asia Bond Monitor (ABM) is part of the Asian Bond Markets Initiative (ABMI), an ASEAN+3 initiative supported by the Asian Development Bank. This report is part of the implementation of a technical assistance project funded by the Investment Climate Facilitation Fund of the Government of Japan under the Regional Cooperation and Integration Financing Partnership Facility.

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Printed in the Philippines.

ISBN 978-92-9254-981-7 (Print), 978-92-9254-982-4 (e-ISBN)
ISSN 2219-1518 (Print), 2219-1526 (e-ISSN)
Publication Stock No. RPS157395-2

Cataloging-In-Publication Data

Asian Development Bank.
Asia Bond Monitor—June 2015.
Mandaluyong City, Philippines: Asian Development Bank, 2015.

1. Regionalism. 2. Subregional cooperation. 3. Economic development. 4. Asia.
I. Asian Development Bank.



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

# Highlights

## Bond Market Outlook

Emerging East Asia's bond markets were volatile due to rising global concerns over the unresolved Greek debt crisis and possibility of an interest rate hike in the United States (US).[1] Global interest rates, which had been falling up until April, started picking up in early May. Contributing factors to the recent increases include protracted negotiations over the Greek debt crisis, firmer oil prices, improving economic indicators in the US in April–May, and faster 1Q15 GDP growth in the eurozone. As a result, the region's bond yields have also moved upward since the beginning of May.

Exchange rates in emerging East Asia have weakened, with the US dollar gaining strength over most of the region's currencies between 2 March and 5 June. The currencies of Thailand and Indonesia depreciated the most, falling 4.8% and 2.5%, respectively. Most of the region's other currencies also weakened against the US dollar over the same period. The exceptions were the currency of the People's Republic of China (PRC), which gained 1.1%, and the currencies of Hong Kong, China; and Singapore, which were broadly unchanged.

Risks to the region's bond markets are rising and include (i) a sudden US rate hike triggering volatility in the region's bond markets; (ii) the lack of liquidity in the region's bond markets and the increasing popularity of Exchange-Traded Funds could also worsen volatility; and (iii) higher US interest rates could strengthen the dollar, hurting issuers of foreign currency bonds and increasing payments on existing US dollar bonds.

## LCY Bond Market Growth in Emerging East Asia

The local currency (LCY) bond market in emerging East Asia continued to expand in 1Q15 to reach US$8.3 trillion at end-March. Growth, however, moderated on both a quarter-on-quarter and year-on-year (y-o-y) basis. The region's government bond market reached a size of US$4,952 billion in 1Q15, accounting for 59.9% of emerging East Asia's total bond stock. The corporate bond market, with an outstanding size of US$3,320 billion at end-March, accounted for 40.1%.

The three largest bond markets in the region were those of the PRC, the Republic of Korea, and Malaysia. The PRC led the region in terms of size for both government and corporate bonds. Malaysia is home to the largest *sukuk* (Islamic bond) market in the region, with more than half of its LCY bond stock comprising *sukuk* at end-March.

As a share of gross domestic product (GDP), the size of emerging East Asia's bond market was broadly unchanged, accounting for a 57.7% share in 1Q15 and a 57.6% share in 4Q14. The Republic of Korea had the highest ratio of bonds to GDP in 1Q15 at over 100%, followed by Malaysia with a share of 96.0%.

LCY bond issuance in emerging East Asia totaled US$924 billion in 1Q15, down from US$1,032 billion in 4Q14 but up from its level in 1Q14.

## Structural Developments in Emerging East Asia's LCY Bond Markets

Foreign investor interest in LCY government bonds remained upbeat for select emerging East Asian markets despite the US dollar gaining strength against most of the region's local currencies. The share of foreign holdings in Indonesia and Malaysia continued to climb, with over 30% of government bonds in both markets held by foreign investors at end-March.

The corporate debt holdings of foreign investors in 1Q15 remained miniscule compared with their holdings of government bonds. Foreign holdings of corporate debt in Indonesia only accounted for 10.5% of the total corporate bond stock at end-March, while the share was a negligible 0.3% in the Republic of Korea.

Foreign capital flows into emerging East Asia's LCY bond market have climbed since the beginning of the year, with foreign investors shoring up their bond holdings despite uncertainty over the timing of a US interest rate hike. Among the four markets providing data on capital

[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.

flows, Malaysia recorded the largest inflow year-to-date, as appetite for MYR-denominated securities significantly improved in March and April.

## LCY Bond Yields

Bond yields in the US and the eurozone began rising in early May. The US Federal Reserve indicated that economic weakness in 1Q15 was partially due to transitory factors such as unusually cold weather and a labor dispute at West Coast ports. Recent economic data support this assessment, including an improvement in nonfarm payroll growth in April. In the eurozone, GDP growth rose to 1.0% y-o-y in 1Q15 from 0.9% y-o-y in 4Q14. Oil prices have also firmed in recent months, leading to rising inflation expectations.

Between 2 March and 5 June, emerging East Asia's LCY government bond yields rose at the long-end of the curve for all markets except the Philippines, while yields at the short-end were driven mostly by differences in inflation and policy rate movements. In Indonesia, the rise in yields was driven by increasing inflation expectations as firmer oil prices and the removal of oil subsidies were expected to drive inflation higher. In Malaysia, rising inflation had the opposite effect, with most yields falling, particularly at the short-end of the curve.

In Viet Nam, yields rose as the central bank devalued the Vietnamese dong on 7 May rather than adjust policy rates to stimulate the economy. In the Philippines, the yield curve rose for the majority of tenors as the market does not expect the Bangko Sentral ng Pilipinas to reduce policy rates this year.

In the PRC, the Republic of Korea, and Thailand, yields at the short-end of the curve fell and yields at the long-end rose. In the PRC, yields on bonds with shorter tenors declined following the People's Bank of China's policy rate reductions in March and May. In the Republic of Korea, yields fell at the short-end of the curve following the central bank's policy rate reduction in March. In Thailand, yield declines at the short-end of the curve were the result of accelerated deflation, while higher yields at the long-end were due to a better GDP outlook and long-term inflation expectations.

Yields rose for most tenors in Hong Kong, China and for all tenors in Singapore as both markets closely track US interest rate movements due to the nature of their exchange rates, which do not float freely in response to market movements.

## Special Section: Bond Financing for Renewable Energy

Increased diversification of energy sources away from fossil fuels and toward renewable energy is required to sustainably meet the growing energy needs of Asia. However, a lack of financing is constraining the wider adoption of renewable energy.

Multilateral development banks, governments, and the private sector are potential financiers for renewable energy projects. However, the public sector can only meet a small portion of the financing needs. While Asia has long been reliant on the banking sector to fund investment projects, the adoption of Basel III regulations will make long-term and risky lending less attractive.

Given the large pool of investable funds in Asia, the growing appeal of developing economies as an investment destination, and heightened interest in renewable energy investments, bond financing is becoming increasingly popular.

Total bonds issued by renewable energy corporations have increased from US$5.2 billion in 2010 to US$18.3 billion in 2014. Asia has been leading the way in the use of such bonds, with the PRC accounting for a huge chunk of the region's renewable energy sector bond issuance.

Green bonds have also taken off in recent years, supported by growing investor interest in adhering to environmental, social, and governance criteria. In 2014, total issuance of global green bonds reached US$30.5 billion, more than double the amount in 2013.

Several policy challenges need to be overcome to meet the financing needs for renewable energy. Governments play a key role in formulating and implementing policies that promote the development and adoption of renewable energy. As renewable energy projects tend to have cost disadvantages compared to conventional energy projects, guarantees and dedicated funds can be used to help reduce these disadvantages. Narrowing the information gap for lenders interested in investing in renewable energy would also be beneficial.

# Global and Regional Market Developments

Emerging East Asia's bond markets were volatile due to rising global concerns over the unresolved Greek debt crisis and possibility of an interest rate hike in the United States (US).[2] Global interest rates, which were falling up until April, started picking up in early May. The sell-off was most pronounced in Europe where investors felt that bond yields had declined too much. The protracted negotiations over the Greek debt crisis have also likely unnerved the market. At the same time, falling oil prices, which had been driving deflationary pressures, have reversed course. As a result, the region's bond yields have been moving upward since the beginning of May.

The US turned in a surprisingly weak economic performance in 1Q15, contracting at an annual rate of 0.7%. Cold winter weather, a strong US dollar, and labor disputes at West Coast ports contributed to the weak performance. Leading indicators suggested that the economic climate improved in subsequent months as housing starts hit 1.135 million in April and 280,000 jobs were added in May. However, this will probably not be enough for the Federal Reserve to start raising interest rates in June as had earlier been predicted. Markets expect an interest rate rise no earlier than 3Q15. Regarding oil prices, while they have risen recently, further upward pressure is limited.

Across the Atlantic, the eurozone's economy is perking up, growing 1.0% year-on-year in 1Q15. While still low, growth in 1Q15 signals that the eurozone is slowly recovering. Stimulus from the European Central Bank (ECB), a weaker euro, and lower oil prices likely contributed to the recovery. Despite the improvement, growth remains sluggish and the ECB is expected to continue with its quantitative easing program. Worries about Greece's debt sustainability and its membership in the eurozone continue to weigh upon growth.

The Japanese economy has also been improving, expanding at an annual rate of 3.9% in 1Q15 as a weaker yen spurred exports. The better economic news provides some evidence that the Bank of Japan's (BOJ) massive stimulus program is working. The BOJ remains committed to continuing its annual asset purchase program of JPY80 trillion.

Local currency (LCY) 10-year government bond yields in emerging East Asia generally rose between 2 March and 5 June **(Table A)**. Most increases came at the beginning of May, with yields further picking up through early June in response to rising US and eurozone bond yields. The rally in oil prices also may have raised inflationary expectations, leading to higher yields. The biggest increase was in Indonesia, where the yield on the 10-year bond rose 145 basis points (bps). Other economies with large increases in 10-year bond yields were Singapore, Thailand, and the Philippines, which saw gains of 42 bps, 37 bps, and 34 bps, respectively. 10-year bond yields in other emerging East Asian markets rose between 13 bps and 26 bps.

Exchange rates in emerging East Asia weakened during the same period, with the US dollar gaining strength over most of the region's currencies. The currencies of Thailand and Indonesia depreciated the most, falling 4.8% and 2.5%, respectively. Most of the region's other currencies also weakened against the US dollar. The exceptions were the currency of the PRC, which gained 1.1%, and the currencies of Hong Kong, China and Singapore, which were broadly unchanged.

The region's credit default swap (CDS) spreads began rising toward the end of May, reflecting investor perceptions of increasing risk in the region's bond market **(Figure A)**. The CDS spread in Indonesia gained the most, rising 43 bps between 2 March and 5 June. The only exceptions to this rising trend were in the Republic of Korea and Malaysia, where CDS spreads shed 2 bps and 4 bps, respectively. In early June, CDS spreads in Italy, Spain, Ireland, and Portugal were also rising on concerns over the possibility of Greece leaving the eurozone and the central government's capacity to service its huge debt burden **(Figure B)**. Overall, global financial market conditions were quite volatile in the second half of May, through early June, with emerging market spreads and the volatility index rising **(Figure C)**.

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

**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 | 5 | 33 | – | (1.2) | – |
| United Kingdom | (0.4) | 29 | (0.5) | (2.0) | 0.6 |
| Japan | (3) | 14 | (0.6) | 9.0 | (4.6) |
| Germany | 4 | 49 | (2) | (1.9) | 0.6 |
| **Emerging East Asia** | | | | | |
| China, People's Rep. of | (72) | 22 | 11 | 50.6 | 1.1 |
| Hong Kong, China | (3) | 26 | – | 9.5 | 0.03 |
| Indonesia | 135 | 145 | 43 | (6.9) | (2.5) |
| Korea, Rep. of | (31) | 13 | (2) | 3.6 | (0.9) |
| Malaysia | (13) | 17 | (4) | (4.0) | (2.4) |
| Philippines | (47) | 34 | 9 | (3.2) | (1.8) |
| Singapore | 5 | 42 | – | (2.1) | 0.6 |
| Thailand | (49) | 37 | 10 | (4.7) | (4.8) |
| Viet Nam | 69 | 26 | 15 | (2.1) | (2.2) |
| **Select European Markets** | | | | | |
| Greece | 116 | 165 | 1652 | (8.5) | 0.6 |
| Ireland | 6 | 68 | 3 | 2.4 | 0.6 |
| Italy | 5 | 94 | 1 | 2.5 | 0.6 |
| Portugal | 17 | 109 | 35 | 2.8 | 0.6 |
| Spain | (0.5) | 98 | (12) | (1.0) | 0.6 |

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 2 March and 5 June 2015.
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 (IIF).

Bond yields in the eurozone fell in 1Q15, following the ECB announcement of a new stimulus program and given the deflationary effects of lower oil prices. However, with oil prices recovering and the eurozone's economic performance improving, yields have since started rising. **(Figure D)**. Yields in the US and Japan began rising in late April as economic news became more promising. Bond yields in Japan and the eurozone remained lower than in the US, reflecting the expansionary monetary policies that are being pursued in these economies. In Greece, as uncertainty over the debt situation continues, bond yields have risen sharply. In emerging East Asia, risk premiums have mostly remained stable. Malaysia's risk premium dropped sharply after a spike at the beginning of the year when investors were concerned about the government's reliance on oil and gas revenues. With oil prices recovering, some of the concerns have eased **(Figure E)**.

Foreign holdings of Indonesian LCY government bonds continued to rise in 1Q15 as investors remained attracted to the high yields. The foreign share of LCY government bond holdings in Indonesia rose to 38.6% at end-March from 38.1% at end-December. The share of foreign holdings of LCY government bonds in Malaysia rose to 31.3% at end-March after dipping slightly to 31.0% at end-December. Foreign holdings of LCY government bonds in Thailand were down slightly to a 17.3% share at end-March from 18.3% at end-December **(Figure F)**. In Japan and the Republic of Korea, the shares of foreign holdings stayed relatively unchanged.

Risks to the region's bond markets are rising:

**Expectations of higher US interest rates could result in greater volatility in the region's bond markets.** While the Federal Reserve is not expected to raise interest rates until later in the year, recent upward movements in bond yields mean that markets may already be anticipating the hike. If bond yields gradually adjust, it will likely have minimal negative effects on the region's bond markets. However, there is a risk that bond yields could rise sharply, as occurred during the "taper tantrum" of 2013, leading to sudden and disruptive selloffs and capital outflows.

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

mid-spread in basis points

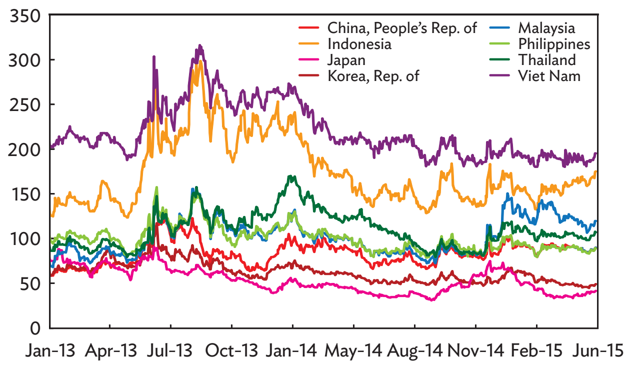



**Figure B: Credit Default Swap Spreads for Select European Markets[a, b] (senior 5-year)**

mid-spread in basis points

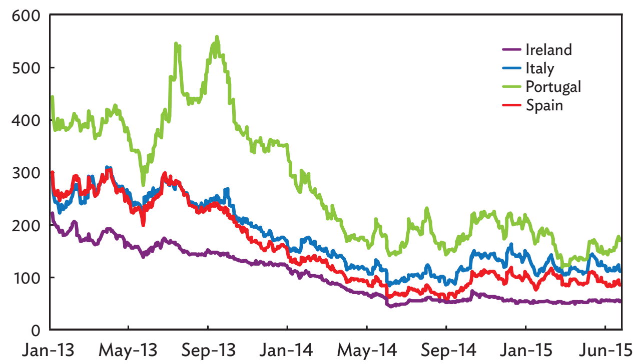



**Figure C: US Equity Volatility and Emerging Market Sovereign Bond Spreads[b] (% per annum)**

VIX index

EMBIG spread basis points

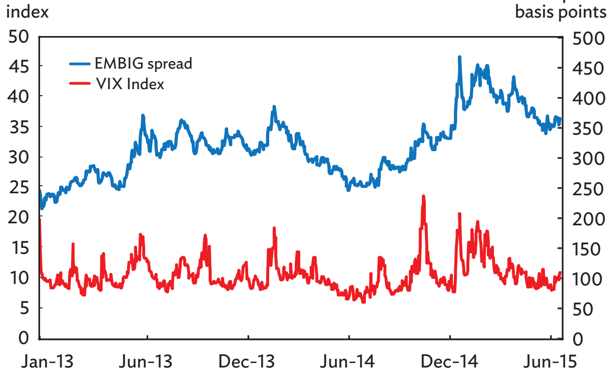



**Figure D: 10-Year Government Bond Yields[b] (% per annum)**

eurozone, Japan, UK, US

Greece, Ireland, Italy, Portugal, Spain

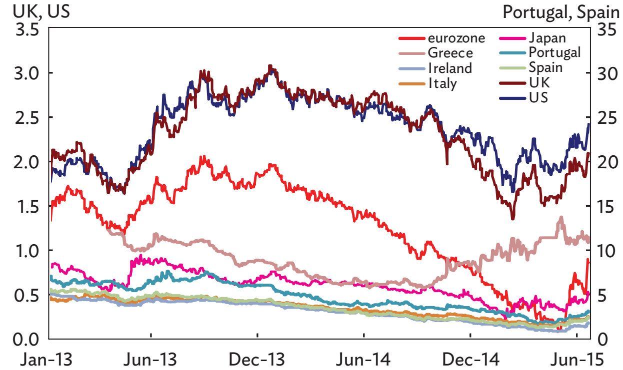



**Figure E: JPMorgan EMBI Sovereign Stripped Spreads[a, b]**

basis points

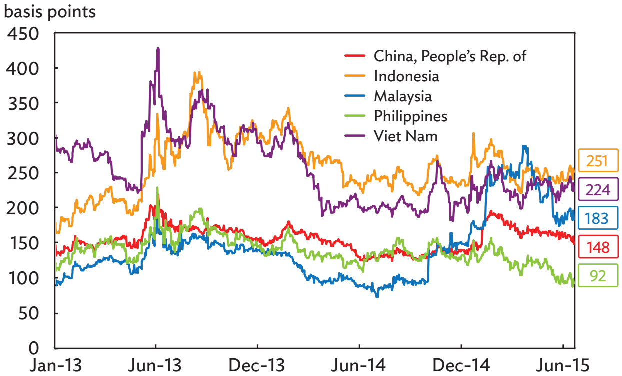
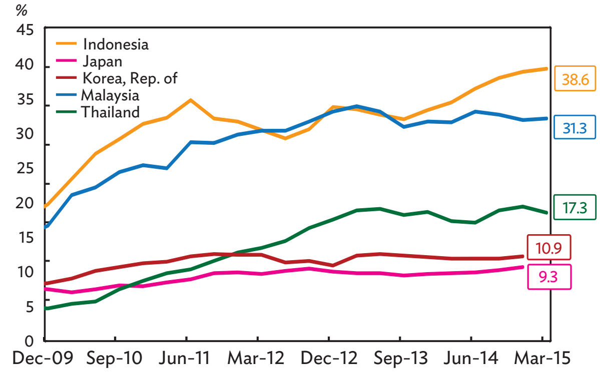



**Figure F: Foreign Holdings of LCY Government Bonds in Select Asian Economies[c] (% of total)**




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

Notes:

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

[b] Data as of 5 June 2015.

[c] Data as of end-March 2015 except for Japan and the Republic of Korea (end-December 2014).

Sources: *AsianBondsOnline* and Bloomberg LP.

**The lack of liquidity in the region's bond markets could magnify the volatility effect.** A rise in US interest rates could prompt a large outflow of funds from the region as US assets will look more attractive relative to those in the region. However, a large number of investors suddenly fleeing could be disruptive if there is not enough liquidity in the bond market. Tighter regulations in the aftermath of the 2008/09 global financial crisis led to banks reducing the size of their trading books, making them less active participants in the market. At the same time, Exchange-Traded Funds (ETFs) have become very popular. Bond ETFs offer a liquid investment vehicle for investors. However, the underlying assets of a bond ETF are much less liquid than the ETF itself. If a large number of investors were to sell ETFs, there could be huge price swings in the underlying bonds.

**The continued strengthening of the US dollar could hurt issuers of foreign currency bonds in the region.** Higher interest rates could help push up the value of the US dollar. In 2014, foreign currency issuance in emerging East Asia totaled more than US$230 billion, with 82% of the issuance comprising US$-denominated bonds. While the pace of foreign currency issuance through end-April 2015 was slightly lower than in the same period last year, the region has accumulated a large stock of outstanding foreign currency debt amounting to US$858 billion.[3] Of this total, corporates account for US$712 billion. Companies that have issued US dollar debt will find their debt servicing costs increasing with the stronger dollar. The impact will be stronger on companies that have not hedged or do not have foreign earnings that can offset some of the impact of the appreciating dollar. Refinancing debt may also become more difficult.

[3] Foreign currency bond issuance and bond outstanding refer to bonds denominated in currencies other than the home country's currency. The data excludes certificates of deposit and offshore renminbi-denominated bonds.

# Bond Market Developments in the First Quarter of 2015

## Size and Composition

### The stock of local currency bonds outstanding in emerging East Asia reached US$8.3 trillion at end-March.[4]

Emerging East Asia's local currency (LCY) bond market continued to expand in 1Q15, reaching a size of US$8.3 trillion at end-March. However, growth moderated during the quarter, rising only 1.6% quarter-on-quarter (q-o-q) compared with 2.0% q-o-q growth in 4Q14 **(Figure 1a)**. All markets in the region recorded slower q-o-q growth in 1Q15, except for Hong Kong, China; Indonesia; and Singapore.

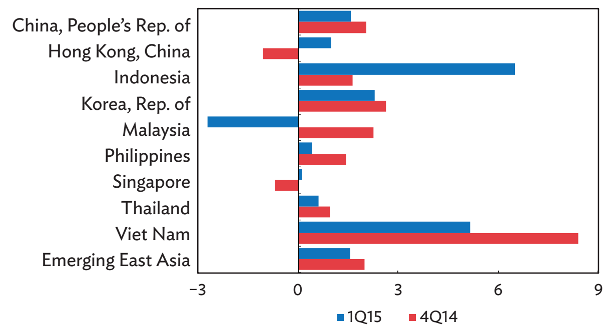
The People's Republic of China (PRC) remained home to the largest LCY bond market in emerging East Asia with outstanding bonds of US$5,279 billion, representing a 63.8% share of the region's total bond stock at end-March. The PRC's 1Q15 growth of 1.6% q-o-q was modest and down slightly from 2.0% q-o-q in 4Q14. Growth in the PRC's bond market was largely driven by its corporate bond sector, particularly local corporate bonds and Tier 2 bonds, as a result of capital-raising efforts. On the other hand, the stock of Treasury bonds fell while the stock of central bank bonds was unchanged. The People's Bank of China (PBOC) relied on other money market instruments for liquidity management amid a lack of issuance of PBOC bills and bonds since December 2013.

In the Republic of Korea, LCY bonds outstanding reached US$1,712 billion at end–March on 2.3% q-o-q growth that was driven by increases in central bank bonds, central government bonds, and corporate bonds. The government plans to issue more bonds in 2015 than in 2014 to maintain an expansionary fiscal policy in order to stimulate economic growth.

Malaysia's was the only LCY bond market in emerging East Asia that contracted in 1Q15, declining 2.7% q-o-q to US$290 billion. The drop stemmed mainly from the decline in the stock of central bank bills, or Bank Negara Malaysia (BNM) bills, which slipped 46.8% q-o-q.

[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.

**Figure 1a: Growth of LCY Bond Markets in 4Q14 and 1Q15** (q-o-q, %)




LCY = local currency, q-o-q = quarter-on-quarter.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from LCY base and do not include currency effects.
3. Emerging East Asia growth figures are based on end-March 2015 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).

Maturing BNM bills were not rolled over as BNM has not issued bills since December 2014. On the other hand, the stocks of Treasury bonds and corporate bonds posted q-o-q growth of 2.2% and 1.0%, respectively.

Malaysia is home to the largest *sukuk* (Islamic bond) market in the region, with more than half of its LCY bond market comprising *sukuk* at end-March. The corporate bond market, in particular, is dominated by *sukuk* issues, which represent 71.2% of the aggregate corporate bond stock. The share of *sukuk* in the government bond market, although smaller, is still significant at 39.0%.

At end-March, the LCY bond market in Thailand had expanded 0.6% q-o-q to reach US$286 billion. Growth was buoyed by increases in the stock of government bonds and state-owned enterprise (SOE) bonds. In contrast, central bank bonds and corporate bonds contracted in 1Q15.

In Singapore, the LCY bond market totaled US$233 billion at end-March, posting marginal q-o-q growth of 0.1% in 1Q15 after contracting 0.7% in 4Q14. Growth was mainly driven by increases in the stock of Singapore Government Securities (SGS) bills and bonds, and corporate bonds. Meanwhile, the stock of Monetary Authority of Singapore (MAS) bills slipped 4.2% q-o-q.

The LCY bond market in Hong Kong, China saw growth of 2.6% q-o-q in 1Q15 with bonds outstanding climbing to US$199 billion at end-March. Both the government and corporate bond segments contributed to growth.

Indonesia's LCY bond market reported the fastest q-o-q growth in emerging East Asia in 1Q15, climbing 6.5% to reach US$125 billion. Growth was largely driven by the government bond segment, particularly Treasury bills and bonds. As in the past, a frontloaded issuance strategy was adopted, with the government opting to issue a huge volume of bonds within the first half of the year. Most bond auctions during the quarter were either oversubscribed or fully subscribed, including auctions for *sukuk*.

In February, Indonesia's House of Representatives approved the revised state budget for 2015, which reduced the projected deficit to 1.9% of gross domestic product (GDP) from 2.2% in the original budget. To help finance the budget gap, the legislative assembly authorized the Ministry of Finance to issue bonds worth IDR297.7 trillion (US$22.8 billion), compared with IDR277.0 trillion in the original budget. The increased debt issuance, despite the lower projected deficit, is being driven by the government's plans to increase equity in SOEs to strengthen their balance sheets and increase their capacity to finance more infrastructure projects.

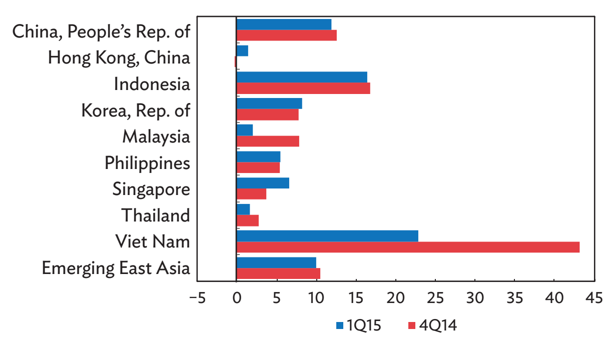
The LCY bond market in the Philippines grew a marginal 0.4% q-o-q to US$105 billion at end-March. Growth came solely from an increase in the stock of Treasury bonds, while the stocks of Treasury bills, SOE bonds, and corporate bonds contracted during the review period. The Bureau of the Treasury rejected two out of six scheduled auctions as investors sought higher rates due to uncertainty over United States (US) monetary policy and the eurozone debt crisis. The market also does not expect Bangko Sentral ng Pilipinas (BSP) to cut interest rates this year as inflation is expected to fall within its target range. Corporate issuers remained on the sidelines as speculation over the timing of a US policy rate hike resulted in an uptick in yields, making it more costly to raise capital in the bond market.

Viet Nam's bond market expanded 5.1% q-o-q in 1Q15, a slowdown from 8.4% q-o-q growth in 4Q14. Much of the growth came from increases in the stock of central bank bills, or State Bank of Viet Nam (SBV) bills, which grew 17.8% q-o-q. Treasury bonds also contributed to growth, rising 5.1% q-o-q. In contrast, the stock of SOE bonds slipped in 1Q15. Also, there was no new issuance of corporate bonds during the quarter.

On a year-on-year (y-o-y) basis, emerging East Asia's LCY bond market saw robust growth of 10.0% in 1Q15, although this was down from 10.6% y-o-y growth in 4Q14 **(Figure 1b)**. All markets in the region recorded positive y-o-y growth rates in 1Q15, led by Viet Nam (22.9%), Indonesia (16.5%), and the PRC (12.0%). Growth rates of between 1.7% y-o-y and 8.3% y-o-y were recorded for all other emerging East Asian bond markets.

At end-March, government bonds continued to dominate the region's LCY bond market, accounting for a 59.9% share of the region's total bond stock **(Table 1)**.

**Figure 1b: Growth of LCY Bond Markets in 4Q14 and 1Q15** (y-o-y, %)




LCY = local currency, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from LCY base and do not include currency effects.
3. Emerging East Asia growth figures are based on end-March 2015 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).

## Table 1: Size and Composition of LCY Bond Markets

| | 1Q14 | | 4Q14 | | 1Q15 | | Growth Rate (LCY-base %) | | | | Growth Rate (US$-base %) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount (US$ billion) | % share | Amount (US$ billion) | % share | Amount (US$ billion) | % share | 1Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | | | | | | | 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** | 4,702 | 100.0 | 5,192 | 100.0 | 5,279 | 100.0 | 2.2 | 10.5 | 1.6 | 12.0 | (0.5) | 10.4 | 1.7 | 12.3 |
| Government | 3,056 | 65.0 | 3,335 | 64.2 | 3,370 | 63.8 | 2.1 | 8.2 | 1.0 | 10.0 | (0.5) | 8.1 | 1.1 | 10.3 |
| Corporate | 1,646 | 35.0 | 1,858 | 35.8 | 1,909 | 36.2 | 2.3 | 15.0 | 2.7 | 15.7 | (0.4) | 14.9 | 2.8 | 16.0 |
| **Hong Kong, China** | | | | | | | | | | | | | | |
| **Total** | 196 | 100.0 | 194 | 100.0 | 199 | 100.0 | 0.9 | 6.8 | 2.6 | 1.5 | 0.8 | 6.9 | 2.6 | 1.5 |
| Government | 109 | 55.5 | 109 | 56.4 | 111 | 55.5 | 0.5 | 8.5 | 1.0 | 1.4 | 0.5 | 8.6 | 1.0 | 1.4 |
| Corporate | 87 | 44.5 | 85 | 43.6 | 89 | 44.5 | 1.3 | 4.7 | 4.7 | 1.6 | 1.3 | 4.8 | 4.7 | 1.7 |
| **Indonesia** | | | | | | | | | | | | | | |
| **Total** | 123 | 100.0 | 123 | 100.0 | 125 | 100.0 | 6.8 | 21.1 | 6.5 | 16.5 | 14.4 | 3.8 | 0.91 | 1.2 |
| Government | 104 | 84.5 | 106 | 85.4 | 107 | 86.0 | 8.3 | 23.3 | 7.2 | 18.6 | 16.0 | 5.6 | 1.6 | 3.1 |
| Corporate | 19 | 15.5 | 18 | 14.6 | 17 | 14.0 | (0.4) | 10.7 | 2.1 | 4.7 | 6.7 | (5.2) | (3.2) | (9.0) |
| **Korea, Rep. of** | | | | | | | | | | | | | | |
| **Total** | 1,648 | 100.0 | 1,703 | 100.0 | 1,712 | 100.0 | 1.8 | 8.6 | 2.3 | 8.3 | 0.4 | 13.4 | 0.6 | 3.9 |
| Government | 635 | 38.6 | 701 | 41.2 | 712 | 41.6 | 2.9 | 8.6 | 3.2 | 16.7 | 1.5 | 13.4 | 1.5 | 12.0 |
| Corporate | 1,012 | 61.4 | 1,002 | 58.8 | 1,001 | 58.4 | 1.2 | 8.6 | 1.6 | 3.0 | (0.3) | 13.4 | (0.1) | (1.1) |
| **Malaysia** | | | | | | | | | | | | | | |
| **Total** | 322 | 100.0 | 316 | 100.0 | 290 | 100.0 | 2.8 | 5.5 | (2.7) | 2.1 | 3.2 | 0.0 | (8.1) | (10.0) |
| Government | 188 | 58.4 | 185 | 58.6 | 165 | 57.0 | 2.7 | 4.2 | (5.4) | (0.3) | 3.0 | (1.2) | (10.7) | (12.1) |
| Corporate | 134 | 41.6 | 131 | 41.4 | 125 | 43.0 | 3.0 | 7.5 | 1.0 | 5.4 | 3.4 | 1.8 | (4.6) | (7.1) |
| **Philippines** | | | | | | | | | | | | | | |
| **Total** | 99 | 100.0 | 104 | 100.0 | 105 | 100.0 | 0.4 | 10.5 | 0.4 | 5.5 | (0.5) | 0.6 | 0.4 | 5.8 |
| Government | 84 | 84.6 | 87 | 83.7 | 88 | 83.8 | (1.9) | 7.8 | 0.6 | 4.5 | (2.8) | (1.8) | 0.6 | 4.8 |
| Corporate | 15 | 15.4 | 17 | 16.3 | 17 | 16.2 | 15.0 | 27.9 | (0.4) | 11.3 | 13.9 | 16.4 | (0.4) | 11.6 |
| **Singapore** | | | | | | | | | | | | | | |
| **Total** | 239 | 100.0 | 241 | 100.0 | 233 | 100.0 | (2.5) | 1.6 | 0.1 | 6.6 | (2.1) | 0.2 | (3.3) | (2.3) |
| Government | 146 | 61.1 | 147 | 60.8 | 140 | 60.1 | (3.0) | (0.3) | (1.1) | 4.8 | (2.6) | (1.7) | (4.5) | (4.0) |
| Corporate | 93 | 38.9 | 95 | 39.2 | 93 | 39.9 | (1.8) | 4.7 | 1.9 | 9.5 | (1.4) | 3.2 | (1.5) | 0.3 |
| **Thailand** | | | | | | | | | | | | | | |
| **Total** | 282 | 100.0 | 281 | 100.0 | 286 | 100.0 | 1.7 | 6.2 | 0.6 | 1.7 | 2.6 | (4.1) | 1.7 | 1.3 |
| Government | 217 | 76.8 | 211 | 75.1 | 218 | 76.0 | 0.6 | 3.7 | 1.9 | 0.7 | 1.5 | (6.4) | 3.0 | 0.3 |
| Corporate | 66 | 23.2 | 70 | 24.9 | 69 | 24.0 | 5.7 | 15.5 | (3.2) | 5.1 | 6.7 | 4.2 | (2.1) | 4.6 |
| **Viet Nam** | | | | | | | | | | | | | | |
| **Total** | 35 | 100.0 | 41 | 100.0 | 42 | 100.0 | 23.0 | 17.8 | 5.1 | 22.9 | 23.0 | 16.8 | 4.3 | 20.3 |
| Government | 35 | 98.3 | 40 | 98.4 | 42 | 98.5 | 23.9 | 20.0 | 5.2 | 23.1 | 23.9 | 19.0 | 4.4 | 20.5 |
| Corporate | 0.6 | 1.7 | 0.6 | 1.6 | 0.6 | 1.5 | (12.6) | (43.1) | 0.0 | 8.1 | (12.6) | (43.6) | (0.8) | 5.8 |
| **Emerging East Asia** | | | | | | | | | | | | | | |
| **Total** | 7,646 | 100.0 | 8,196 | 100.0 | 8,272 | 100.0 | 2.1 | 9.5 | 1.6 | 10.0 | 0.3 | 9.3 | 0.9 | 8.2 |
| Government | 4,574 | 59.8 | 4,921 | 60.0 | 4,952 | 59.9 | 2.2 | 8.0 | 1.2 | 9.9 | 0.4 | 7.1 | 0.6 | 8.3 |
| Corporate | 3,072 | 40.2 | 3,275 | 40.0 | 3,320 | 40.1 | 1.9 | 12.0 | 2.2 | 10.3 | 0.1 | 12.7 | 1.4 | 8.1 |
| **Japan** | | | | | | | | | | | | | | |
| **Total** | 10,239 | 100.0 | 8,972 | 100.0 | 9,006 | 100.0 | 0.5 | 3.7 | 0.7 | 2.4 | 2.5 | (5.4) | 0.4 | (12.0) |
| Government | 9,443 | 92.2 | 8,292 | 92.4 | 8,331 | 92.5 | 0.6 | 4.2 | 0.8 | 2.7 | 2.6 | (4.9) | 0.5 | (11.8) |
| Corporate | 796 | 7.8 | 680 | 7.6 | 675 | 7.5 | (0.8) | (2.1) | (0.4) | (1.3) | 1.2 | (10.7) | (0.7) | (15.2) |

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, 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—US$ rates are used.
4. For LCY base, emerging East Asia growth figures based on end-March 2015 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 Japan (Japan Securities Dealers Association).

Emerging East Asia's outstanding government bonds stood at US$4,952 billion in 1Q15 on growth of 1.2% q-o-q and 9.9% y-o-y. The PRC had the largest government bond market in the region at US$3,370 billion, or 68.1% of the region's total. The next two largest government bond markets were in the Republic of Korea (US$712 billion) and Thailand (US$218 billion). The government bond segment was larger than the corporate bond segment in all markets except the Republic of Korea's, where the corporate bond segment accounted for 58.4% of the aggregate bond stock at end-March.

The region's aggregate corporate bond stock stood at US$3,320 billion at end-March on growth of 2.2% q-o-q and 10.3% y-o-y. The PRC (US$1,909 billion) and the Republic of Korea (US$1,001 billion) accounted for the largest corporate bond markets in emerging East Asia with regional shares of 57.5% and 30.1%, respectively.

As a share of GDP, the size of emerging East Asia's LCY bond market was broadly stable at 57.7% at end-March compared with 57.6% at end-December **(Table 2)**. The share of government bonds to GDP stood at 34.5%, while the share of corporate bonds to GDP was 23.2%. The Republic of Korea had the highest outstanding bonds-to-GDP ratio at more than 100.0%, followed by Malaysia at 96.0%. The smallest markets in terms of share of GDP were those of Indonesia (15.1%), Viet Nam (22.9%), and the Philippines (36.5%). All other markets had outstanding bonds-to-GDP ratios of between 50.8% and 81.5%.

## Shares of foreign holdings in emerging East Asia's LCY government bond markets continued to rise in 1Q15.

Foreign investor interest in the region's LCY government bonds remained upbeat in a number of markets in 1Q15 despite the US dollar gaining strength against most of the region's local currencies. The share of foreign holdings in Indonesia and Malaysia continued to rise, with over 30% of government bonds in both economies held by foreign investors **(Figure 2)**.

In Indonesia, foreign investors were the largest investor group in the LCY government bond market, with holdings climbing to 38.6% at end-March. This was up from a share of 38.1% at end-December, but down from a high of 40.2% at end-January. Foreign funds continued to chase yields

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

| | 1Q14 | 4Q14 | 1Q15 |
|---|---|---|---|
| **China, People's Rep. of** | | | |
| Total | 48.9 | 50.6 | 50.8 |
| Government | 31.8 | 32.5 | 32.4 |
| Corporate | 17.1 | 18.1 | 18.4 |
| **Hong Kong, China** | | | |
| Total | 70.3 | 66.8 | 67.4 |
| Government | 39.0 | 37.6 | 37.4 |
| Corporate | 31.3 | 29.1 | 30.0 |
| **Indonesia** | | | |
| Total | 14.3 | 14.5 | 15.1 |
| Government | 12.1 | 12.4 | 13.0 |
| Corporate | 2.2 | 2.1 | 2.1 |
| **Korea, Rep. of** | | | |
| Total | 121.2 | 125.1 | 125.8 |
| Government | 46.8 | 51.5 | 52.3 |
| Corporate | 74.5 | 73.6 | 73.5 |
| **Malaysia** | | | |
| Total | 100.8 | 99.7 | 96.0 |
| Government | 58.8 | 58.5 | 54.8 |
| Corporate | 42.0 | 41.3 | 41.3 |
| **Philippines** | | | |
| Total | 37.6 | 36.8 | 36.5 |
| Government | 31.8 | 30.8 | 30.6 |
| Corporate | 5.8 | 6.0 | 5.9 |
| **Singapore** | | | |
| Total | 78.5 | 81.9 | 81.5 |
| Government | 47.9 | 49.8 | 48.9 |
| Corporate | 30.5 | 32.1 | 32.6 |
| **Thailand** | | | |
| Total | 70.7 | 70.4 | 70.4 |
| Government | 54.3 | 52.9 | 53.5 |
| Corporate | 16.4 | 17.6 | 16.9 |
| **Viet Nam** | | | |
| Total | 20.4 | 22.1 | 22.9 |
| Government | 20.0 | 21.8 | 22.6 |
| Corporate | 0.3 | 0.3 | 0.3 |
| **Emerging East Asia** | | | |
| Total | 56.3 | 57.6 | 57.7 |
| Government | 33.7 | 34.6 | 34.5 |
| Corporate | 22.6 | 23.0 | 23.2 |
| **Japan** | | | |
| Total | 218.8 | 220.4 | 220.8 |
| Government | 201.8 | 203.7 | 204.3 |
| Corporate | 17.0 | 16.7 | 16.6 |

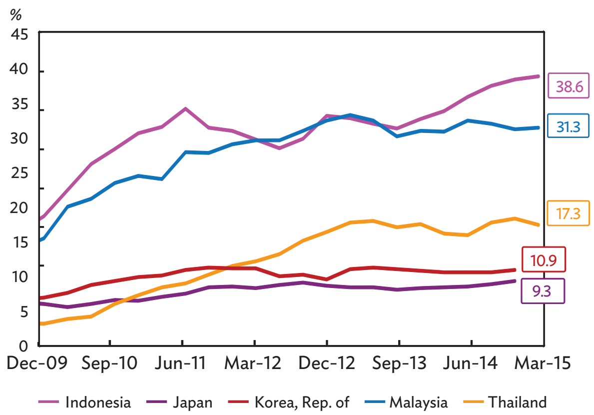
GDP = gross domestic product, LCY = local currency.

Notes:

1. Data for GDP is from CEIC. 1Q15 GDP figure for the Republic of Korea carried over from 4Q14.
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 Japan (Japan Securities Dealers Association).

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




LCY = local currency.
Note: Data as of end-March 2015 except for Japan and the Republic of Korea (end-December 2014).
Source: *AsianBondsOnline*.

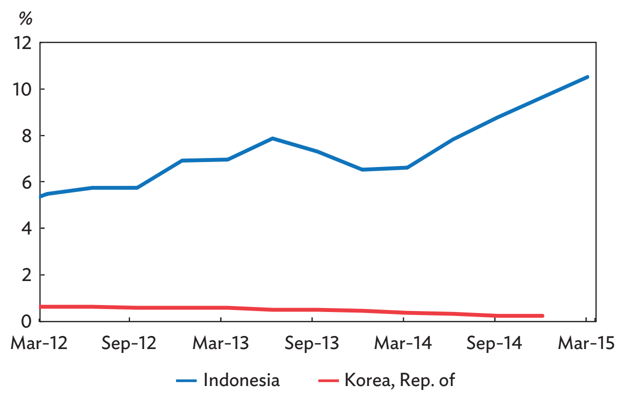
in the Indonesian LCY government bond market, which offers the highest yields in the region. Recently, however, the Ministry of Finance said that it aims to reduce foreign holdings of bonds to a 30% share to manage the stability of the Indonesian rupiah.

Foreign investor holdings of MYR-denominated government securities inched up to 31.3% at end-March. The uptick in the share of foreign holdings is an indication that most investors had already priced in negative developments in Malaysia's LCY bond market, including the risk of a credit rating downgrade, declining international reserves, and a depreciating currency. Most investors are weighted toward the long-end of the yield curve as oil prices are expected to recover and benign inflation indicates that BNM will maintain its current monetary policy stance for the rest of the year.

In the Republic of Korea, the share of foreign holdings was broadly stable in 4Q14, the most recent quarter for which data are available, settling at 10.9% at end-December. In Thailand, the share of foreign holdings slipped by 1 percentage point to 17.3% at end-March.

The share of foreign holdings for LCY corporate bonds still pales in comparison with that of government bonds in Indonesia and the Republic of Korea. Foreign funds' holdings of IDR-denominated corporate debt accounted for 10.5% of the total corporate bond stock at end-March **(Figure 3)**. The share of foreign holdings, however, has risen steadily from only 4.8% in December 2011. Meanwhile, the share of foreign holdings in the corporate bond market of the Republic of Korea at end-December was an insignificant 0.3%.

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



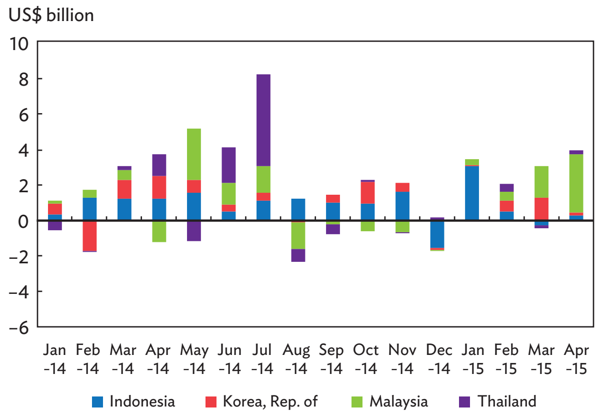

LCY = local currency.
Note: For Indonesia, data as of 27 March 2015. For the Republic of Korea, data as of end-December 2014.
Source: Based on data from Otoritas Jasa Keuangan and The Bank of Korea.

## Net foreign capital flows into emerging East Asia's LCY bond market have been positive year-to-date.

Net foreign capital flows into emerging East Asia's LCY bond market have been positive since the start of the year, with foreign investors shoring up their bond holdings despite uncertainty over the timing of a US interest rate hike. Among the four markets providing data on capital flows, Malaysia recorded the largest net inflows year-to-date, as investor appetite for MYR-denominated securities significantly improved in March and April **(Figure 4)**. The Republic of Korea also saw a notable rise in capital inflows from foreign funds in March.

In Indonesia, while foreign capital flows remained positive year-to-date, capital flows turned negative in March after strong inflows in January, and before recovering in April. Foreign capital flows into Thailand's bond market have been volatile in 2015, although they have been net positive year-to-date.

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




Notes:
1. The Republic of Korea and Thailand provides data on bond flows. For Indonesia and Malaysia, month-on-month changes in foreign holdings of LCY government bonds were used as a proxy for bond flows.
2. Data provided as of end-April 2015.
3. Figures were computed based on end-April 2015 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.

## Emerging East Asia's LCY bond issuance growth was mixed in 1Q15.

LCY bond issuance in emerging East Asia totaled US$924 billion in 1Q15, 70.4% of which came from the region's government segment and 29.6% from the corporate segment **(Table 3)**. The region's 1Q15 issuance was down from US$1,032 billion in 4Q14 due to lower sales volumes in both the government and corporate segments; on the other hand, issuance was up from US$858 billion in 1Q14 mainly because of a y-o-y increase in government bond issues.

The PRC topped emerging East Asia in LCY bond issuance in 1Q15 at US$300 billion, which accounted for about 32% of the regional total. The PRC's 1Q15 issuance volume was less than in the preceding quarter due to less corporate bond issuance, partly because banks completed most of their Basel III capital-raising activities in 2014. Issuance, however, was higher on a y-o-y basis on higher volumes in the government bond segment.

Hong Kong, China's LCY bond issuance totaled US$281 billion in 1Q15, with the Hong Kong Monetary Authority (HKMA) contributing 95.9% of the total. On a q-o-q basis, issuance was lower due to a decline among Exchange Fund Bills and Notes.

LCY bonds issued in the Republic of Korea in 1Q15 totaled US$174 billion, down from 4Q14's total due to lower LCY corporate bond sales and despite increases in Korea Treasury Bond (KTB) and Monetary Stabilization Bond (MSB) issues. In contrast, LCY bond issuance was up on a y-o-y basis in 1Q15.

Among the region's six Association of Southeast Asian Nation (ASEAN) member economies—Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam—the combined total of LCY bond issues in 1Q15 was US$169 billion, down from US$197 billion and US$206 billion in 4Q14 and 1Q14, respectively.

Indonesia's LCY bond issuance exhibited double-digit growth on both a q-o-q and y-o-y basis to reach US$12 billion in 1Q15. This was largely due to increased issuance of Treasury bonds, which eclipsed the contraction in central bank bills. Aside from the regular auction of Treasury instruments, the government also conducted a retail *sukuk* offering during the quarter.

In Malaysia, 1Q15 LCY bond issuance dropped to US$13 billion from US$34 billion in 4Q14 and US$36 billion in 1Q14 amid a lack of issuance from BNM and declining corporate bond issues.

Philippine LCY bond issues in 1Q15 totaled US$3 billion, down from both 4Q14 and 1Q14 levels because of lower issuance volumes from corporates and the central government, the latter of which rejected two of its six auction bids.

LCY bond issuance in Singapore reached US$72 billion in 1Q15, the largest amount among all ASEAN markets, with 93% of the total issued by the MAS.

Thailand's LCY bond issuance fell to US$57 billion in 1Q15 from US$58 billion in 4Q14 and US$60 billion in 1Q14 due to declining corporate sector issuance volumes and despite q-o-q and y-o-y increases in government bonds.

Viet Nam's LCY bond sales amounted to US$11 billion in 1Q15, down from 4Q14 and 1Q14 mainly due to weaker bond issuance by the SBV. There were no issues from the corporate sector in 1Q15.

## Table 3: LCY-Denominated Bond Issuance (gross)

| | 1Q14 | | 4Q14 | | 1Q15 | | Growth Rate (LCY-base %) | | Growth Rate (US$-base %) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1Q15 | | 1Q15 | |
| | Amount (US$ billion) | % share | Amount (US$ billion) | % share | Amount (US$ billion) | % share | q-o-q | y-o-y | q-o-q | y-o-y |
| **China, People's Rep. of** | | | | | | | | | | |
| **Total** | 298 | 100.0 | 320 | 100.0 | 300 | 100.0 | (6.5) | 0.4 | (6.4) | 0.7 |
| Government | 137 | 46.0 | 140 | 43.6 | 144 | 47.9 | 2.8 | 4.5 | 2.9 | 4.8 |
| Central Bank | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | – | – | – | – |
| Treasury and Other Govt. | 137 | 46.0 | 140 | 43.6 | 144 | 47.9 | 2.8 | 4.5 | 2.9 | 4.8 |
| Corporate | 161 | 54.0 | 181 | 56.4 | 156 | 52.1 | (13.6) | (3.0) | (13.5) | (2.8) |
| **Hong Kong, China** | | | | | | | | | | |
| **Total** | 195 | 100.0 | 335 | 100.0 | 281 | 100.0 | (16.1) | 44.2 | (16.0) | 44.3 |
| Government | 186 | 95.5 | 327 | 97.6 | 271 | 96.3 | (17.2) | 45.3 | (17.2) | 45.4 |
| Central Bank | 185 | 95.0 | 327 | 97.5 | 270 | 95.9 | (17.4) | 45.5 | (17.4) | 45.6 |
| Treasury and Other Govt. | 1.0 | 0.5 | 0.4 | 0.1 | 1.0 | 0.4 | 163.3 | 5.3 | 163.4 | 5.4 |
| Corporate | 9 | 4.5 | 8 | 2.4 | 11 | 3.7 | 29.3 | 20.5 | 29.3 | 20.6 |
| **Indonesia** | | | | | | | | | | |
| **Total** | 11 | 100.0 | 8 | 100.0 | 12 | 100.0 | 48.0 | 28.0 | 40.2 | 11.2 |
| Government | 10 | 95.6 | 7 | 83.3 | 11 | 92.0 | 63.5 | 23.1 | 54.9 | 7.0 |
| Central Bank | 3 | 26.6 | 3 | 41.7 | 2 | 17.7 | (37.2) | (14.8) | (40.4) | (26.0) |
| Treasury and Other Govt. | 7 | 69.0 | 3 | 41.6 | 9 | 74.3 | 164.5 | 37.7 | 150.6 | 19.7 |
| Corporate | 0.5 | 4.4 | 1 | 16.7 | 0.9 | 8.0 | (29.3) | 134.5 | (33.0) | 103.8 |
| **Korea, Rep. of** | | | | | | | | | | |
| **Total** | 158 | 100.0 | 179 | 100.0 | 174 | 100.0 | (1.2) | 14.2 | (2.9) | 9.6 |
| Government | 75 | 47.1 | 71 | 39.7 | 82 | 47.4 | 18.0 | 14.9 | 16.0 | 10.2 |
| Central Bank | 45 | 28.1 | 42 | 23.3 | 45 | 26.0 | 10.2 | 5.5 | 8.4 | 1.2 |
| Treasury and Other Govt. | 30 | 19.0 | 29 | 16.4 | 37 | 21.4 | 29.0 | 28.8 | 26.9 | 23.6 |
| Corporate | 84 | 52.9 | 108 | 60.3 | 91 | 52.6 | (13.8) | 13.6 | (15.3) | 9.0 |
| **Malaysia** | | | | | | | | | | |
| **Total** | 36 | 100.0 | 34 | 100.0 | 13 | 100.0 | (58.2) | (58.0) | (60.5) | (63.0) |
| Government | 27 | 73.9 | 26 | 75.8 | 8 | 62.3 | (65.6) | (64.6) | (67.6) | (68.8) |
| Central Bank | 18 | 48.9 | 18 | 54.2 | 0 | 0.0 | – | – | – | – |
| Treasury and Other Govt. | 9 | 24.9 | 7 | 21.6 | 8 | 62.3 | 20.6 | 4.8 | 13.9 | (7.6) |
| Corporate | 9 | 26.1 | 8 | 24.2 | 5 | 37.7 | (34.7) | (39.4) | (38.3) | (46.6) |
| **Philippines** | | | | | | | | | | |
| **Total** | 6 | 100.0 | 4 | 100.0 | 3 | 100.0 | (25.6) | (41.0) | (25.6) | (40.8) |
| Government | 3 | 60.1 | 3 | 75.9 | 3 | 91.8 | (10.0) | (9.8) | (10.0) | (9.6) |
| Central Bank | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | – | – | – | – |
| Treasury and Other Govt. | 3 | 60.1 | 3 | 75.9 | 3 | 91.8 | (10.0) | (9.8) | (10.0) | (9.6) |
| Corporate | 2 | 39.9 | 1 | 24.1 | 0.3 | 8.2 | (74.8) | (87.9) | (74.8) | (87.9) |
| **Singapore** | | | | | | | | | | |
| **Total** | 77 | 100.0 | 82 | 100.0 | 72 | 100.0 | (9.2) | 1.5 | (12.3) | (7.0) |
| Government | 74 | 95.7 | 79 | 96.9 | 70 | 98.0 | (8.1) | 4.0 | (11.2) | (4.7) |
| Central Bank | 71 | 91.8 | 74 | 90.5 | 67 | 93.1 | (6.5) | 3.0 | (9.7) | (5.6) |
| Treasury and Other Govt. | 3 | 3.9 | 5 | 6.4 | 3 | 4.9 | (30.4) | 26.3 | (32.8) | 15.7 |
| Corporate | 3 | 4.3 | 3 | 3.1 | 1 | 2.0 | (42.9) | (53.4) | (44.9) | (57.3) |
| **Thailand** | | | | | | | | | | |
| **Total** | 60 | 100.0 | 58 | 100.0 | 57 | 100.0 | (1.7) | (4.2) | (0.6) | (4.5) |
| Government | 46 | 77.2 | 45 | 77.9 | 50 | 86.7 | 9.5 | 7.7 | 10.8 | 7.2 |
| Central Bank | 35 | 58.9 | 34 | 59.1 | 36 | 63.0 | 5.0 | 2.6 | 6.2 | 2.2 |
| Treasury and Other Govt. | 11 | 18.3 | 11 | 18.8 | 14 | 23.7 | 23.8 | 23.9 | 25.2 | 23.4 |
| Corporate | 14 | 22.8 | 13 | 22.1 | 8 | 13.3 | (41.0) | (44.2) | (40.4) | (44.5) |

*continued on next page*

**Table 3** *continued*

| | 1Q14 | | 4Q14 | | 1Q15 | | Growth Rate (LCY-base %) | | Growth Rate (US$-base %) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Amount (US$ billion) | % share | Amount (US$ billion) | % share | Amount (US$ billion) | % share | 1Q15 | | 1Q15 | |
| | | | | | | | q-o-q | y-o-y | q-o-q | y-o-y |
| **Viet Nam** | | | | | | | | | | |
| **Total** | 17 | 100.0 | 12 | 100.0 | 11 | 100.0 | (0.7) | (33.0) | (1.4) | (34.4) |
| Government | 17 | 100.0 | 11 | 99.1 | 11 | 100.0 | 0.2 | (33.0) | (0.6) | (34.4) |
| Central Bank | 12 | 66.8 | 10 | 84.3 | 8 | 68.2 | (19.6) | (31.7) | (20.2) | (33.1) |
| Treasury and Other Govt. | 6 | 33.2 | 2 | 14.9 | 4 | 31.8 | 112.6 | (35.8) | 110.9 | (37.1) |
| Corporate | 0 | 0.0 | 0 | 0.9 | 0 | 0.0 | – | – | – | – |
| **Emerging East Asia** | | | | | | | | | | |
| **Total** | 858 | 100.0 | 1,032 | 100.0 | 924 | 100.0 | (9.8) | 10.0 | (10.5) | 7.7 |
| Government | 576 | 67.1 | 709 | 68.7 | 650 | 70.4 | (7.6) | 15.7 | (8.3) | 13.0 |
| Central Bank | 368 | 42.9 | 508 | 49.2 | 428 | 46.3 | (15.1) | 19.6 | (15.8) | 16.2 |
| Treasury and Other Govt. | 208 | 24.2 | 201 | 19.5 | 223 | 24.1 | 11.2 | 8.9 | 10.6 | 7.2 |
| Corporate | 282 | 32.9 | 323 | 31.3 | 273 | 29.6 | (14.7) | (1.6) | (15.3) | (3.2) |
| **Japan** | | | | | | | | | | |
| **Total** | 485 | 100.0 | 427 | 100.0 | 414 | 100.0 | (2.6) | (0.7) | (2.9) | (14.6) |
| Government | 459 | 94.5 | 401 | 94.1 | 392 | 94.7 | (2.0) | (0.5) | (2.3) | (14.5) |
| Central Bank | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | – | – | – | – |
| Treasury and Other Govt. | 459 | 94.5 | 401 | 94.1 | 392 | 94.7 | (2.0) | (0.5) | (2.3) | (14.5) |
| Corporate | 26 | 5.5 | 25 | 5.9 | 22 | 5.3 | (12.5) | (3.5) | (12.8) | (17.1) |

( ) = negative, – = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Corporate bonds include issues by financial institutions.
2. Bloomberg LP end-of-period LCY—US$ rates are used.
3. For LCY base, emerging East Asia growth figures are based on end-March 2015 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 Japan (Japan Securities Dealers Association).

Cross-border bond issuance in emerging East Asia fell 44.0% q-o-q and 31.0% y-o-y to US$2.9 billion in 1Q15 due to relatively large decreases in bond sales from the PRC and Hong Kong, China. PRC issuers sold US$542 million worth of HKD-denominated bonds in 1Q15, down 68.7% q-o-q and 46.6% y-o-y, while entities from Hong Kong, China raised US$412 million from bonds denominated in Chinese renminbi and Singapore dollars, which was down 76.2% from 4Q14 and 84.4% from 1Q14. Entities from the Republic of Korea issued bonds denominated in Chinese renminbi, Hong Kong dollars, Indonesian rupiah, and Singapore dollars that amounted to US$1.3 billion in 1Q15, up from issuance levels recorded in 4Q14 and 1Q14.

Several entities in ASEAN member economies issued bonds in 1Q15 that were denominated in emerging East Asian currencies other than their home currency. Two Indonesian issuers—Ciputra Property, a real estate developer and Logindo Samudramakmur, a maritime transport provider—raised a combined US$84 million from sales of SGD-denominated bonds. Indonesia's total cross-border issuance in 1Q15 was down 60.3% q-o-q and 45.3% y-o-y. Ciputra Property's SGD65 million 3-year bond and Logindo Samudramakmur's SGD50 million 5-year bond, both issued in February, carried coupon rates of 5.625% and 2.93%, respectively.

Two Malaysian banks—Export–Import Bank of Malaysia and Maybank—sold bonds denominated in Chinese renminbi and Hong Kong dollars that totaled US$145 million, which was less than Malaysia's cross-border issuance total in 4Q14 of US$347 million but more than 1Q14's US$48 million. Export–Import Bank of Malaysia issued a HKD610 million 3-year bond with a 1.43% coupon in February, while Maybank sold a CNY410 million 5-year bond with a 4.12% coupon in March.

Four Singaporean companies issued US$308 million worth of bonds denominated in Chinese renminbi and Hong Kong dollars in 1Q15, which was down from

Singapore's cross-border issuance of US$440 million in 4Q14 but up from 1Q14's US$48 million. In March, one Thai company—TMB Bank—sold a bond denominated in Chinese renminbi worth CNY600 million (US$97 million) with a tenor of 3 years and a coupon of 5.5%.

## G3 currency bond issuance in emerging East Asia remained active in January–April.

Emerging East Asia's G3 currency bond issuance remained active in January–April—amounting to US$66.3 billion, or about one-third of the record high in 2014—as issuers continued to lock in low borrowing costs with expectations of an upward adjustment in the US federal funds rate in the second half of 2015 **(Table 4)**.[5] The US dollar was once again the currency of choice among G3-denominated bonds in emerging East Asia, accounting for 91% of the regional total, followed by the euro at 8% and the Japanese yen at 1%. The January–April period saw an increasing share of euro-denominated bond issuance in the region, up from a 5% share in full-year 2014, driven by falling borrowing costs in the eurozone following the 22 January announcement of the European Central Bank that it would expand its asset purchase program to include sovereign bonds in addition to private sector bonds.

The PRC remained the largest source of G3 currency bond issuances in the region as it accounted for US$31.5 billion of G3 currency bonds during the first 4 months of 2015, comprising 48% of the regional total. The largest issuer group from the PRC comprised financial institutions, with their combined G3 issuance accounting for 47% of the PRC total. Sinopec was the top G3 currency bond issuer in the PRC, raising US$6.5 billion from sales of three US$-denominated bonds and two EUR-denominated bonds in April. The largest single issue in the PRC also belonged to Sinopec, a US$2.5 billion 5-year bond carrying a coupon rate of 2.5%.

The second largest source of G3 currency bond issuances in emerging East Asia in January–April was the Republic of Korea at US$9.1 billion. Financial institutions were the dominant issuer group with combined G3 issuance that accounted for 77% of the total. Korea Eximbank sold the largest amount of G3 currency bonds with a total of US$3.4 billion, including a US$2.3 billion dual-tranche bond sale made in January. Meanwhile, Hong Kong, China posted US$7.8 billion worth of G3 currency bond sales in January–April, with financial institutions being the dominant issuer group.

G3 currency bond issuance from ASEAN member economies in January–April were valued at US$17.9 billion, led by Malaysia with an issuance total of US$6.8 billion, which already exceeds its full-year 2014 total of US$3.6 billion. Among the largest issues in January–April, Petronas raised US$5.0 billion from selling four US$-denominated bonds in March, and the Government of Malaysia in April sold a US$1.0 billion 10-year bond and a US$0.5 billion 30-year bond with coupon rates of 3.043% and 4.236%, respectively.

Indonesia was ASEAN's next largest issuer of G3 currency bonds in January–April with a total of US$5.2 billion. Of this amount, US$4.0 billion came from the government, which sold 10-year and 30-year US$-denominated bonds worth US$2.0 billion each in January.

Philippine G3 currency bond issuance in January–April eclipsed the economy's full-year 2014 level by registering US$2.9 billion, of which US$2.0 billion comprised proceeds from the central government's sale of 25-year bonds.

Singapore also recorded US$2.9 billion in G3 currency bond sales in January–April. The largest single issuer was Hutchison Port Holdings Trust, which sold a US$500 million 3-year bond at a 2.25% coupon and a US$500 million 5-year bond at a 2.875% coupon.

Thailand posted US$150 million in G3 currency bond issuance over the January–April period via a single 5-year bond sold by the Export–Import Bank of Thailand at a 1.0791% coupon in January.

On a monthly basis, G3 currency bond issuance from emerging East Asia totaled US$20.9 billion in January before falling to US$11.2 billion in February. Issuance rebounded in March, recording US$13.9 billion, and rose further to US$20.2 billion in April **(Figure 5)**.

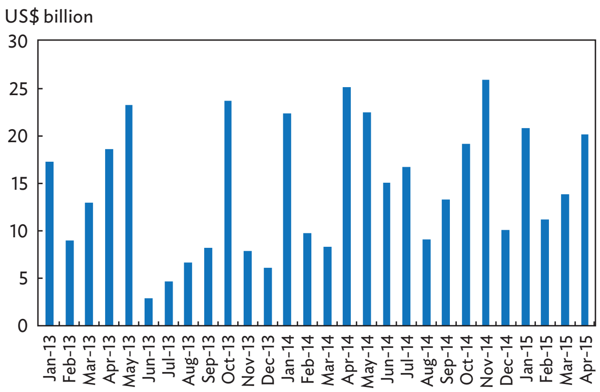
[5] G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.

## Table 4: G3 Currency Bond Issuance

| 2014 | | | 1 January–30 April 2015 | | |
|---|---|---|---|---|---|
| Issuer | Amount (US$ million) | Issue Date | Issuer | Amount (US$ million) | Issue Date |
| **China, People's Rep. of** | **98,227** | | **China, People's Rep. of** | **31,537** | |
| Bank of China 5% 2024 | 3,000 | 13-Nov-14 | Sinopec 2.5% 2020 | 2,500 | 28-Apr-15 |
| ICBC 6% Perpetual | 2,940 | 10-Dec-14 | China Cinda Finance (2015) 4.25% 2025 | 1,700 | 23-Apr-15 |
| Alibaba 2.5% 2019 | 2,250 | 28-Nov-14 | Sinopec 3.25% 2025 | 1,500 | 28-Apr-15 |
| Alibaba 3.6% 2024 | 2,250 | 28-Nov-14 | Huarong Finance II 5.5% 2025 | 1,400 | 16-Jan-15 |
| CNOOC Finance 4.25% 2024 | 2,250 | 30-Apr-14 | China Cinda Finance (2015) 3.125% 2020 | 1,300 | 23-Apr-15 |
| Tencent Holdings 3.375% 2019 | 2,000 | 29-Apr-14 | Huarong Finance II 4.5% 2020 | 1,200 | 16-Jan-15 |
| Sinopec 1.0136% 2017 | 1,800 | 10-Apr-14 | CCCI Treasure 3.5% Perpetual | 1,100 | 21-Apr-15 |
| State Grid Overseas Investment 4.125% 2024 | 1,600 | 7-May-14 | Tencent Holdings 2.875% 2020 | 1,100 | 11-Feb-15 |
| Others | 80,137 | | Others | 19,737 | |
| **Hong Kong, China** | **34,530** | | **Hong Kong, China** | **7,780** | |
| Hutchison Whampoa 1.625% 2017 | 2,000 | 31-Oct-14 | Shimao Property 8.375% 2022 | 1,100 | 10-Feb-15 |
| Hutchison Whampoa 1.375% 2021 | 1,815 | 31-Oct-14 | AIA Group 3.2% 2025 | 750 | 11-Mar-15 |
| Others | 30,715 | | Others | 5,930 | |
| **Indonesia** | **11,423** | | **Indonesia** | **5,175** | |
| Indonesia (Sovereign) 5.875% 2024 | 2,000 | 15-Jan-14 | Indonesia (Sovereign) 4.125% 2025 | 2,000 | 15-Jan-15 |
| Indonesia (Sovereign) 6.75% 2044 | 2,000 | 15-Jan-14 | Indonesia (Sovereign) 5.125% 2045 | 2,000 | 15-Jan-15 |
| Pertamina 6.45% 2044 | 1,500 | 30-May-14 | TBG Global 5.25% 2022 | 350 | 10-Feb-15 |
| Indonesia (Sovereign) 4.35% 2024 | 1,350 | 10-Sep-14 | Astra Sedaya Finance 2.875% 2018 | 300 | 1-Apr-15 |
| Perusahaan Gas Negara (PGN) 5.125% 2024 | 1,350 | 16-May-14 | Pratama Agung 6.25% 2020 | 300 | 24-Feb-15 |
| Others | 3,223 | | Global Prime Capital 6.75% 2020 | 225 | 27-Apr-15 |
| **Korea, Rep. of** | **31,714** | | **Korea, Rep. of** | **9,086** | |
| Republic of Korea (Sovereign) 4.125% 2044 | 1,000 | 10-Jun-14 | Korea Eximbank 2.875% 2025 | 1,250 | 21-Jan-15 |
| Woori Bank 4.75% 2024 | 1,000 | 30-Apr-14 | Korea Eximbank 2.25% 2020 | 1,000 | 21-Jan-15 |
| Republic of Korea (Sovereign) 2.125% 2024 | 947 | 10-Jun-14 | Industrial Bank of Korea 2% 2020 | 700 | 23-Apr-15 |
| Others | 28,766 | | Others | 6,136 | |
| **Malaysia** | **3,567** | | **Malaysia** | **6,812** | |
| Cahaya Capital 0.162% 2021 | 500 | 18-Sep-14 | Petronas Capital 3.5% 2025 | 1,500 | 18-Mar-15 |
| AmBank 3.125% 2019 | 400 | 3-Jul-14 | Petronas Capital 4.5% 2045 | 1,500 | 18-Mar-15 |
| EXIM Sukuk Malaysia 2.874% 2019 | 300 | 19-Feb-14 | Petronas Global Sukuk 2.707% 2020 | 1,250 | 18-Mar-15 |
| Others | 2,367 | | Others | 2,562 | |
| **Philippines** | **2,675** | | **Philippines** | **2,886** | |
| Philippines (Sovereign) 4.2% 2024 | 1,500 | 21-Jan-14 | Philippines (Sovereign) 3.95% 2040 | 2,000 | 20-Jan-15 |
| SM Investments 4.875% 2024 | 350 | 10-Jun-14 | Royal Capital 6.25% Perpetual | 300 | 29-Jan-15 |
| SMC Global Power 7.5% Perpetual | 350 | 7-May-14 | Security Bank 3.95% 2020 | 300 | 3-Feb-15 |
| Others | 475 | | Others | 286 | |
| **Singapore** | **11,661** | | **Singapore** | **2,912** | |
| OCBC Bank 4% 2024 | 1,000 | 15-Apr-14 | BOC Aviation 3% 2020 | 750 | 30-Mar-15 |
| OCBC Bank 4.25% 2024 | 1,000 | 19-Jun-14 | HPHT Finance (15) 2.25% 2018 | 500 | 17-Mar-15 |
| Avago Technologies 2% 2021 | 1,000 | 6-May-14 | HPHT Finance (15) 2.875% 2020 | 500 | 17-Mar-15 |
| Others | 8,661 | | Others | 1,162 | |
| **Thailand** | **3,565** | | **Thailand** | **150** | |
| **Viet Nam** | **1,000** | | **Viet Nam** | **0** | |
| **Emerging East Asia Total** | **198,362** | | **Emerging East Asia Total** | **66,368** | |
| Memo Items: | | | Memo Items: | | |
| **India** | **18,323** | | **India** | **4,459** | |
| Bharti Airtel 5.35% 2024 | 1,000 | 20-May-14 | Reliance Industries 4.125% 2025 | 1,000 | 28-Jan-15 |
| Abja Investment 5.95% 2024 | 1,000 | 31-Jul-14 | Reliance Industries 4.875% 2045 | 750 | 10-Feb-15 |
| Others | 16,323 | | Others | 2,709 | |
| **Sri Lanka** | **2,165** | | **Sri Lanka** | **238** | |

Note: Data excludes certificate of deposit.
Source: *AsianBondsOnline* calculations based on data from Bloomberg LP.

**Figure 5: G3 Currency Bond Issuance**




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

## Government bond yields rose between 2 March and 5 June for longer tenors in emerging East Asia, tracking yield movements in the US and the eurozone.

Yields in most emerging East Asian economies fell between end-December and end-February, largely on the back of slowing economic growth and easing inflation expectations due to lower oil prices. In the US, data released for 1Q15 showed weaker economic growth as GDP contracted at an annual rate of 0.7% following a 2.2% expansion in the previous quarter. Furthermore, nonfarm payrolls increased by only 119,000 in March, compared with 266,000 in February. In the eurozone, renewed concerns over the Greek debt situation amid uncertainty surrounding the outcome of negotiations added to volatility. The Greek economy entered into recession again when its GDP contracted 0.2% q-o-q in 1Q15 after having fallen 0.4% in 4Q14.

Yields in the US and the eurozone began rising at the start of May and through the beginning of June due to a number of developments. The US Federal Reserve indicated it believed that 1Q15 economic weakness was largely transitory, caused by temporary factors such as unusually cold weather and a labor dispute at West Coast ports. Furthermore, nonfarm payrolls improved in April and May, increasing by 221,000 and 280,000, respectively. In the eurozone, GDP growth rose to 1.0% y-o-y in 1Q15 from 0.9% y-o-y in 4Q14.

Oil prices have also firmed in recent months, leading to rising inflation expectations. The WTI crude oil price rose to US$60.25 per barrel on 29 May from US$47.72 per barrel on 31 March.[6] The eurozone posted inflation in May of 0.3% y-o-y after posting zero inflation in April. In the US, the core Consumer Price Index rose 0.3% month-on-month (m-o-m) in April following a 0.2% m-o-m hike in March.

As a result, 10-year yields in the US and the eurozone began rising. Yields in a number of emerging East Asian markets have followed suit, despite weaker economic growth, with yields rising mostly at the long-end of the curve. At the short-end, however, some markets diverged, owing to either benign inflation or monetary stimulus. Yields for the 2-year tenor declined in the PRC, the Republic of Korea, Malaysia, and Thailand **(Figure 6a and 6b)**. For the 10-year yield, all markets showed increases in the beginning of June **(Figure 7a and 7b)**.

While yields at the longer-end rose for all markets except the Philippines, yields at the short-end were driven mostly by differences in inflation and policy rate movements between 2 March and 5 June **(Figure 8)**. Inflation remained benign in most of the region, but has been rising in Indonesia and Malaysia since March **(Figure 9a and 9b)**.

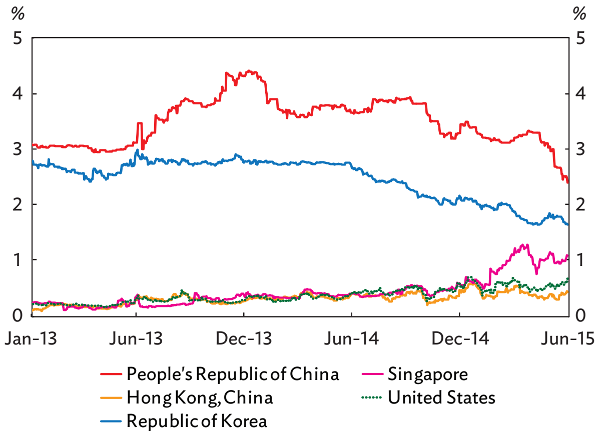
Accelerating inflation in Indonesia has caused the yield curve to rise for all tenors, with an average increase of 145 basis points (bps). Indonesia's inflation rate increased to 7.2% y-o-y in May from 6.8% y-o-y in April, currently the highest in the region. In addition to rising oil prices, Indonesia's inflation is also being driven by the removal of fuel subsidies.

In Malaysia, rising inflation has had the opposite effect, with most of Malaysia's yields falling, particularly at the short-end of the curve. Yields fell between 1 bp and 23 bps for tenors of 5 years or less. The decline in yields was due to positive sentiment as firmer oil prices are expected to boost government finances.

Other economies have not yet seen a rise in inflation due to firmer oil prices, though pass-through effects may be felt in the future. In contrast, Thailand's deflation has actually worsened, with consumer price inflation falling to –1.3% in May from –1.0% in April. This resulted in a fall in Thailand's yield curve at the short-end, with yields declining between 3 bps and 49 bps for tenors of 5 years

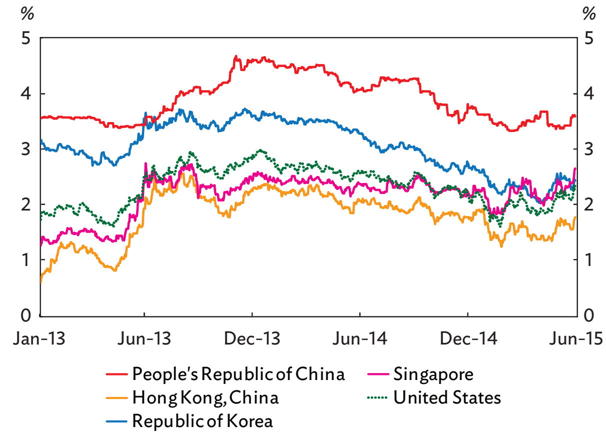
[6] WTI crude oil price refers to Cushing, Oklahoma FOB spot price per barrel.

**Figure 6a: 2-Year LCY Government Bond Yields**



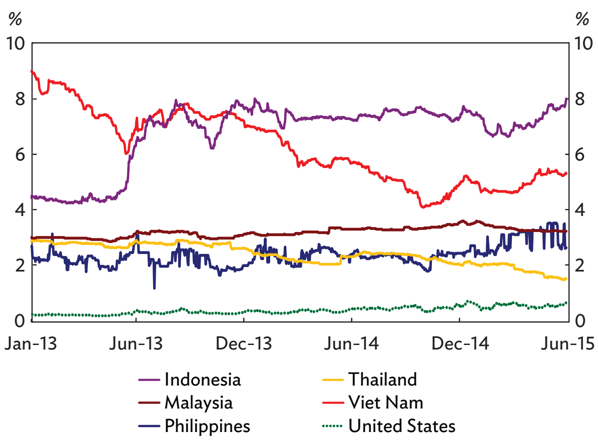

LCY = local currency.
Note: Data as of 5 June 2015.
Source: Based on data from Bloomberg LP.

**Figure 7a: 10-Year LCY Government Bond Yields**



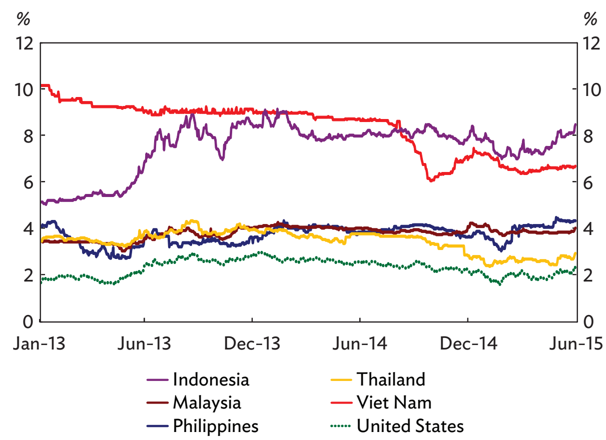

LCY = local currency.
Note: Data as of 5 June 2015.
Source: Based on data from Bloomberg LP.

**Figure 6b: 2-Year LCY Government Bond Yields**




LCY = local currency.
Note: Data as of 5 June 2015.
Source: Based on data from Bloomberg LP.

**Figure 7b: 10-Year LCY Government Bond Yields**



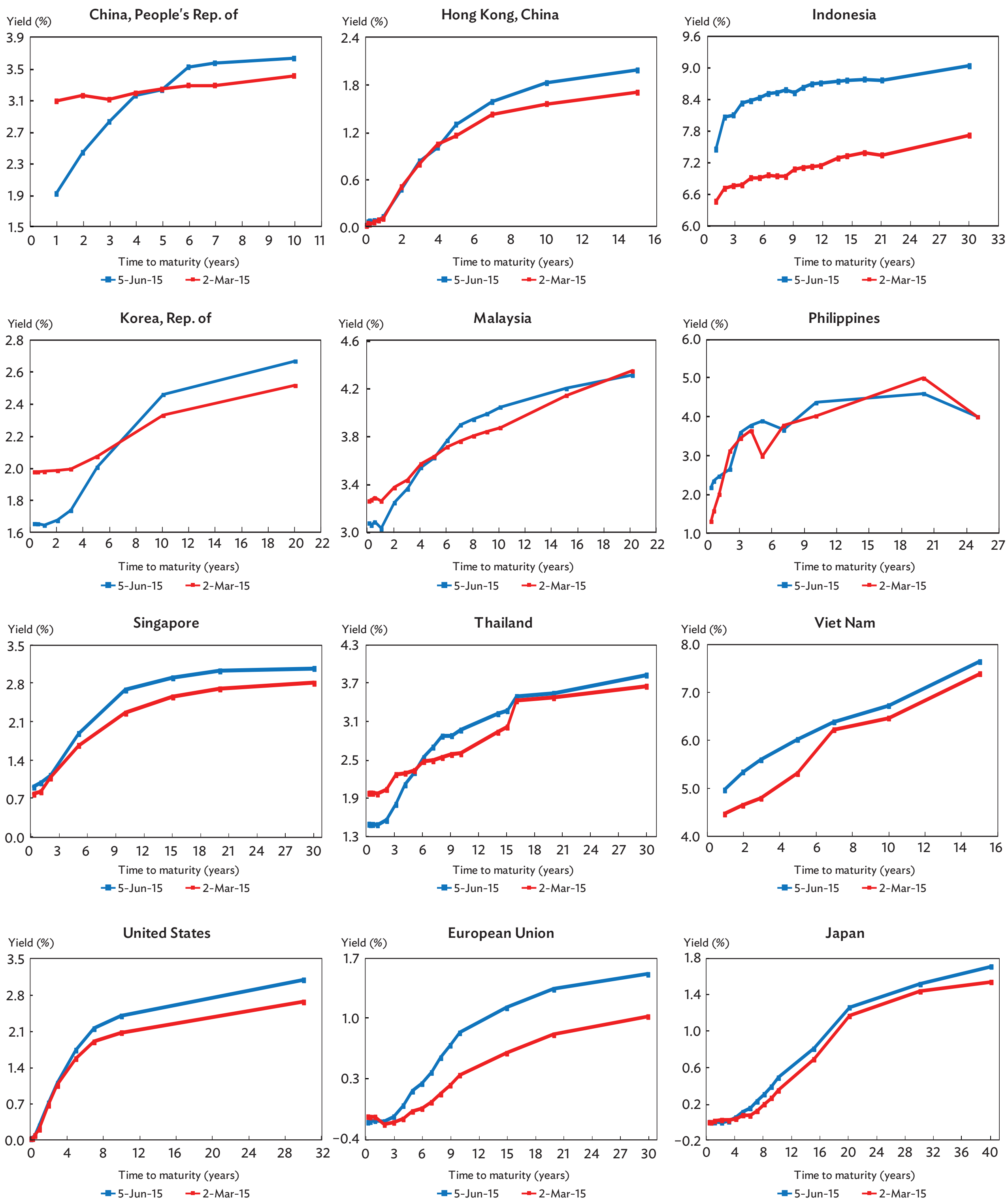

LCY = local currency.
Note: Data as of 5 June 2015.
Source: Based on data from Bloomberg LP.

or less. The long-end of Thailand's curve, however, has seen a rise similar to others in the region as inflation is expected to resume in the later half of 2015. In addition, Thailand's GDP growth improved to 3.0% y-o-y in 1Q15 from 2.1% y-o-y in 4Q14. To support economic growth, the Bank of Thailand has reduced policy rates twice in 2015, each time by 25 bps **(Figure 10a)**.

Despite slower GDP growth in 1Q15 for most markets, other than Thailand, only the PRC and the Republic of Korea have reduced policy rates. In the PRC, the strong downward interest rate movement was mostly due to measures taken by the government to boost economic growth. The PBOC has lowered policy rates twice in 2015 by 25 bps each time, once in March and once in May **(Figure 10b)**. The PRC also reduced banks' reserve requirement ratios. In the Republic of Korea, policy rates were reduced in March by 25 bps. As a result, yields at the short-end fell for both the PRC and the Republic of Korea.

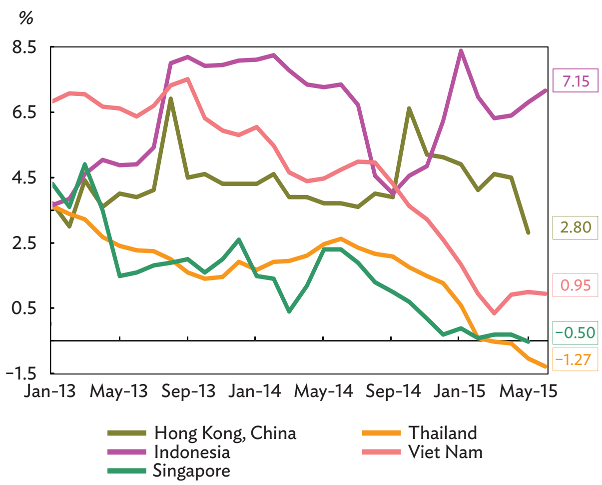
In contrast to the PRC and the Republic of Korea, Viet Nam's central bank has not chosen to reduce policy rates despite benign inflation. Inflation was stable at 0.95% y-o-y in May and 0.99% in April. The SBV instead opted to devalue the Vietnamese dong on 7 May to boost exports. The market has been pushing yields upward in Viet Nam, with most auctions of Treasury bonds falling short of

**Figure 8: Benchmark Yield Curves—LCY Government Bonds**



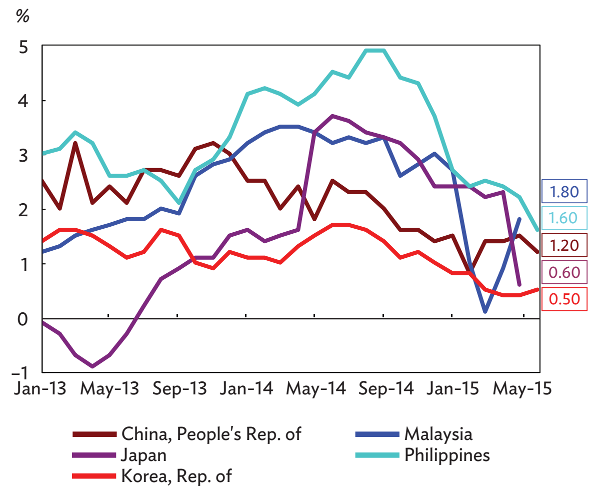

LCY = local currency.
Source: Based on data from Bloomberg LP.

**Figure 9a: Headline Inflation Rates**



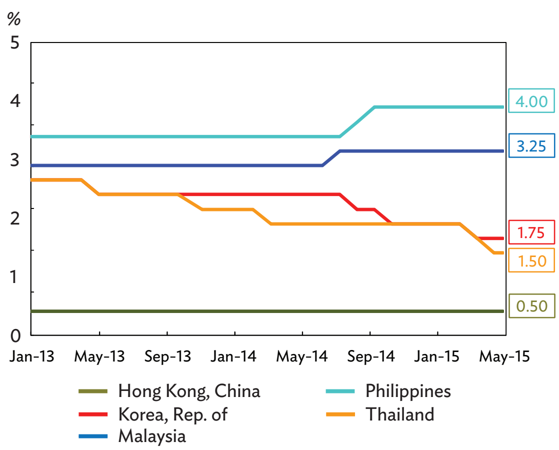

Note: Data as of end-May 2015 except for Hong Kong, China and Singapore (end-April 2015).
Source: Bloomberg LP.

**Figure 9b: Headline Inflation Rates**



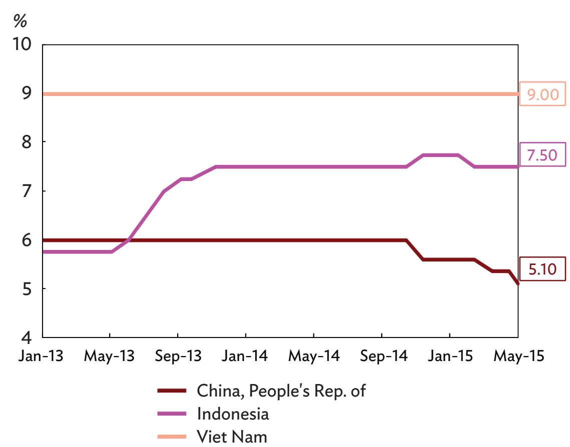

Note: Data as of end-May 2015 except for Japan and Malaysia (end-April 2015).
Source: Bloomberg LP.

**Figure 10a: Policy Rates**




Note: Data as of end-May 2015.
Source: Bloomberg LP.

**Figure 10b: Policy Rates**




Notes:
1. Data as of end-May 2015.
2. For Viet Nam base interest rate was used.
Source: Bloomberg LP.

their targets in April and May. As a result, Viet Nam's yield curve shifted upward for all tenors, rising an average of 48 bps.

In the Philippines, like Viet Nam, yields rose for most tenors despite lower inflation. Inflation fell to 1.6% y-o-y in May from 2.2% y-o-y in April. The rise is due to market expectations that the central bank will not adjust policy rates this year. The BSP has not adjusted policy rates since September 2014.

Lastly, yields rose for most tenors in Hong Kong, China and for all tenors in Singapore as both markets closely track US interest rate movements due to the nature of their exchanges rates, which do not float freely in response to market movements.

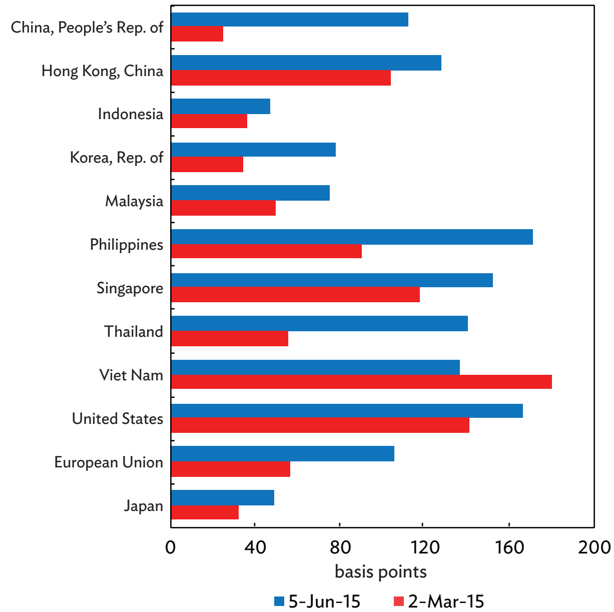
Given the rise in yields at the long-end of the curve in most emerging East Asian markets, the 2-year versus 10-year spread rose in all markets except Viet Nam **(Figure 11)**.

## Corporate yields narrowed versus government yields in the PRC and Malaysia.

Credit spreads between AAA-rated corporate bonds and government bonds narrowed in the PRC and Malaysia at the long-end of the curve. The narrowing in the PRC was due to expectations that the PBOC would ease policy rates to support the economy, thereby increasing risk appetite. In Malaysia, the narrowing of credit spreads was the result of improving sentiment over the government's fiscal situation given rising oil prices **(Figure 12a)**.

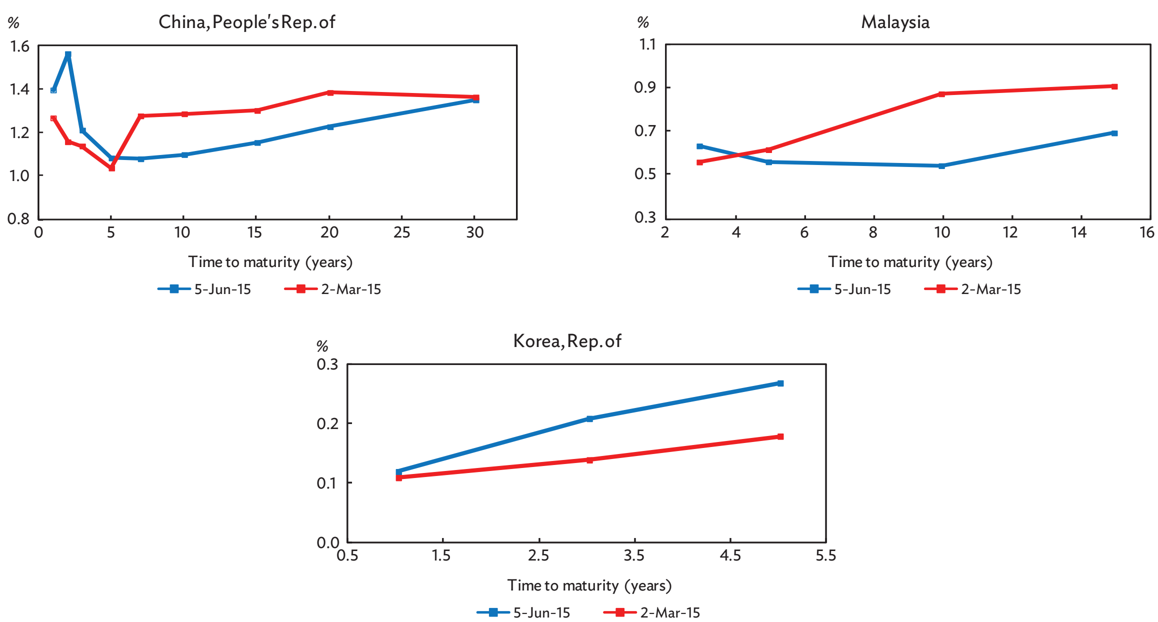
Credit spreads between AAA– and lower-rated corporate bonds were roughly unchanged in the PRC and the Republic of Korea between 2 March and 5 June. In Malaysia, credit spreads showed a slight narrowing **(Figure 12b)**.

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



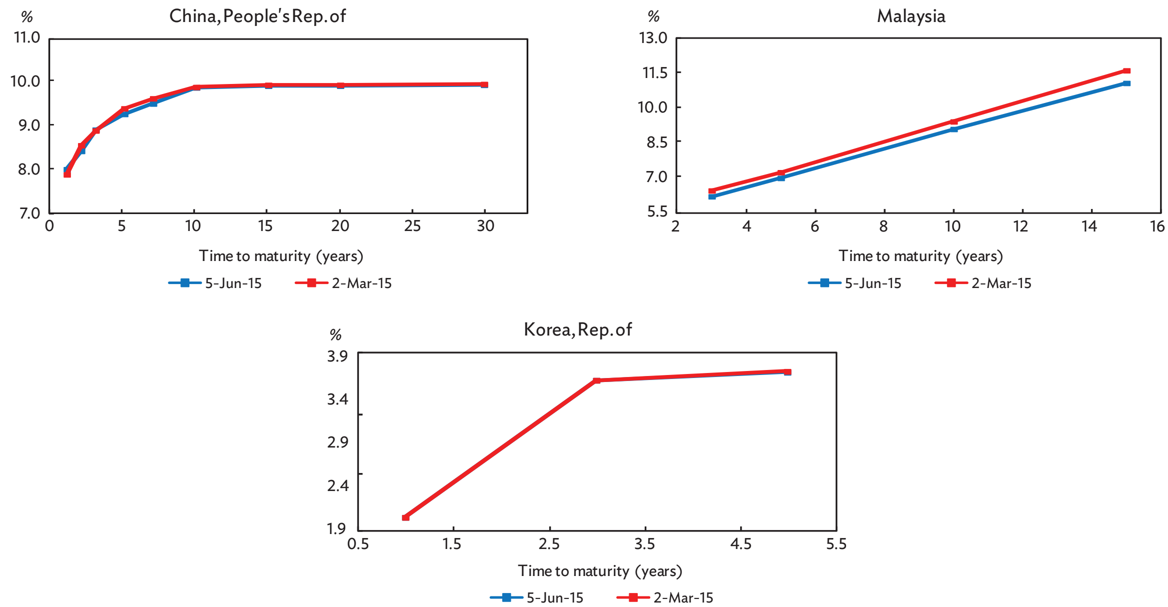

Source: Based on data from Bloomberg LP.

**Figure 12a: Credit Spreads—LCY Corporates Rated AAA vs. Government Bonds**




LCY = local currency.
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 27 February 2015 and 5 June 2015.
Sources: People's Republic of China (*ChinaBond*), Republic of Korea (EDAILY *BondWeb*), and Malaysia (Bank Negara Malaysia).

**Figure 12b: Credit Spreads—Lower-Rated LCY Corporates vs. AAA**




LCY = local currency.
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 27 February 2015 and 5 June 2015.
Sources: People's Republic of China (*ChinaBond*), Republic of Korea (EDAILY *BondWeb*), and Malaysia (Bank Negara Malaysia).

# Policy and Regulatory Developments

## People's Republic of China

### The PRC to Swap Local Government Debt

On 8 March, the Government of the People's Republic of China (PRC) announced a CNY1 trillion quota for local governments to swap higher-yielding, maturing debt for municipal bonds, a plan that will cover roughly half of all high-yield debt maturing in 2015. The debt swap is targeted to be completed by the end of August. Issuance will be via private placement and the new bonds cannot be traded on the interbank or exchange bond markets. The bonds, however, can be used as collateral for the People's Bank of China's (PBOC) repo transactions or its standing lending facilities.

### PBOC Reduces Reserve Requirement Ratios

On 20 April, the PBOC reduced the reserve requirement ratio for deposit-taking financial institutions by 100 basis points (bps). In addition, the reserve requirement ratio for rural financial institutions, including rural credit cooperatives, and village and town banks, was reduced by an additional 100 bps. The reserve requirement ratio of the Agricultural Development Bank of China was reduced by an additional 200 bps, while banks with a certain level of loans to the agricultural sector or small enterprises qualify for an additional 50 bps reduction.

### Asset Securitization Expanded

On 14 May, the State Council said that it would expand the current asset securitization pilot program by CNY500 billion in order to improve banks' liquidity. The government's plan is to use the funds generated by asset-backed security sales for housing renovation, water, and railway projects.

## Hong Kong, China

### The PRC Issues Dimsum Bonds in Hong Kong, China

On 20 May, the Government of the PRC successfully auctioned CNY12.0 billion worth of dimsum bonds in Hong Kong, China. The CNY 5.0 billion 3-year tranche was priced with a coupon of 2.8%, the CNY3.0 billion 5-year tranche carries a coupon of 3.0%, the CNY1.5 billion 7-year was priced at a coupon of 3.36%, the CNY1.5 billion 10-year tranche was priced at 3.39%, the CNY0.5 billion 15-year tranche was priced at 3.60%, and the CNY0.5 billion 30-year tranche was priced at 4.1%.

## Indonesia

### Government Approves 2015 Revised State Budget

In February, the House of Representatives approved a revised 2015 state budget that reduced the deficit to the equivalent of 1.9% of gross domestic product (GDP) from the 2.2% of GDP estimated in the original budget. The revised state budget calls for spending of IDR1,984.1 trillion versus revenue of IDR1,761.6 trillion. To help finance the deficit, the legislative assembly authorized the Ministry of Finance to issue bonds worth IDR297.7 trillion, compared with IDR277.0 trillion in the original budget. The underlying macroeconomic assumptions for the revised 2015 state budget include: (i) annual GDP growth of 5.7%, (ii) annual inflation of 5.0%, (iii) an exchange rate of IDR12,500–US$1, (iv) a 3-month Treasury bill rate of 6.2%, and (v) an Indonesian crude oil price of US$60 per barrel.

## Republic of Korea

### FSC Introduces Financial Market Infrastructure Guidelines

The Financial Services Commission (FSC) introduced in March its Business Guideline for Financial Market Infrastructures, aiming to implement business standards for the Korea Exchange and Korea Securities Depository that are consistent with the Principles for Financial Market Infrastructures launched in April 2012 by the Bank for International Settlements' (BIS) Committee on Payment and Settlement Systems and the International Organization of Securities Commissions (IOSCO).

### FSC Announces Capital Market Reforms

The FSC announced in April a series of policy directions and tasks for reforming the country's capital markets. The tasks include promoting the country's private bond market, which would support the FSC's policy directive of boosting investments in start-up and venture capital companies, as well as invigorating the country's derivatives market.

## Malaysia

### Singapore, Malaysia, and Thailand Sign Memorandum of Understanding on Cross-Border Equity and Debt Securities Offerings

In March, a Memorandum of Understanding was signed between the Monetary Authority of Singapore (MAS); Singapore Exchange, Securities Commission Malaysia, and Thailand's Securities and Exchange Commission (SEC) for the creation of a streamlined review framework for the Association of Southeast Asian Nations (ASEAN) common prospectus. This framework aims to facilitate cross-border offerings of equity and debt securities in ASEAN. The framework is expected to be implemented beginning in 3Q15.

### BNM and PBOC Renew Bilateral Currency Swap Arrangement

In April, Bank Negara Malaysia (BNM) and the PBOC renewed their bilateral currency swap arrangement for another 3 years. The size of the arrangement was maintained at CNY180 billion–MYR90 billion. The arrangement will continue to promote bilateral trade and investment flows between Malaysia and the PRC.

## Philippines

### BSP Announces Further Amendments to Foreign Exchange Regulations

In February, the Bangko Sentral ng Pilipinas (BSP) released further amendments to its Manual of Regulations on Foreign Exchange Transactions. These include the introduction of a policy that requires private sector, nonbank borrowers to maintain a long-term debt-to-equity ratio of at least 75–25 for the entire period of their foreign-currency-denominated loans. Other amendments include policies that could further enable and monitor legitimate trade transactions, and expand the coverage of short-term interbank loans that do not require prior BSP approval.

### BTr Implements NRT for LCY Government Bonds

On 4 May 2015, the Bureau of Treasury (BTr) implemented the nonrestricted trading and settlement environment (NRT) for local currency (LCY) coupon-bearing government securities. BTr stated that the market is now able to facilitate these trades after various preparatory activities including market testing, establishing business continuity process and systems readiness protocols, and other international preparations conducted by market participants. The circular pertaining to this initiative was released on 22 September 2014. The circular provides guidance on the implementation of NRT across tax categories in the secondary market for Philippine LCY coupon-bearing government securities, with the intention of deepening liquidity in the bond market and providing additional investment avenues for tax-exempt institutions and individuals

## Singapore

### MAS to Launch Savings Bond Program

In March, MAS announced plans to launch a savings bond program aimed at providing individual investors with long-term savings options with safe returns. Singapore Savings Bonds carry a maturity of 10 years and are fully backed by the government. Investors may purchase bonds for a minimum amount of SGD500 and in increments of SGD500 thereafter. These savings bonds will carry a step-up interest rate based on long-term SGS rates. MAS plans to issue the savings bonds on a monthly basis and expects to commence issuance in the second half of 2015.

### MAS Provides Retail Investors with Access to Investment Products

In April, MAS expanded the range of simple, low-cost investment products available to retail investors by providing them with expanded access to investment products such as Exchange-Traded Funds. With this enhancement, fund managers may now reclassify investment funds as Excluded Investment Products. Previously, all investment funds that used derivatives were classified as Specified Investment Products, which are more complex products and require enhanced safeguards for retail investors.

## Thailand

### SEC Allows Retail and Private Funds to Invest in GMS Financial Instruments

The SEC reported in January that the Capital Market Supervisory Board has approved revisions to investment rules to allow retail funds and private funds to invest in financial instruments in Greater Mekong Subregion (GMS) countries, which include Cambodia, the Lao People's Democratic Republic, and Myanmar.

### SEC and ThaiBMA to Promote Corporate Bond Issuance

In March, the SEC launched a joint project with the Thai Bond Market Association (ThaiBMA) to entice local businesses to raise funds in the LCY corporate bond market. ThaiBMA will approve exemptions from registration fees and discounts from annual fees for businesses that participate in the project and issue long-term bonds in 2015.

### BOT to Ease Foreign Exchange Regulations

The Bank of Thailand (BOT) announced in April plans to relax foreign exchange regulations in order to facilitate the foreign asset holdings of Thai residents and entice nonbanks to participate in foreign exchange transactions. The central bank plans to ease measures aimed at curbing speculation on the Thai baht to encourage nonresidents to borrow Thai baht from local financial institutions.

## Viet Nam

### Viet Nam to Launch Derivatives Market

On 5 May, Viet Nam issued a decree providing a legal framework and investment guidelines for a derivatives market. The target date for the market's launch is 2016. Under the decree, both individuals and institutions, except for some businesses, will be allowed to invest in derivatives. The derivatives will be listed on the Viet Nam's stock exchange and will initially only include stock indices and government bond futures.

### SBV Devalues Dong for Second Time in 2015

On 7 May, the State Bank of Viet Nam (SBV) devalued the Vietnamese dong by 1% to a reference rate of VND21,673 per US$1. It marked the second time this year that the Vietnamese dong has been devalued. The move was made to enhance export competitiveness and boost economic growth.

# Bond Financing for Renewable Energy

## Introduction

Energy needs in Asia are huge. The Asian Development Bank (ADB) estimates that Asia's share of world energy consumption is expected to rise from around one-third in 2010 to more than one-half by 2035.[7] The use of renewable energy will increase by 50% over this period but will still account for only 13% of the world's total energy supply in 2035. To ensure that the growing energy needs of Asia can be met sustainably, there will have to be increased diversification of energy sources away from fossil fuels and toward renewable energy. Greater use of renewable energy can result in lower costs through technological and efficiency improvements, and by reaping the benefits from economies of scale.

Investment in renewable energy is gaining momentum across the globe. In 2014, global investment in renewable power reached US$270 billion, driven by the construction of solar energy plants in the People's Republic of China (PRC) and Japan totaling US$75 billion.[8] While developed economies were initially the primary investors in renewable energy, investments in developing economies have grown at a faster pace in recent years. In 2014, investment in renewable energy in developing economies was almost on par with that of developed economies. The economy with the largest investment in renewable energy in 2014 was the PRC at US$83 billion, which is more than double the amount of renewable energy investment in the United States (US) (US$38 billion).

Asian economies have stepped up their investment in and use of renewable energy. India and the PRC have both rapidly expanded their wind power capacity. Global Wind Energy Council data show that at the end of 2014, the PRC had the world's largest installed wind power capacity at 115 gigawatts (GW), or slightly less than one-third of the global total. The PRC has also been ramping up its installation of solar power capacity in the face of declining prices for solar panels.

It is clear that renewable energy has many environmental and social benefits. These include very little carbon emissions, no air pollution, stable costs, and a more resilient energy system. Further, the cost of renewable energy technology has been falling rapidly. The latest International Renewable Energy Agency report finds that wind and hydropower are already cost competitive with conventional fossil fuel plants.[9] The fall in solar panel costs means that solar photovoltaic technology is getting closer to being cost competitive as well. As technology improves, the cost of renewable energy is expected to continue falling. Advances in energy storage could further encourage the deployment of renewable energy. However, without sufficient improvement in energy storage, it will be difficult to have a large proportion of energy generation from renewable sources such as wind and solar.

There has been a lot of attention aimed at facilitating greater adoption of renewable energy. Policies to promote renewable energy include stricter environmental measures, emissions trading system, and taxes on polluting industries. These policies have an important role to play in fostering the development of renewable energy sector. At the same time, there is also a need to look at the financing aspects of renewable energy projects.

The main constraint for adopting renewable energy now lies more in the availability and cost of financing. While the flow of financing for renewable energy has grown, much more investment is needed. Stronger intervention in the financial system is necessary as there is still no comprehensive strategy for financing the necessary investments in renewable energy. Most renewable energy projects have high initial costs and very low operating costs. This means that renewable energy projects will require significant long-term financing. The availability and cost of financing is an important factor in whether a renewable energy project is viable. Improvements in financing can lower the cost of a renewable energy project. Low operating costs mean that increased emphasis is placed on the financing costs. Improving the efficiency of investments can ensure that renewable

[7] ADB. 2013. *Asian Development Outlook*. Manila.

[8] Frankfurt School-UNEP Centre. 2015. *Global Trends in Renewable Energy Investment 2015*. Frankfurt am Main.

[9] International Renewable Energy Agency. 2015. *Renewable Power Generation Costs in 2014*. Abu Dhabi.

energy projects become more affordable, which will promote their spread.

This special section will explore the various financing options available for renewable energy. It will then examine developments in using bonds to finance renewable energy projects. For example, there has been some success in Asia, particularly in the PRC, with corporations raising a large amount of funds in the domestic bond market to finance renewable energy operations. This section will also chart the growing popularity of "green bonds."

## Financing Options for Renewable Energy

The large upfront costs and extended payback period of renewable energy projects means that the availability and cost of financing plays a critical role. Without the proper financing framework, the necessary investments in renewable energy may not take place. Funds may instead flow toward conventional sources of energy where risks are lower. Lack of financing can deter much-needed investment in the renewable energy sector and constrain a region's ability to meet its renewable energy investment targets.[10] In the aftermath of the 2008/09 global financial crisis, there was a large drop in investment in renewable energy, underlining the close link between financing and investment.[11]

There are several financing channels available for renewable energy projects. These include multilateral development banks, governments, and private investors. Within Asia, multilateral development banks such as the World Bank and ADB have provided technical assistance and financing for renewable energy projects. These institutions offer both market-based and concessional financing at below market rates for low-income economies. They have been very active in facilitating renewable energy investments in Asia. In poorer economies, external support such as that from multilateral banks is needed to help facilitate private sector financing for renewable energy investment.[12]

In Asia, ADB has undertaken efforts to combat climate change. Working to increase the amount of renewable energy utilized in the region is part of this effort. ADB's annual investment in clean energy has exceeded US$2.0 billion since 2011, reaching US$2.3 billion in 2013. Most of ADB's clean energy investment goes toward renewable energy, which totaled US$1.4 billion in 2013. ADB launched the Asia Solar Energy Initiative to develop 3 GW of solar-generated electricity in 2010. To achieve that goal, ADB plans to invest US$2.25 billion and leverage an additional US$6.75 billion in solar power investments. In the wind sector, ADB launched the Quantum Leap in Wind Initiative to develop 1 GW of wind-generated energy.

Governments can also play an important role in supporting the financing of renewable energy. They can support renewable energy by offering subsidies to cover the high costs of renewable energy projects and put in place regulations that reduce investment risks. Public authorities can also provide financing for renewable energy projects at rates cheaper than commercial terms. This can be in the form of soft loans from public financial institutions or loan guarantees. However, given that government finances are already overstretched in many developing economies in Asia, it is unlikely that government can act as the direct financier in most cases. Instead, the government's role will be to put in place the proper policies and regulations that can attract financing from the private sector, both domestically and internationally.

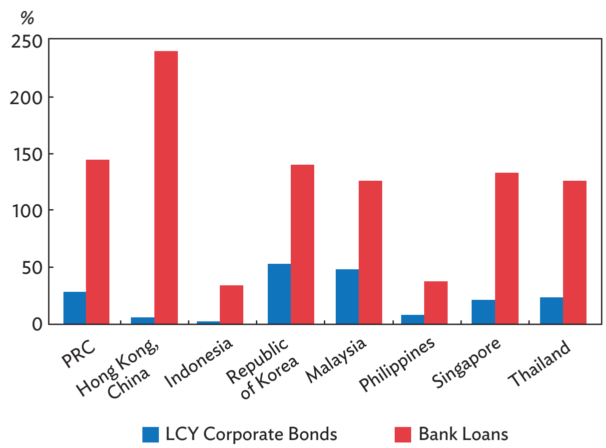
As mentioned above, it is unlikely that the public sector will be able to take on the additional burden of directly financing the large investment needs of renewable energy projects. While in Africa international donors and governments may play a more important role in financing, the large pool of investable funds available in Asia suggests that the private sector will play the primary role. The appeal of investing in developing economies has been increasing as their growth performances have outpaced those of developed economies by a considerable margin since the global financial crisis. Some developing Asian economies have a natural advantage in terms of renewable energy potential. Having a relatively less developed conventional energy sector could also be an advantage as it allows for the potential to "leap frog" to more modern technology without having to deal with the sunk costs of previous energy investments.

[10] T. Ekholm et al. 2013. The Effect of Financial Constraints on Energy Climate Scenarios. *Energy Policy*. 59. pp. 562–72.

[11] S. Fritz-Morgenthal et al. 2009. *The Global Financial Crisis and its Impact on Renewable Energy Finance*. Nairobi: United Nations Environment Program.

[12] S. Spratt and S. Griffith-Jones. 2013. *Mobilising Investment for Inclusive Green Growth in Low-Income Countries*. Bonn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

**Figure 13: LCY Corporate Bonds and Bank Lending to Private Sector as a Share of GDP**




PRC = People's Republic of China, GDP = gross domestic product, LCY = local currency.
Note: Data as of end-December 2014.
Sources: IMF IFS, Haver Analytics, CEIC, and Bloomberg LP.

The banking sector is the main source of project financing in Asia. Banks dominate the region's financial sector, with bank lending to private sector exceeding the size of the corporate bond market in a number of economies **(Figure 13)**. There are several ways that banks can finance renewable energy projects, including loans, project loans, mezzanine loans, and refinancing. A typical corporate loan has no restrictions and could be put to any use; therefore, lending is based on the overall health of the company.

Project finance is becoming more popular in Asia. This is when loans are secured for a specific project asset and serviced by the revenues from the project. Banks can also provide mezzanine loans, which are subordinated loans meant to serve as supplementary financing. This tends to be riskier lending that lies in between secured debt and equity. As mezzanine loans are riskier, they usually have higher returns.

While banks are likely to continue to play an important role in financing renewable energy, new Basel III regulations might make banks more reluctant to lend long-term. The Basel III rules aim to ensure that banks have enough liquid, high-quality assets so that they can better ride out periods of stress. These liquidity requirements penalize long-term loans for which there is no active secondary market. Renewable energy project loans tend to fall under this category and therefore these projects will likely find it harder to access bank financing. It will also likely raise their financing costs as well.

Banks in Asia have relatively little experience in financing renewable energy projects as they often require technical skills to properly evaluate that banks do not possess. Further, the limited track record for renewable energy projects makes them harder to evaluate. Finally, renewable energy projects tend to have large upfront costs and an extended payback period, making them less attractive from the perspective of bankers.

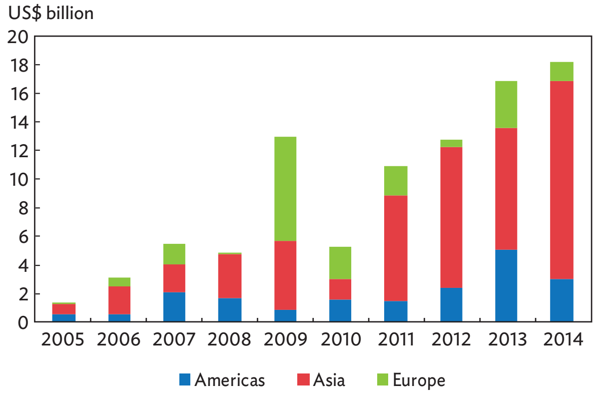
This all suggests that the bond market may become the preferred source of financing for renewable energy projects. The September 2013 issue of the *Asia Bond Monitor* highlighted the significant potential of emerging Asian bond markets to finance infrastructure projects. As will be discussed below, there are many similarities between renewable energy project financing and infrastructure project financing.

## Bond Financing for the Renewable Energy Sector

Given the heightened interest in investing in renewable energy, there is a large pool of potential investors. To attract these investors, an investment will have to be packaged in a form that investors are both familiar and comfortable with. Large investors, such as pension funds and sovereign wealth funds, have traditionally allocated a large proportion of their portfolio to bonds. Thus, there is a huge pool of investment assets available: the Climate Policy Initiative has estimated the global pool of institutional assets at around US$80 trillion. The development of bond markets for renewable energy is also supported by the general trend toward increased investor interest in environmentally friendly projects.

Globally, the issuance of renewable energy sector bonds has been increasing rapidly. Total bonds issued by renewable energy corporations increased from US$5.2 billion in 2010 to US$18.3 billion in 2014 **(Figure 14)**. While Asia has been leading the way in the issuance of these bonds, almost all renewable sector bond issuance in the region originates in the PRC **(Figure 15)**. In 2014, 90% of Asia's renewable sector bonds came from the PRC. This is consistent with the overall trend of the PRC dominating investment in the renewable energy

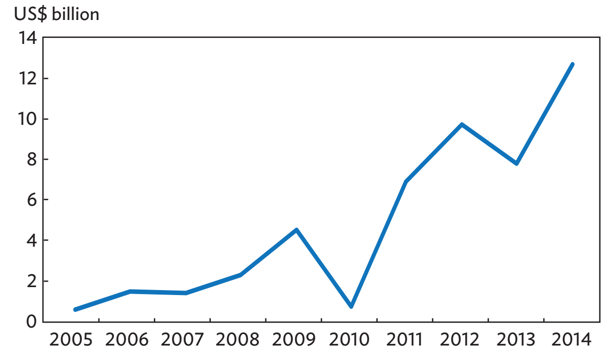
**Figure 14: Renewable Energy Sector Bond Issuance by Region**




Notes:
1. Americas refer to Brazil, Canada, Mexico, Panama, Peru, and the United States.
2. Asia refers to the People's Republic of China; Hong Kong, China; India; Japan; Kazakhstan; Republic of Korea; Malaysia; Singapore; and Taipei,China.
3. Europe refers to Austria, Cyprus, Denmark, Finland, France, Germany, Hungary, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Russian Federation, Slovakia, Sweden, Switzerland, Turkey, and the United Kingdom.

Source: Bloomberg LP.

**Figure 15: People's Republic of China's Renewable Energy Sector Bond Issuance**




Source: Bloomberg LP.

sector among developing economies. About half of global renewable energy infrastructure investment in 2012 came from developing economies, with the PRC accounting for the bulk of it.[13]

One reason that Asia has been a leader in renewable energy bond issuance is because Asia has a large pool of funds available for investment. Asia remains a capital surplus region. In particular, the PRC has a high savings rate and large current account surplus. At the moment, much of the surplus capital from Asia is invested in low-yielding assets in the developed world. There is great potential to invest some of these funds in the renewable energy sector.

Being more familiar with the region might lead to Asian investors assessing the risks and returns on renewable energy projects in the region differently than investors from advanced economies. Better knowledge of local conditions may make domestic investors more willing to finance renewable energy projects. Better understanding of local regulations could also be an advantage to domestic investors. This is especially true in Asia where environmental regulations and incentives for investment in renewable energy are evolving quickly. In addition, domestic investors would not need to take on exchange rate risk, which is an important factor for international investors.

In many developing economies in Asia, reducing financing costs for renewable energy projects is a critical step. Relatively underdeveloped financial markets mean that the cost of financing tends to be higher in these economies. With renewable projects having higher upfront costs, this puts them at a competitive disadvantage compared to conventional projects.

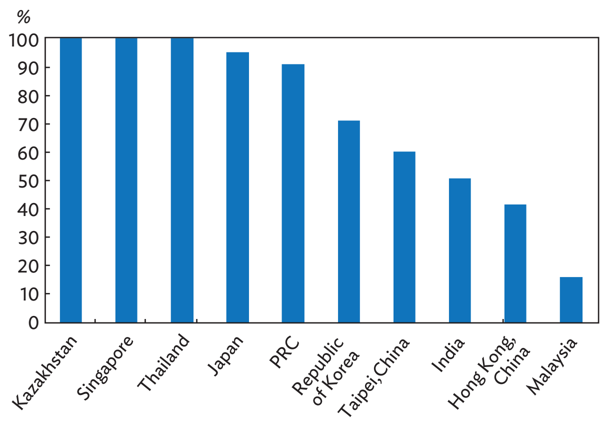
Accessing foreign debt could be seen as a way to bypass the inefficiency of local financial markets. But it comes at a price as international debt tends to be priced in foreign currency, usually US dollars. So taking on foreign debt usually means also taking on exchange rate risk as the revenue generated from the renewable energy project would be in domestic currency. While the foreign exchange rate risk could be hedged, this would probably offset most of the benefit from lower yields.

Fortunately, the region's local currency bond markets are expanding. Having a well-functioning and liquid local currency bond market can help investors finance their activities. In Asia, economies with well-developed bond markets have been able to mobilize large amounts of funds. That is why most renewable energy sector bonds in Asia are being issued in a local currency **(Figure 16)**.

One recent example of a renewable energy company issuing bonds is Trina Solar Limited in the PRC. Trina Solar Limited is a large-scale, integrated solar

[13] S. Zadek and C. Flynn. 2013. *South-Originating Green Finance: Exploring the Potential.* Geneva: Geneva International Finance Dialogues.

**Figure 16: LCY-Denominated Renewable Energy Bonds as Share of Total**




PRC = People's Republic of China, LCY = local currency.
Note: Data as of end-December 2014.
Source: Bloomberg LP.

power products manufacturer, including crystalline silicon PV modules, and a solar power system developer. In October 2014, Trina Solar Limited issued a total of US$115 million of convertible senior notes due in 2019. The proceeds will be used for developing new solar projects.

Another renewable energy company that has tapped the bond market is GS Yuasa Corporation in Japan. Its business includes the manufacture and supply of batteries, power supply systems, lighting equipment, and other electrical equipment. In March 2014, GS Yuasa Corporation issued a JPY25 billion zero coupon convertible bond maturing in 2019.

While concerns about climate change are driving policymakers' attention, businesses also have reason to be interested in renewable energy. There are increasing expectations that carbon will likely be taxed or charged in the future. A World Bank publication reveals that Royal Dutch Shell, Rio Tinto, and Pacific Gas and Electric Company—firms that all have large carbon-intensive operations—are preparing for the time when carbon will be taxed.[14] Companies are also under growing scrutiny over their environmental track record. With fiscal conditions worldwide under increasing stress, governments are under pressure to cut back on fuel subsidies. Thus, carbon taxes could strengthen government balance sheets while promoting growth in the renewable energy sector.

## Rising Interest in Green Bonds

While renewable energy companies have been active in issuing bonds, the proceeds from the issuance need not necessarily be used for green projects. A recent innovation is the development of green bonds in which there is a commitment by the issuer for the proceeds to be used for projects with environmental benefits. Most green bonds issued to date have been used to finance climate change mitigation or adaptation, including clean energy, energy efficiency, mass transit, and water technology. Green bonds can be either plain vanilla, Treasury-style retail bonds, with a fixed rate of interest and redeemable in full upon maturity, or asset-backed securities comprising several green projects. Most green bonds issued are use-of-proceeds bonds in which the funds raised from the bond issuance are earmarked for green projects. While the proceeds can be used only for green projects, the bond is backed by all of the assets of the company issuing the bonds.

Growing interest in green bonds is the result of investors adhering more closely to environmental, social, and governance (ESG) criteria. The UN Principles for Responsible Investing Initiative list more than 1,000 investors as signatories, representing about US$45 trillion in assets under management. In January 2014, a group of financial institutions launched the Green Bond Principles to establish voluntary process guidelines and clarify an approach for issuance of green bonds. Private sector interest was high after seeing strong demand for green bond issuance among multilateral development banks. Citigroup, Bank of America Merrill Lynch, JP Morgan, and Crédit Agricole were the original backers of the Green Bond Principles. The support has since swelled to 55 underwriters, issuers, and investors as signatories.

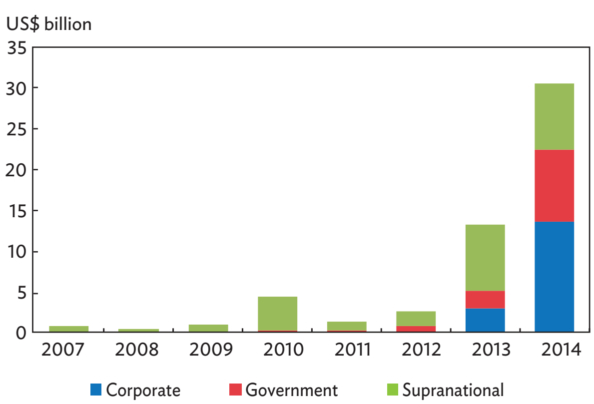
The Global Sustainable Investment Alliance found that assets invested based on sustainable principles had grown from US$13.3 trillion in 2012 to US$21.4 trillion in 2014. As a proportion of professionally managed assets, the share of such investments rose to 30.2% in 2014 from 21.5% in 2012. However, the share in Asia remains very low at only 0.8%, compared with almost 60% in Europe.

[14] Partnership for Market Readiness. 2015. *Preparing for Carbon Pricing: Case Studies from Company Experience—Royal Dutch Shell, Rio Tinto, and Pacific Gas and Electric Company.* Washington, DC: World Bank.

While the amount of sustainable investment assets is still low in the region, it has been increasing. Between 2012 and 2014, this amount grew 32.0% to reach US$53 billion. Malaysia; the Republic of Korea; and Hong Kong, China are the largest markets in the region for sustainable investment. The leading role of Malaysia is due to the large size of its Islamic funds market in which all investment are based on *shariah* (Islamic law) principles.

As awareness in sustainable investing continues to grow, it is expected that the share of sustainable investment assets will rise substantially. There have been moves to urge institutional investors to divest themselves of investments in fossil fuels companies. The Association for Sustainable and Responsible Investing has documented several new national policy and regulations that are facilitating this process.[15] India and Viet Nam have strengthened their corporate reporting requirements for sustainable business practices. Stock markets in the PRC; Hong Kong, China; and Singapore have introduced guidelines on sustainability reporting. Importantly, some public pension funds have taken steps to integrate sustainability principles into their investment decision-making process. As of August 2014, 160 large institutional investors in Japan, including the Government Pension Investment Fund with JPY130 trillion under management, had endorsed the Principles for Responsible Institutional Investors. Given the large pool of assets that these funds manage, this could have a significant impact on facilitating greater investment in renewable energy.

**Figure 17: Green Bond Issuance by Issuer**

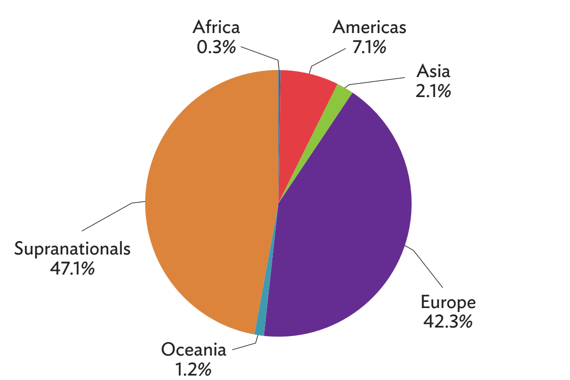



Source: Bloomberg LP.

Given the growing demand, it is not surprising that the green bond issuance is surging. In 2014, total issuance of global green bonds reached US$30.5 billion, more than double the amount in 2013 **(Figure 17)**. Most green bond issuance has come from supranationals, including the multilateral development banks. European government entities and corporates are a close second **(Figure 18)**. In Asia, green bonds have been slower to take off. Part of the reason is that there is a smaller pool of assets in Asia that are targeted at sustainable investing. However, there have been plenty of renewable energy firms that have successfully raised funds in Asia. It is just that they did not choose to label their bonds as green bonds.

Green bonds were first issued by multilateral development banks as part of their efforts to combat climate change. They have been well-received and highly rated. The European Investment Bank (EIB) pioneered the first green bond issuance in 2007. To date, EIB is the largest issuer of green bonds with a total of EUR7.4 billion raised across 10 currencies, of which EUR4.3 billion was raised in 2014 alone. Most of the funds raised from the issuance of green bonds were invested in energy efficiency and renewable energy projects. The World Bank issued its first green bond in 2008 to support climate change mitigation and adaptation projects. Since then, the World Bank has issued over US$7 billion worth of green bonds.

**Figure 18: Green Bond Issuance by Region, 2007–2014**




Notes:
1. Africa refers to South Africa.
2. Americas refer to Canada, Peru, and the United States. Asia refers to Japan; Republic of Korea; Taipei,China.
3. Europe refers to Austria, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, and the United Kingdom.
4. Supranationals refer to African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, European Investment Bank, International Bank for Reconstruction and Development, International Finance Corporation, and Nordic Investment Bank. Oceania refers to Australia.

Source: Bloomberg LP.

[15] Association for Sustainable and Responsible Investment in Asia. 2014. *Asia Sustainable Investment Review 2014*. Hong Kong, China.

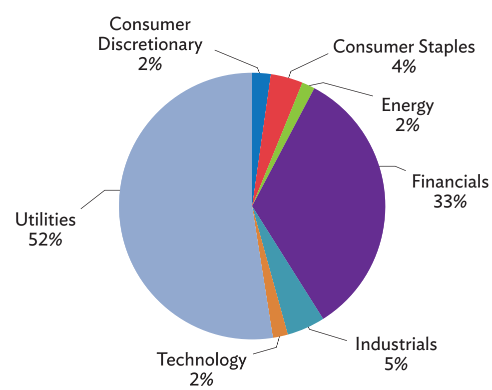
In Asia, ADB sold its first clean energy bonds in 2010, raising US$232 million to support renewable energy and energy efficiency projects. This was followed in 2012 with the second sale of clean energy bonds, raising US$339 million. In March 2015, ADB raised US$500 million from its inaugural green bond issue, aimed at channeling more investor funds to ADB projects that promote low-carbon and climate-resilient economic development.

The attraction of multilateral development bank bonds is that they rank equal to the banks' other obligations and therefore have the same AAA credit rating. Institutional investors, who are traditional buyers of multilateral development bank bonds, are also attracted to them because it gives them the opportunity to invest in environmentally friendly projects at little risk. Reflecting the importance of the multilateral issuers, most green bonds have an investment grade rating, with the bulk being rated AAA **(Figure 19)**.

For corporate green bonds, utilities have been raising more than half of the funds in the green bond market. However, financial firms are also big issuers **(Figure 20)**. Financial firms issuing green bonds earmark the funds raised for lending to environmental projects. Corporate issuance of green bonds is concentrated in the European markets **(Figure 21)**. At the moment, Asia has only a very small slice of the corporate green bond market. Part of the reason for the limited issuance in Asia is that it is still a relatively new trend in the region. The benefit of labeling bonds as green is the ability to access a broader range of investors with environmental and sustainable goals as part of their investment criteria. The growing pool of such investors suggests that there is potential for lower costs and increased liquidity in the green bond market.

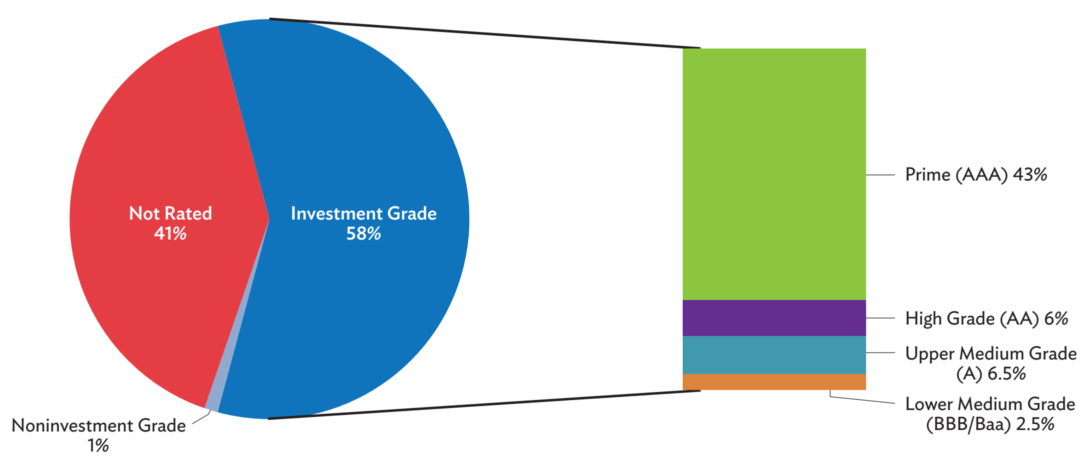
However, the pool of investors in Asia is still very small so issuers will have to target investors in developed economies. Another important plus of issuing green bonds is the benefit to a company's reputation. It is

**Figure 20: Corporate Green Bond Issuance by Industry, 2007–2014**



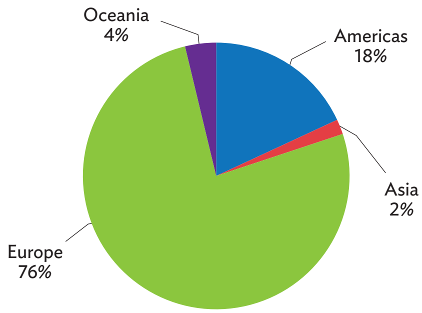

Source: Bloomberg LP.

**Figure 19: Green Bond Ratings**




Note: Data as of end-December 2014.
Source: Bloomberg LP.

**Figure 21: Corporate Green Bond Issuance by Region, 2007–2014**




Notes:
1. Americas refer to Canada, Peru, and the United States.
2. Asia refers to Taipei,China. Europe refers to Austria, France, Italy, Norway, Spain, Sweden, and the United Kingdom.
3. Oceania refers to Australia.

Source: Bloomberg LP.

a visible way to signal the company's commitment to environmental goals. However, a study on Chinese firms found that those that have been lauded for environmental achievements had not seen any positive impact on their valuation.[16] This suggests that the halo effect of an environmental company seems to be limited in the PRC for now.

Against these benefits, there are also additional costs associated with issuing green bonds. For example, there are costs associated with certifying and monitoring the bonds. There could be risks that investors may seek penalties if the funds are not used for their stated environmental purposes. The lack of a universal standard on what is considered a green bond is also problematic. Without a proper legal framework, issuers and investors will have to decide for themselves what qualifies as a green bond.

The corporate green bond market in Asia is still nascent as there have been only two issuances to date. The first one was by Advanced Semiconductor Engineering, a provider of semiconductor packaging and testing services based in Taipei,China. In 2014, it issued a US$300 million 3-year green bond via its subsidiary, Anstock II Limited. The bond yielded 125 basis points above US Treasuries, which is roughly comparable with the yield on the company's other bonds. The bond issue was met with strong investor interest and most of the bonds were taken up by Asian investors.

In February 2015, Asia's second corporate green bond was issued by India's fifth largest private bank, YES Bank, which raised US$156 m through a 10-year green bond with the proceeds to be used to finance infrastructure projects in renewable energy. KPMG India will be providing annual assurance services on the use of the proceeds in accordance with green bond principles.

Green bonds are still a sliver of the overall bond universe, at just 0.06% of the total at the end of 2014. But with the right support and policy, there is tremendous potential for green bonds. The corporate green bond market must develop to ensure liquidity and attract new investors. To further facilitate green bond investment, Barclays and MSCI introduced a new Green Bond Index that tracks the global market for such bonds. Bank of America Merrill Lynch has also launched a Green Bond Index. These indexes will make it easier to track the performance of green bonds and could lead to the introduction of passively managed green bond funds that can open up the market to a larger group of investors.

## Project Bonds for Financing Renewable Energy Projects

In addition to general use bonds, there is a growing trend toward using project bonds in which funds are raised to finance a specific project. The cash flow from that project will be used to cover the servicing costs of the loan. In a project bond, the creditworthiness of the bond is based on the ability of the project to generate the necessary cash flow to cover the servicing costs of the bond and provide a return to the investors. This is in contrast to conventional bonds where the issuing firm's entire balance sheet is available for servicing the loan. When investing in project finance bonds, investors must scrutinize the project's construction, operating costs, and revenues to evaluate the payout.

Project finance can be used to finance large infrastructure projects that might otherwise be too risky or burdensome for a company's balance sheet. With project finance, the lenders provide funding for the project based solely on the risk-and-return profile of the project. Therefore, the company that develops the project is not liable in case the project fails.

[16] T. Lyon et al. 2013. How Do Investors Respond to Green Company Awards in China? *Ecological Economics*. 94. pp. 1–8.

Renewable energy investments are similar to long-term infrastructure investments. This means they tend to appeal to investors with a long investment horizon such as pension funds, which need to have long-term investment assets to match their long-term liabilities. As with infrastructure projects, most of the risk in renewable energy projects is in the construction phase. Once the project is up and running, the risks are relatively minimal. Renewable energy projects have very low operating costs and a well-defined stream of revenue if there is a long-term contract or feed-in-tariff.

The introduction of tighter prudential regulations for banks since the global financial crisis has made project financing from banks more expensive and difficult to obtain. Long-term loans are riskier and now attract a higher risk weight under Basel III regulations. This hurts projects with long-term payback periods such as renewable energy projects. With the payback period from renewable energy projects very similar to that of bonds, it may make sense to package and structure it as a project finance bond. This could be more cost effective than going through a bank.

Another concern that investors may have with renewable energy project bonds is that they can lack liquidity. To get around this problem, the "Yield Co" structure is gaining popularity in the US. The first Yield Co was NRG Yield, which raised US$500 million in 2014 to finance a wind farm. In January 2015, TerraForm Power issued a US$800 million green bond to finance its acquisition of a wind farm. The Yield Co investment structure is targeted to long-term investors seeking higher yields in the current low interest rate environment. A Yield Co purchases renewable energy projects that are already operating and generating a predictable cash flow. As a Yield Co invests in renewable energy projects that are already up and running, most of the construction and operating risks are eliminated. It also allows the original project developer to recoup their investment, allowing them to invest in other projects. Yield Cos are usually structured by securitizing several different renewable energy assets to make them more liquid. Further, a portfolio of assets is also more diversified and less risky. Structures like this could help attract additional investors to the renewable energy market. Lowering the cost of capital is essential for renewable energy projects, given the higher upfront costs.

The success of the Yield Co model suggests that there is potential for the securitization model to help improve liquidity and diversify the risk of renewable energy project bonds. A study on securitization of residential solar PV assets was found to help reduce project financing costs significantly.[17] However, for the securitization model to succeed, it is important to ensure that the securitized security is liquid and easily traded. This means there needs to be a well-developed bond market and some standardization of the assets. It also requires a regulatory framework that allows for the securitization of revenue streams. Greater transparency and availability of data could also make it easier to attract investors.

## Policy Challenges Ahead

While the case for financing renewable energy is compelling, there are several key policy challenges that need to be overcome to ensure that financing needs can be met. Bond financing can help attract a new class of investors to finance renewable energy projects. Several economies in the region with large developed bond markets have successfully raised funds for large infrastructure projects. Deep capital markets are important to ensure sufficient liquidity to facilitate the issuance of bonds. In addition, it will be important to develop a pool of long-term investors that can invest in these long-term bonds.

Although their financing capacity for renewable energy projects may be limited, governments still have an important role to play. Regulatory policies have a strong influence on the financing environment. In the PRC, the government has taken action to promote the development of renewable energy since 2005.[18] While substantial progress has been made, more needs to be done such as increasing the rate for solar feed-in tariffs and creating more incentives for local governments to pursue energy conservation.

A stable regulatory regime can also reduce the risk of investing in renewable energy. A supportive policy framework for renewable energy goes a long way toward promoting long-term investment in renewable

[17] T. Alafita and J.M. Pearce. 2014. Securitization of Residential Solar Photo Voltaic Assets: Costs, Risks, and Uncertainty. *Energy Policy*. 67. pp. 488–98.

[18] K. Lo. 2014. A Critical Review of China's Rapidly Developing Renewable Energy and Energy Efficiency Policies. *Renewable and Sustainable Energy Reviews*. 29. pp. 508–16.

energy capacity.[19] US states that have backtracked on policies to promote renewable energy have attracted less investment, suggesting that policy uncertainty can deter new investment.[20] Feed-in tariffs could be useful to reduce the risks to investors for renewable energy projects. Supportive policies that are long-term and do not depend on annual budget allocations tend to be favored by investors.[21]

While bonds offer a promising avenue for financing renewable energy projects, there are challenges that have to be overcome. Renewable energy projects tend to be at a disadvantage as they have shorter track records and higher up-front costs than conventional energy projects. Further, renewable energy projects may also face higher transaction costs compared with conventional energy projects. This is because renewable energy projects tend to be smaller in scale. One way to level the playing field for renewable energy projects is to provide guarantees that can reduce the cost of financing. Traditionally, this guarantee has been provided by governments, but it carries a fiscal risk. Hence, the cost of providing the guarantee has to be carefully weighed. Another way would be to set up a dedicated fund to help finance renewable projects. As more renewable energy projects are up and running, investors may become more comfortable with them and the need for guarantees or special funding will diminish.

There is a perception that renewable energy firms are risky investments even though this is not necessarily the case. In a study on the cost of equity capital for renewable energy, it was found that from the perspective of an international investor, the risks of renewable energy firms in Brazil, the PRC, and India were comparable with those of the overall market.[22] The risks from the perspective of a domestic investor are more varied. Indian renewable energy firms have higher-than-average market risk, while Brazilian firms have lower-than-average market risk. Meanwhile, Chinese firms have average market risk. To a certain extent, investors may have underestimated the risk of conventional energy firms as the threat of tighter environmental regulations in the future could severely affect their profitability.

[19] F. Polzin et al. 2015. Public Policy Influence on Renewable Energy Investments—A Panel Data Study across OECD Countries. *Energy Policy*. 80, pp. 98–111.

[20] K. R. Fabrizio. 2013. The Effect of Regulatory Uncertainty on Investment: Evidence from Renewable Energy Generation. *Journal of Law, Economics, and Organization*. 29. pp. 765–98.

[21] S. Abolhosseini and A. Heshmati. 2014. The Main Support Mechanisms to Finance Renewable Energy Development. *Renewable and Sustainable Energy Reviews*. 40. pp. 876–85.

[22] C. Donovan and Laura Nunez. 2012. Figuring What's Fair: The Cost of Equity Capital for Renewable Energy in Emerging Markets. *Energy Policy*. 40. pp. 49–58.

An important priority is to help narrow the information gap for lenders who are contemplating investing in renewable energy. Making data on renewable energy project costs and performance more transparent will facilitate the participation of institutional investors. Before investing in infrastructure projects, investors typically examine the track record of similar projects. Without historical data on past financial performance, investors may be reluctant to invest in renewable energy projects because they lack the information to make the necessary estimates of future returns. Making historical data publicly available would improve transparency in the investment process. Governments can also provide more information about the availability of renewable energy from their assessments and mapping of renewable energy resources.

## Conclusion

There has been tremendous growth in the issuance of renewable energy bonds. Most renewable energy bonds labeled as such have come from AAA-rated supranationals. The market has to develop beyond these highly-rated issuers to embrace other corporations. A wider variety of issuers offering different risk-and-return tradeoffs will broaden the market. The use of project bonds and asset-backed securities is also helping to develop the markets.

While the PRC has been a major issuer of unlabeled renewable energy bonds, the region as a whole is lagging behind. Success in the PRC has been due to corporates tapping into a large pool of liquidity. The rise of renewable energy bonds has coincided with strong government support for renewable energy, which led many state-owned enterprises to invest in the sector. Thus, investors in the PRC's bond market are less worried about risk because of the perception of an implicit guarantee from the government.

More renewable energy companies in Asia are expected to tap the bond market to finance investment needs. While only a few investors in the region have ESG investment criteria, momentum in favor of such criteria is growing. Large international investors are also keen to invest in Asia given low yields in the advanced economies. Innovative public–private partnerships can help increase the leverage of public funds and make corporate green bonds more attractive to large investors.

# Market Summaries

## People's Republic of China

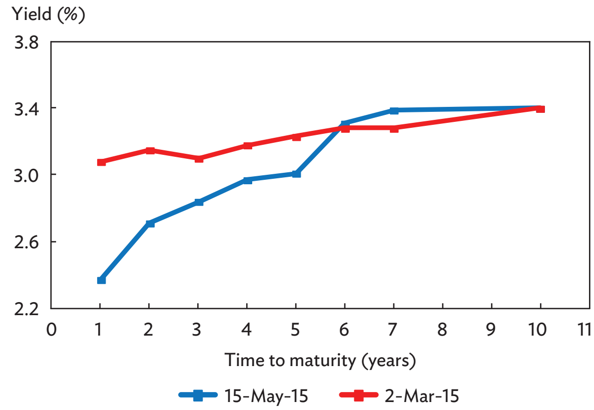
### Yield Movements

From 2 March until 15 May, the yield curve of the People's Republic of China (PRC) shifted downward for tenors of 5 years or less, with yields falling between 21 basis points (bps) and 71 bps **(Figure 1)**. The biggest decrease was for the 1-year tenor, which fell 71 bps. For tenors longer than 5 years, yields rose between 3 bps and 11 bps. As a result, the 2-year versus 10-year spread rose from 25 bps to 69 bps in the same period.

The downward shift was largely in response to economic data showing that the PRC's economy is slowing. Gross domestic product (GDP) growth fell in 1Q15 to 7.0% year-on-year (y-o-y) from 7.3% y-o-y in 4Q14. The government's target for GDP growth in 2015 was set at 7.0%, compared with actual growth of 7.4% in 2014. Industrial production growth fell to 6.8% y-o-y in January–February from 7.9% y-o-y in December, and further to 5.6% y-o-y in March, before rising to 5.9% y-o-y in April. Private investment in fixed assets has also been on a downward trend, falling sharply to 12.7% y-o-y in January–April from 18.1% in full-year 2014. Inflation, on the other hand, has shown a mild upward trend in 2015. After falling to 0.8% y-o-y in January from 1.5% y-o-y in December, inflation rose to 1.4% y-o-y in February–March and to 1.5% y-o-y in April. Inflation, however, still remains below the government's 2015 target of 3.0%.

In response to the slowing economy, the People's Bank of China (PBOC) has pursued a number of easing measures in 2015. It reduced its policy rates—the benchmark 1-year lending rate and 1-year deposit rate—by 25 bps each on 1 March. In addition, the PBOC increased the band by which banks could set their deposit rates to 1.3 times that of the benchmark deposit rate. The PBOC said that it reduced interest rates due to an uncertain external environment that could put negative pressure on the local economy. With inflation below its target range, the PBOC felt it had sufficient room to ease rates by an additional 25 bps on 11 May. After the second rate reduction, the benchmark 1-year rate was 5.10% and the benchmark 1-year deposit rate was 2.25%. The deposit rate bond ceiling was also increased to 1.5 times. Other PBOC stimulus measures thus far in 2015 have included reducing reserve requirement ratios.

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




LCY = local currency.
Source: Bloomberg LP.

Despite the PBOC's easing measures, yields at the long-end of the curve rose on an expected increase in local government bond issuance as the PRC recently unveiled measures to swap existing debt for new local government bonds.

### Size and Composition

The amount of outstanding LCY bonds in the PRC reached CNY32.7 trillion (US$5.3 trillion) at end-March, an increase of 1.6% quarter-on-quarter (q-o-q) and 12.0% y-o-y, largely driven by growth in policy bank and local corporate bonds **(Table 1)**.

**Government Bonds.** LCY government bonds outstanding grew 1.0% q-o-q and 10.0% y-o-y in 1Q15, driven by growth in policy bank bonds. Central bank bonds was unchanged as the PBOC opted to use other tools to manage liquidity (e.g., reverse repos). The amount of outstanding Treasury bonds fell 0.4% q-o-q but rose 12.3% y-o-y. The y-o-y

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

| | Outstanding Amount (billion) | | | | | | Growth Rates (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | CNY | US$ | CNY | US$ | CNY | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **29,233** | **4,702** | **32,222** | **5,192** | **32,731** | **5,279** | **2.2** | **10.5** | **1.6** | **12.0** |
| Government | 19,002 | 3,056 | 20,693 | 3,335 | 20,894 | 3,370 | 2.1 | 8.2 | 1.0 | 10.0 |
| Treasury Bonds | 9,136 | 1,470 | 10,308 | 1,661 | 10,263 | 1,655 | (0.5) | 13.2 | (0.4) | 12.3 |
| Central Bank Bonds | 552 | 89 | 428 | 69 | 428 | 69 | 0.0 | (58.9) | 0.0 | (22.5) |
| Policy Bank Bonds | 9,313 | 1,498 | 9,957 | 1,605 | 10,203 | 1,646 | 5.0 | 14.3 | 2.5 | 9.6 |
| Corporate | 10,231 | 1,646 | 11,529 | 1,858 | 11,837 | 1,909 | 2.3 | 15.0 | 2.7 | 15.7 |
| Policy Bank Bonds | | | | | | | | | | |
| China Development Bank | 5,988 | 963 | 6,266 | 1,010 | 6,337 | 1,022 | 3.9 | 10.4 | 1.1 | 5.8 |
| Export–Import Bank of China | 1,458 | 235 | 1,583 | 255 | 1,694 | 273 | 8.9 | 23.2 | 7.0 | 16.2 |
| Agricultural Devt. Bank of China | 1,867 | 300 | 2,108 | 340 | 2,172 | 350 | 5.6 | 21.2 | 3.0 | 16.4 |

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

**Table 2: Corporate Bonds Outstanding in Key Categories**

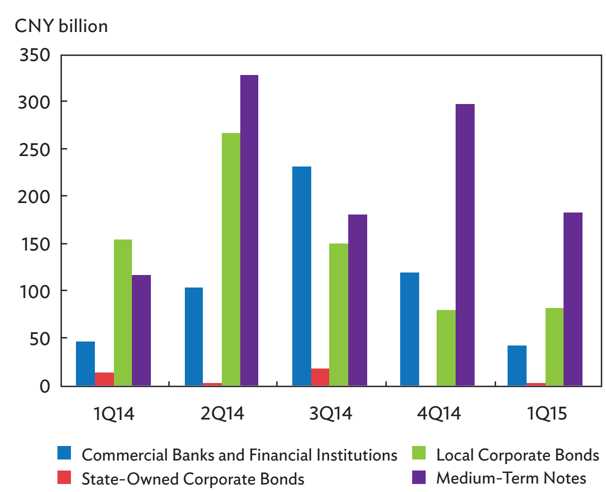
| | Amount (CNY billion) | | | | Growth Rate (%) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | q-o-q | | | | y-o-y |
| | 2Q14 | 3Q14 | 4Q14 | 1Q15 | 2Q14 | 3Q14 | 4Q14 | 1Q15 | 1Q15 |
| Commercial Bank Bonds and Tier 2 Notes | 1,369 | 1,536 | 1,612 | 1,639 | 5.4 | 12.2 | 5.0 | 1.7 | 26.2 |
| SOE Bonds | 618 | 630 | 622 | 612 | (4.5) | 1.8 | (1.2) | (1.5) | (5.4) |
| Local Corporate Bonds | 2,085 | 2,231 | 2,306 | 2,377 | 28.3 | 7.0 | 3.4 | 3.1 | 46.2 |
| Medium Term Notes | 3,985 | 4,054 | 4,179 | 4,227 | 7.1 | 1.7 | 3.1 | 1.2 | 13.6 |

( ) = negative, q-o-q = quarter-on-quarter, SOE = state-owned enterprise, y-o-y = year-on-year.
Sources: *ChinaBond* and *Wind*.

increase was due mostly to a rise in local government bonds outstanding. Issuances of local government bonds increased due to a slowdown in local government revenues resulting from a weakening property market and the renovation of shantytowns as part of the PRC's urbanization process, among other factors. In addition, the PRC is allowing local governments to issue bonds directly for the first time, while limiting the use of local government and corporate financing vehicles.

**Corporate Bonds.** Corporate bonds outstanding grew 2.7% q-o-q and 15.7% y-o-y in 1Q15 to reach CNY11.8 trillion. Bonds with strong positive growth rates were those issued by banks and insurance companies, and local corporates, rising 1.7% q-o-q and 3.1% q-o-q, respectively **(Table 2)**. The strong growth in financial bonds was mostly due to issuance of subordinated bonds by financial institutions in 3Q14 to boost capital ratios.

**Figure 2: Corporate Bond Issuance in Key Sectors**




LCY = local currency.
Sources: *ChinaBond* and *Wind*.

### Table 3: Top 30 Issuers of LCY 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 (US$ billion) | | | |
| 1. | China Railway | 1068.5 | 976.00 | Yes | No | Transportation |
| 2. | State Grid Corporation of China | 450.5 | 415.50 | Yes | No | Public Utilities |
| 3. | China National Petroleum | 370.0 | 410.00 | Yes | No | Energy |
| 4. | Bank of China | 300.9 | 183.37 | Yes | Yes | Banking |
| 5. | Industrial and Commercial Bank of China | 290.5 | 155.32 | Yes | Yes | Banking |
| 6. | Agricultural Bank of China | 270.0 | 138.00 | Yes | Yes | Banking |
| 7. | Industrial Bank | 265.0 | 134.50 | No | Yes | Banking |
| 8. | Shanghai Pudong Development Bank | 230.5 | 117.59 | No | Yes | Banking |
| 9. | China Construction Bank | 200.0 | 109.00 | Yes | Yes | Banking |
| 10. | China Merchants Bank | 159.0 | 102.44 | No | Yes | Banking |
| 11. | China Citic Bank | 154.1 | 94.00 | No | Yes | Banking |
| 12. | China Minsheng Bank | 153.7 | 91.20 | No | Yes | Banking |
| 13. | China Everbright Bank | 143.7 | 91.00 | Yes | Yes | Banking |
| 14. | Bank of Communications | 125.0 | 87.46 | No | Yes | Banking |
| 15. | China Power Investment | 118.4 | 77.10 | Yes | No | Public Utilities |
| 16. | Senhua Group | 111.6 | 76.10 | Yes | No | Energy |
| 17. | Central Huijin Investment | 109.0 | 73.41 | Yes | No | Diversified Financial |
| 18. | Petrochina | 106.0 | 68.00 | Yes | Yes | Energy |
| 19. | Bank of Beijing | 94.4 | 66.50 | No | Yes | Banking |
| 20. | China Southern Power Grid | 90.0 | 65.50 | Yes | No | Public Utilities |
| 21. | Ping An Bank | 87.7 | 65.50 | No | No | Banking |
| 22. | China Petroleum and Chemical | 79.5 | 65.00 | Yes | Yes | Energy |
| 23. | Bank of Shanghai | 78.3 | 62.20 | No | No | Banking |
| 24. | China Guodian | 76.2 | 54.90 | Yes | No | Public Utilities |
| 25. | China Three Gorges Project | 74.5 | 53.50 | Yes | No | Public Utilities |
| 26. | China Datang | 71.7 | 53.50 | Yes | No | Energy |
| 27. | Beijing State-owned Assets Operation & Management Center | 71.5 | 51.40 | Yes | No | Diversified Financial |
| 28. | Tianjin Infrastructure Investment Group | 69.1 | 50.10 | Yes | No | Capital Goods |
| 29. | Shananxi Coal and Chemical Industry Group | 68.0 | 46.50 | No | Yes | Energy |
| 30. | China Life | 68.0 | 46.00 | Yes | Yes | Insurance |
| **Total Top 30 LCY Corporate Issuers** | | **5,555.18** | **896.04** | | | |
| **Total LCY Corporate Bonds** | | **11,836.72** | **1,909.24** | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **46.9%** | **46.9%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

Corporate bond issuance was down in 1Q15. One reason is that banks and insurance companies completed most of their capital raising requirements in 2014 **(Figure 2)**. On the other hand, local corporate issuances remained strong in 1Q15.

A relatively small number of issuers dominate the PRC's corporate bond market **(Table 3)**. At the end of 1Q15, the top 30 corporate bond issuers accounted for CNY5.6 trillion worth of corporate bonds outstanding, or about 47% of the market. The 10 largest issuers accounted for CNY3.6 trillion worth of bonds outstanding.

State-owned companies—defined as majority-owned by the government—continued to dominate the corporate bond market in 1Q15. Among the top 30 corporate issuers at end-March, 20 were state-owned. The top 30 is currently dominated by banks, largely as a result of their capital raising efforts under the PRC's implementation of Basel III.

**Table 4** presents the most significant issuances of 1Q15. The largest of which came from issuance of subordinated debt.

## Investor Profile

**Treasury Bonds and Policy Bank Bonds.** Banks remained the largest category of investors in the PRC's Treasury bond market, which includes policy bank bonds, accounting for a slightly smaller share of the market at end-March (75.9%) than in the same period a year earlier (76.7%) **(Figure 3)**.

**Corporate Bonds.** Banks were also the largest holders of corporate bonds at the end of 1Q15, albeit with a comparatively smaller share than their holdings of Treasury bonds and policy bank bonds. Banks' share of corporate bonds fell to 26.6% at the end of 1Q15 from 30.2% a year earlier **(Figure 4)**. The second largest holders of corporate bonds were funds institutions, with a 23.3% share at end-March, down from a 22.8% share a year earlier.

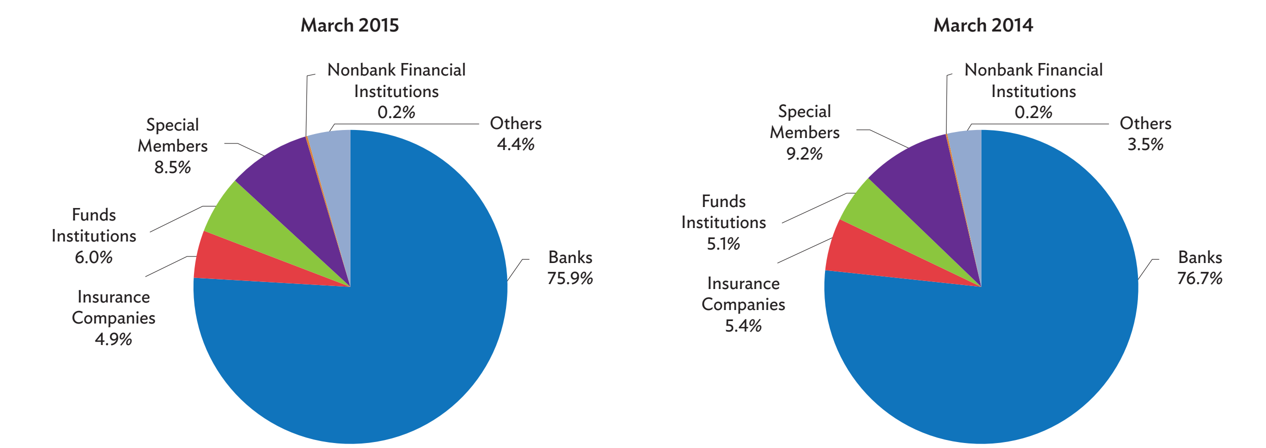
**Figure 5** presents investor profiles across corporate bond categories at end-March. Banks were the largest holders

**Table 4: Notable LCY Corporate Bond Issuance in 3Q14**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (CNY billion) |
|---|---|---|
| Industrial Bank | | |
| 3-year bond | 4.95 | 30 |
| China Railway | | |
| 5-year bond | 4.88 | 20 |
| State Grid Corporation of China | | |
| 3-year bond | 4.49 | 10 |
| Shenhua Group | | |
| 5-year bond | 4.88 | 9 |
| Hutai Securities | | |
| 2-year bond | 5.90 | 6 |
| ZTE Corporation | | |
| 5-year bond | 5.81 | 6 |

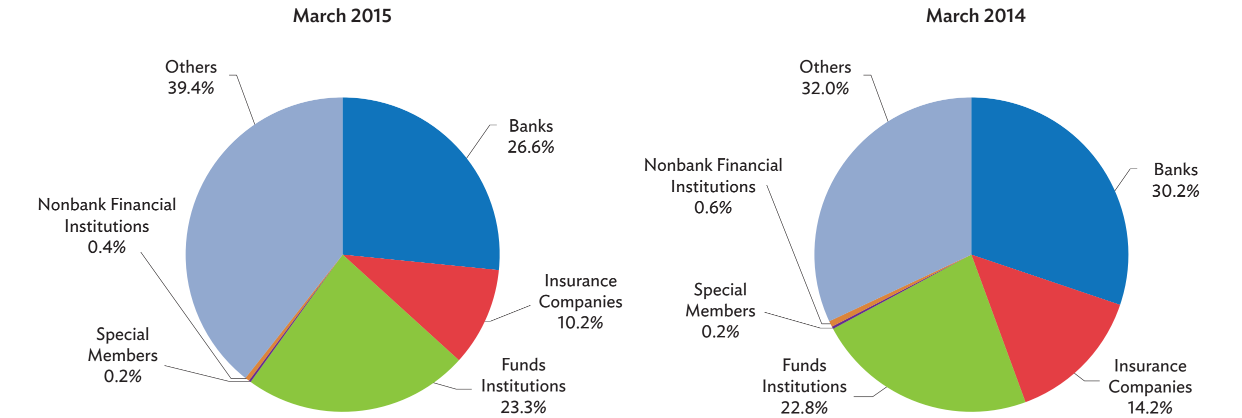
LCY = local currency.
Source: Bloomberg LP.

**Figure 3: LCY Treasury Bonds and Policy Bank Bonds Investor Profile**



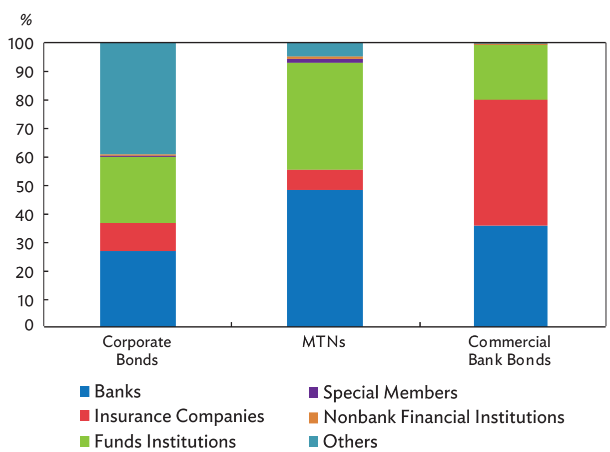

LCY = local currency.
Source: *ChinaBond*.

**Figure 4: LCY Corporate Bonds Investor Profile**




LCY = local currency.
Source: *ChinaBond*.

**Figure 5: Investor Profile across Bond Categories**




MTNs = medium-term notes.
Note: Data as of end-March 2015.
Source: *ChinaBond*.

**Table 5: Notional Values of the PRC's Interest Rate Swap Market in 1Q15**

| Interest Rate Swap Benchmarks | Notional Amount (CNY billion) | % of Total Notional Amount | Number of Transactions | Growth Rate (%) q-o-q |
|---|---|---|---|---|
| 7-Day Repo Rate | 1,525.5 | 91.8 | 16,523 | 29.4 |
| Overnight SHIBOR | 45.5 | 2.7 | 133 | (39.1) |
| 3-Month SHIBOR | 70.9 | 4.3 | 595 | (40.1) |
| 1-Year Term Deposit Rate | 13.9 | 0.8 | 132 | 252.1 |
| LIBOR | 0.0 | 0.0 | 0 | 0.0 |
| 1-Year Lending Rate | 5.1 | 0.3 | 2 | (49.8) |
| LPR1Y | 0.0 | 0.0 | 0 | 0.0 |
| 3-Year Lending Rate | 0.0 | 0.0 | 0 | 0.0 |
| 5-Year Lending Rate | 0.0 | 0.0 | 0 | 0.0 |
| **Total** | **1,660.9** | **100.0** | **17,385** | **19.8** |

( ) = negative, PRC = People's Republic of China, LIBOR = London Interbank Offered Rate, q-o-q = quarter-on-quarter, Repo = repurchase, SHIBOR = Shanghai Interbank Offered Rate.
Note: Growth rate computed based on notional amounts.
Sources: *AsianBondsOnline* and *ChinaMoney*.

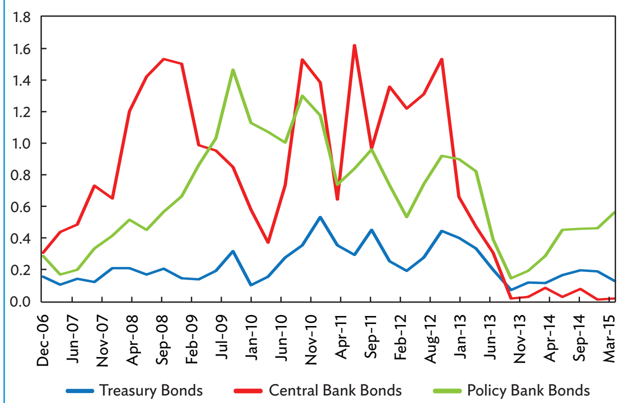
of medium-term notes with more than 50% of the total. Meanwhile, insurance companies were the largest holders of commercial bank bonds.

## Liquidity

As a result of the uncertainty surrounding the timing of US monetary policy decisions and slowing domestic economic growth, the use of interest rate swaps increased in 1Q15, with volume rising 19.8% q-o-q. The bulk of interest rate swaps involved the 7-day repo rate, accounting for nearly 92% of all volume traded **(Table 5)**.

**Figure 6** presents the turnover ratios for different categories of government bonds, which have seen a significant decline since 2013 owing to the tight liquidity conditions driven by the June 2013 SHIBOR shock and a crackdown on illegal bond trades. However, in 1Q15,

**Figure 6: Turnover Ratios for Government Bonds**




Source: *ChinaBond*.

trading activity in policy bank bonds increased while central bank bond trading continued to lag due to the lack of issuances.

## Policy, Institutional, and Regulatory Developments

### The PRC to Swap Local Government Debt

On 8 March, the Government of the PRC announced a CNY1 trillion quota for local governments to swap higher-yielding, maturing debt for municipal bonds, a plan that will cover roughly half of all high-yield debt maturing in 2015. The debt swap is targeted to be completed by the end of August. Issuance will be via private placement and the new bonds cannot be traded on the interbank or exchange bond markets. The bonds, however, can be used as collateral for the PBOC's repo transactions or its standing lending facilities.

### PBOC Reduces Reserve Requirement Ratios

On 20 April, the PBOC reduced the reserve requirement ratio for deposit-taking financial institutions by 100 bps. In addition, the reserve requirement ratio for rural financial institutions, including rural credit cooperatives, and village and town banks, was reduced by an additional 100 bps. The reserve requirement ratio of the Agricultural Development Bank of China was reduced by an additional 200 bps, while banks with a certain level of loans to the agricultural sector or small enterprises qualify for an additional 50 bps reduction.

### Asset Securitization Expanded

On 14 May, the State Council said that it would expand the current asset securitization pilot program by CNY500 billion in order to improve banks' liquidity. The government's plan is to use the funds generated by asset-backed security sales for housing renovation, water, and railway projects.

# Hong Kong, China

## Yield Movements

Hong Kong, China's yield movements from 2 March to 15 May closely tracked yield movements in the United States (US) **(Figure 1)**. The yield curve shifted upward at the short-end and long-end, while shifting downward in the belly of the curve.

For tenors of 6 months or less, yields rose between 0.2 basis point (bp) and 4 bps. Yields rose between 13 bps and 26 bps for tenors of 7 years or more. In the belly of the curve, the 2-year through the 5-year tenors fell 4 bps and 15 bps. The 2-year versus 10-year spread rose to 137 bps on 15 May from 105 bps on 2 March.

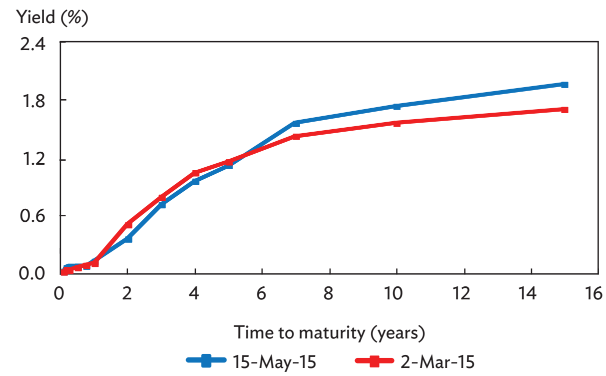
Hong Kong, China's yield curve movements closely follow those of the US due to Hong Kong, China's fixed exchange rate system. The US yield curve steepened recently following improved economic data in April and firmer oil prices.

Hong Kong, China's economy continued to slow in 1Q15, with gross domestic product (GDP) growth slowing to 2.1% year-on-year (y-o-y) from 2.4% y-o-y in 4Q14. Full-year 2014 GDP growth was 2.5%. While domestic demand remained stable in 1Q15, private consumption growth weakened to 3.5% y-o-y from 4.1% y-o-y in the previous quarter. The biggest drag came from weakening external demand amid slowing world economic growth. Exports of goods rose 0.4% y-o-y in 1Q15, down from 0.6% y-o-y in 4Q14, while exports of services fell 0.6% y-o-y in 1Q15, following a decline of 0.3% y-o-y in 4Q14. Inflation also remained subdued in 1Q15, with March inflation falling slightly to 4.5% y-o-y from 4.6% y-o-y in February. The average annual inflation rate in 1Q15 was 4.4% versus 5.0% in 4Q14.

## Size and Composition

The size of Hong Kong, China's local currency (LCY) bond market expanded 2.6% quarter-on-quarter (q-o-q) and 1.5% y-o-y to reach HKD1,545 billion (US$199 billion) at end-March **(Table 1)**. The higher rate of q-o-q versus y-o-y growth was mostly due to an increase in corporate bonds outstanding of 4.7% q-o-q.

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




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

Exchange Fund Notes outstanding declined while HKSAR bonds showed a dramatic increase, causing government bonds outstanding to rise 1.0% q-o-q and 1.4% y-o-y by end-March. Exchange Fund Notes fell 3.2% q-o-q and 2.3% y-o-y, while HKSAR bonds rose 8.2% q-o-q and 11.1% y-o-y.

The drop in Exchange Fund Notes and the rise in Hong Kong Special Administrative Region (HKSAR) bonds was due to recent regulatory measures taken by the Hong Kong Monetary Authority (HKMA) to align the yield curves of Exchange Fund securities and HKSAR bonds. The measures included replacing issuances of Exchange Fund Notes with tenors of 3 years or more with issuances of HKSAR bonds. In 1Q15, a total of HKD7.9 billion worth of HKSAR bonds were issued, up from HKD3.0 billion in 4Q14.

In 1Q15, the five largest nonbank issuances came from Hong Kong Mortgage Corporation (HKD2.3 billion), Bohai International (HKD2.0 billion), New World China Land (HKD0.8 billion), Swire Properties (HKD0.6 billion), Emperor International, and Eastern Creation (HKD0.3 billion each) **(Table 2)**.

Corporate bonds outstanding from the top 30 nonbank issuers in Hong Kong, China amounted to HKD126 billion at end-March, representing 18.3% of total outstanding

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | HKD | US$ | HKD | US$ | HKD | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **1,522** | **196** | **1,506** | **194** | **1,545** | **199** | **0.9** | **6.8** | **2.6** | **1.5** |
| Government | 846 | 109 | 849 | 109 | 857 | 111 | 0.5 | 8.5 | 1.0 | 1.4 |
| Exchange Fund Bills | 683 | 88 | 684 | 88 | 686 | 89 | 0.1 | 6.8 | 0.3 | 0.4 |
| Exchange Fund Notes | 68 | 9 | 69 | 9 | 67 | 9 | 0.0 | (0.9) | (3.2) | (2.3) |
| HKSAR Bonds | 94 | 12 | 97 | 12 | 104 | 13 | 4.4 | 33.3 | 8.2 | 11.1 |
| Corporate | 677 | 87 | 657 | 85 | 688 | 89 | 1.3 | 4.7 | 4.7 | 1.6 |

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

**Table 2: Notable LCY Corporate Bond Issuance in 1Q15**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (HKD billion) |
|---|---|---|
| The Hong Kong Mortgage Corporation | | |
| 30-year bond | 3.15 | 0.50 |
| 30-year bond | 3.00 | 0.50 |
| 3-year bond | 1.45 | 0.50 |
| 2-year bond | 0.80 | 0.38 |
| 2-year bond | 0.92 | 0.24 |
| 5-year bond | 1.60 | 0.20 |
| Bohai International Capital | | |
| 5-year bond | 6.15 | 2.00 |
| New Word China Land | | |
| 5-year bond | 5.00 | 0.80 |
| Swire Properties | | |
| 10-year bond | 2.80 | 0.20 |
| 10-year bond | 3.00 | 0.20 |
| 10-year bond | 2.90 | 0.20 |
| Emperor International Holdings | | |
| 5-year bond | 5.00 | 0.30 |
| Eastern Creation II Investment Holdings | | |
| 5-year bond | 2.80 | 0.30 |

LCY = local currency.
Source: Central Moneymarkets Unit (CMU) HKMA.

corporate bonds at end-March. The top 30 list of issuers was dominated by real estate firms **(Table 3)**. HKMC remained the top issuer in Hong Kong, China with outstanding bonds of HKD19.6 billion. Next was CLP Power Hong Kong Financing with HKD10.3 billion of bonds outstanding, followed by Sun Hung Kai Properties with HKD9.7 billion. Among the top 30, six were state-owned companies and 11 were Hong Kong Exchange-listed firms. Only one state-owned company, the MTR Corporation, is listed on the exchange.

## Policy, Institutional, and Regulatory Developments

### The PRC Issues Dimsum Bonds in Hong Kong, China

On 20 May, the People's Republic of China (PRC) successfully auctioned CNY12.0 billion worth of dimsum bonds in Hong Kong, China. The CNY 5.0 billion 3-year tranche was priced with a coupon of 2.8%, the CNY3.0 billion 5-year tranche carries a coupon of 3.0%, the CNY1.5 billion 7-year was priced at a coupon of 3.36%, the CNY1.5 billion 10-year tranche was priced at 3.39%, the CNY0.5 billion 15-year tranche was priced at 3.60%, and the CNY0.5 billion 30-year tranche was priced at 4.1%.

## Table 3: 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 (US$ billion) | | | |
| 1. | The Hong Kong Mortgage Corporation | 19.62 | 2.53 | Yes | No | Finance |
| 2. | CLP Power Hong Kong Financing | 10.30 | 1.33 | No | No | Electric |
| 3. | Sun Hung Kai Properties (Capital Market) | 9.71 | 1.25 | No | No | Real Estate |
| 4. | Wharf Finance | 7.22 | 0.93 | No | No | Diversified |
| 5. | The Link Finance (Cayman) 2009 | 6.79 | 0.88 | No | No | Finance |
| 6. | MTR Corporation (C.I.) | 6.25 | 0.81 | Yes | Yes | Transportation |
| 7. | HKCG (Finance) | 6.09 | 0.79 | No | No | Gas |
| 8. | Swire Pacific | 5.93 | 0.76 | No | Yes | Diversified |
| 9. | NWD (MTN) | 5.05 | 0.65 | No | Yes | Real Estate |
| 10. | Hongkong Electric Finance | 5.01 | 0.65 | No | No | Electric |
| 11. | Urban Renewal Authority | 4.60 | 0.59 | Yes | No | Real Estate |
| 12. | Cheung Kong Bond Finance | 4.12 | 0.53 | No | Yes | Real Estate |
| 13. | Wheelock Finance | 4.04 | 0.52 | No | No | Diversified |
| 14. | Kowloon-Canton Railway | 3.40 | 0.44 | Yes | No | Transportation |
| 15. | Yue Xiu Enterprises (Holdings) | 3.00 | 0.39 | No | No | Diversified |
| 16. | Airport Authority Hong Kong | 2.80 | 0.36 | Yes | No | Transportation |
| 17. | Yue Xiu Property | 2.30 | 0.30 | No | No | Real Estate |
| 18. | Bohai International | 2.00 | 0.26 | No | No | Diversified |
| 19. | China Energy Reserve and Chemicals Group Overseas | 2.00 | 0.26 | No | No | Oil |
| 20. | Swire Properties MTN Financing | 2.00 | 0.26 | No | No | Real Estate |
| 21. | Emperor International Holdings | 1.95 | 0.25 | No | Yes | Real Estate |
| 22. | Hysan (MTN) | 1.80 | 0.23 | No | Yes | Real Estate |
| 23. | Hong Kong Science and Technology Parks | 1.71 | 0.22 | Yes | No | Real Estate |
| 24. | Cathay Pacific MTN Financing | 1.70 | 0.22 | No | Yes | Airlines |
| 25. | Nan Fung Treasury | 1.31 | 0.17 | No | No | Real Estate |
| 26. | Tencent Holdings | 1.20 | 0.15 | No | Yes | Comunications |
| 27. | Henderson Land MTN | 1.19 | 0.15 | No | Yes | Finance |
| 28. | Dragon Drays | 1.00 | 0.13 | No | No | Diversified |
| 29. | K. Wah International | 1.00 | 0.13 | No | Yes | Real Estate |
| 30. | Citic Limited | 0.92 | 0.12 | No | Yes | Diversified |
| **Total Top 30 Nonbank LCY Corporate Issuers** | | **125.96** | **16.25** | | | |
| **Total LCY Corporate Bonds** | | **687.93** | **88.76** | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **18.3%** | **18.3%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

# Indonesia

## Yield Movements

Local currency (LCY) government bond yields in Indonesia rose for all tenors between 2 March and 15 May, resulting in an upward shift of the yield curve **(Figure 1)**. Yields gained between 90 basis points (bps) and 116 bps from the 2-year tenor through the long-end of the curve, while yield at the very short-end rose 75 bps. The yield spread between the 2-year and 10-year maturities narrowed to 30 bps from 37 bps in the period under review.

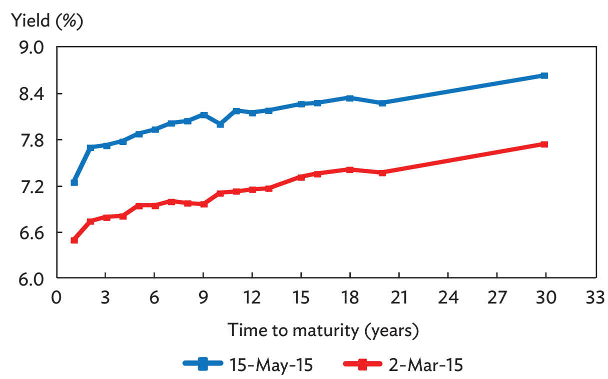
The overall rise in yields was reflective of concerns over the timing of a likely United States (US) Federal Reserve interest rate hike. In addition, rising yields at the short-end of the curve posit rising inflationary expectations as global oil prices have shown some recovery. Coupled with the government's removal of fuel subsidies at the beginning of the year, this is contributing to additional price pressures. There is also an upside risk to inflation as demand for goods normally picks up during the Muslim fasting month of Ramadan.

Consumer price inflation has thus far remained above Bank Indonesia's 2015 target range of 3.0%–5.0%. Inflation slowed to 7.0% year-on-year (y-o-y) in January and 6.3% y-o-y in February, before rising again to 6.4% y-o-y in March and 6.8% y-o-y in April. The uptick in April inflation was due mainly to increases in fuel costs and food prices.

With inflation remaining elevated above its target range, Bank Indonesia continued to maintain its tight monetary policy stance. The benchmark interest rate has been kept at 7.50% since February. Bank Indonesia's tight monetary bias also remains in place in order to reduce the current account deficit to a more sustainable level. To spur growth, Bank Indonesia said that it plans to loosen macroprudential measures by revising its policies for the loans-to-deposit and loan-to-value ratios for mortgage loans and down payments for automotive loans.

Foreign investor interest in Indonesia's LCY bond market has slightly weakened in March due to risk aversion following investor concerns that US will raise interest rates. Net foreign capital outflows were recorded in March, with the share of foreign holdings of Indonesian LCY bonds slipping to 38.6% from 40.3% at end-January.

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




LCY = local currency.
Source: Bloomberg LP.

Foreign holdings' share had further declined to 38.1% as of 15 May.

Meanwhile, gross domestic product (GDP) growth in Indonesia slipped to 4.7% y-o-y in 1Q15 from 5.0% y-o-y in 4Q14. GDP growth in 1Q15 was at its slowest since 2009, resulting from weak exports and falling crude oil prices, according to Statistics Indonesia. Growth in government spending also slowed to 2.2% y-o-y in 1Q15 from 2.8% y-o-y in 4Q14. On the other hand, private consumption, which accounts for about 56% of GDP, rose 5.0% in 1Q15 to match 4Q14's growth rate. Bank Indonesia is projecting economic growth to improve in 2Q15 as the government increases infrastructure spending to stimulate growth

## Size and Composition

The outstanding size of Indonesia's LCY bond market continued to climb at end-March, rising to IDR1,629.1 trillion (US$125 billion). Overall growth of the bond market remained strong at 6.5% quarter-on-quarter (q-o-q) and 16.5% y-o-y **(Table 1)**. Indonesia's LCY bond market was still largely dominated by conventional bonds, accounting for about 90% of total outstanding bonds at end-March. The remaining 10% were *sukuk* (Islamic bonds).

The outstanding stock of government bonds expanded to IDR1,401.6 trillion at end-March on growth of 7.2% q-o-q and 18.6% y-o-y. Growth came mainly from an increase in

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | IDR | US$ | IDR | US$ | IDR | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **1,398,996** | **123** | **1,529,810** | **123** | **1,629,143** | **125** | **6.8** | **21.1** | **6.5** | **16.5** |
| Government | 1,181,628 | 104 | 1,306,990 | 106 | 1,401,586 | 107 | 8.3 | 23.3 | 7.2 | 18.6 |
| Central Govt. Bonds | 1,072,741 | 94 | 1,209,961 | 98 | 1,305,486 | 100 | 7.8 | 24.5 | 7.9 | 21.7 |
| of which: *Sukuk* | 96,764 | 9 | 110,704 | 9 | 145,229 | 11 | 11.0 | 30.4 | 31.2 | 50.1 |
| Central Bank Bills | 108,887 | 10 | 97,029 | 8 | 96,100 | 7 | 13.3 | 12.4 | (1.0) | (11.7) |
| of which: *Sukuk* | 5,377 | 0.5 | 8,130 | 0.7 | 8,810 | 0.7 | 14.1 | 10.8 | 8.4 | 63.8 |
| Corporate | 217,369 | 19 | 222,820 | 18 | 227,557 | 17 | (0.4) | 10.7 | 2.1 | 4.7 |
| of which: *Sukuk* | 7,194 | 0.6 | 7,105 | 0.6 | 7,078 | 0.5 | (4.8) | (14.2) | (0.4) | (1.6) |

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from LCY base and do not include currency effects.
4. The total stock of nontradable bonds as of end-March stood at IDR263.1 trillion.
Sources: Bank Indonesia, Directorate General of Budget Financing and Risk Management Ministry of Finance, Indonesia Stock Exchange, Otoritas Jasa Keuangan, and Bloomberg LP.

the stock of central government bonds, which comprised Treasury instruments issued by the Ministry of Finance. On the other hand, the stock of central bank bills, which are known as *Sertifikat* Bank Indonesia (SBI), contracted in 1Q15.

**Central Government Bonds.** The outstanding size of central government bonds climbed 7.9% q-o-q and 21.7% y-o-y to reach IDR1,305.5 trillion. Growth was largely driven by increases in the stock of conventional fixed-rate bonds, and Islamic Treasury instruments, particularly Islamic Treasury bills, retail *sukuk*, and project-based *sukuk.*

The government raised a total of IDR114.1 trillion worth of Treasury bills and bonds in 1Q15. As in the past, the government has adopted a frontloading policy with regard to issuance, choosing to issue a larger volume of debt instruments in the first 6 months of the year. In 2015, the government's target is to complete about 60% of gross LCY bond issuance in the first half of the year. Also, the government plans to issue 79.9% in the form of conventional bonds and the remaining 20.1% as *sukuk.*

In 1Q15, new issuance by the central government was notably higher on both a q-o-q and y-o-y basis as the government conducted weekly auctions of Treasury instruments and issued retail *sukuk* through a bookbuilding process. Most of the treasury auctions during the quarter were fully subscribed or oversubscribed, including some *sukuk* auctions.

In March, the government issued the retail *sukuk* series SR-007, raising IDR21,965 billion from the bond sale. The retail *sukuk* carried a maturity of 3 years and a rate of return of 8.25%. SR-007 was issued following the *ijarah* principle, which refers to Islamic bonds backed by a lease agreement. The retail *sukuk* were only sold to individual investors and required a 1-month holding period before it can be traded.

**Central Bank Bills.** The stock of SBI fell to IDR96.1 trillion at end-March, down on both a q-o-q and y-o-y basis. Bank Indonesia issues SBI as one of its tools for liquidity management. New issuance of SBI and *shari'a*-compliant SBI with 9-month tenors amounted to IDR27.2 trillion in 1Q15, significantly lower from the earlier quarter and year ago levels. There were three auctions of SBI during the quarter, one per month, with issuance of both conventional and *shari'a*-compliant SBI.

**Corporate Bonds.** At end-March, the outstanding stock of LCY corporate bonds in Indonesia reached IDR227.6 trillion on growth of 2.1% q-o-q and 4.7% y-o-y. Most corporate bonds were conventional issues, with *sukuk* only accounting for about 3% of the total. Indonesia's corporate bond segment remains small, accounting for only about 14% of the aggregate bond stock.

At end-March, the top 30 LCY corporate bond issuers in Indonesia had a total outstanding bond stock of IDR171.3 trillion, or a 75.3% share of total LCY corporate bonds outstanding **(Table 2)**. Dominating the list were

## Table 2: Top 30 Issuers of LCY Corporate Bonds in Indonesia

| | Issuers | Outstanding Amount | | State-Owned | Listed Company | Type of Industry |
|---|---|---|---|---|---|---|
| | | LCY Bonds (IDR billion) | LCY Bonds (US$ billion) | | | |
| 1. | Indonesia Eximbank | 21,712 | 1.66 | Yes | No | Banking |
| 2. | PLN | 14,073 | 1.08 | Yes | No | Energy |
| 3. | Adira Dinamika Multifinance | 11,005 | 0.84 | No | Yes | Finance |
| 4. | Astra Sedaya Finance | 10,125 | 0.77 | No | No | Finance |
| 5. | Bank Internasional Indonesia | 8,360 | 0.64 | No | Yes | Banking |
| 6. | Indosat | 7,962 | 0.61 | No | Yes | Telecommunications |
| 7. | Bank Tabungan Negara | 7,950 | 0.61 | Yes | Yes | Banking |
| 8. | Bank CIMB Niaga | 7,750 | 0.59 | No | Yes | Banking |
| 9. | Bank Permata | 6,482 | 0.50 | No | Yes | Banking |
| 10. | Bank Pan Indonesia | 6,000 | 0.46 | No | Yes | Banking |
| 11. | Jasa Marga | 5,900 | 0.45 | Yes | Yes | Toll Roads |
| 12. | Perum Pegadaian | 5,419 | 0.41 | Yes | No | Finance |
| 13. | Bank OCBC NISP | 5,378 | 0.41 | No | Yes | Banking |
| 14. | Sarana Multigriya Finansial | 4,955 | 0.38 | Yes | No | Finance |
| 15. | Agung Podomoro Land | 4,575 | 0.35 | No | Yes | Property, Real Estate, and Building Construction |
| 16. | Bank Tabungan Pensiunan Nasional | 4,420 | 0.34 | No | Yes | Banking |
| 17. | Federal International Finance | 4,070 | 0.31 | No | No | Finance |
| 18. | Indofood Sukses Makmur | 4,000 | 0.31 | No | Yes | Food and Beverages |
| 19. | Bank Mandiri | 3,500 | 0.27 | Yes | Yes | Banking |
| 20. | Medco-Energi International | 3,500 | 0.27 | No | Yes | Petroleum and Natural Gas |
| 21. | Antam | 3,000 | 0.23 | Yes | Yes | Petroleum and Natural Gas |
| 22. | BCA Finance | 3,000 | 0.23 | No | No | Finance |
| 23. | Telekomunikasi Indonesia | 3,000 | 0.23 | Yes | Yes | Telecommunications |
| 24. | Bumi Serpong Damai | 2,750 | 0.21 | No | Yes | Property, Real Estate, and Building Construction |
| 25. | Indomobil Finance Indonesia | 2,608 | 0.20 | No | No | Finance |
| 26. | Toyota Astra Financial Services | 2,223 | 0.17 | No | No | Finance |
| 27. | Garuda Indonesia | 2,000 | 0.15 | Yes | Yes | Infrastructure, Utilities, and Transportation |
| 28. | Permodalan Nasional Madani | 2,000 | 0.15 | Yes | No | Finance |
| 29. | BII Finance | 1,824 | 0.14 | No | No | Finance |
| 30. | Bank Jabar Banten | 1,724 | 0.13 | No | Yes | Banking |
| **Total Top 30 LCY Corporate Issuers** | | **171,265** | **13.10** | | | |
| **Total LCY Corporate Bonds** | | **227,557** | **17.41** | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **75.3%** | **75.3%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

firms from the banking and finance sectors. Some of the largest bond issuers came from capital intensive industries such as energy (PLN) and telecommunications (Indosat), and a toll road operator (Jasa Marga).

In 1Q15, Indonesia Eximbank remained the top corporate bond issuer of LCY bonds as its outstanding bond stock climbed to IDR21.7 trillion. Indonesia Eximbank issued twice in 1Q15—once in January and once in March. State power firm PLN was the second largest issuer with outstanding LCY bonds valued at IDR14.1 trillion at end-March, while Adira Dinamika Multifinance was third with an outstanding bond stock of IDR11.0 trillion.

New corporate bond issuance fell to IDR12.3 trillion in 1Q15 from IDR17.4 trillion in 4Q14. A total of nine corporate firms raised capital from the bond market, mostly in the banking and financial sectors. There were 19 new corporate bond series issued in 1Q15, all of which were conventional. In terms of maturity, most of the new bonds issued carried a maturity of 1–3 years, six bond series had maturities of more than 3 years to 5 years, and one bond series had a 7-year tenor. The largest corporate bond issuances in 1Q15 are shown in **Table 3**.

**Foreign Currency Bonds.** Taking advantage of the low interest rate environment, the Indonesian government priced a total of US$4.0 billion worth of bonds in a dual-tranche sale in January. The issue comprised a US$2.0 billion 10-year bond carrying a coupon of 4.125% and a yield of 4.200%, and a US$2.0 billion 30-year bond with a coupon of 5.125% and a yield of 5.200%. The bonds were oversubscribed, with the combined order book reaching US$19.3 billion. Investors were based in Asia, Europe, and the US.

In May, the Indonesian government priced a US$2.0 billion *sukuk*, the largest US$-denominated *sukuk* sale by Indonesia to date. The bonds carried a maturity of 10 years and were priced at par to yield 4.325%. The bonds were issued following the *wakala* principle (Islamic bonds backed by an agency agreement). The bond sale was oversubscribed, with the order book exceeding US$6.8 billion

Based on the revised 2015 budget, the maximum limit for the government's international bond issuance is set at 22.6% of total gross issuance. The government plans to issue in all G3 currencies: euros, Japanese yen, and

**Table 3: Notable LCY Corporate Bond Issuance in 1Q15**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (IDR billion) |
|---|---|---|
| Indonesia Eximbank | | |
| 370-day bond | 8.25 | 575 |
| 3-year bond | 9.00 | 1,298 |
| 3-year bond | 9.25 | 800 |
| 5-year bond | 7.25 | 700 |
| 5-year bond | 9.50 | 2,727 |
| OCBC NISP | | |
| 370-day bond | 9.00 | 1,095 |
| 2-year bond | 9.40 | 670 |
| 3-year bond | 9.80 | 1,235 |
| BCA Finance | | |
| 370-day bond | 8.25 | 438 |
| 2-year bond | 8.50 | 140 |
| 3-year bond | 9.00 | 422 |
| BFI Finance | | |
| 370-day bond | 9.88 | 345 |
| 2-year bond | 10.50 | 105 |
| 3-year bond | 10.88 | 550 |

LCY = local currency.
Source: Indonesia Stock Exchange.

US dollars. The government issues foreign currency bonds to complement its domestic issuance and to provide a benchmark for corporate debt.

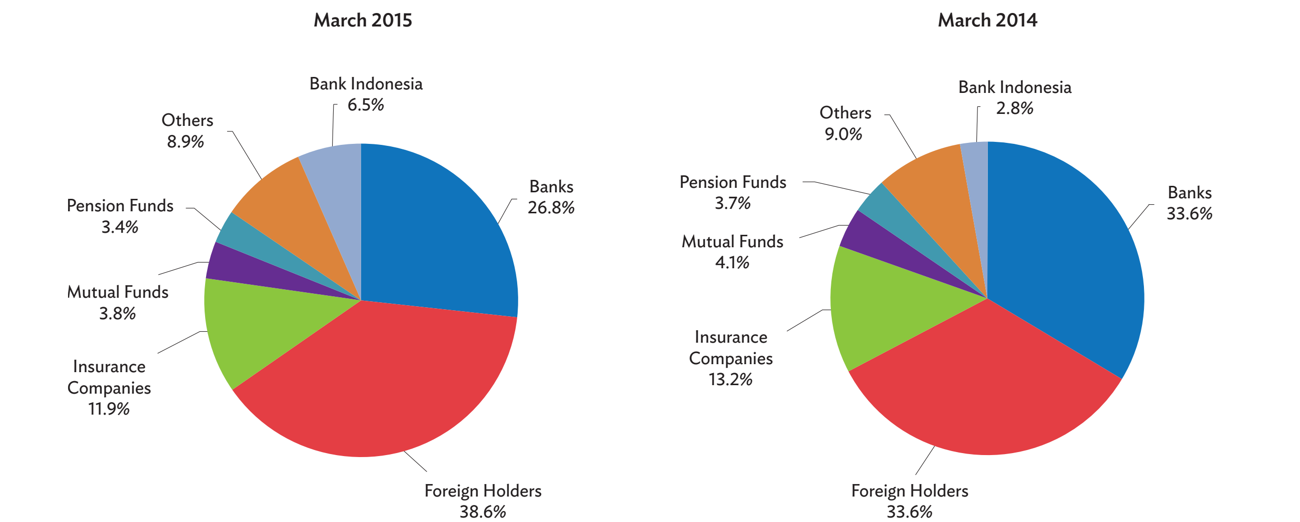
## Investor Profiles

**Central Government Bonds.** Foreign investors were still the largest investor group in Indonesia's LCY government bond market at end-March. Foreign investor holdings rose to a share of 38.6% of total LCY central government bonds at end-March from a share of 33.6% a year earlier **(Figure 2)**. In absolute terms, outstanding bonds held by foreign investors soared to IDR504.1 trillion at end-March from IDR360.9 trillion in the same period a year earlier. Foreign investors continue to chase the higher yields of Indonesian LCY government bonds, compared with other emerging East Asian markets.

Foreign investors were mostly attracted to long-term maturities, with about 44% of their bonds held in maturities of more than 10 years at end-March. Foreign holdings of more than 5 years to 10 years comprised a share of about 35% in 1Q15 **(Figure 3)**.

In 1Q15, banking institutions were the second largest investor group in the central government bond market with a share of 26.8% at end-March, which was down

**Figure 2: LCY Central Government Bonds Investor Profile**




LCY = local currency.
Source: Directorate General of Budget Financing and Risk Management Ministry of Finance.

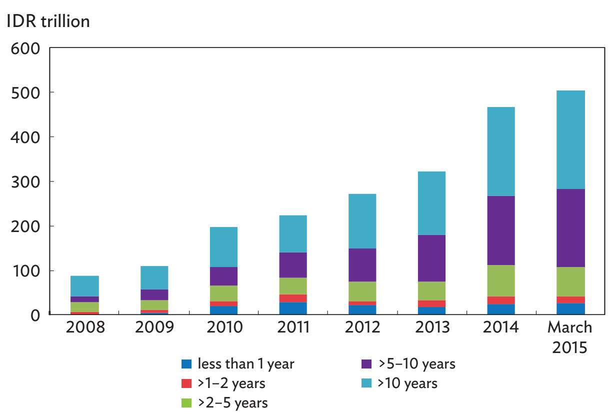
from 33.6% a year earlier. All other domestic investors posted y-o-y declines in their share of government bond holdings at end-March. The only exception was Bank Indonesia whose holdings of central government bonds rose to a share of 6.5% in 1Q15 at end-March from 2.8% a year earlier.

**Central Bank Bills.** Central bank bills, or SBI, are held almost exclusively by banking institutions **(Figure 4).** At end-March, bank holdings of SBI rose to a share of 99.8% of the total from 93.8% a year earlier. The remaining share of SBI holdings was accounted for by foreign nonbank investors.

## Ratings Update

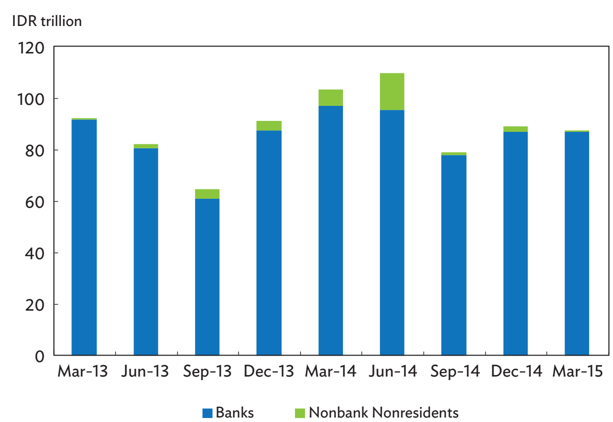
In March, Ratings and Investments (R&I) affirmed Indonesia's sovereign credit ratings at BBB– with a stable outlook. R&I cited the following factors to support its ratings decision: (i) Indonesia's expanded fiscal space,

**Figure 3: Foreign Holdings of LCY Central Government Bonds by Maturity**




LCY = local currency.
Source: Directorate General of Budget Financing and Risk Management Ministry of Finance.

**Figure 4: LCY Central Bank Bills Investor Profile**




LCY = local currency.
Source: Bank Indonesia.

(ii) the government's commitment to implementing structural reforms, and (iii) fading concerns over foreign currency liquidity.

On 21 May, Standard and Poor's (S&P) affirmed Indonesia's BB+ sovereign credit rating and revised the outlook to positive, indicating a possible rating upgrade in the next 12 months. In making its ratings decision, S&P cited "improvements in Indonesia's policy framework which have enhanced monetary and financial sector management."

## Policy, Institutional, and Regulatory Developments

### Government Approves 2015 Revised State Budget

In February, the House of Representatives approved a revised 2015 state budget that reduced the deficit to the equivalent of 1.9% of GDP from the 2.2% of GDP estimated in the original budget. The revised state budget calls for spending of IDR1,984.1 trillion versus revenue of IDR1,761.6 trillion. To help finance the deficit, the legislative assembly authorized the Ministry of Finance to issue bonds worth IDR297.7 trillion, compared with IDR277.0 trillion in the original budget. The underlying macroeconomic assumptions for the revised 2015 state budget include: (i) annual GDP growth of 5.7%, (ii) annual inflation of 5.0%, (iii) an exchange rate of IDR12,500–US$1, (iv) a 3-month Treasury bill rate of 6.2%, and (v) an Indonesian crude oil price of US$60 per barrel.

### Bank Indonesia Refines Framework for Determining JIBOR

In March, Bank Indonesia issued new regulation for determining the Jakarta Interbank Offered Rate (JIBOR). The regulation allows contributor banks—those that submit an indicative rate for short-term maturities (1 year and less)—to lend the rupiah at the indicative rate submitted by the bank while fulfilling certain time limits. This new regulation is seen to boost JIBOR as a credible market reference rate for short-term maturities.

# Republic of Korea

## Yield Movements

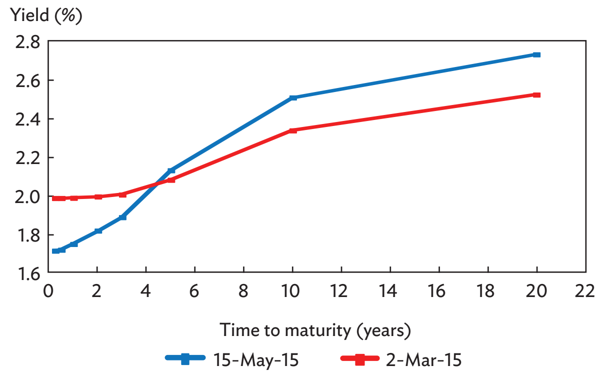
The Republic of Korea's yield curve for local currency (LCY) government bonds steepened between 2-March and 15-May as yields fell at the shorter-end of the curve and rose at the longer-end of the curve **(Figure 1)**. The drop in short-term yields was partly induced by low inflationary pressures and market expectations of a policy rate cut. Meanwhile, the increase in long-term yields was partly induced by global yield hikes. Over the same period, the yield spread between the 2-year and 10-year tenors widened 35 basis points (bps).

The Bank of Korea's Monetary Policy Committee lowered the base rate by 25 bps from 2.00% to 1.75% in March, after keeping it steady in both January and February, in order to support recovery in domestic growth. In its subsequent meetings held on 9 April and 15 May, the committee decided to maintain the policy interest rate at 1.75%.

Real gross domestic product (GDP) growth in the Republic of Korea was 0.8% quarter-on-quarter (q-o-q) and 2.5% year-on-year (y-o-y) in 1Q15, according to preliminary estimates of The Bank of Korea. Q-o-q growth in 1Q15 was up from the previous quarter's 0.3%, while y-o-y growth was down from 2.7% in the previous quarter.

Consumer price inflation moderated throughout 1Q15 as the inflation rate slid from 0.8% y-o-y in January to 0.5% y-o-y in February and further down to 0.4% y-o-y in March, according to Statistics Korea. In April, the y-o-y inflation rate remained at 0.4%. On a month-on-month (m-o-m) basis, the Consumer Price Index (CPI) rose 0.5% in January, remained unchanged in February and March, and inched up 0.1% in April.

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




LCY = local currency.
Source: Bloomberg LP.

The Bank of Korea reported in April that it had revised downward its GDP growth outlook for 2015 to 3.1% from its previous forecast of 3.4% made in January, and cut its 2015 inflation forecast to 0.9% from 1.9%.

## Size and Composition

The LCY bond market in the Republic of Korea recorded growth rates of 2.3% q-o-q and 8.3% y-o-y in 1Q15, leveling off at KRW1,900.2 trillion (US$1.7 trillion) at end-March **(Table 1)**. This expansion was led by 3.2% q-o-q and 16.7% y-o-y growth in the stock of LCY

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | KRW | US$ | KRW | US$ | KRW | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **1,754,188** | **1,648** | **1,857,739** | **1,703** | **1,900,194** | **1,712** | **1.8** | **8.6** | **2.3** | **8.3** |
| Government | 676,491 | 635 | 765,008 | 701 | 789,741 | 712 | 2.9 | 8.6 | 3.2 | 16.7 |
| Central Bank Bonds | 170,800 | 160 | 178,000 | 163 | 184,940 | 167 | 4.4 | 1.8 | 3.9 | 8.3 |
| Central Government Bonds | 466,463 | 438 | 495,016 | 454 | 513,685 | 463 | 2.3 | 9.3 | 3.8 | 10.1 |
| Industrial Finance Debentures | 39,227 | 37 | 91,992 | 84 | 91,116 | 82 | 3.8 | 39.5 | (1.0) | 132.3 |
| Corporate | 1,077,697 | 1,012 | 1,092,731 | 1,002 | 1,110,453 | 1,001 | 1.2 | 8.6 | 1.6 | 3.0 |

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

government bonds—including Monetary Stabilization Bonds (MSBs) issued by The Bank of Korea and central government bonds, largely consisting of Korea Treasury Bonds (KTBs). Issuance of LCY government bonds during 1Q15 was up 18.0% q-o-q and 14.9% y-o-y.

The LCY corporate bond market also exhibited positive growth in 1Q15 of 1.6% q-o-q and 3.0% y-o-y, stemming from increases in the existing stock of financial debentures and private corporate bonds. The top 30 LCY corporate bond issuers at end-March had combined bonds outstanding of KRW696.8 trillion, which was 62.8% of total LCY corporate bonds outstanding **(Table 2)**. Korea Housing Finance Corporation remained the largest LCY corporate bond issuer at end-March.

**Table 2: Top 30 Issuers of LCY Corporate Bonds in the Republic of Korea**

| | Issuers | Outstanding Amount | | State-Owned | Listed on | | Type of Industry |
|---|---|---|---|---|---|---|---|
| | | LCY Bonds (KRW billion) | LCY Bonds (US$ billion) | | KOSPI | KOSDAQ | |
| 1. | Korea Housing Finance Corp. | 59,282 | 53.4 | Yes | No | No | Financial |
| 2. | Korea Land & Housing Corp. | 55,651 | 50.1 | Yes | No | No | Real Estate |
| 3. | NH Investment & Securities | 49,308 | 44.4 | Yes | Yes | Yes | Securities |
| 4. | KDB Daewoo Securities | 46,872 | 42.2 | Yes | Yes | No | Securities |
| 5. | Korea Investment and Securities | 44,103 | 39.7 | No | No | No | Securities |
| 6. | Korea Deposit Insurance Corp. | 37,630 | 33.9 | Yes | No | No | Insurance |
| 7. | Industrial Bank of Korea | 35,100 | 31.6 | Yes | Yes | No | Bank |
| 8. | Mirae Asset Securities | 32,084 | 28.9 | No | Yes | No | Securities |
| 9. | Hana Daetoo Securities | 31,368 | 28.3 | No | No | No | Securities |
| 10. | Korea Electric Power Corp. | 28,230 | 25.4 | Yes | Yes | No | Utilities |
| 11. | Korea Expressway | 21,500 | 19.4 | Yes | No | No | Infrastructure |
| 12. | Hyundai Securities | 20,921 | 18.9 | No | Yes | No | Securities |
| 13. | Kookmin Bank | 18,140 | 16.3 | No | No | No | Bank |
| 14. | Woori Bank | 18,082 | 16.3 | Yes | No | No | Bank |
| 15. | Korea Rail Network Authority | 17,800 | 16.0 | Yes | No | No | Infrastructure |
| 16. | Shinhan Bank | 16,093 | 14.5 | No | No | No | Bank |
| 17. | Korea Gas Corp. | 15,954 | 14.4 | Yes | Yes | No | Utilities |
| 18. | Small & Medium Business Corp. | 14,895 | 13.4 | Yes | No | No | Financial |
| 19. | Daishin Securities | 13,977 | 12.6 | No | Yes | No | Securities |
| 20. | Samsung Securities | 13,708 | 12.4 | No | Yes | No | Securities |
| 21. | Shinhan Investment Corp. | 12,817 | 11.6 | No | No | No | Securities |
| 22. | Standard Chartered First Bank Korea | 11,880 | 10.7 | No | No | No | Bank |
| 23. | Korea Railroad Corp. | 11,260 | 10.1 | Yes | No | No | Infrastructure |
| 24. | Korea Student Aid Foundation | 10,940 | 9.9 | Yes | No | No | Financial |
| 25. | Korea Water Resources Corp. | 10,628 | 9.6 | Yes | Yes | No | Utilities |
| 26. | Hana Bank | 10,230 | 9.2 | No | No | No | Bank |
| 27. | Korea Eximbank | 10,020 | 9.0 | Yes | No | No | Bank |
| 28. | Shinhan Card | 9,750 | 8.8 | No | No | No | Financial |
| 29. | Shinyoung Securities | 9,358 | 8.4 | No | Yes | Yes | Securities |
| 30. | Hyundai Capital Services | 9,263 | 8.3 | No | No | No | Financial |
| **Total Top 30 LCY Corporate Issuers** | | **696,843.7** | **628.0** | | | | |
| **Total LCY Corporate Bonds** | | **1,110,453.0** | **1,000.7** | | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **62.8%** | **62.8%** | | | | |

KOSDAQ = Korean Securities Dealers Automated Quotations, KOSPI = Korea Composite Stock Price Index, LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

LCY corporate bond issuance was down 13.8% q-o-q in 1Q15 but up 13.6% y-o-y. Of the five largest LCY corporate bond issues in 1Q15, four were from banks and one from an industrial firm **(Table 3)**.

**Table 3: Notable LCY Corporate Bond Issuance in 1Q15**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (KRW billion) |
|---|---|---|
| Woori Bank | | |
| 1-year bond | 1.75 | 430 |
| 2-year bond | 2.09 | 550 |
| Industrial Bank of Korea | | |
| 0.8-year bond | 1.74 | 520 |
| NongHyup Bank | | |
| 10-year bond | 2.77 | 500 |
| Samsung Heavy Industries | | |
| 3-year bond | 2.51 | 500 |

LCY = local currency.
Note: Coupon rates for 1-year bond of Woori Bank and 0.8-year bond of Industrial Bank of Korea are indicative yields as of end-March 2015.
Source: Bloomberg LP.

## Investor Profile

The largest investor group in the LCY government bond market of the Republic of Korea is insurance companies and pension funds, as they held 31.3% of the total amount of LCY government bonds at end-December **(Figure 2)**. They were followed by the general government, which held 19.3% of the total. Between end-2013 and end-2014, the share of insurance companies and pension funds climbed by 1.3 percentage points, while the share of the general government fell by 1.5 percentage points.

Insurance companies and pension funds also comprised the largest investor group in the LCY corporate bond market, with a 34.8% share at end-December **(Figure 3)**. Insurance companies and pension funds recorded the largest y-o-y increase in LCY corporate bond holdings, with a share that rose by 2.8 percentage points between end-2013 and end-2014. In contrast, the holdings share of banks fell the most on a y-o-y basis, decreasing by 1.8 percentage points to reach 10.9% at end-December.

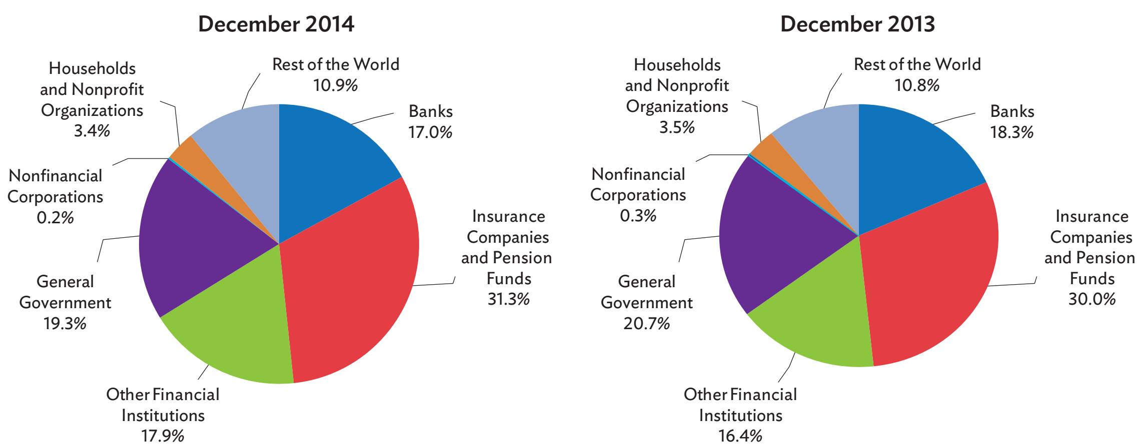
Net foreign investment in the Republic of Korea's LCY bond market rose throughout 1Q15—reaching KRW1,370 billion in March from KRW642 billion in February and KRW55 billion in January—but fell to KRW143 billion in April, based on Financial Supervisory Service data **(Figure 4)**. On a quarterly basis, net foreign bond investment climbed to KRW2,067 billion in 1Q15 from KRW1,669 billion in 4Q14.

## Policy, Institutional, and Regulatory Developments

### FSC Introduces Financial Market Infrastructure Guidelines

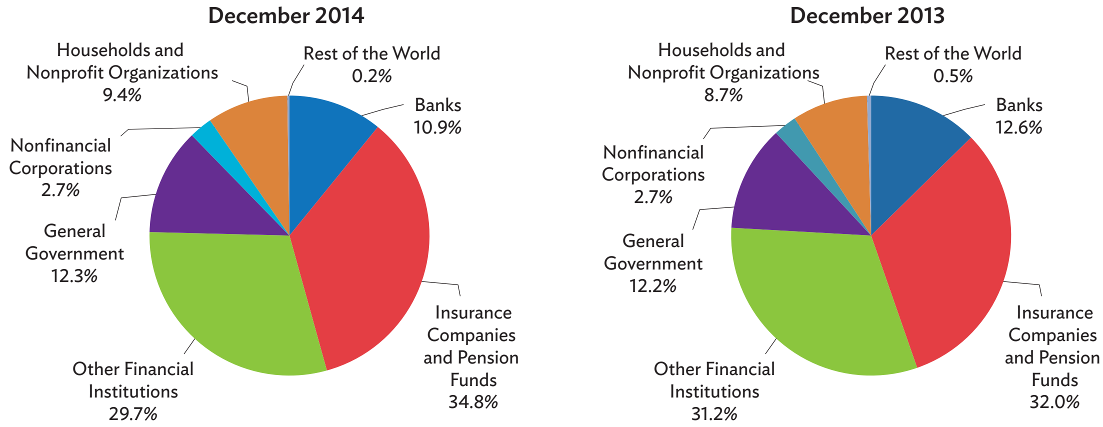
The FSC introduced in March its Business Guideline for Financial Market Infrastructures, aiming to implement

**Figure 2: LCY Government Bonds Investor Profile**



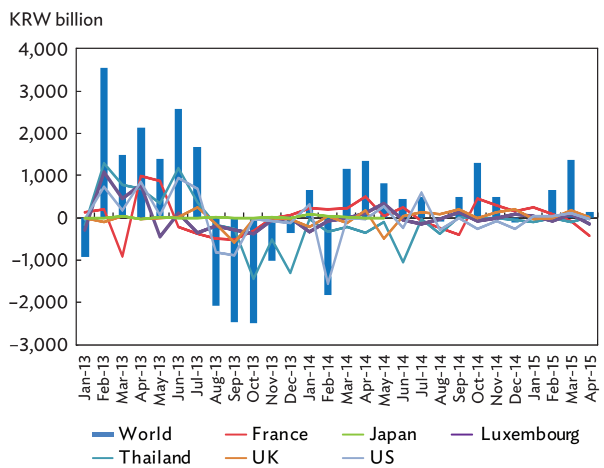

LCY = local currency.
Sources: *AsianBondsOnline* and The Bank of Korea.

**Figure 3: LCY Corporate Bonds Investor Profile**




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

**Figure 4: Net Foreign Investment in LCY Bonds in the Republic of Korea**




LCY = local currency, UK = United Kingdom, US = United States.
Source: Financial Supervisory Service.

business standards for the Korea Exchange and Korea Securities Depository that are consistent with the Principles for Financial Market Infrastructures launched in April 2012 by the Bank for International Settlements' (BIS) Committee on Payment and Settlement Systems and the International Organization of Securities Commissions (IOSCO).

## FSC Announces Capital Market Reforms

The Republic of Korea's Financial Services Commission (FSC) announced in April a series of policy directions and tasks for reforming the country's capital markets. The tasks include promoting the country's private bond market, which would support the FSC's policy directive of boosting investments in start-up and venture capital companies, as well as invigorating the country's derivatives market.

# Malaysia

## Yield Movements

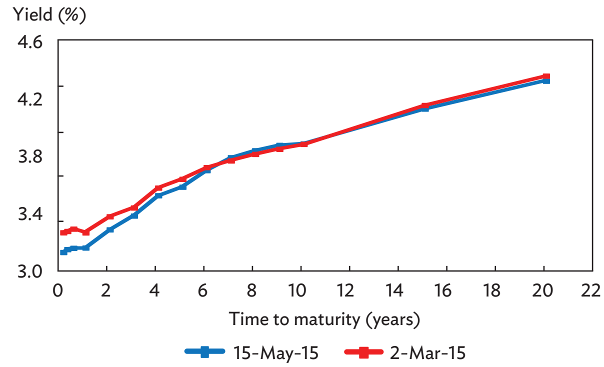
Between 2 March and 15 May, Malaysian local currency (LCY) government bond yields fell for most tenors, particularly at the short-end of the curve, as the market expected the Bank Negara Malaysia (BNM) to maintain the overnight policy rate due to manageable inflation **(Figure 1)**. Yields for tenors between 1 month and 1 year fell between 10 basis points (bps) and 14 bps. Meanwhile yields for the rest of the tenors were broadly unchanged. Yields for bonds with tenors of between 2 years and 6 years fell 2 bps–9 bps; yields for tenors between 7 years and 9 years increased 2 bps–3 bps; and the 15-year and 20-year tenors fell 2 bps and 3 bps, respectively.

BNM decided to maintain its overnight policy rate at 3.25% at monetary policy meetings on both 5 March and 7 May. BNM stated that domestic demand continues to support the economy. Notwithstanding the possible dampening effects of the implementation of the Goods and Services Tax (GST) on 1 April 2015, private consumption is expected to be buttressed by rising income and employment. Meanwhile, inflation is expected to increase, though remain manageable, with implementation of the GST.

Inflation eased in the first 4 months of the year to 1.8% year-on-year (y-o-y) in April from 2.7% y-o-y in December. While risks to inflation remain with implementation of the GST, the effects of low global oil prices are expected to outweigh these upward pressures.

Meanwhile, Malaysia's gross domestic product (GDP) growth slowed to 5.6% y-o-y in 1Q15 from 5.7% y-o-y in 4Q14, mainly due to a 0.6% y-o-y decline in exports. By type of expenditure, growth in private final consumption accelerated to 8.8% y-o-y in 1Q15 from 7.6% y-o-y in 4Q14; gross fixed capital formation growth also rose to 7.9% y-o-y from 4.3% y-o-y. By type of industry, the y-o-y growth in the services sector eased to 6.4% from 6.6%. On the other hand, mining and quarrying sector posted strong growth at 9.6% y-o-y from 9.5% in the earlier quarter. Also, growth in the manufacturing sector rose to 5.6% y-o-y in 1Q15 from 5.4% y-o-y growth posted in the prior quarter.

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




LCY = local currency.
Source: Bloomberg LP.

## Size and Composition

Total LCY bonds outstanding in Malaysia decreased 2.7% quarter-on-quarter (q-o-q) to MYR1,073 billion (US$290 billion) at end-March, led by the government bond sector, particularly central bank bills **(Table 1)**. On a y-o-y basis, however, the LCY bond market grew 2.1% in 1Q15. Government bonds outstanding totaled MYR612 billion (US$165 billion), while corporate bonds summed to MYR461 billion (US$125 billion). *Sukuk* (Islamic bonds) continued to comprise the majority of the LCY bond market with a share of 53% of total bonds outstanding at end-March.

**Government Bonds.** LCY government bonds outstanding decreased 5.4% q-o-q and 0.3% y-o-y to close at MYR612 billion at end-March. Central government bonds—comprising Malaysian Government Securities (MGSs), Government Investment Issues (GIIs), and Treasury bills—increased 2.2% q-o-q to MYR531 billion. Outstanding BNM monetary notes, on the other hand, contracted 46.8% q-o-q to MYR57 billion as there was no issuance in 1Q15.

Total government bond issuance declined 65.6% q-o-q in 1Q15 to MYR31 billion, primarily due to the lack of issuance of BNM monetary notes. The central bank ceased the

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | MYR | US$ | MYR | US$ | MYR | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **1,051** | **322** | **1,103** | **316** | **1,073** | **290** | **2.8** | **5.5** | **(2.7)** | **2.1** |
| Government | 614 | 188 | 647 | 185 | 612 | 165 | 2.7 | 4.2 | (5.4) | (0.3) |
| Central Government Bonds | 502 | 154 | 519 | 149 | 531 | 143 | 4.1 | 12.5 | 2.2 | 5.7 |
| of which: *sukuk* | 180 | 55 | 188 | 54 | 195 | 53 | 3.2 | 20.4 | 4.0 | 8.3 |
| Central Bank Bills | 99 | 30 | 107 | 31 | 57 | 15 | (7.4) | (27.5) | (46.8) | (42.3) |
| of which: *sukuk* | 41 | 12 | 43 | 12 | 19 | 5 | 1.8 | (29.9) | (54.4) | (52.1) |
| *Sukuk Perumahan Kerajaan* | 13 | 4 | 20 | 6 | 24 | 7 | 44.9 | 108.1 | 19.6 | 89.1 |
| Corporate | 438 | 134 | 457 | 131 | 461 | 125 | 3.0 | 7.5 | 1.0 | 5.4 |
| of which: *sukuk* | 298 | 91 | 323 | 92 | 328 | 89 | 4.2 | 9.3 | 1.6 | 10.4 |

( ) = negative, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–US$ rate is used.
3. Growth rates are calculated from LCY base and do not include currency effects.
Sources: Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST) and Bloomberg LP.

issuance of BNM monetary notes—a tool used to mop up excess liquidity in the money supply—amid easing inflation. Meanwhile, the issuance of central government bonds rose 21.1% q-o-q to MYR27 billion.

**Corporate Bonds.** LCY corporate bonds increased 1.0% q-o-q, bringing total outstanding bonds to MYR461 billion at end-March. The share of corporate sukuk to total corporate bonds outstanding inched up to 71.2% at end-March from 70.8% at end-December.

Corporate bond issuance declined 34.7% q-o-q to MYR19 billion in 1Q15 (on a total of 64 new issues) from MYR28 billion in the previous quarter. **Table 2** lists notable corporate bonds issued in 1Q15.

The largest corporate issuers in 1Q15 were from the transportation and financial sectors, led by Prasarana, Danga Capital, and AM Bank. Prasarana issued a multi-tranche Islamic MTN comprising a MYR700 million 5-year tranche, MYR200 million 10-year tranche, and MYR1.1 billion 15-year tranche. The notes carried 4.02%, 4.38%, and 4.64% profit rates, respectively. The issue was guaranteed by the Government of Malaysia. Danga Capital issued MYR1.5 billion worth of 15-year *sukuk* with a profit rate of 4.88%. The bond was rated AAA with a stable outlook by RAM Ratings. AM Bank issued MYR800 million worth of 3-year and MYR600 million of 4-year medium-term notes with coupon rates of 4.25% and 4.30%, respectively. The issuance was rated AA2 with a stable outlook by RAM Ratings.

**Table 2: Notable LCY Corporate Bond Issuance in 1Q15**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (MYR million) |
|---|---|---|
| Prasarana | | |
| 5-year Islamic MTN | 4.02 | 700 |
| 10-year Islamic MTN | 4.38 | 200 |
| 15-year Islamic MTN | 4.64 | 1,100 |
| Danga Capital | | |
| 15-year Islamic MTN | 4.88 | 1,500 |
| AM Bank | | |
| 3-year MTN | 4.25 | 800 |
| 4-year MTN | 4.30 | 600 |
| AISL | | |
| 2.5-year *Sukuk* | 4.25 | 300 |
| 5-year *Sukuk* | 4.45 | 900 |
| HBMS | | |
| 5-year Islamic MTN | 4.24 | 750 |
| Cagamas | | |
| 3-year MTN | 3.95 | 440 |

LCY = local currency, MTN = medium-term note.
Source: Bank Negara Malaysia Bond Info Hub.

**Table 3** provides a breakdown of the top 30 LCY corporate bond issuers in Malaysia, whose total LCY bonds outstanding stood at MYR252.6 billion at end-March, representing 54.8% of the LCY corporate bond market. Banking and financial institutions comprised 16 of the 30 largest corporate bond issuers, with bonds outstanding worth MYR138.44 billion. Highway operator Project Lebuhraya Usahasama remained the largest issuer with outstanding bonds valued at MYR30.6 billion.

**Foreign Currency Bonds.** In April, the Government of Malaysia issued US$1.5 billion worth of dual-tranche US dollar *sukuk* via a special purpose vehicle, Malaysia Sovereign *Sukuk*. The issue comprised a US$1 billion 10-year tranche and a US$500 million 30-year tranche. The 10-year and

**Table 3: Top 30 Issuers of LCY Corporate Bonds in Malaysia**

| | Issuers | Outstanding Amount | | State-Owned | Listed Company | Type of Industry |
|---|---|---|---|---|---|---|
| | | LCY Bonds (MYR billion) | LCY Bonds (US$ billion) | | | |
| 1. | Project Lebuhraya Usahasama | 30.60 | 8.26 | No | No | Transport, Storage, and Communications |
| 2. | Cagamas | 23.04 | 6.22 | Yes | No | Finance |
| 3. | Khazanah | 20.00 | 5.40 | Yes | No | Finance |
| 4. | Prasarana | 15.91 | 4.30 | Yes | No | Transport, Storage, and Communications |
| 5. | Danainfra Nasional | 14.10 | 3.81 | Yes | No | Finance |
| 6. | Pengurusan Air | 11.73 | 3.17 | Yes | No | Energy, Gas, and Water |
| 7. | Maybank | 11.36 | 3.07 | No | Yes | Banking |
| 8. | Perbadanan Tabung Pendidikan Tinggi Nasional | 11.00 | 2.97 | Yes | No | Finance |
| 9. | CIMB Bank | 8.05 | 2.17 | No | No | Banking |
| 10. | Public Bank | 7.55 | 2.04 | No | Yes | Banking |
| 11. | Sarawak Energy | 7.00 | 1.89 | Yes | No | Energy, Gas, and Water |
| 12. | Aman Sukuk | 6.26 | 1.69 | Yes | No | Construction |
| 13. | BGSM Management | 6.02 | 1.63 | No | No | Transport, Storage, and Communications |
| 14. | Bank Pembangunan | 5.90 | 1.59 | No | No | Banking |
| 15. | RHB Bank | 5.60 | 1.51 | No | No | Banking |
| 16. | Turus Pesawat | 5.31 | 1.43 | Yes | No | Transport, Storage, and Communications |
| 17. | Cagamas MBS | 5.04 | 1.36 | Yes | No | Finance |
| 18. | 1Malaysia Development | 5.00 | 1.35 | Yes | No | Finance |
| 19. | Celcom Transmission | 5.00 | 1.35 | No | No | Transport, Storage, and Communications |
| 20. | Malakoff Power | 4.88 | 1.32 | No | No | Energy, Gas, and Water |
| 21. | Manjung Island Energy | 4.85 | 1.31 | No | No | Energy, Gas, and Water |
| 22. | Rantau Abang | 4.80 | 1.30 | Yes | No | Finance |
| 23. | YTL Power International | 4.77 | 1.29 | No | Yes | Energy, Gas, and Water |
| 24. | Hong Leong Bank | 4.70 | 1.27 | No | Yes | Banking |
| 25. | AM Bank | 4.55 | 1.23 | No | No | Banking |
| 26. | Putrajaya Holdings | 4.13 | 1.11 | Yes | No | Property and Real Estate |
| 27. | Tanjung Bin Power | 4.05 | 1.09 | No | No | Energy, Gas, and Water |
| 28. | Danga Capital | 4.00 | 1.08 | Yes | No | Finance |
| 29. | CIMB Group Holdings | 3.76 | 1.02 | No | Yes | Finance |
| 30. | TNB Western Energy | 3.66 | 0.99 | Yes | No | Construction |
| **Total Top 30 LCY Corporate Issuers** | | **252.60** | **68.21** | | | |
| **Total LCY Corporate Bonds** | | **461.31** | **124.56** | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **54.8%** | **54.8%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

30-year *sukuk* were priced at 3.04% and 4.24%, respectively.

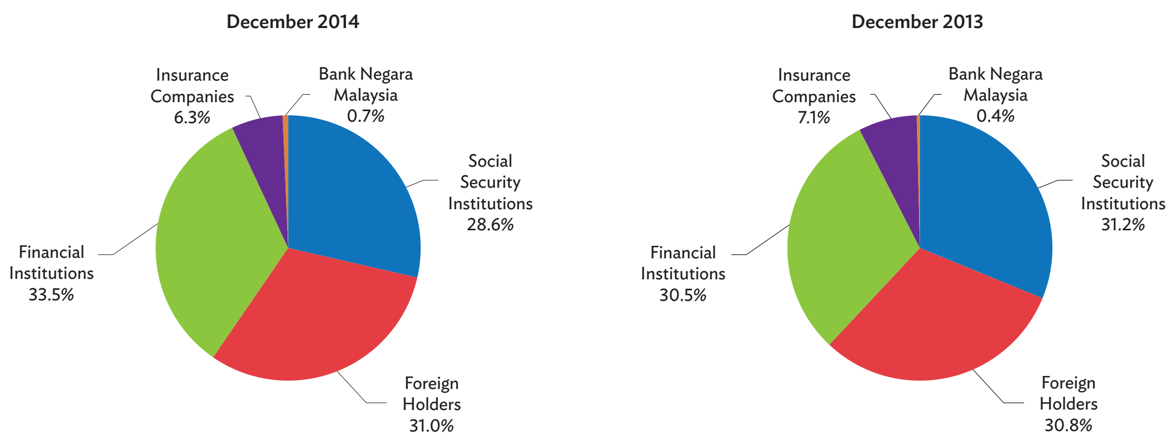
## Investor Profile

At end-December, the share of government bonds held by financial institutions—including banks, development financial institutions, and nonbank financial institutions—rose to 33.5% on holdings of MYR162.7 billion from 30.5% at end-December 2013 **(Figure 2)**. Banks remained the largest holder among this group with a position of MYR139.8 billion.

Holdings of foreign investors were mostly unchanged in 4Q14 with a share of 31.0% valued at MYR150.8 billion. Meanwhile, the share of social security institutions fell to 28.6% of the total market at end-December, down from 31.2% a year earlier, as a result of divestments made by the Employees Provident Fund of its MGSs holdings. The share of insurance companies' government bond holdings also fell to 6.3% at end-December from 7.1% a year earlier.

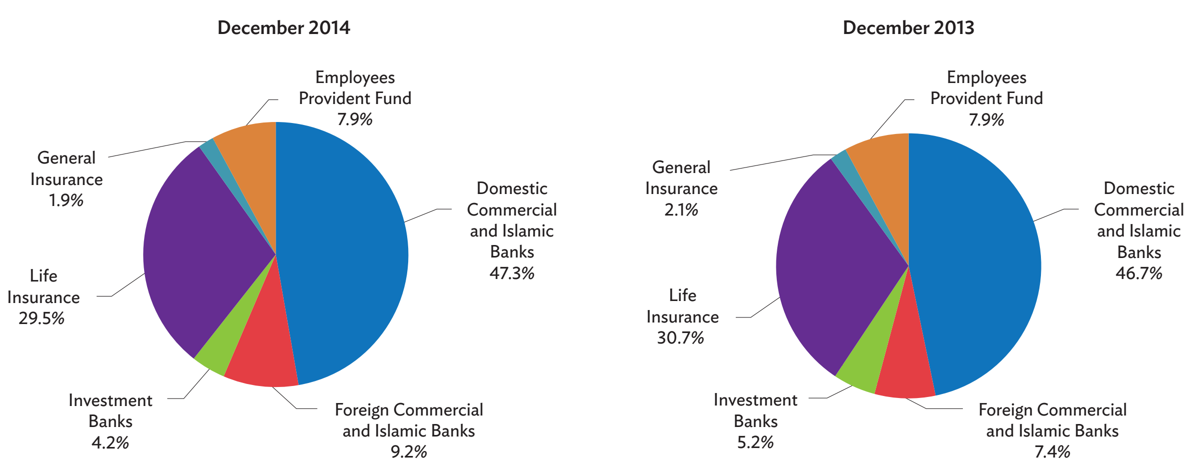
Domestic and foreign banks (commercial and Islamic) remained the largest investor group in LCY corporate

**Figure 2: LCY Government Bonds Investor Profile**




LCY = local currency.
Source: Bank Negara Malaysia.

**Figure 3: LCY Corporate Bonds Investor Profile**




LCY = local currency.
Source: Bank Negara Malaysia.

bonds at end-December with a combined share of 56.5% **(Figure 3)**. Compared with a year earlier, the shares in corporate bonds increased 0.6 percentage point to 47.3% for domestic banks, and 1.8 percentage points to 9.2% for foreign banks. Meanwhile, the share of life insurance companies decreased slightly to 29.5% at end-December from 30.7% a year earlier. Investment banks also trimmed their position to 4.2% of total corporate bonds from 5.2% a year earlier, while general insurance companies' share declined to 1.9% from 2.1%. The share of Employees Provident Fund remained unchanged at 7.9%.

## Ratings Update

In February, Standard and Poor's (S&P) affirmed Malaysia's long-term and short-term foreign currency ratings at A and A-2, respectively. The rating agency also affirmed Malaysia's long-term and short-term local currency ratings at A and A-1, respectively. The outlook on the long-term ratings is stable. S&P noted that falling oil prices are not expected to disrupt Malaysia's long-term fiscal consolidation given its fairly diversified and broad-based growth.

## Policy, Institutional, and Regulatory Developments

### Singapore, Malaysia, and Thailand Sign Memorandum of Understanding on Cross-Border Equity and Debt Securities Offerings

In March, a Memorandum of Understanding was signed between the Monetary Authority of Singapore; Singapore Exchange; Securities Commission Malaysia; and the Securities and Exchange Commission, Thailand for the creation of a streamlined review framework for the Association of Southeast Asian Nations (ASEAN) common prospectus. This framework aims to facilitate cross-border offerings of equity and debt securities in ASEAN. The framework is expected to be implemented beginning in 3Q15.

### BNM and PBOC Renew Bilateral Currency Swap Arrangement

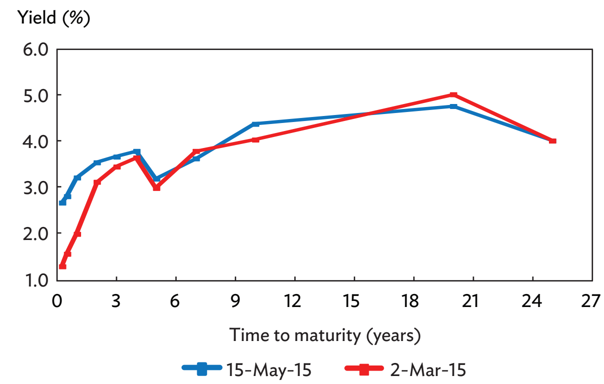
In April, BNM and the People's Bank of China (PBOC) renewed their bilateral currency swap arrangement for another 3 years. The size of the arrangement was maintained at CNY180 billion–MYR90 billion. The arrangement will continue to promote bilateral trade and investment flows between Malaysia and the People's Republic of China.

# Philippines

## Yield Movements

Between 2 March and 15 May, yields for most tenors of Philippine local currency (LCY) bonds rose on speculation over the timing of a possible rate hike by the United States (US) Federal Reserve **(Figure 1)**. Yields between the 3-month and 1-year tenors rose 121 basis points (bps)–137 bps. Yields for bonds with tenors of between 2 years and 10 years rose 14 bps–42 bps, with the exception of the 7-year tenor, which fell 16 bps. Meanwhile, the yield for the 20-year tenor fell 25 bps. These yield movements occurred despite low inflation that gave room for the Bangko Sentral ng Pilipinas (BSP) to maintain its policy rates. Market participants continue to monitor developments in the US economy that might indicate a shift in the Federal Reserve's monetary policy.

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




LCY = local currency.
Source: Bloomberg LP.

Inflation continued to slow in the first 4 months of the year, easing to 2.2% year-on-year (y-o-y) in April from a peak of 4.9% y-o-y in August 2014. This led the BSP to maintain its overnight borrowing rate at 4.0% and overnight lending rate at 6.0%. The BSP noted that inflationary pressures continued to moderate primarily due to the decline in international oil prices, and that risks to inflation remain broadly balanced, with upward pressure coming from pending adjustments in utility rates and downward pressure from slower global economic activity.

Meanwhile, the Philippines' economic growth slowed to 5.2% y-o-y in 1Q15 from 6.6% y-o-y in 4Q14. This was mainly due to a slowdown in government spending, with growth falling to 4.8% y-o-y from 9.4% y-o-y, and weak exports. Growth in 1Q15 was supported by sustained growth in public consumption, which increased 5.4% y-o-y, as well as a boost in capital formation, which rose 11.8% y-o-y. Exports increased only 1.0% y-o-y in 1Q15, while imports rose 4.6% y-o-y.

## Size and Composition

The Philippine LCY bond market barely moved in 1Q15, expanding a mere 0.4% quarter-on-quarter (q-o-q) to PHP4,674 billion (US$105 billion) at end-March **(Table 1)**. Government securities accounted for the majority of bonds outstanding, totaling PHP3,917 billion, while corporate bonds summed to PHP757 billion. On a y-o-y basis, the LCY bond market grew 5.5% as of end-March.

**Government Bonds.** Outstanding fixed-income instruments issued by the Philippine government and government-controlled companies increased 0.6% q-o-q and 4.5% y-o-y to close at PHP3,917 billion at end-March. Treasury bills decreased 1.2% q-o-q and 5.1% y-o-y to stand at PHP278 billion at end-March.

Treasury bonds increased 1.1% q-o-q and 6.2% y-o-y to PHP3,547 billion. Meanwhile, fixed-income instruments issued by government-controlled companies decreased 11.6% q-o-q and 21.1% y-o-y to PHP91 billion.

In terms of issuance, 1Q15 saw lower volume at PHP135 billion compared with PHP150 billion in 4Q14; the Bureau of the Treasury (BTr) rejected two out of six scheduled auctions of Treasury bills and bonds in 1Q15 as the market sought higher yields due to uncertainty in both the US and eurozone. The government has programmed LCY borrowing of PHP135 billion through its regular auction schedule in 2Q15: PHP60 billion of Treasury bills with 91-, 182-, and 364-day tenors; and PHP75 billion of Treasury bonds with 3-, 5-, and 10-year tenors.

**Corporate Bonds.** Total outstanding LCY corporate bonds decreased 0.4% q-o-q to PHP757 billion. Total corporate

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | PHP | US$ | PHP | US$ | PHP | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **4,429** | **99** | **4,655** | **104** | **4,674** | **105** | **0.4** | **10.5** | **0.4** | **5.5** |
| Government | 3,749 | 84 | 3,895 | 87 | 3,917 | 88 | (1.9) | 7.8 | 0.6 | 4.5 |
| Treasury Bills | 293 | 7 | 282 | 6 | 278 | 6 | (8.7) | 1.2 | (1.2) | (5.1) |
| Treasury Bonds | 3,340 | 75 | 3,510 | 78 | 3,547 | 79 | (1.3) | 8.7 | 1.1 | 6.2 |
| Others | 116 | 3 | 103 | 2 | 91 | 2 | 0.0 | 2.1 | (11.6) | (21.1) |
| Corporate | 680 | 15 | 760 | 17 | 757 | 17 | 15.0 | 27.9 | (0.4) | 11.3 |

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period LCY–US$ rates are used.
3. Growth rates are calculated from an LCY 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) and multi-currency Retail Treasury Bonds (RTBs) are not included. As of end-March 2015, the Government of the Philippines and Petron Corporation had PHP129.7 billion and PHP20.0 billion of outstanding Peso Global Bonds, respectively. There was a total of PHP6.3 billion of outstanding multi-currency Treasury bonds at end-March 2015.
Sources: Bloomberg LP and Bureau of the Treasury.

bond issuance in 1Q15 stood at PHP12 billion, down from PHP48 billion in 4Q14 and PHP66 billion in 3Q14. Corporate bond issuers opted to wait as speculation on the timing of a possible rate hike by the Federal Reserve caused an uptick in yields, making it costly to raise funds via the bond market. Only Robinsons Land issued bonds in 1Q15, raising PHP12 billion through the issuance of 7-year and 10-year bonds with coupon rates of 4.8% and 4.934%, respectively **(Table 2)**.

**Table 2: Notable LCY Corporate Bond Issuance in 1Q15**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (PHP billion) |
|---|---|---|
| Robinsons Land | | |
| 7-year bond | 4.80 | 10.64 |
| 10-year bond | 4.93 | 1.36 |

LCY = local currency.
Source: Bloomberg LP.

Only 51 companies are actively tapping the bond market in the Philippines. The top 30 issuers accounted for 88.8% of the total amount of LCY corporate bonds outstanding at end-March **(Table 3)**. Out of the top 30 bond issuers, only eight companies were privately held corporations and the rest were publicly listed with the Philippine Stock Exchange. Ayala Land remained the largest corporate issuer in the country with PHP57.9 billion of outstanding bonds at end-March. Metrobank was the next largest borrower with PHP46.8 billion of outstanding bonds, and SM Investments was in the third spot with PHP41.9 billion.

The diversity of LCY corporate bond issuers in 1Q15 was comparable with that in 1Q14 **(Figure 2)**. Banks and other financial institutions, including investment houses, remained the leading issuers of debt in 1Q15 with 30.5% of the total, up from a share of 24.5% in 1Q14. Real estate companies were second with a share of 22.2% of the total, compared with an 18.0% share in 1Q14. Meanwhile, the share of holding companies declined to 18.9% in 1Q15 from 20.0% in 1Q14. Firms from industries as diverse as electricity generation and distribution, telecommunications, and thoroughfares and tollways continued to have single-digit shares of total corporate bonds outstanding.

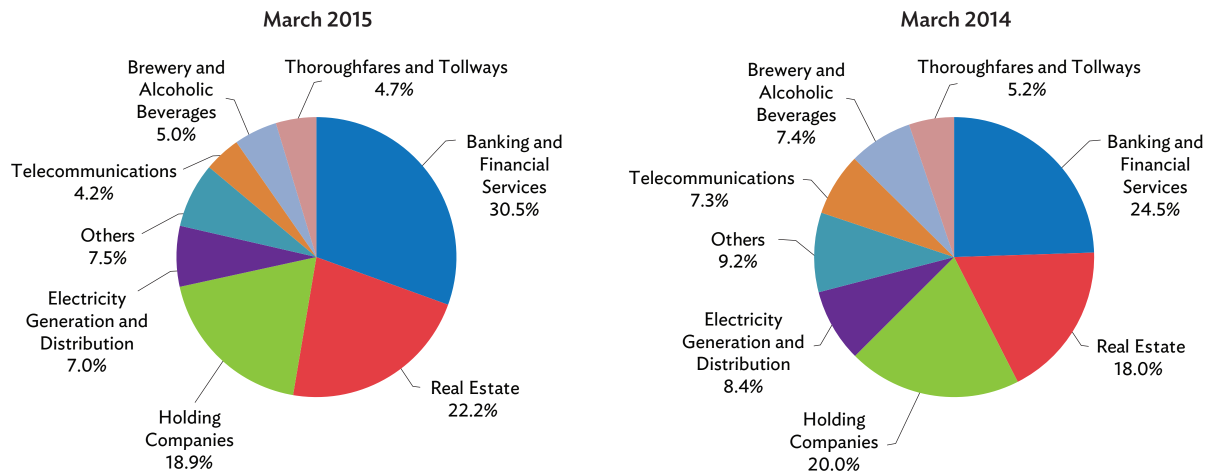
**Foreign Currency Bonds.** In January, the Philippines issued US$2 billion worth of 25-year global bonds. The issue consisted of US$1.5 billion of exchange offers from existing bondholders, while the remaining US$500 million comprised new issuance intended to fund the budget. This was, however, less than the US$750 million government's offshore borrowing program as the BTr indicated it had a strong cash buffer. The bonds were priced at 3.95%, compared with initial pricing guidance of 4.2%.

### Table 3: Top 30 Issuers of LCY Corporate Bonds in the Philippines

| | Issuers | Outstanding Amount | | State-Owned | Listed Company | Type of Industry |
|---|---|---|---|---|---|---|
| | | LCY Bonds (PHP billion) | LCY Bonds (US$ billion) | | | |
| 1. | Ayala Land | 57.9 | 1.3 | No | Yes | Real Estate |
| 2. | Metrobank | 46.8 | 1.0 | No | Yes | Banking |
| 3. | SM Investments | 41.9 | 0.9 | No | Yes | Diversified Operations |
| 4. | Ayala Corporation | 40.0 | 0.9 | No | Yes | Diversified Operations |
| 5. | San Miguel Brewery | 37.8 | 0.8 | No | No | Brewery |
| 6. | Philippine National Bank | 34.6 | 0.8 | No | Yes | Banking |
| 7. | BDO Unibank | 30.0 | 0.7 | No | Yes | Banking |
| 8. | JG Summit Holdings | 30.0 | 0.7 | No | Yes | Diversified Operations |
| 9. | RCBC | 27.1 | 0.6 | No | Yes | Banking |
| 10. | SM Prime | 25.0 | 0.6 | No | Yes | Real Estate |
| 11. | Filinvest Land | 24.0 | 0.5 | No | Yes | Real Estate |
| 12. | Meralco | 23.5 | 0.5 | No | Yes | Electricity Distribution |
| 13. | Security Bank | 23.0 | 0.5 | No | Yes | Banking |
| 14. | GT Capital Holdings | 22.0 | 0.5 | No | Yes | Investment Companies |
| 15. | Energy Development Corporation | 19.0 | 0.4 | No | Yes | Electricity Generation |
| 16. | Globe Telecom | 17.0 | 0.4 | No | Yes | Telecommunications |
| 17. | Maynilad Water Services | 16.4 | 0.4 | No | No | Water |
| 18. | MCE Leisure Philippines | 15.0 | 0.3 | No | No | Casino Services |
| 19. | Philippine Long Distance Telephone | 15.0 | 0.3 | No | Yes | Telecommunications |
| 20. | SM Development | 14.3 | 0.3 | No | Yes | Real Estate |
| 21. | Union Bank of the Philippines | 14.0 | 0.3 | No | Yes | Banking |
| 22. | Manila North Tollways | 13.0 | 0.3 | No | No | Transport Services |
| 23. | First Metro Investment | 12.0 | 0.3 | No | No | Investment Banking |
| 24. | Robinsons Land | 12.0 | 0.3 | No | Yes | Real Estate |
| 25. | MTD Manila Expressway | 11.5 | 0.3 | No | No | Transport Services |
| 26. | South Luzon Tollway | 11.0 | 0.2 | No | No | Transport Services |
| 27. | Aboitiz Power | 10.5 | 0.2 | No | Yes | Electricity Generation |
| 28. | United Coconut Planters Bank | 9.5 | 0.2 | No | No | Banking |
| 29. | East West Bank | 9.3 | 0.2 | No | Yes | Banking |
| 30 | Filinvest Development | 8.8 | 0.2 | No | Yes | Real Estate |
| **Total Top 30 LCY Corporate Issuers** | | **671.9** | **15.0** | | | |
| **Total LCY Corporate Bonds** | | **757.0** | **16.9** | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **88.8%** | **88.8%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
2. Petron has PHP20 billion of Global Peso Bonds outstanding that were not included in this table.
3. 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.

**Figure 2: LCY Corporate Bond Issuers by Industry**

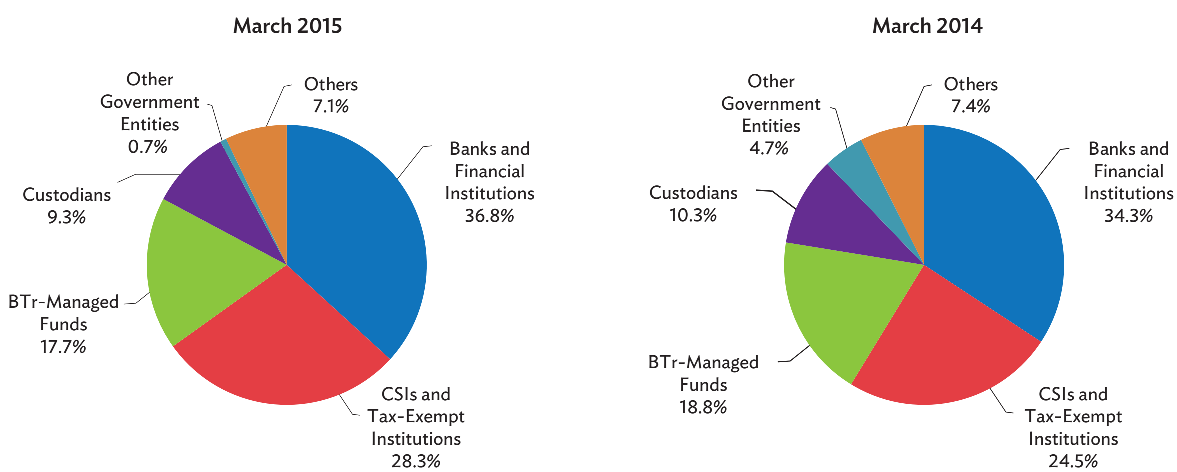



LCY = local currency.
Source: Bloomberg LP.

## Investor Profile

The largest grouping of investors in government securities at end-1Q15 comprised banks and financial institutions with a 36.8% share of the total **(Figure 3)**, this was up slightly from a 34.3% share at end-1Q14. Contractual savings institutions—including the Social Security System, Government Service Insurance System, Pag-IBIG, and life insurance companies—and tax-exempt institutions—such as trusts and other tax-exempt entities—accounted for 28.3% of the total at end-1Q15, up from 24.5% at end-1Q14. The shares of funds being managed by BTr, including the Bond Sinking Funds, fell slightly to 17.7% from 18.8% at end-1Q14. The participation of custodians also decreased to 9.3% from 10.3%. The share of other government entities and other investors, which include individuals and private corporations, decreased to 7.8% at end-March from 12.1% at end-1Q14.

**Figure 3: LCY Government Bonds Investor Profile**




BTr = Bureau of the Treasury, CSIs = contractual savings institutions, LCY = local currency.
Source: Bureau of the Treasury.

## Ratings Update

In March, Fitch Ratings (Fitch) affirmed its BBB– long-term foreign currency issuer default ratings and BBB long-term LCY issuer default ratings for the Philippines. Both ratings were given a stable outlook. Fitch cited the Philippines' strong macroeconomic performance as the reason for its ratings decision.

## Policy, Institutional, and Regulatory Developments

### BSP Announces Further Amendments to Foreign Exchange Regulations

In February, the BSP released further amendments to its Manual of Regulations on Foreign Exchange Transactions. These include the introduction of a policy that requires private sector, nonbank borrowers to maintain a long-term debt-to-equity ratio of at least 75–25 for the entire period of their foreign-currency-denominated loans. Other amendments include policies that could further enable and monitor legitimate trade transactions, and expand the coverage of short-term interbank loans that do not require prior BSP approval.

### BTr Implements NRT for LCY Government Bonds

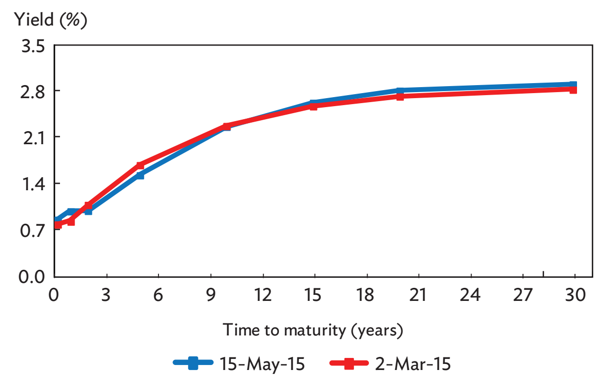
On 4 May 2015, BTr implemented the nonrestricted trading and settlement environment (NRT) for LCY coupon-bearing government securities. BTr stated that the market is now able to facilitate these trades after various preparatory activities including market testing, establishing business continuity process and systems readiness protocols, and other international preparations conducted by market participants. The circular pertaining to this initiative was released on 22 September 2014. The circular provides guidance on the implementation of NRT across tax categories in the secondary market for Philippine LCY coupon-bearing government securities, with the intention of deepening liquidity in the bond market and providing additional investment avenues for tax-exempt institutions and individuals.

# Singapore

## Yield Movements

Local currency (LCY) government bond yields in Singapore mirrored movements in United States (US) bond yields between 2 March and 15 May **(Figure 1)**. The Singapore Government Securities (SGS) bond yield curve was mixed, with yields rising at the short-end and the long-end of the curve, while falling in the belly of the curve. SGS bond yields rose the most for the 1-year SGS bond, which gained 16 basis points (bps). At the long-end of the curve, the 20-year tenor rose the most with a 9 bps gain. In the belly of the curve, bond yields shed between 1 bp and 15 bps for maturities between 2 years and 10 years. Meanwhile, the yield spread between the 2-year and 10-year maturities widened to 126 bps on 15 May from 119 bps on 2 March.

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




LCY = local currency.
Source: Bloomberg LP.

The Monetary Authority of Singapore (MAS) maintained its policy of modest and gradual appreciation of the S$NEER policy band in its Monetary Policy Statement on 14 April. MAS left unchanged the slope and the width of the policy band, and the level at which it is centered. MAS noted that the economy is on track to grow 2.0%–4.0% in 2015, and inflation is expected to remain on target.

Economic growth in Singapore rose to 2.6% year-on-year (y-o-y) in 1Q15 from 2.1% in 4Q14. Both the wholesale and retail trade and construction sectors recorded gains, with y-o-y growth of 4.1% and 3.1%, respectively. The transportation and storage sector also rebounded, rising 1.5% y-o-y in 1Q15. The manufacturing sector, however, contracted 2.7% y-o-y in 1Q15 as output in the transport engineering, electronics, and biomedical manufacturing clusters declined. On a seasonally adjusted and quarter-on-quarter (q-o-q) basis, economic growth eased to 3.2% in 1Q15 from 4.9% in 4Q14. The Ministry of Trade and Industry maintained its GDP growth forecast of 2.0%–4.0% for 2015.

Singapore recorded deflation for the sixth straight month as consumer prices fell 0.5% y-o-y in April due mainly to lower prices of oil-related items and declining inflation in the services sector. Accommodation costs further dropped in April, falling 2.5% y-o-y, after contracting 2.2% y-o-y in March due to weakness in the rental housing market. On a monthly basis, consumer prices contracted 0.6% between March and April.

## Size and Composition

Singapore's LCY bond market grew a marginal 0.1% q-o-q in 1Q15 to SGD320 billion (US$233 billion) at end-March. On a y-o-y basis, however, bond market growth was more robust at 6.6% **(Table 1)**.

**Government Bonds.** The stock of LCY government bonds fell 1.1% q-o-q to SGD192 billion due mainly to a decline in the stock of MAS bills. The stock of MAS bills dropped 4.2% q-o-q to SGD92 billion. In 1Q15, MAS bill issuance totaled SGD91.5 billion, contracting 6.5% from end-December but up from its level in 1Q14.

In contrast, the outstanding stock of Singapore Government Securities (SGS) bills and bonds, which account for a majority of LCY government bonds, gained 1.9% q-o-q but fell 8.2% y-o-y to SGD100 billion. New issuance of SGS bonds was down to SGD4.8 billion in 1Q15 from SGD6.9 billion in 4Q14. In 1Q15, new SGS bond issuance comprised re-openings of 2-, 7-, and 30-year SGS bonds.

**Corporate Bonds.** Based on *AsianBondsOnline* estimates, total outstanding LCY corporate bonds in Singapore reached SGD128 billion at end-March on growth of 1.9% q-o-q and 9.5% y-o-y in 1Q15 **(Table 2)**.

At end-March, Singapore's top 31 corporate issuers had aggregate bonds outstanding of SGD67.8 billion.

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | SGD | US$ | SGD | US$ | SGD | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **300** | **239** | **320** | **241** | **320** | **233** | **(2.5)** | **1.6** | **0.1** | **6.6** |
| Government | 183 | 146 | 194 | 147 | 192 | 140 | (3.0) | (0.3) | (1.1) | 4.8 |
| SGS Bills and Bonds | 109 | 87 | 98 | 74 | 100 | 73 | (12.7) | (25.8) | 1.9 | (8.2) |
| MAS Bills | 74 | 59 | 96 | 73 | 92 | 67 | 15.9 | 100.0 | (4.2) | 23.8 |
| Corporate | 117 | 93 | 125 | 95 | 128 | 93 | (1.8) | 4.7 | 1.9 | 9.5 |

( ) = negative, LCY = local currency, MAS = Monetary Authority of Singapore, q-o-q = quarter-on-quarter, SGS = Singapore Government Securities, 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 SGS held by the Singapore Central Provident Fund (CPF).
3. Bloomberg LP end-of-period LCY–US$ rates are used.
4. Growth rates are calculated from LCY base and do not include currency effects.
Sources: Bloomberg LP, Monetary Authority of Singapore, and Singapore Government Securities.

This accounted for a 53.1% share of total corporate bonds. The state-owned Housing and Development Board was by far the biggest issuer with bonds outstanding of SGD20.5 billion. It was followed by real estate firm Capitaland with outstanding bonds valued at SGD5.2 billion. The third spot was taken by United Overseas Bank with total bonds amounting to SGD4.1 billion. Three state-owned firms were among the top 31 issuers, all of which ranked within the top 10. The top 31 corporate bond issuers came from a diverse set of sectors including financial, banking, real estate, utilities, transportation, telecommunications, and industrial.

A total of SGD1.9 billion of new corporate debt was issued in 1Q15, comprising 14 bond series from 12 corporate entities. Of these 12 corporate issuers, seven were financial institutions. In terms of maturity structure, nine bond series carried maturities of more than 1 year to 5 years, four bond series were medium-dated (more than 5 years to 10 years), and one was a perpetual bond. The largest corporate bond issues in 1Q15 are shown in **Table 3**.

## Policy, Institutional, and Regulatory Developments

### MAS to Launch Savings Bond Program

In March, MAS announced plans to launch a savings bond program aimed at providing individual investors with long-term savings options with safe returns. Singapore Savings Bonds carry a maturity of 10 years and are fully backed by the government. Investors may purchase bonds for a minimum amount of SGD500 and in increments of SGD500 thereafter. These savings bonds will carry a step-up interest rate based on long-term SGS rates. MAS plans to issue the savings bonds on a monthly basis and expects to commence issuance in the second half of 2015.

### Singapore, Malaysia, and Thailand Sign Memorandum of Understanding on Cross-Border Equity and Debt Securities Offerings

In March, a Memorandum of Understanding was signed between MAS; Singapore Exchange; Securities Commission Malaysia; and the Securities and Exchange Commission, Thailand for the creation of a streamlined review framework for the Association of Southeast Asian Nations (ASEAN) common prospectus. This framework aims to facilitate cross-border offerings of equity and debt securities in ASEAN. The framework is expected to be implemented beginning in 3Q15.

### MAS Provides Retail Investors with Access to Investment Products

In April, MAS expanded the range of simple, low-cost investment products available to retail investors by providing them with expanded access to investment products such as Exchange-Traded Funds. With this enhancement, fund managers may now reclassify investment funds as Excluded Investment Products. Previously, all investment funds that used derivatives were classified as Specified Investment Products, which are more complex products and require enhanced safeguards for retail investors.

**Table 2: Top 31 Issuers of LCY Corporate Bonds in Singapore**

| | Issuers | Outstanding Amount | | State-Owned | Listed Company | Type of Industry |
|---|---|---|---|---|---|---|
| | | LCY Bonds (SGD billion) | LCY Bonds (US$ billion) | | | |
| 1. | Housing and Development Board | 20.5 | 15.0 | Yes | No | Real Estate |
| 2. | CapitaLand | 5.2 | 3.8 | No | Yes | Real Estate |
| 3. | United Overseas Bank | 4.1 | 3.0 | No | Yes | Banking |
| 4. | Temasek Financial I | 3.6 | 2.6 | No | No | Financing |
| 5. | DBS Bank | 3.3 | 2.4 | No | Yes | Banking |
| 6. | SP PowerAssets | 2.4 | 1.7 | No | No | Utilities |
| 7. | Land Transport Authority | 1.8 | 1.3 | Yes | No | Transportation |
| 8. | Public Utilities Board | 1.8 | 1.3 | Yes | No | Utilities |
| 9. | City Developments | 1.7 | 1.2 | No | Yes | Real Estate |
| 10. | GLL IHT | 1.7 | 1.2 | No | No | Financing |
| 11. | FCL Treasury | 1.6 | 1.2 | No | No | Real Estate |
| 12. | Keppel | 1.5 | 1.1 | No | Yes | Diversified |
| 13. | Olam International | 1.3 | 1.0 | No | Yes | Consumer Goods |
| 14. | Singapore Airlines | 1.3 | 0.9 | No | No | Transportation |
| 15. | Hyflux | 1.3 | 0.9 | No | Yes | Utilities |
| 16. | Neptune Orient Lines | 1.3 | 0.9 | No | Yes | Logistics |
| 17. | CapitaLand Treasury | 1.2 | 0.8 | No | No | Financing |
| 18. | Singtel Group Treasury | 1.2 | 0.8 | No | No | Telecommunications |
| 19. | Keppel Land | 1.1 | 0.8 | No | Yes | Real Estate |
| 20. | CapitaMalls Asia Treasury | 1.0 | 0.7 | No | No | Financing |
| 21. | Oversea-Chinese Banking | 1.0 | 0.7 | No | Yes | Banking |
| 22. | PSA | 1.0 | 0.7 | No | No | Port Operator |
| 23. | Sembcorp Financial Services | 1.0 | 0.7 | No | No | Financing |
| 24. | Mapletree Treasury Services | 0.9 | 0.7 | No | No | Financing |
| 25. | DBS Group | 0.8 | 0.6 | No | Yes | Banking |
| 26. | CMT MTN | 0.8 | 0.6 | No | No | Financing |
| 27. | Global Logistic Properties | 0.8 | 0.5 | No | Yes | Real Estate |
| 28. | SMRT Capital | 0.8 | 0.5 | No | No | Transportation |
| 29. | Joynote | 0.7 | 0.5 | No | No | Financing |
| 30. | Ezion Holdings | 0.7 | 0.5 | No | Yes | Marine Services |
| 31. | Overseas Union Enterprise | 0.7 | 0.5 | No | Yes | Real Estate |
| **Total Top 31 LCY Corporate Issuers** | | **67.8** | **49.4** | | | |
| **Total LCY Corporate Bonds** | | **127.8** | **93.1** | | | |
| **Top 31 as % of Total LCY Corporate Bonds** | | **53.1%** | **53.1%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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 LCY Corporate Bond Issuance in 1Q15

| Corporate Issuers | Coupon Rate (%) | Issued Amount (SGD million) |
|---|---|---|
| FCL Treasury | | |
| Perpetual bond | 5.00 | 700 |
| Singtel Group Treasury | | |
| 5.5-year bond | 2.58 | 150 |
| 6.5-year bond | 2.72 | 150 |
| GLL IHT | | |
| 2.5-year bond | 3.60 | 170 |
| 5-year bond | 4.20 | 50 |
| Mapletree Commercial Trust | | |
| 8-year bond | 3.25 | 100 |
| Perennial Treasury | | |
| 3-year bond | 4.25 | 100 |

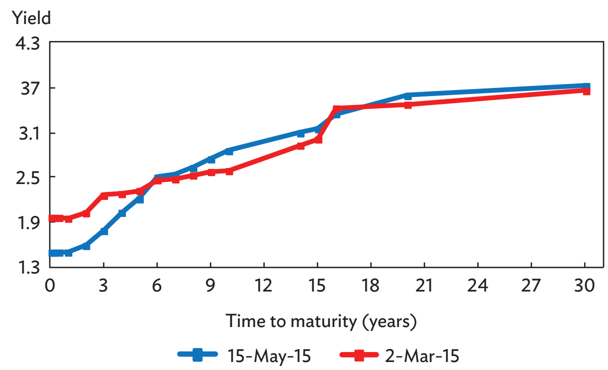
LCY = local currency.
Source: Bloomberg LP.

# Thailand

## Yield Movements

The yield curve for Thailand's local currency (LCY) government bonds steepened between 2 March and 15 May as yields fell at the shorter-end of the curve and rose for most tenors at the longer-end of the curve **(Figure 1)**. The decrease in short-term yields was brought about by expectations of policy rate cuts amid sluggish economic recovery and weak inflationary pressures. Meanwhile, the increase in most long-term yields was partly due to foreign investors' net sales of Thailand's long-term LCY bonds. In the same period, the yield spread between the 2-year and 10-year tenors climbed 70 basis points (bps).

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




LCY = local currency.
Source: Bloomberg LP.

The first 4 months of 2015 saw the Bank of Thailand's (BOT) Monetary Policy Committee lowering its policy interest rate—the 1-day repurchase rate—by a total of 50 bps; the first 25-bps reduction was made on 11 March and the second on 29 April. The reductions in the policy interest rate to 1.50% were made to support Thailand's economic recovery amid falling consumer prices. Year-on-year (y-o-y) inflation, as measured by the Consumer Price Index (CPI), has been negative for 4 consecutive months to start the year: –0.4% in January, –0.5% in February, –0.6% in March, and –1.0% in April.

Meanwhile, real gross domestic product (GDP) growth of Thailand accelerated on a y-o-y basis—rising to 3.0% y-o-y in 1Q15 from 2.1% y-o-y in 4Q14—but decelerated on a quarter-on-quarter (q-o-q) basis, falling to 0.3% q-o-q in 1Q15 from 1.1% q-o-q in 4Q14.

## Size and Composition

The amount of outstanding LCY bonds in Thailand grew 0.6% q-o-q and 1.7% y-o-y in 1Q15, leveling off at THB9.3 trillion at end-March **(Table 1)**. The government bond market rose on both a q-o-q and y-o-y basis in 1Q15 to reach THB7.1 trillion at end-March. This expansion was

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | THB | US$ | THB | US$ | THB | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **9,158** | **282** | **9,258** | **281** | **9,314** | **286** | **1.7** | **6.2** | **0.6** | **1.7** |
| Government | 7,031 | 217 | 6,949 | 211 | 7,079 | 218 | 0.6 | 3.7 | 1.9 | 0.7 |
| Government Bonds and Treasury Bills | 3,461 | 107 | 3,413 | 104 | 3,578 | 110 | 1.4 | 11.7 | 4.8 | 3.4 |
| Central Bank Bonds | 2,820 | 87 | 2,743 | 83 | 2,682 | 82 | (0.8) | (6.8) | (2.2) | (4.9) |
| State-Owned Enterprise and Other Bonds | 750 | 23 | 793 | 24 | 819 | 25 | 2.5 | 14.6 | 3.2 | 9.2 |
| Corporate | 2,127 | 66 | 2,309 | 70 | 2,235 | 69 | 5.7 | 15.5 | (3.2) | 5.1 |

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

driven by positive q-o-q and y-o-y growth in government bonds and Treasury bills, as well as state-owned enterprise bonds. In contrast, the outstanding amount of central bank bonds contracted on both a q-o-q and y-o-y basis in 1Q15. Meanwhile, the stock of LCY corporate bonds valued THB2.2 trillion at end-March, down 3.2% q-o-q but was larger by 5.1% on a y-o-y basis.

At end-March, the combined outstanding bonds of the top 30 corporate issuers amounted to THB1.3 trillion, which accounted for 60% of the total LCY corporate bond market **(Table 2)**. The largest LCY corporate bonds issued in Thailand in 1Q15 included (i) CP All's THB10.2 billion 5-year bond carrying a 4.1% coupon and THB9.9 billion 2-year bond with a 3.55% coupon,

**Table 2: Top 30 Issuers of LCY Corporate Bonds in Thailand**

| | Issuers | Outstanding Amount | | State-Owned | Listed Company | Type of Industry |
|---|---|---|---|---|---|---|
| | | LCY Bonds (THB billion) | LCY Bonds (US$ billion) | | | |
| 1. | PTT | 183.9 | 5.7 | Yes | Yes | Energy and Utilities |
| 2. | CP All | 160.0 | 4.9 | No | Yes | Commerce |
| 3. | The Siam Cement | 151.5 | 4.7 | Yes | Yes | Construction Materials |
| 4. | Charoen Pokphand Foods | 63.1 | 1.9 | No | Yes | Food and Beverage |
| 5. | Bank of Ayudhya | 61.8 | 1.9 | No | Yes | Banking |
| 6. | Thai Airways International | 44.6 | 1.4 | Yes | Yes | Transportation and Logistics |
| 7. | Kasikorn Bank | 43.5 | 1.3 | No | Yes | Banking |
| 8. | Indorama Ventures | 42.6 | 1.3 | No | Yes | Petrochemicals and Chemicals |
| 9. | Toyota Leasing Thailand | 40.6 | 1.2 | No | No | Finance and Securities |
| 10. | The Siam Commercial Bank | 40.0 | 1.2 | No | Yes | Banking |
| 11. | True Corporation | 36.5 | 1.1 | No | Yes | Communications |
| 12. | Banpu | 35.4 | 1.1 | No | Yes | Energy and Utilities |
| 13. | Mitr Phol Sugar | 34.4 | 1.1 | No | No | Food and Beverage |
| 14. | PTT Exploration and Production Company | 32.1 | 1.0 | Yes | Yes | Energy and Utilities |
| 15. | Thanachart Bank | 30.5 | 0.9 | No | No | Banking |
| 16. | Thai Oil | 28.0 | 0.9 | Yes | Yes | Energy and Utilities |
| 17. | IRPC | 27.6 | 0.8 | Yes | Yes | Energy and Utilities |
| 18. | TMB Bank | 25.4 | 0.8 | No | Yes | Banking |
| 19. | Ayudhya Capital Auto Lease | 25.2 | 0.8 | No | No | Financial |
| 20. | Quality Houses | 24.9 | 0.8 | No | Yes | Property and Construction |
| 21. | ICBC Thai Leasing | 24.7 | 0.8 | No | No | Finance and Securities |
| 22. | Krung Thai Card | 24.2 | 0.7 | Yes | Yes | Finance and Securities |
| 23. | Krung Thai Bank | 23.8 | 0.7 | Yes | Yes | Banking |
| 24. | DAD SPV | 22.5 | 0.7 | Yes | No | Finance and Securities |
| 25. | PTT Global Chemical | 20.3 | 0.6 | No | Yes | Petrochemicals and Chemicals |
| 26. | Bangkok Bank | 20.0 | 0.6 | No | Yes | Banking |
| 27. | CH. Karnchang | 20.0 | 0.6 | No | Yes | Property and Construction |
| 28. | Pruksa Real Estate | 20.0 | 0.6 | No | Yes | Property and Construction |
| 29. | Kiatnakin Bank | 19.8 | 0.6 | No | Yes | Banking |
| 30. | Glow Energy | 19.1 | 0.6 | No | Yes | Energy and Utilities |
| **Total Top 30 LCY Corporate Issuers** | | **1,345.9** | **41.4** | | | |
| **Total LCY Corporate Bonds** | | **2,234.5** | **68.7** | | | |
| **Top 30 as % of Total LCY Corporate Bonds** | | **60.2%** | **60.2%** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

both rated A(tha) by Fitch Ratings (Thailand); (ii) Bank of Ayudhya's THB4 billion 2-year bond at 2.61% and THB4 billion 3-year bond at 2.89%, both rated AAA by Fitch Ratings; and (iii) CH Karnchang's THB4 billion 6-year bond carrying a 4.16% coupon, rated A– by TRIS Rating **(Table 3)**.

**Table 3: Notable LCY Corporate Bond Issuance in 1Q15**

| Corporate Issuers | Coupon Rate (%) | Issued Amount (THB billion) |
|---|---|---|
| CP All | | |
| 2-year bond | 3.55 | 9.85 |
| 5-year bond | 4.10 | 10.15 |
| Bank of Ayudhya | | |
| 2-year bond | 2.61 | 4.00 |
| 3-year bond | 2.89 | 4.00 |
| CH Karnchang | | |
| 6-year bond | 4.16 | 4.00 |

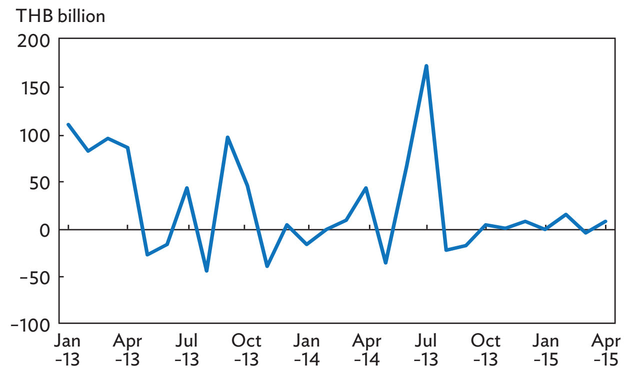
LCY = local currency.
Source: Bloomberg LP.

## Investor Profile

Contractual savings funds and insurance companies remained the two largest investor groups in the LCY government bond market, with their holdings of Thai government bonds accounting for 27% and 25% of the total, respectively, at end-March **(Figure 2)**. Meanwhile, commercial banks recorded the biggest y-o-y increase in the share of Thai government bond holdings, rising 4 percentage points.

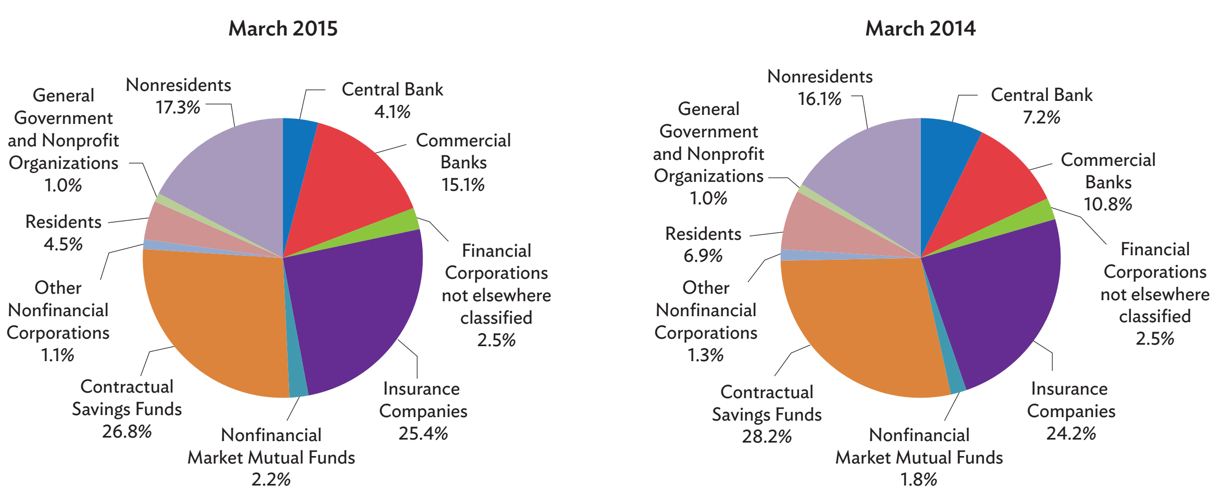
Net foreign bond flows into Thailand appeared stable in the first 4 months of 2015 as foreign investors recorded net bond purchases in February and April, and net bond sales in January and March, both at relatively small levels **(Figure 3)**.

**Figure 3: Foreign Investor Net Trading of LCY Bonds in Thailand**




LCY = local currency.
Source: ThaiBMA.

**Figure 2: LCY Government Bonds Investor Profile**




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

## Ratings Update

In February, Rating and Investment Information (R&I) affirmed Thailand's foreign currency issuer rating at BBB+ and domestic currency issuer rating at A−, with a rating outlook of negative for both.

## Policy, Institutional, and Regulatory Developments

### SEC Allows Retail and Private Funds to Invest in GMS Financial Instruments

The Securities and Exchange Commission (SEC) reported in January that the Capital Market Supervisory Board has approved revisions to investment rules to allow retail funds and private funds to invest in financial instruments in Greater Mekong Subregion (GMS) countries, which include Cambodia, the Lao People's Democratic Republic, and Myanmar.

### SEC and ThaiBMA to Promote Corporate Bond Issuance

In March, the SEC launched a joint project with the Thai Bond Market Association (ThaiBMA) to entice local businesses to raise funds in the LCY corporate bond market. ThaiBMA will approve exemptions from registration fees and discounts from annual fees for businesses that participate in the project and issue long-term bonds in 2015.

### BOT to Ease Foreign Exchange Regulations

The BOT announced in April plans to relax foreign exchange regulations in order to facilitate the foreign asset holdings of Thai residents and entice nonbanks to participate in foreign exchange transactions. The central bank plans to ease measures aimed at curbing speculation on the Thai baht to encourage nonresidents to borrow Thai baht from local financial institutions.

# Viet Nam

## Yield Movements

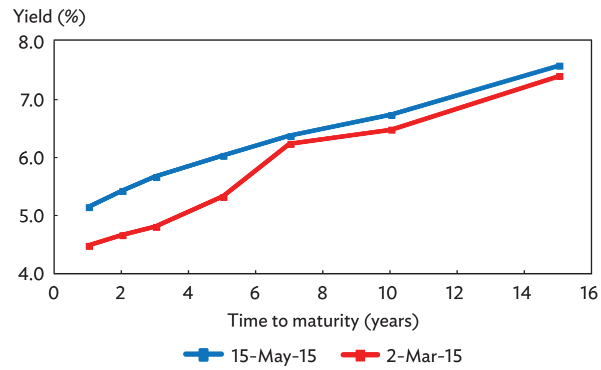
Between 2 March and 15 May, local currency (LCY) government bond yields in Viet Nam rose for all tenors, with an average increase of 51 basis points (bps) **(Figure 1)**. The largest increases came at the short-end and in the belly of the curve, with bond yields rising between 66 bps and 85 bps for tenors of 5 years or less. Yields for tenor of 7 years or more rose between 13 bps and 25 bps. As a result, the yield spread between the 2-year and 10-year tenors narrowed to 130 bps on 15 May from 181 bps on 2 March.

Lower demand for bonds pushed up yields at the short-end of the curve as most investors chose to hold onto their funds ahead of an anticipated devaluation of the Vietnamese dong. In May, the State Bank of Viet Nam (SBV) devalued the dong to boost exports and economic growth.

Treasury auctions fell short of their targets in April and May. Banks, who are the largest holders of government bonds, had little new appetite for bonds between end-December and end-April, instead choosing to allocate their funds to support lending activities on the back of rising credit growth.

Economic growth in Viet Nam slowed in 1Q15 to 6.0% year-on-year (y-o-y) from 7.0% y-o-y in 4Q14. Inflation has remained benign thus far in 2015, registering less than 1.0% y-o-y in January–April.

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




LCY = local currency.
Source: Bloomberg LP.

## Size and Composition

The outstanding size of Viet Nam's LCY bond market reached VND915.1 trillion (US$42 billion) at end-March on growth of 5.1% quarter-on-quarter (q-o-q) and 22.9% y-o-y **(Table 1)**. The strong growth rates were driven by a low base effect.

**Government Bonds.** The stock of LCY government bonds continued to expand in 1Q15, rising to VND901.5 trillion at end-March on growth of 5.2% q-o-q and 23.1% y-o-y. Much of the growth came from increases in the stock of central bank bills, or SBV bills, which grew 17.8% q-o-q in 1Q15. Treasury bonds also contributed to growth,

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

| | Outstanding Amount (billion) | | | | | | Growth Rate (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1Q14 | | 4Q14 | | 1Q15 | | 1Q14 | | 1Q15 | |
| | VND | US$ | VND | US$ | VND | US$ | q-o-q | y-o-y | q-o-q | y-o-y |
| **Total** | **744,589** | **35** | **870,245** | **41** | **915,061** | **42** | **23.0** | **17.8** | **5.1** | **22.9** |
| Government | 732,069 | 35 | 856,713 | 40 | 901,529 | 42 | 23.9 | 20.0 | 5.2 | 23.1 |
| Treasury Bonds | 373,960 | 18 | 504,165 | 24 | 529,769 | 25 | 11.0 | 20.4 | 5.1 | 41.7 |
| Central Bank Bonds | 147,004 | 7 | 134,396 | 6 | 158,357 | 7 | 281.8 | 30.3 | 17.8 | 7.7 |
| State-Owned Enterprise Bonds | 211,104 | 10 | 218,153 | 10 | 213,404 | 10 | (2.0) | 12.9 | (2.2) | 1.1 |
| Corporate | 12,520 | 0.6 | 13,532 | 0.6 | 13,532 | 0.6 | (12.6) | (43.1) | 0.0 | 8.1 |

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, y-o-y = year-on-year.
Notes:
1. Bloomberg LP end-of-period LCY–US$ rates are used.
2. Growth rates are calculated from LCY base and do not include currency effects.
Source: Bloomberg LP.

rising 5.1% q-o-q. In contrast, the stock of state-owned enterprise bonds slipped 2.2% q-o-q.

Of total government bond issuance in 1Q15, nearly 70% were new issues of SBV bills. Gross issuance of SBV bills in 1Q15 was, however, lower on both a q-o-q and y-o-y basis. On the other hand, new Treasury bond and other government bond issues more than doubled on a q-o-q basis, rising 112.6%; meanwhile, such issues fell on a y-o-y basis by 35.8%.

**Corporate Bonds.** The total LCY corporate bond stock was unchanged at VND13.5 trillion at end-March as there were no new corporate bond issues in 1Q15. A total of 10 firms comprised the entire corporate bond sector of Viet Nam **(Table 2)**. The largest issues were Asia Commercial Joint Stock Bank and Techcom Bank with outstanding bonds of VND3.0 trillion each. They were followed by Masan Consumer Holdings with outstanding bonds of VND2.1 trillion.

# Policy, Institutional, and Regulatory Developments

## Viet Nam to Launch Derivatives Market

On 5 May, Viet Nam issued a decree providing a legal framework and investment guidelines for a derivatives market. The target date for the market's launch is 2016. Under the decree, both individuals and institutions, except for some businesses, will be allowed to invest in derivatives. The derivatives will be listed on the Viet Nam's stock exchange and will initially only include stock indices and government bond futures.

## SBV Devalues Dong for Second Time in 2015

On 7 May, the SBV devalued the Vietnamese dong by 1% to a reference rate of VND21,673 per US$1. It marked the second time this year that the Vietnamese dong has been devalued. The move was made to enhance export competitiveness and boost economic growth.

**Table 2: Corporate Issuers of LCY Corporate Bonds in Viet Nam**

| | Issuers | Outstanding Amount | | State-Owned | Listed Company | Type of Industry |
|---|---|---|---|---|---|---|
| | | LCY Bonds (VND billion) | LCY Bonds (US$ billion) | | | |
| 1. | Asia Commercial Joint Stock Bank | 3,000.00 | 0.14 | No | Yes | Finance |
| 2. | Techcom Bank | 3,000.00 | 0.14 | No | No | Finance |
| 3. | Masan Consumer Holdings | 2,100.00 | 0.10 | No | No | Food |
| 4. | HAGL JSC | 1,980.00 | 0.09 | No | Yes | Real Estate |
| 5. | Ho Chi Minh City Infrastructure | 1,081.85 | 0.05 | No | Yes | Infrastructure |
| 6. | Vincom | 1,000.00 | 0.05 | No | Yes | Real Estate |
| 7. | Ocean Group | 980.00 | 0.05 | No | Yes | Consulting Services |
| 8. | Binh Chanh Construction | 150.00 | 0.01 | No | Yes | Building and Construction |
| 9. | Tan Tao Investment | 130.00 | 0.01 | No | No | Real Estate |
| 10. | Ho Chi Minh City Securities | 110.00 | 0.01 | No | No | Finance |
| **Total LCY Corporate Issuers** | | **13,531.8** | **0.63** | | | |

LCY = local currency.
Notes:
1. Data as of end-March 2015.
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.

**Asia Bond Monitor**
*June 2015*

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.

ADB

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