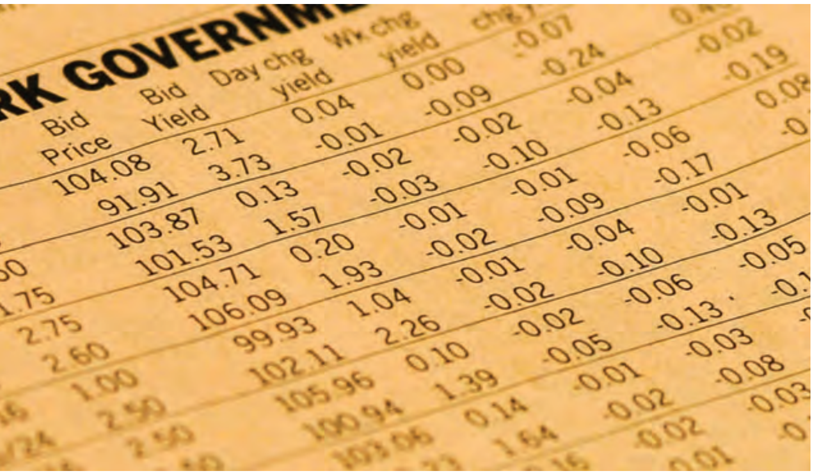

ASIA BOND MONITOR
SEPTEMBER 2018

ASIAN DEVELOPMENT BANK

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The Asia Bond Monitor (ABM) is part of the Asian Bond Markets Initiative, 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.

This edition of the ABM was prepared by a team from the Economic Research and Regional Cooperation Department headed by Yasuyuki Sawada and supervised by Macroeconomics Research Division Director Joseph Zveglich Jr. The production of the ABM was led by Donghyun Park and supported by Shu Tian and the *AsianBondsOnline* team. The *AsianBondsOnline* team members include Jun Ray Bautista, Marie Anne Cagas, Angelica Andrea Cruz, Russ Jason Lo, Patrick Vincent Lubenia, Carlo Monteverde, and Roselyn Regalado. Cynthia Castillejos-Petalcorin provided operational support, Kevin Donahue provided editorial assistance, and Principe Nicdao did the typesetting and layout. Contributions from Monica Filkova and Caroline Harrison of Climate Bonds Initiative, and Benno Ferrarini and Cynthia Castillejos-Petalcorin of the Economic Research and Regional Cooperation Department are gratefully acknowledged.

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Printed in the Philippines.

ISBN 978-92-9261-324-2 (print), 978-92-9261-325-9 (electronic)
ISSN 2219-1518 (print), 2219-1526 (electronic)
Publication Stock No. TCS189551-2
DOI: http://dx.doi.org/10.22617/TCS189551-2

Notes:
ADB recognizes "China" as the People's Republic of China; "Hong Kong" and "Hongkong" as Hong Kong, China; "Korea" as the Republic of Korea; "Siam" as Thailand; "USA" as the United States; "Vietnam" as Viet Nam; "Hanoi" as Ha Noi; and "Saigon" as Ho Chi Minh City.
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Emerging East Asian Local Currency Bond Markets: A Regional Update

Highlights

Key Trends

- Local currency (LCY) bond yields in emerging East Asia diverged due to disparate monetary policy stances across the region and global economic uncertainties.
- In the People's Republic of China (PRC), yields fell as the central bank reduced the reserve requirement ratios for some banks on 24 June.
- Yields rose in Indonesia in response to monetary tightening by Bank Indonesia. Between May and August, Bank Indonesia raised its policy rate by a total of 125 basis points (bps).
- Yields also rose in the Philippines, where the Bangko Sentral ng Pilipinas raised policy rates in May and June by a total of 100 bps.
- Among advanced economies, the United States (US) continued to post the strongest growth, prompting the Federal Reserve to raise the federal funds rate target range by 25 bps at its 13–14 June meeting.
- The European Central Bank announced on 14 June that its quantitative easing program would end in December. The Bank of Japan has left its monetary policy unchanged.
- Continued monetary tightening in the US and signs that the euro area will begin tightening contributed to the depreciation of most emerging East Asian currencies.
- Foreign flows into the region's LCY bond markets were mixed in the second quarter of 2018.
- Emerging East Asia's local currency bond market grew to a size of USD12.6 trillion at the end of June, posting moderate growth of 3.2% quarter-on-quarter.

Risks to the Bond Market

- Recent financial turbulence in Argentina, Turkey, and other emerging markets has raised concerns of spillover effects in emerging East Asia.
- Escalating global trade tensions, in particular PRC–US trade tensions, pose a major risk to the region.
- The region's private debt may become a source of financial instability, especially since global financial conditions are now tightening.
- Another risk comes from global oil price volatility.

Special Boxes

- This issue of the Asia Bond Monitor includes three special discussion boxes:
  - Box 1 discusses the impact of ongoing global trade tensions, in particular PRC–US trade tensions, on regional financial markets.
  - Box 2 discusses green bond issuance in Asia.
  - Box 3 takes a look at the rising popularity of cryptocurrencies and their potential effect on financial stability.

Executive Summary

Emerging East Asia's Local Currency Bond Yields Diverge Amid Disparate Monetary Policy Stances and Rising Global Uncertainty

Emerging East Asia's local (LCY) bond yields diverged between 1 June and 15 August, largely due to the differing responses of the region's central banks to the United States (US) Federal Reserve's monetary tightening and rising global economic uncertainty.[1]

Among advanced economies, the US continued to post the strongest growth, with advanced estimates showing that US gross domestic product (GDP) grew at an annual rate of 4.1% in the second quarter (Q2) of 2018, up from 2.1% in the previous quarter. In response, the Federal Reserve maintained its monetary policy normalization, raising the federal funds rate target range by 25 basis points at its 13–14 June meeting.

Economic growth has been stable in the euro area, albeit with GDP growth slowing in Q2 2018 to 2.2% year-on-year from 2.5% year-on-year in the first quarter (Q1) of 2018. The European Central Bank announced on 14 June that its quantitative easing program will end in December. Japan's GDP grew at an annual rate of 3.0% in Q2 2018, rebounding from a 0.9% contraction in Q1 2018. However, the Bank of Japan signaled that normalization may begin later than previously expected.

Continued monetary tightening in the US and signs that the euro area will begin tightening contributed to the depreciation of most emerging East Asian currencies during the review period.

While advanced economies are tightening their monetary policies, global economic uncertainty has increased due to ongoing trade tensions between the US and its economic partners. Financial instability in Argentina, Turkey, and other emerging markets is an additional source of uncertainty. Uncertainty also played a role in longer-term yield declines in the US and some select European markets.

This issue of the Asia Bond Monitor includes three special discussion boxes. Box 1 discusses the impact on financial markets of ongoing global trade tensions between the People's Republic of China (PRC) and the US.

Box 2 discusses green bond issuance in Asia, examining the growing diversity of projects financed by green bonds as well as the existence of a green bond premium.

Box 3 looks at the rising popularity of cryptocurrencies and their effect on financial markets and the actions of regulators.

While emerging East Asia continues to enjoy economic stability, some risks loom on the horizon. These include (i) the risk of spillovers from financial turbulence in emerging markets outside the region, (ii) escalating global trade tensions, (iii) rising private debt levels, and (iv) volatility in global oil prices.

Emerging East Asia's Local Currency Bond Market Posts Moderate Growth in Q2 2018

Emerging East Asia's LCY bond market reached a size of USD12.6 trillion at the end of June, posting moderate growth of 3.2% quarter-to-quarter (q-o-q). Growth accelerated from 1.1% q-o-q in Q1 2018 due to a jump in the region's aggregate issuance. All markets in the region posted q-o-q growth rates in Q2 2018 except Viet Nam.

The PRC remained home to the largest bond market in the region in Q2 2018, comprising 72% of the regional total. Total outstanding LCY bonds in the PRC rose 3.8% q-o-q, following growth of 1.3% q-o-q in Q1 2018. Growth was largely driven by a surge in the issuance of local government bonds as the debt-for-bond swap program neared its completion in August.

Government bonds continued to dominate the region's LCY bond market in Q2 2018, accounting for 67.0% of the total at the end of June on robust growth of 4.0% q-o-q to reach USD8.4 trillion. The region's corporate bond market posted slower growth of 1.8% q-o-q to reach USD4.1 trillion at the end of June.

The share of emerging East Asia's LCY bond market to the region's GDP rose to 71.2% in Q2 2018 from

[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.

70.4% in Q1 2018. The Republic of Korea and Malaysia continued to have the highest shares of bonds-to-GDP in the region.

Total LCY bond issuance in the region rebounded in Q2 2018, posting a 26.5% q-o-q increase to reach USD1.2 trillion, following a contraction in Q1 2018. Growth was driven by the jump in issuance in large economies such as the PRC and the Republic of Korea. Issuance of government bonds increased 39.4% q-o-q, while corporate bond issuance rose 3.3% q-o-q.

Net Foreign Bond Flows Mixed in Q2 2018, Inflows Dominate in July

Foreign fund flows into the LCY bond markets of select economies in the region were mixed in Q2 2018. Nonresident holdings of LCY bonds in Indonesia and Malaysia were lower in Q2 2018 than in Q1 2018 due to foreign outflows from both markets. In Indonesia, foreign investors were cautious over the continued depreciation of the Indonesian rupiah and the deterioration of the current account. In Malaysia, uncertainty over the new government's economic policies kept foreign investors at bay.

The Republic of Korea and Thailand continued to attract foreign investors, with their foreign investor shares slightly increasing, owing to their solid economic fundamentals. Foreign holdings in the PRC and the Philippines remained low but continued on an upward trend in Q2 2018.

In July, all markets in the region for which data are available posted net inflows except Thailand, which saw marginal outflows. In Malaysia, foreign investors returned to the market on improved sentiments about the new government. Recent rate hikes by Bank Indonesia to defend the rupiah brought some foreign investors back to Indonesia.

Local Currency Bond Yields Diverge in Emerging East Asia

Emerging East Asia's LCY bond yields diverged in emerging East Asia between 1 June and 15 August amid disparate monetary policy stances and heightened global uncertainty due to rising trade tensions and other factors.

In response to global uncertainty, some central banks left monetary policy rates unchanged and adopted a wait-and-see approach. Malaysia left policy rates unchanged after an initial rate hike in January. The PRC, which is likely to be hit hardest by trade tensions with the US, reduced reserve requirement ratios in April and June. The PRC also saw the largest decline in yields.

Indonesia, the Philippines, and Viet Nam experienced the largest yield increases during the review period. The central banks in Indonesia and the Philippines raised policy rates four times and three times, respectively, between May and August. Both central banks acted to mitigate currency depreciation, and in the Philippines to also reduce inflationary pressures.

Box 1: Effect of Global Trade Tensions on Financial Markets

Global trade tensions have intensified. Of particular concern for emerging East Asia are the escalating tensions between the PRC and the US. This box examines the effect of ongoing PRC–US trade tensions on financial markets, finding that emerging East Asian equity markets are being negatively affected by the implementation of protectionist measures.

Box 2: Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020

Asian green bond issuance has risen since 2007. While Japan and India have traditionally been key players in the market, the role of the PRC in green bond issuance has become more visible recently. The PRC accounted for over 70% of green bond issuance in Asia in the first half of 2018. Green bond issuance among members of the Association of Southeast Asian Nations is also expected to accelerate in light of policy developments. This box finds that diversity in global green bond issuance has risen, with the proceeds of green bonds financing a greater variety of infrastructure projects, including buildings and low-carbon transport.

Box 3: Are Cryptocurrencies a Threat to Financial Stability?

This box discusses the emergence of Bitcoin and other cryptocurrencies. Pronounced price volatility and the potential misuse of cryptocurrencies for tax evasion and other illegal activities has led a number of Asian governments to impose restrictions. However, the overall size of the cryptocurrency market remains limited and, hence, they do not yet pose a threat to financial market stability.

Introduction: Bond Yields Diverge in Emerging East Asia

Bond yields diverge amid global economic uncertainties and disparate monetary policies in emerging East Asia

Between 1 June and 15 August, yields on 2-year and 10-year local currency (LCY) government bonds in emerging East Asia diverged amid economy-specific monetary policies and global economic uncertainties (**Table A**).[2] Most major advanced economies experienced falling yields on 10-year LCY government bonds as their yield curves flattened, amid global economic uncertainties resulting from trade conflicts between the United States (US) and its trading partners (**Figure A1**).

Global economic growth has thus far continued to strengthen, shrugging off rising trade tensions, financial turbulence in some emerging markets, and other risks (**Box 1**). According to the International Monetary Fund's *World Economic Outlook Update, July 2018*, the global economy is projected to expand 3.9% in both 2018 and 2019, up from 3.2% in 2016 and 3.7% in 2017. The projected growth rates represent the fastest pace of global expansion since 2011. One major driver of global growth has been healthy global trade volumes, which expanded 5.1% in 2017 and are projected to expand 4.8% in 2018 and 4.5% in 2019. Another key driver is robust growth in domestic demand, especially investment, which has

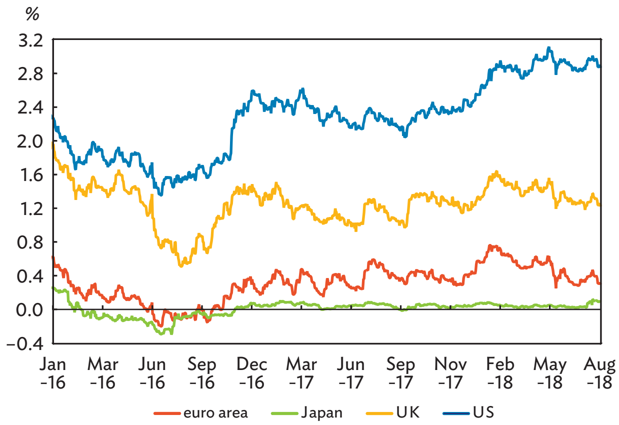
Table A: Changes in Global Financial Conditions

	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	14	(4)	–	3.1	–
United Kingdom	4	(5)	1	(2.6)	(4.9)
Japan	2	5	3	(1.6)	(1.1)
Germany	(2)	(8)	(1)	(4.4)	(2.7)
Emerging East Asia					
China, People's Rep. of	(21)	(5)	8	(11.4)	(7.4)
Hong Kong, China	6	3	–	(10.4)	(0.1)
Indonesia	47	102	4	(2.8)	(4.7)
Korea, Rep. of	(11)	(21)	(0.4)	(7.4)	(5.1)
Malaysia	(12)	(13)	(2)	1.7	(3.0)
Philippines	55	69	(6)	(1.2)	(1.8)
Singapore	(1)	(10)	–	(5.6)	(2.9)
Thailand	3	13	(1)	(2.5)	(3.8)
Viet Nam	143	31	9	(3.2)	(2.2)
Select European Markets					
Greece	(6)	(31)	20	(7.3)	(2.7)
Ireland	(4)	(12)	0.1	(7.9)	(2.7)
Italy	44	49	54	(5.4)	(2.7)
Portugal	(13)	(0.1)	4	(1.8)	(2.7)
Spain	(12)	(3)	10	(2.5)	(2.7)

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 1 June 2018 and 15 August 2018.
2. A positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Sources: Bloomberg LP and Institute of International Finance.

[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.

Figure A1: 10-Year Government Bond Yields in Major Advanced Economies (% per annum)



UK = United Kingdom, US = United States.
Note: Data as of 15 August 2018.
Source: Bloomberg LP.

contributed significantly to the upswing in the global business cycle. Advanced economies expanded 2.4% in 2017 and are projected to grow 2.4% in 2018 and 2.2% in 2019. The corresponding figures for emerging markets and developing economies are 4.7%, 4.9%, and 5.1%, respectively. According to the *World Economic Outlook Update, July 2018*, consumer price inflation in advanced economies will pick up from 1.7% in 2017 to 2.2% in both 2018 and 2019. In emerging markets and developing economies, consumer price inflation will increase from 4.0% in 2017 to 4.4% in both 2018 and 2019. Strong demand pressures and higher global oil prices will contribute to slightly higher inflation during 2018–2019.

Among major advanced economies, the US is showing the strongest economic growth momentum. Based on second estimates, US gross domestic product (GDP) grew at an annual rate of 4.2% in the second quarter (Q2) of 2018, the highest growth rate during the past 4 years, up from 2.2% in the first quarter (Q1) of 2018. The US unemployment rate remains low, falling slightly to 3.9% in July from 4.0% in June. Inflation edged up in the first half of 2018, exceeding the US Federal Reserve's target level of 2.0%. Consumer price inflation trended upward from 2.1% year-on-year (y-o-y) in January to 2.9% y-o-y in July, and personal consumption expenditure (PCE) inflation reached 2.2% y-o-y in June. In its June forecast, the Federal Reserve upgraded annual GDP growth for 2018 from 2.7% in its March forecast to 2.8%, lowered the unemployment rate forecast for 2018 from 3.8% to 3.6%, and adjusted the PCE inflation and core PCE inflation forecasts upward for 2018 from 1.9% and 1.9%, respectively, to 2.1% and 2.0%. On the back of strong growth momentum, the Federal Reserve raised its key policy rate on 13–14 June by 25 basis points (bps) to a range of 1.75% to 2.00%. The market expects the probability of another 25-bps rate hike at the 25–26 September Federal Open Market Committee meeting to be more than 90%.[3]

The euro area and Japan are expected to grow at a slower pace than the US. In the euro area, GDP expanded 2.2% y-o-y in Q2 2018, compared with 2.5% y-o-y in Q1 2018. Both the Q1 and Q2 GDP growth rates were lower than the 2.8% y-o-y growth recorded in Q4 2017. In the European Central Bank's (ECB) June forecast, the GDP growth forecast for full-year 2018 was lowered from 2.4% in the March forecast to 2.1%. Meanwhile, consumer price inflation in the euro area continues to edge up, gaining slightly from 2.0% y-o-y in June to 2.1% y-o-y in July. The ECB announced at its 14 June meeting that its quantitative easing program would end in December 2018. Current monthly asset purchases of EUR30 billion would continue until September 2018, when they would fall to EUR15 billion before ending entirely in December 2018. The ECB also announced that after the end of the quantitative easing program, the key policy rate is expected to remain unchanged until at least the middle of 2019.

Meanwhile, Japan's economy rebounded in Q2 2018, expanding at an annualized rate of 3.0% following a 0.9% contraction in the previous quarter, driven by private consumption and private nonresidential investment. However, in the July outlook report, the Bank of Japan (BOJ) lowered its annual GDP growth forecast for 2018 from the previous forecast of 1.6% in April to 1.5%, due to a cyclical slowdown in business fixed investment. The BOJ also revised downward its inflation forecast for fiscal years 2018 and 2019 from previous forecasts of 1.3% and 1.8%, respectively, to 1.1% and 1.5%, suggesting that reaching the 2.0% inflation target may take longer than expected. In contrast to monetary policy normalization in the US and the euro area, the BOJ is signaling that monetary policy normalization may occur much later than previously expected. In its July monetary policy meeting, the BOJ

[3] The probability was 98.4% as of 28 August. https://www.cmegroup.com/trading/interest-rates/countdown-to-fomc.html.

Box 1: Effect of Global Trade Tensions on Financial Markets

Global trade tensions are on the rise. Of particular concern for developing Asia is the escalation of tensions between the People's Republic of China (PRC) and the United States (US), the world's two largest economies.[a] Both giants are among the region's closest economic partners, with extensive trade, investment, and other linkages. The linkages are strongest for East and Southeast Asian economies, which form a regional production network with the PRC in global value chains. The immediate and direct effects of trade disruptions would be on the trade and economic growth of the PRC and the rest of the region. An important additional potential channel is their impact on financial markets. Declines in business and consumer confidence due to concerns about global trade can adversely affect financial markets, which in turn can further dent economic activity. In this box discussion, we explore the impact of rising global trade tensions on financial markets.

Ongoing Trade Tensions Between the PRC and the US

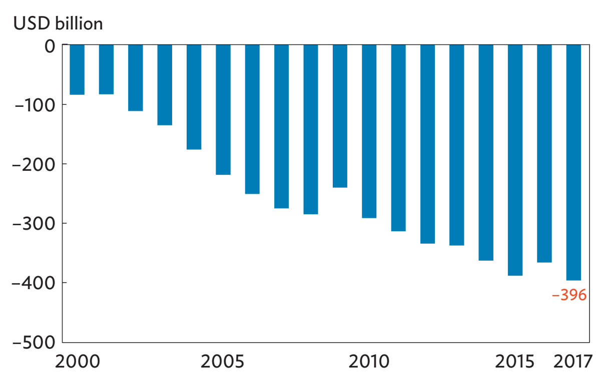
Trade is an important source of economic growth in developing Asia. The General Agreement on Tariffs and Trade (GATT)–World Trade Organization (WTO) multilateral trade regime—coupled with a plethora of regional and bilateral trade agreements, as well as falling logistics and transport costs—ushered in a golden era of global trade expansion. Developing Asia has stood at the forefront of the global trade boom, leveraging it to become the most dynamic region of the world economy. A development that greatly benefited the region's rapid trade-led growth was the emergence of global value chains that allowed certain production processes to be performed in developing economies (Asian Development Bank 2014).

As the most dynamic region in international trade and investment (Pangetsu and Findlay 2018), developing Asia's trade and growth momentum is bound to suffer from the current uncertainty surrounding global trade. The region relies heavily on open markets and the multilateral trade system for its economic security. While the PRC and other developing Asian economies have been rebalancing toward domestic demand since the global financial crisis, external demand still plays a central role in the region's economic performance.

The recent shift of the US toward a more inward-looking trade policy and its renegotiation of trade terms with its trading partners kicked off the current round of uncertainty. While the US policy shift is not limited to the PRC, it was inevitable that the PRC, which is one of the US' largest trade partners, would become a major target. After a series of bilateral trade disputes and talks, tensions between the two giants eventually led to both sides raising tariffs on a total of USD34 billion worth of imported goods on 6 July. These tensions are rooted in the PRC's large and persistent trade surplus vis-à-vis the US. The surplus increased nearly fivefold between 2000 and 2017 from USD83 billion to USD396 billion (**Figure B1.1**). The US' trade restrictions are aimed at reducing its large trade deficit with the PRC.

The US fired the opening salvo in the current global trade conflict on 22 January when it imposed safeguard tariffs on washing machines and solar cell imports on all economies. These were followed by punitive tariffs on imported steel and aluminum in March. A tumultuous month ensued in April when the PRC retaliated by levying tariffs on USD3 billion worth of US goods, which prompted the US to propose additional tariffs on USD50 billion worth of high-technology products. The PRC then announced that it would impose anti-dumping tariffs on sorghum imports valued at around USD1 billion. There was briefly some optimism in May, when the two governments held trade talks, but they failed to produce any significant agreement. In July, the conflict escalated tangibly, with the two sides imposing tariffs on a combined USD34 billion worth of goods. On 8 August, the US announced that it would impose tariffs on USD16 billion worth of PRC imports, covering

Figure B1.1: PRC–US Merchandise Trade Balance



PRC = People's Republic of China, US = United States, USD = United States dollar.
Notes: This figure shows the merchandise trade balance between the two economies using the US as the reporter. The PRC-side computations are smaller, with a trade surplus of about USD250 billion recorded in 2017.
Source: UNCOMTRADE (accessed 29 July 2018).

[a] Developing Asia comprises the 45 regional developing member economies of the Asian Development Bank.

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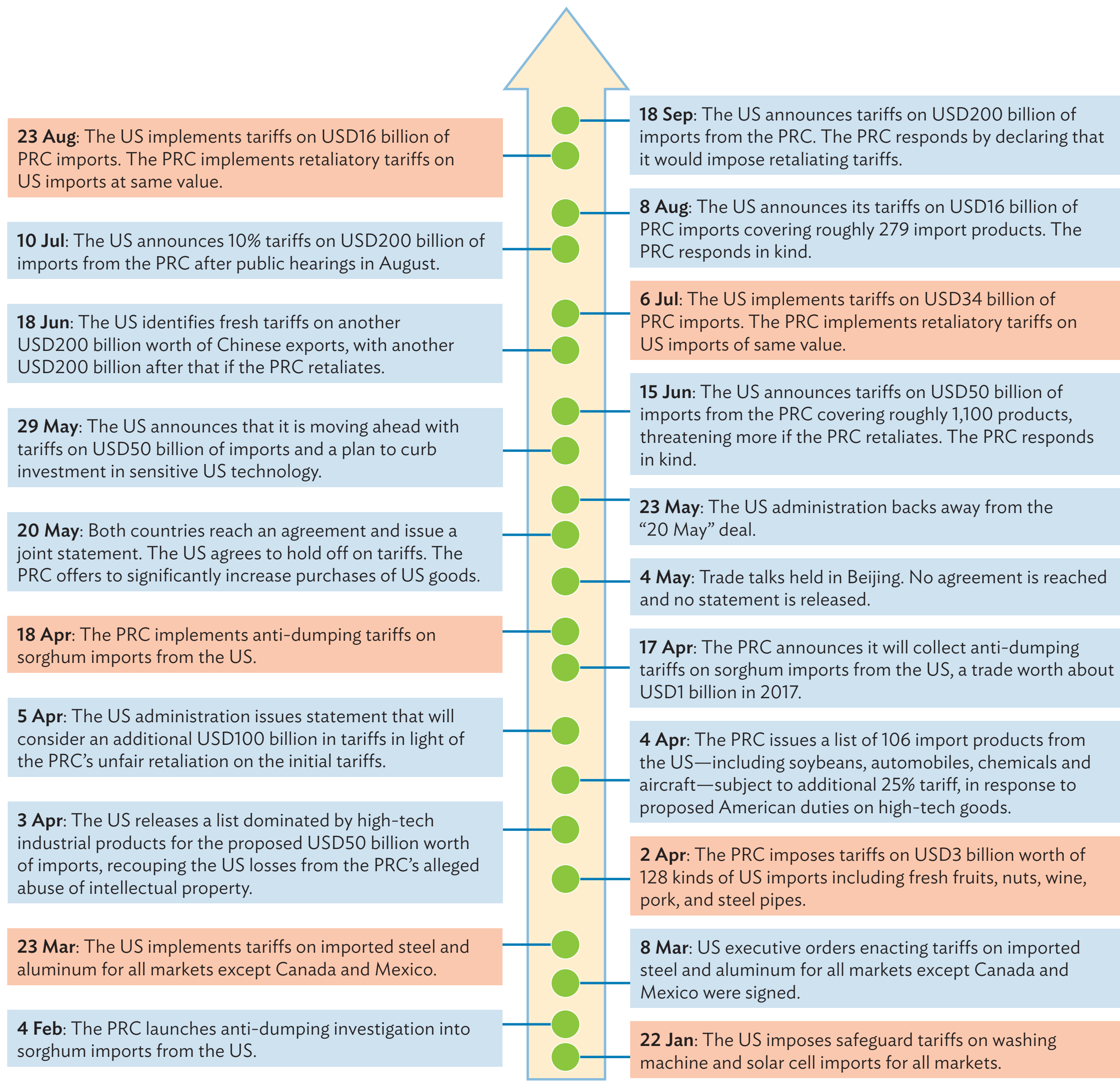
Box 1: Effect of Global Trade Tensions on Financial Markets *continued*

279 import product lines effective 23 August, as part of the 15 June announcement to tax USD50 billion worth of PRC imports. The PRC also countered in kind and of the same value. On 23 August, the tariffs on both sides took effect. On 18 September, the US announced that it would place tariffs on an additional USD200 billion worth of PRC imports, effective 24 September. On the same day, the PRC announced that it will impose retaliatory actions soon. Both governments are now hinting at further trade restrictions in terms of products covered and additional increases in tariff rates. **Figure B1.2** shows the timeline of major events related to PRC–US trade tensions.

Figure B1.2: Major Trade Policy Announcements by the PRC and the US in 2018



PRC = People’s Republic of China, US = United States.
Note: The blue boxes denote announcement dates, while the orange boxes denote implementation dates.
Source: Authors’ compilation based on various online sources.

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Box 1: Effect of Global Trade Tensions on Financial Markets *continued*

The Reaction of Financial Markets to Macroeconomic and Policy News

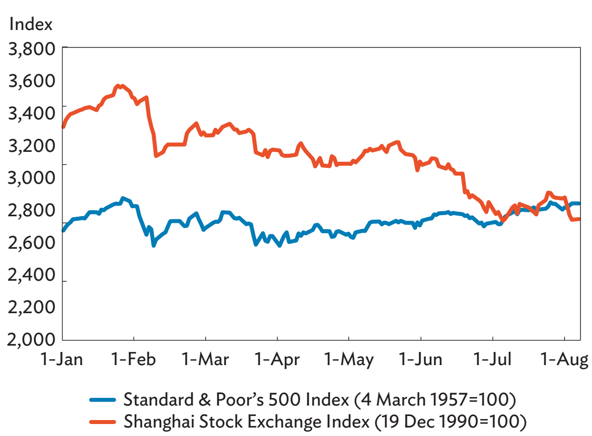
Financial asset prices react to macroeconomic and policy news. Such news convey market-relevant information about future monetary conditions, equity risk premium levels, firms' earning prospects, consumption and investment decisions, and other variables (Boyd, Hu, and Jagannathan 2005; Kurov and Stan 2018). Empirical evidence shows that stock returns are significantly affected by announcements about key macroeconomic indicators such as gross domestic product growth, inflation, unemployment, and the trade balance, as well as monetary policy announcements on interest rates and money supply growth (see, for example, Flannery and Protopapadakis 2002; Rigobon and Sack 2004; Boyd, Hu, and Jagannathan 2005; Bernanke and Kuttner 2005; Andersen et al. 2007; Hanousek, Kocenda, and Kutan 2009; Birz and Lott 2011; Caporale, Spagnolo, and Spagnolo 2016; Kurov and Stan 2018).

Since the beginning of 2018, the US has sought negotiations with major trading partners such as the PRC to reduce its large trade deficit. Trade tensions between the PRC and the US resulted in the mutual implementation of tariffs on a total of USD34 billion worth of goods on 6 July. Given the close economic linkages between developing Asia and both the PRC and the US, trade tensions between the two giants will have serious repercussions for the region's trade and growth momentum. The adverse impacts will be especially pronounced for East and Southeast Asia, which form a regional manufacturing production network with the PRC. Of course, the PRC itself will be hit hard too. Furthermore, given the vital role of this production network in global value chains, PRC–US trade tensions could disrupt global value chains.

Such concerns about trade and growth are partly reflected in financial markets. As a result of trade tensions and other factors, including deleveraging measures, the Chinese stock market has lost around 18.7% of its value in the first 7 months of 2018, with the SSE Composite Index declining from 3,369.1 on 3 January to 2,740.4 on 3 August. On the other hand, the Standard & Poor's 500 Index rose more than 6% during the same period (**Figure B1.3a**).

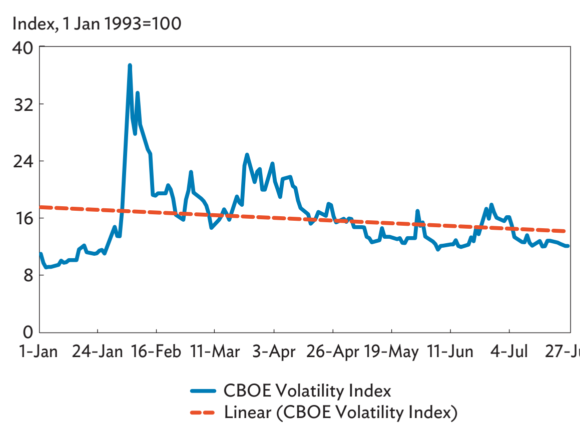
At a broader level, however, financial markets in Asia and elsewhere have remained relatively calm. There have been no sharp losses or market gyrations during the ongoing PRC–US trade conflict. In addition, the Chicago Board Options Exchange Volatility Index has shown an overall decreasing trend in 2018 (**Figure B1.3b**). After hitting a high of 37.3 in February, the index has nearly returned to its pre-trade tension level. The calm reaction so far implies that financial markets have been able to adjust to the uncertainty of global trade tensions as investors remain largely confident about strong macroeconomic fundamentals.

Figure B1.3a: Standard & Poor's 500 and Shanghai Composite Indexes



Source: Bloomberg LP (accessed 6 August 2018).

Figure B1.3b: CBOE Volatility Index



CBOE = Chicago Board Options Exchange.
Source: Bloomberg LP (accessed 27 July 2018).

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Box 1: Effect of Global Trade Tensions on Financial Markets *continued*

Nevertheless, given the likelihood that financial markets will be impacted if global trade tensions escalate further, it is worthwhile to take a closer look at the link between these tensions and market reactions. To do so, we analyze the effect of global trade tensions on developing Asian equity markets since trade directly and indirectly affects the earning prospects of Asian firms. A deeper analysis of how news about the announcement and implementation of trade restrictions affect the day-to-day return dynamics of developing Asian equity markets would help us better understand market reactions to and perceptions of the evolution of trade policies, as well as their effects on trade and growth.

Using econometric analysis, we examine how developing Asian stock markets have reacted to the announcement and implementation of trade measures during the course of the PRC–US trade conflict up to 17 July 2018. Since global financial markets are affected by multiple factors, including the US Federal Reserve's ongoing monetary policy normalization, this study identifies financial market reactions to trade tensions using the GARCH model that dynamically reflects all available information in the market with time-varying residuals. This allows us to more accurately assess the impacts of trade tensions. GARCH models have been widely recognized in the literature as good representations of return dynamics in financial markets by removing excess kurtosis and describing volatility clustering in return series. The GARCH (1,1) model is recognized as a parsimonious presentation of return dynamics, especially over the short-term. In our empirical analysis, we broadly follow the methodology of Flannery and Protopapadakis (2002) and Shi, Sun, and Zhang (2018), and employ the GARCH-in-mean model to capture stock price changes around the announcement and implementation dates of trade restrictions by the PRC and the US. In particular, the dynamic reactions of individual stock market indexes to trade shocks are estimated using the GARCH (1,1)-in-mean model specification similar to Shi, Sun, and Zhang (2018), where the conditional mean depends on its conditional variance as follows:

$$R_t = \alpha_0 + \alpha_1 R_{t-1} + \alpha_2 AD + \alpha_3 ID + \alpha_4 h_t + \varepsilon_t,$$

$$h_t = \beta_0 + \beta_1 h_{t-1} + \beta_2 \varepsilon_{t-1}^2,$$

where R_t in the conditional mean equation is the daily return on a stock market index, which is defined as the daily percentage change of the closing prices of a stock index. The lagged term of R is included to account for possible first-order time serial correlation. *AD* and *ID* are dummy variables that capture the announcement and implementation dates of trade conflict events, respectively. In our sample, *ID* are dates when a tariff is imposed and *AD* are dates when a trade action is announced. These event dummies take the value one if a trade restriction was announced or implemented on the trading date and zero otherwise. All of the event dates are listed in Figure B1.2, with blue and orange boxes denoting announcement and implementation dates, respectively. h_t is the conditional variance of the residual based on the information set as of day t–1 and captures time-varying market risk. The conditional variance equation is estimated using an ARMA (1,1) process. ε_t is the residual term. The model is estimated using daily returns on stock indexes in major developing Asian markets from 18 July 2017 to 17 July 2018. The estimated results of GARCH (1,1)-in-mean then capture the reactions of stock returns to the announcement and implementation of trade restrictions.

The estimated results reported in **Table B1** indicate that trade tension news has a statistically significant negative impact on most Asian stock market returns. Specifically, they indicate a decrease in returns by 0.37% for the PRC on trade event

Table B1: Stock Market Reaction to Trade Tension News

	Announcement Date (AD)	Implementation Date (ID)
Developed markets		
United States	−0.08	0.16
European Union	0.11	0.14
Japan	−0.15	−0.43
Selected developing East Asian markets		
People's Republic of China	−0.41	−0.37
Hong Kong, China	−0.51	−0.23
Indonesia	−0.03	−0.02
Republic of Korea	−0.30	−0.46
Malaysia	−0.49	−0.49
Philippines	−0.58	−0.04
Singapore	−0.34	−0.32
Thailand	−0.13	0.11

Notes: Stock indexes used in these estimates include the Standard & Poor's 500 Index for the United States, STOXX Europe 600 for Europe, Nikkei 300 Index for Japan, CSI 300 Index for China, KOSPI Index for the Republic of Korea, Jakarta Composite Stock Price Index for Indonesia, FTSE Bursa Malaysia KLCI Index for Malaysia, Philippine Stock Exchange PSE Index for the Philippines, Straits Times Index for Singapore, and Bangkok SET Index for Thailand. Cells highlighted in green, orange, and blue represent statistical significance at the 1%, 5%, and 10% levels, respectively.
Source: Authors' estimation using Bloomberg LP data.

continued on next page

Box 1: Effect of Global Trade Tensions on Financial Markets *continued*

implementation dates. Meanwhile, stock indexes in Japan, the Republic of Korea, Malaysia, and Singapore witnessed return declines ranging from 0.32% to 0.49%. These abnormal returns are statistically significant. The market reactions occur mostly around the implementation date when the trade restriction is confirmed, rather than the announcement date when there is still uncertainty around the nature of the eventual implementation of the trade restriction.

Overall, our evidence is consistent with the prevailing view that the effects on global trade and growth have been limited thus far. The reaction of financial markets to the ongoing trade tensions between the PRC and the US has been relatively calm and stable. This may be somewhat surprising given the serious ramifications of the conflict for regional and global trade and growth, as well as the sensitivity of financial markets to those ramifications. However, while the trade restrictions implemented so far by both governments have been substantial, especially the measures taken in July, they fall short of a full-fledged trade war. At the same time, evidence from a more in-depth analysis of equity markets suggests that emerging East Asian stock markets react significantly and negatively to trade tension news. These reactions might grow stronger if the conflict escalates further. In short, given the uncertainty about the eventual magnitude of the PRC–US trade conflict, financial markets seem to be rationally taking a wait-and-see approach before rendering their final judgment.

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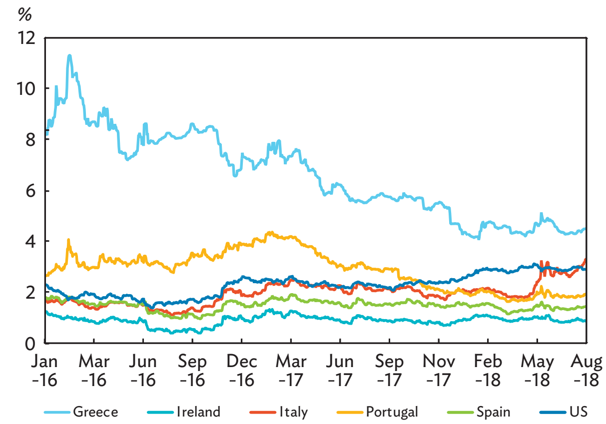
maintained the –0.1% short-term policy rate and yield curve control program, targeting a yield of zero on 10-year government bonds but with greater yield movement.

In line with the strong global growth momentum, developing Asia sustained its healthy expansion and continues to be the world's fastest-growing region.[4] According to the Asian Development Bank's *Asian Development Outlook Supplement 2018* released in July, the region's economy grew 6.1% in 2017 and is forecast to expand 6.0% in 2018 and 5.9% in 2019.[5] The individual economies of emerging East Asia are also expanding at a healthy pace. Despite concerted deleveraging to safeguard financial stability and escalating trade tensions with the US, the economy of the People's Republic of China (PRC) grew 6.9% in 2017 and is forecast to expand 6.6% in 2018 and 6.4% in 2019. Ongoing growth moderation in the PRC since the global financial crisis reflects a structural transition toward a more balanced and sustainable growth paradigm. The 2017, 2018, and 2019 growth figures for the 10 members of the Association of Southeast Asian Nations are 5.2%, 5.2%, and 5.2%, respectively. The high-income economies of the Republic of Korea and Hong Kong, China are projected to grow 3.0% and 4.0%, respectively, in 2018, and around 3.0% each in 2019. The region's healthy growth is broad-based and supported by global trade as well as domestic demand. Inflation is on the rise but remains below levels that would undermine financial or macroeconomic stability. The *Asian Development Outlook Supplement 2018* forecasts the region's consumer price inflation to rise from 2.2% in 2017 to 2.8% in 2018, before edging down slightly to 2.7% in 2019.

Despite solid global economic growth, uncertainties regarding trade tensions as well as rising risk aversion due to the turmoil in Turkey have led to a decline in 10-year government bond yields in most advanced economies. In the US, while the 2-year government bond yield rose by 14 bps amid continuing monetary policy normalization between 1 June and 15 August, the 10-year government bond yield fell by 4 bps in the same period, flattening the yield curve. Similar trends were also observed in the 10-year bond yields of select European markets (**Figure A2**). In contrast, Japan saw gains of 2 bps and 5 bps in its 2-year and 10-year government bond yields, respectively, largely driven by market expectations of a step toward monetary policy normalization preceding the July BOJ meeting. Bond yields started to fall after the July meeting but were still higher than those in the beginning of June.

Figure A2: 10-Year Government Bond Yields in Select European Markets and the United States (% per annum)



US = United States.
Note: Data as of 15 August 2018.
Source: Bloomberg LP.

In emerging East Asia, the LCY bond market continues to expand at a moderate pace of 3.2% quarter-on-quarter (q-o-q), reaching a total size of USD12.6 trillion at the end of June. Regional bond issuance recorded USD1.2 trillion in Q2 2018. Asia's green bond issuance is also on the rise with greater awareness among investors of environmental benefits (**Box 2**).

Between 1 June and 15 August, emerging east Asian bond yields diverged, driven both by US monetary policy normalization and individual domestic economic situations. The PRC, the Republic of Korea, Malaysia, and Singapore witnessed a slide in their 2-year and 10-year government bond yields. In the PRC, 2-year and 10-year government bond yields fell 21 bps and 5 bps, respectively, in line with the People's Bank of China's second reserve requirement ratio cut this year, which lowered the reserve requirement ratios for eligible banks by 50 bps on 24 June. The freed bank reserve funds are to be used by larger banks in debt-equity swaps

[4] Developing Asia comprises the 45 regional developing member economies of the Asian Development Bank.
[5] Asian Development Bank. 2018. *Asian Development Outlook Supplement 2018*. Manila.

Box 2: Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020

Asian green bond issuance has been on the rise over the past decade. While Japan ranks 9th and India ranks 11th globally in terms of green bond issuance since 2007, the entry of the People's Republic of China (PRC) into the green bond market in 2016 marked a turning point for Asia. Chinese deals now represent over 70% of green bond issuance volume from the region (**Figure B2.1**).

A more recent phenomenon is the increased green bond issuance activity from members of the Association of Southeast Asia Nations (ASEAN), led by green *sukuk* (Islamic bonds). In 2018, Indonesia became the first Asian sovereign green bond issuer when it raised USD1.25 billion via a green *sukuk* to finance a wide range of climate mitigation, adaptation, and resilience projects. As a result, Indonesia ranked 12th globally in the first half of 2018 in terms of green bond issuance by volume.

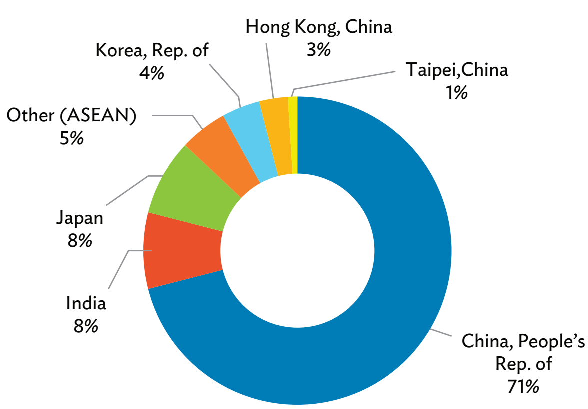
The PRC's green bond catalogue and the favorable regulatory framework put in place by the People's Bank of China and other relevant authorities have been instrumental in scaling up green bond issuance. Further, the central bank intends to expand the guaranteed scope of its medium-term lending facility by using suitable collateral, including green bonds and agricultural financial bonds, to ensure the healthy development of its financial system and aid the financing needs of small businesses. Green credit is a component of its macroprudential assessment, which means that the more green assets (green bonds and green lending) a bank has, the higher the score it will receive.

Major policy changes in the ASEAN region have the potential to underpin wider green bond market growth. For example, the ASEAN Green Bond Standards, launched in November 2017, have provided impetus for new issuance.[a] The ASEAN+3 Multicurrency Bond Issuance Framework was created by ASEAN, the PRC, Japan, and the Republic of Korea in 2015 to encourage domestic and regional issuers to take advantage of streamlined issuance approval processes. Green bond incentives in Hong Kong, China; Japan; Malaysia; and Singapore have made issuance more accessible to local issuers.

Asian green bond market growth reflects the global trend as 2017 saw yet another annual record, with global issuance exceeding USD162.5 billion, up 87% from USD87.0 billion in 2016.

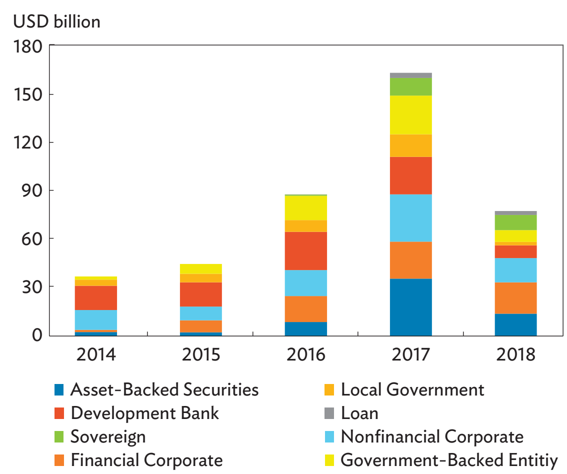
Higher issuance volumes were recorded in almost all sectors from 2014 through the first half of 2018 (**Figure B2.2**). The largest issuer during this period was United States (US) agency Fannie Mae with USD27.5 billion of green

Figure B2.1: Shares of Asian Green Bond Issuance by Economy in the First Half of 2018



ASEAN = Association of Southeast Asian Nations.
Source: Climate Bonds Initiative.

Figure B2.2: The Green Bond Market by Sector



Note: Data for 2018 through first half of the year only.
Source: Climate Bonds Initiative.

[a] For more details, see http://www.theacmf.org/ACMF/upload/ASEAN_Green_Bond_Standards.pdf.

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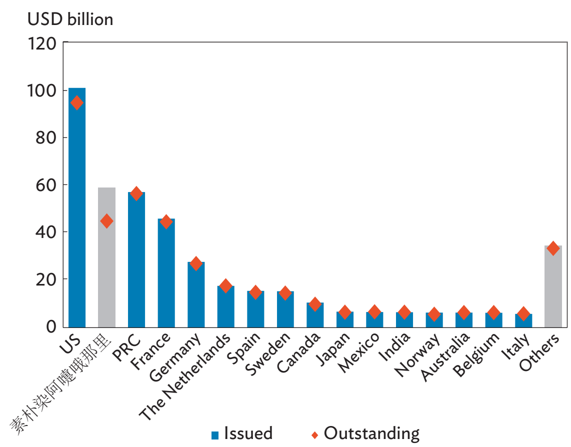
Box 2: Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020 *continued*

mortgage-backed (multifamily housing) securities issuance. France issued the single-largest green bond in 2017. Its EUR7.0 billion (USD7.4 billion) sovereign Green Obligation Assimilable du Trésor issued in January 2017 has subsequently been tapped four times, adding a further EUR7.8 billion.

The US, the PRC, and France dominate the global green bond market, but emerging market issuance is rising too. Cumulative global green bond issuance from 2007 through the first half of 2018 reached USD430.7 billion (**Figure B2.3**).

Figure B2.3: Cumulative Green Bond Issuance since 2007



PRC = People's Republic of China, US = United States.
Note: Data for 2018 through first half of the year only. Others is rest of the world.
Source: Climate Bonds Initiative.

Sovereign Green Bond Issuance Continues to Rise

Market growth is being supported by rising issuance from sovereign and subsovereign issuers. The march of sovereigns has continued since Fiji, France, and Nigeria made headlines with their respective issuances in 2017. Poland, the first to issue a sovereign green bond in late 2016, came to market in 2018 with a repeat issuance of EUR1.0 billion. Indonesia issued its landmark USD1.25 billion green *sukuk*. Belgium's EUR4.5 billion Green Obligations Linéaires Ordinaires became the second-largest green sovereign bond to date after France's Green Obligation Assimilable du Trésor. And, in May, Lithuania closed the first EUR20 million tranche of a EUR68 million sovereign green bond program that will finance energy efficiency upgrades in 156 apartment buildings.

There is more sovereign appetite. For example, Hong Kong, China's budget for fiscal year 2018/19 includes a proposed green bond program with a ceiling of HKD100 billion (USD12.8 billion).

The rise in sovereign issuance is complemented by continued growth in local government green bond issuance and deals placed by government-backed entities. Large-scale infrastructure investments—such as upgrading rail networks and water supply systems—are fundamental to addressing climate change. Sovereign and subsovereign issuance can unlock financing for these bigger projects.

Green bonds are a key tool for governments to raise capital to implement emissions reduction and new infrastructure plans in line with their Nationally Determined Contributions as set out in the Paris Agreement—the commitment to keep global warming to a maximum of 2ºC. They can signal a government's commitment to a low-carbon economic transition. They can also help bring down the cost of capital for green projects by attracting new investors and mobilizing domestic and offshore private capital toward sustainable development.

Green Bonds Finance Increasingly Diversified Assets

Renewable energy has dominated the use of proceeds allocation since market inception, representing around 40% of cumulative issuance. But sector diversity is increasing. In 2017, allocations to buildings more than doubled from 2016. Issuance in the low-carbon transport sector also grew substantially as issuers raised funding for rail infrastructure and urban public transport.

In the first half of 2018, energy led all sectors in terms of allocation with a share of 35%, buildings were second at 30%, followed by transport at 16% (**Figure B2.4**).

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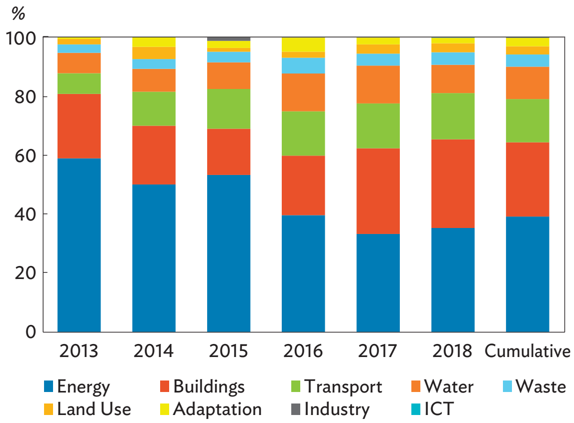
Box 2: Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020 *continued*

Figure B2.4: Increasing Diversity in Sector Allocation of Green Bond Proceeds



ICT = information and communication technology.
Notes: Data for 2018 through first half of the year only. The Climate Bonds Initiative uses a taxonomy that identifies eight sectors aligned with a low-carbon economy and specifically excludes fossil-fuel power generation. The sectors are clean energy, low-carbon buildings, low-carbon transport, sustainable water management, waste management and pollution control, sustainable land use, ICT and energy efficient processes, and products in industry. In addition, green bond proceeds can be allocated to climate resilience and adaptation projects. For details, see https://www.climatebonds.net/standards/taxonomy.
Source: Climate Bonds Initiative.

Use of External Reviews Is Becoming Mainstream

Over four-fifths of issued green bonds to date benefit from external reviews, with second-party opinions accounting for 74% of these reviews. CICERO holds the largest market share among second-party opinion providers, with 34% of issuance by volume. Increasingly, issuers are obtaining green bond reviews from global credit rating agencies such as Moody's and S&P Global Ratings, and from local rating agencies such as RAM (Malaysia) and R&I (Japan).

External reviews confirm compliance with the Green Bond Principles (GBP) administered by the International Capital Market Association, or the Green Loan Principles (GLP) promulgated by the Loan Market Association and the Asia-Pacific Loan Market Association and supported by the International Capital Market Association. The GBP and GLP require issuers to clearly define the eligibility criteria and selection process for green bond investments, manage the allocations, and confirm the use of proceeds in post-issuance reporting.

Adherence increases transparency and improves issuer credibility; investors are increasingly asking for compliance with the GBP, and green bond underwriters appear to be supporting greater use of external reviews by their issuer clients.

A green bond is generally defined as a fixed-income security where the proceeds will be allocated to investments that help reduce global greenhouse gas emissions. To demonstrate alignment with the Paris Agreement, issuers are increasingly using Certification under the Climate Bonds Standards. Cumulative issuance of Certified Climate Bonds reached USD76.9 billion in the first half of 2018.

The sector-specific criteria used for Certification under the Climate Bonds Standards and Certification Scheme are developed by subject matter experts, with input from industry stakeholders and investors. Their development is coordinated by the Climate Bonds Initiative (CBI).[b]

Certification requires independent verification that confirms not just compliance with the GBP and GLP, but also that the assets financed by the bond are on a trajectory consistent with decarbonization by 2050. Furthermore, this test is reaffirmed annually as part of post-issuance reporting.

As investors are increasingly focused on the green credentials of bonds and issuers, some of the largest banks and corporations in the world are adopting the Certification approach to demonstrate a clear connection with climate outcomes and best practice.

Green Bond Pricing: Is There an Observable "Greenium"?

Many green bond issuers reference preferential pricing from green bonds. This can mean that the new issue premium is smaller than an issuer has paid historically or had expected to pay, or, based on the Climate Bonds Standards definition, that a green bond was priced inside its own yield curve.

The yield curve is a schematic representation of the fair price one would expect of a new bond of a certain duration given the yields of an issuer's outstanding bonds. A bond pricing on its own yield curve is considered a good result for an issuer. If a bond prices outside the curve, it is said to offer a traditional new issue premium.

[b] CBI is an international organization working solely to mobilize the largest capital market of all, the USD100 trillion bond market, for climate change solutions. CBI promotes investment in projects and assets necessary for a rapid transition to a low-carbon and climate-resilient economy.

continued on next page

Box 2: Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020 *continued*

When a green bond prices inside its own curve—that is, when it offers a new issue discount—it offers a "greenium." In this sense, the CBI's use of the term greenium is much more specific than a bond simply pricing better than expected or better than a comparable bond. A bond pricing inside the curve, or at a greenium, would imply lower funding costs for issuers and lower yields for investors.

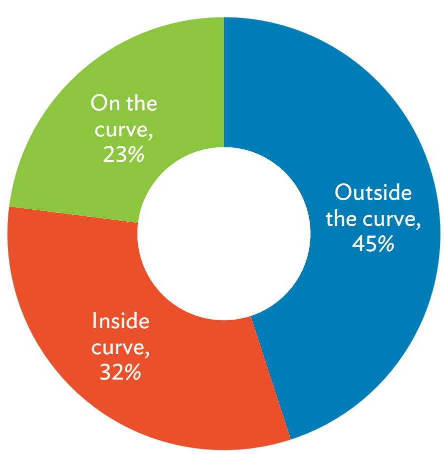
CBI Methodology for Green Bond Pricing Analysis

The CBI has analyzed sets of green bonds issued during 2016 and 2017 (**Figure B2.5**). To address the question of preferential pricing, yield curves were built for 42 green bonds that met CBI methodology criteria.

Bonds denominated in either US dollars or euros were first identified, and those with a bullet structure, fixed coupon, and minimum issue size of USD300 million (or the euro equivalent) were given further consideration. The list was narrowed to those bonds where sufficient data could be obtained to compare with vanilla equivalents. These were compared with bonds that were issued in the same quarter to ensure that economic conditions were comparable.

A total of 123 bonds with sufficient data fit this profile. The EUR-denominated green bonds tend to behave like vanilla equivalents; however, USD-denominated green bonds appear to perform better than vanilla equivalents on two counts. First, in terms of attracting investor interest, and second, in spread tightening during the book-building process—the period during which the bonds' bookrunners discussed and firmed up interest and pricing with investors.

Figure B2.5: Sample New Issue Premiums, 2016 and 2017



Source: Climate Bonds Initiative.

To address the question of preferential pricing, yield curves were built for 42 green bonds. Specifically, a bond yield curve was plotted for each issuer based on the vanilla bonds. Then the green bond was added to determine whether it priced outside, on, or inside the curve.

To build these curves, the yield-on-issue date was used, which reflects the price the green bond is offered on the issue date. For comparable bonds, the yield to convention mid was used. The modified duration to mid was used in all bonds, and all data are as of the pricing date of the green bond.

Bonds were included in the sample if there were a minimum of four comparable bonds. Comparable bonds used for this analysis must fit the same specifications as those used for green bond selection—including minimum size, credit rating, and term to maturity—except the use of proceeds is not limited. Bonds must share the same currency, credit rating, and payment rank as the green bond and have been issued after 1 January 2010.

Combining the 23 bonds priced on or inside their curves, the CBI found out that buyers of these green bonds could not automatically expect to receive a traditional new issue premium. Over half the bonds priced on or inside their curves, either of which is a good result for a new bond.

They also found that about half of the green bonds in the sample were allocated to green investors. The rest were bought either by those without a dedicated mandate but deliberately active in green bonds, or by those indifferent to the green label. This suggests that the green bond market receives support from all types of investors, which is crucial for the market to absorb the necessary growth in green bond issuance as entities from the public and private sectors invest in climate mitigation, adaptation, and resilience.

The CBI's pricing work is ongoing and is being updated to include green bonds issued in the first half of 2018. The results of this analysis will be published at the end of the third quarter of 2018. One of the observations is that demand for floating-rate bonds from US investors was robust in the first half of 2018 as they sought protection from rising interest

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Box 2: Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020 *continued*

rates. As a result, the sample of 29 green bonds issued in the first half of 2018 includes just six denominated in US dollars with fixed coupons.

The Race to the 2020 Target of USD1 Trillion in Annual Green Bond Issuance

2017 was a record year for green bonds, but there is still a long way to go to meet the level of investment required to hold global warming at the agreed target under the Paris Agreement. Growing expectations are being placed on the global financial system, banks, investment managers, and corporates to increase investment and close the growing climate finance gap.

To contribute significantly to the transition to a low-carbon economy, the CBI supports the Mission 2020 milestone of green bond issuance reaching the target of USD1 trillion per year by 2020. The CBI believes all major financial system stakeholders should collectively commit to achieving this outcome.

Source: M. Filkova and C. Harrison. Strong Growth in the Asian Green Bond Market Supports Global Push to Reach USD1 Trillion in Annual Issuance by 2020. Unpublished. Climate Bonds Initiative.

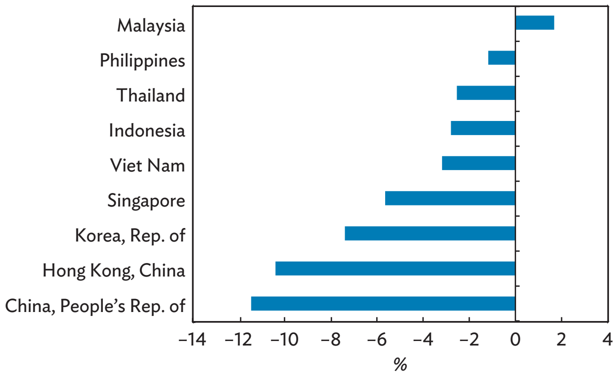
[b] Mission 2020 is a shared global campaign to fastrack actions to limit climate change. For details, see http://www.mission2020.global/.

and by smaller banks to finance small and medium-sized enterprises. Meanwhile, concerns over rising trade tensions and the impact of past deleveraging measures are putting downward pressure on the PRC's GDP growth, which slowed to 6.7% in Q2 2018 from 6.8% in Q1 2018. In the Republic of Korea, 2-year and 10-year government bond yields fell 11 bps and 21 bps, respectively, between 1 June and 15 August. The market expects no rate hikes by the Bank of Korea in 2018, given the last rate hike in November 2017. Economic growth in the Republic of Korea faces uncertainty amid increasing global trade tensions. At the July policy meeting, the Bank of Korea lowered its GDP growth forecasts for 2018 and 2019. In Singapore, the 2-year government bond yield was barely changed during the review period, while the yield on 10-year government bonds slid, tracking yield movements in the US. In Malaysia, bond yields fell on the expectation that Bank Negara Malaysia would maintain its policy rate amid a benign inflation outlook and stable economic growth. Malaysia also saw strong domestic demand for LCY government bonds.

Bond yields rose between 1 June and 15 August in other emerging East Asian markets where central banks acted to support currencies or tackle rising inflation. The yield on the 10-year government bond in Indonesia posted an increase of 102 bps. Bank Indonesia raised interest rates twice by 50 bps and 25 bps, respectively, on 29 June and 15 August to defend the Indonesian rupiah and in anticipation of upcoming rate hikes by the Federal Reserve. In the Philippines, the 10-year government bond yield rose 69 bps, following a 50-bps policy rate hike by the Bangko Sentral ng Pilipinas (BSP) on 9 August. The BSP continues to grapple with rising inflation, which picked up to 5.7% y-o-y in July from 5.2% y-o-y in June. During the August monetary meeting, the BSP indicated that there is some risk that inflation in 2019 will exceed the target range of 2.0%–4.0%. In Thailand, bond yields gained modestly, with the 10-year government bond yield rising 13 bps, largely in response to tightening by the Federal Reserve and expectations that the Bank of Thailand would tighten in the future. While the Bank of Thailand has largely held policy rates unchanged, on 8 August, Assistant Governor Jaturong Jantarangs indicated that the need for an accommodative monetary policy stance will lessen over time. In Hong Kong, China, the rise in bond yields was jointly driven by tightening US monetary policy and the intervention of the Hong Kong Monetary Authority (HKMA) in its currency market. In August, the HKMA initiated several currency purchases when the Hong Kong dollar's depreciation hit the weak-side limit, tightening Hong Kong dollar liquidity. Viet Nam's yield curve also rose, with 2-year and 10-year government bond yields increasing 143 bps and 31 bps, respectively. Rising yields partly reflect strong domestic growth expectations, with Viet Nam's GDP expanding 7.1% y-o-y in the first half of 2018. Expectations that the State Bank of Vietnam will tighten liquidity also contributed to rising yields.

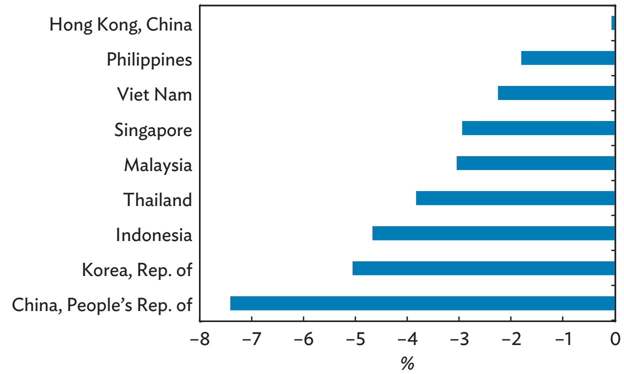
Between 1 June and 15 August, most equity markets in the region fell (**Figure B**) and major emerging east Asian

Figure B: Changes in Equity Indexes in Emerging East Asia



Note: Changes between 1 June 2018 and 15 August 2018.
Source: Bloomberg LP.

Figure C: Changes in Month-End Spot Exchange Rates vs. the United States Dollar



Notes:
1. Changes between 1 June 2018 and 15 August 2018.
2. A positive (negative) value for the foreign exchange rate indicates the appreciation (depreciation) of the local currency against the United States dollar.

Source: Bloomberg LP.

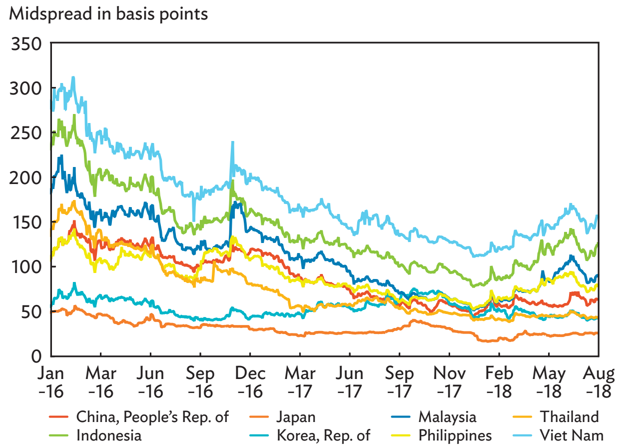
currencies depreciated (**Figure C**). Investors pulled out money from the region amid continued strengthening of the US dollar resulting from the Federal Reserve's monetary policy normalization, the trade conflict between the PRC and the US, and risk aversion toward emerging market assets prompted by the recent financial turmoil in Turkey.

During the review period, the PRC's equity market witnessed the largest drop at 11.4% and the Chinese renminbi depreciated the most at 7.4% on concerns of a slowdown in the PRC's economic growth amid a liquidity shortage, driven by government measures to mitigate credit risk, and rising trade tensions between the PRC and the US. The recent corporate bond defaults also contributed. Hong Kong, China's equity market was down during the review period, falling 10.4% on factors mentioned above related to the PRC as well as tightened liquidity as the HKMA took measures to support the domestic currency. The Hong Kong dollar continued to remain near the weak-end of its currency band, with the HKMA intervening to defend the currency again in August following similar steps in May. Meanwhile, the Republic of Korea's stock market fell 7.4% and the Korean won dropped 5.1% between 1 June and 15 August. The Indonesian rupiah continued to depreciate during the review period on persistent capital outflows from domestic financial markets and Bank Indonesia defended the currency by raising interest rates a total of 125 bps between May and August. In July, Bank Indonesia also resumed issuance of conventional Sertifikat Bank Indonesia, which can be bought by foreign investors, as another mechanism to help stabilize the rupiah.

Credit default swap (CDS) spreads in emerging East Asia remained high and experienced several swings during the review period (**Figure D**). CDS spreads peaked in June amid rising risk aversion driven by the trade dispute between the PRC and the US, which was followed by declines in July that turned to gains toward the end of the month on expectations that Japan would start monetary policy normalization along with other developed markets. In August, CDS spreads were driven higher by the financial market turbulence in Turkey and fears of risk contagion spreading to other emerging markets. A consistent trend was observed in Emerging Market Bond Index Global spreads and the Volatility Index during the review period (**Figure E**). Spreads in emerging markets rose higher in August, highlighting market perceptions of possible contagion effects in other larger emerging markets from the Turkish financial crisis. The Volatility Index rose more steeply in June than in August, highlighting the magnitude of the impact of trade tensions on the US equity market. The JP Morgan Emerging Markets Bond Index Sovereign Stripped Spreads also showed a similar rising trend beginning in August, but at a level that was much lower compared with that in June (**Figure F**).

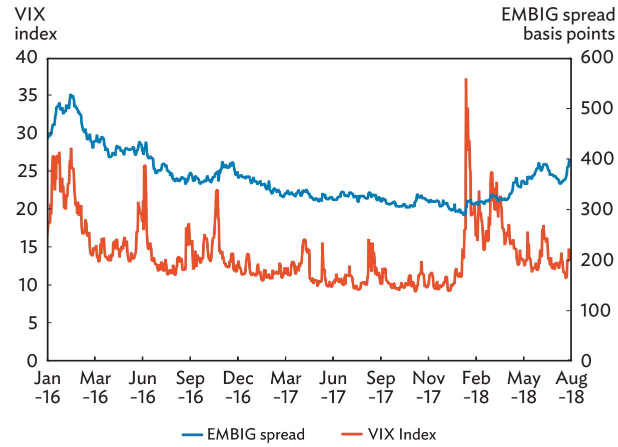
Q2 2018 was marked by a strengthening US dollar, which posed sell-off pressures in emerging markets. The turmoil

Figure D: Credit Default Swap Spreads in Select Asian Markets (senior 5-year)



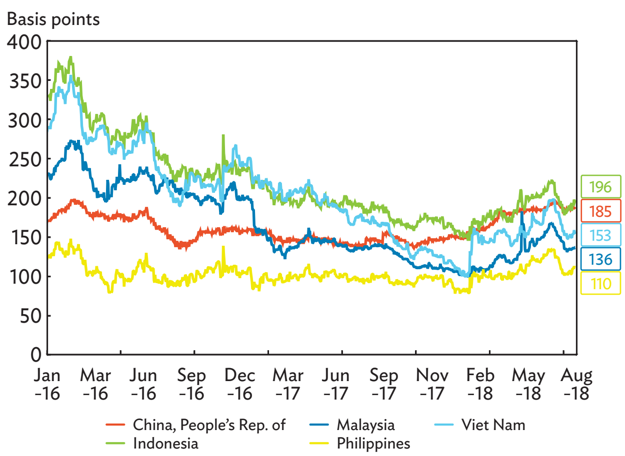
USD = United States dollar.
Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 August 2018.
Source: Bloomberg LP.

Figure E: United States Equity Volatility and Emerging Market Sovereign Bond Spread



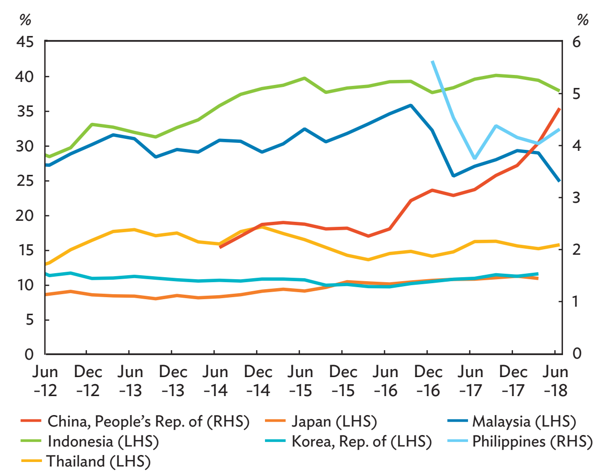
EMBIG = Emerging Markets Bond Index Global, VIX = Chicago Board Options Exchange Volatility Index.
Note: Data as of 15 August 2018.
Source: Bloomberg LP.

Figure F: JP Morgan Emerging Markets Bond Index Sovereign Stripped Spreads



USD = United States dollar.
Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 August 2018.
Source: Bloomberg LP.

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



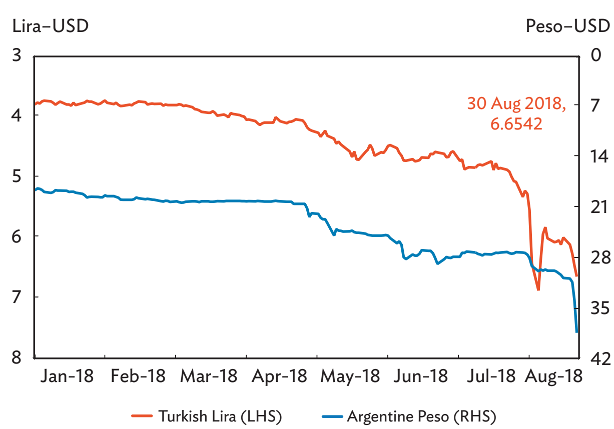
LHS = left-hand side, RHS = right-hand side.
Note: Data as of 30 June 2018 except for Japan and the Republic of Korea (31 March 2018).
Source: *AsianBondsOnline*.

surrounding the Turkish lira further soured investment sentiment. Foreign holdings of LCY government bonds in emerging East Asia showed divergent trends in Q2 2018 (**Figure G**). Foreign holdings in Malaysia fell by 4.1 percentage points during Q2 2018 to 24.8%, driven by uncertainties regarding the policies of the new administration. This trend reversed itself in July and net inflows resumed amid renewed confidence in the government's policies. Foreign holdings in Indonesia declined marginally in Q2 2018 to 37.8% at the end of June from 39.3% at the end of March. Investor sentiments turned positive after Bank Indonesia tightened its monetary policy. Foreign holdings in Japan and the Republic of Korea were mostly unchanged based on the most recent data available (March 2018). Foreign holdings in Thailand increased slightly in Q2 2018 to 15.7% at the end of June from 15.2% at the end of March. Foreign holdings in the PRC continued to rise in Q2 2018, reaching 4.7% at the end of June from 4.0% at the end of March, as its bond market further opens to international investors. In the Philippines, foreign holdings also increased but remained low at 4.3% at the end of June, up from 4.0% at the end of March.

While emerging East Asia enjoys strong economic growth and relative financial stability, a number of downside risks lurk on the horizon. Overall, risks to the region's economy and financial markets are tilted to the downside. Although there are some upside risks, such as a speedy resolution of global trade conflicts, these are largely related to and overshadowed by more concrete downside risks.

Most worryingly, recent financial turbulence in some emerging markets has raised concerns of spillover effects in developing Asia. Earlier this year, the Argentine peso and Turkish lira came under heavy pressure, triggering anxiety over a broader sell-off of emerging market assets. Both Argentina and Turkey are large emerging markets with sizable financial markets. As such, any major financial distress in either economy can have tangible repercussions for emerging markets as a whole.

Figure H: Turkish Lira and Argentine Peso versus the United States Dollar, 1 January–30 August 2018

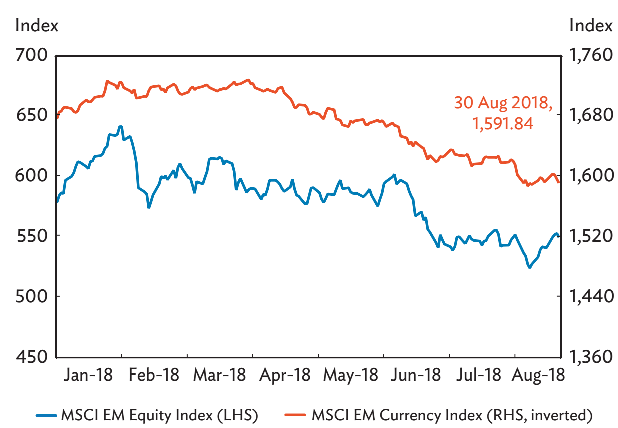


LHS = left-hand side, RHS = right-hand side, USD = United States dollar.
Source: Bloomberg LP.

The Turkish lira has sharply depreciated further in recent weeks (**Figure H**). The lack of market confidence in the lira is primarily due to a combination of (i) external vulnerabilities such as the foreign-currency-denominated-debt-to-GDP ratio, which exceeds 50.0%; (ii) poor macroeconomic fundamentals such as high and rising inflation, which topped 15.0% in July, and (iii) a weak policy regime as evidenced by the central bank's failure to raise interest rates to defend the lira. A further major blow to market confidence has been the heated dispute between the US and Turkish governments, which has resulted in the US imposing tariffs on Turkish products. The Argentine peso stabilized after the government took out a USD50 billion loan from the International Monetary Fund in June, but it fell sharply in late August despite the central bank raising interest rates to 60.0%.

The financial turbulence in Turkey is showing signs of spreading to other emerging markets. The MSCI Emerging Markets Currency Index fell to its lowest level in more than a year on 13 August, and the MSCI Emerging Markets Equity Index has declined more than 3.0% since its January peak (**Figure I**). The South African rand

Figure I: MSCI Emerging Markets Currency and Equity Indexes, 1 January–30 August 2018



EM = emerging markets, LHS = left-hand side, RHS = right-hand side, MSCI = Morgan Stanley Capital International.
Notes: The MSCI Emerging Markets Currency Index tracks the performance of 25 emerging market currencies relative to the United States dollar. More than half of the index weight comprises Asian currencies (50.2%). The currency index tracks the United States dollar value of the local currency.
The MSCI EM Equity Index captures large and midcap representation across 24 emerging markets. The index shares are as follows: the People's Republic of China (31.2%); the Republic of Korea (14.0%); Taipei,China (11.8%); India (9.0%); South Africa (6.8%); and others (27.1%).
Source: Bloomberg LP.

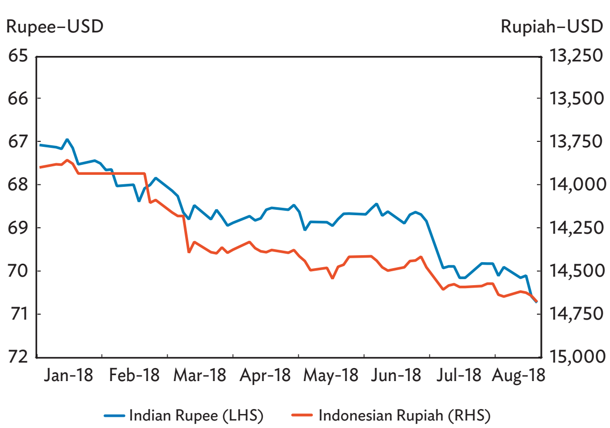
and Argentine peso have been hit particularly hard. Furthermore, 12 major emerging markets that are tracked daily by the Institute of International Finance experienced portfolio capital outflows of USD1.4 billion between 9 August and 15 August.[6]

Within Asia, the Indian rupee fell to a record-low against the US dollar in August, while the Indonesian rupiah slid to a 3-year low (**Figure J**). The depreciations were part of the broader weakness of regional currencies vis-à-vis the US dollar in 2018. The rupiah's fall prompted Bank Indonesia to raise its benchmark interest rate on 14 August by 25 bps to 5.5%. It marked the fourth hike in the last 4 months for a cumulative increase of 125 bps over this period. The HKMA also intervened preventively in the foreign exchange market to defend the Hong Kong dollar's peg to the US dollar. In terms of portfolio outflows between 9 August and 15 August, the PRC saw the largest outflows at USD500 million. India, Indonesia, the Republic of Korea, Malaysia, the Philippines, and Viet Nam also experienced moderate outflows.

At a broader level, however, the current risks to developing Asia seem limited as the Turkish lira's decline is predominantly due to economy-specific weaknesses. Furthermore, global investors appear to be discriminating between markets based on fundamentals, which is good news for the region with its strong fundamentals. Inflation is lower than in Turkey or Argentina (**Figure K**), and the current account positions of the region's individual economies are generally healthier. Finally, Bank Indonesia's latest interest rate hike, which went against market expectations, epitomizes the region's strong commitment to use policy tools to safeguard financial and macroeconomic stability. This should further boost market confidence in the region. Nevertheless, given the febrile state of global financial markets, Asian authorities would do well to monitor developments closely and be prepared to take preventive measures if warranted.

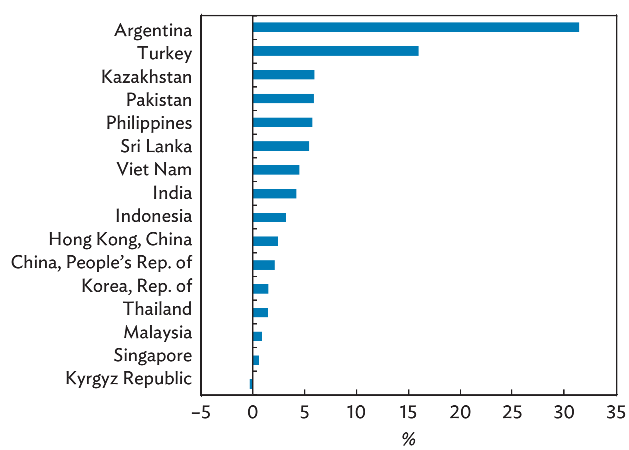
One contributing factor to the Turkish lira crisis has been the normalization of US monetary policy, which brings us to a second major risk linked to the first: faster-than-expected increases in US interest rates. The ongoing increase in US interest rates is strengthening the US dollar and drawing capital out of emerging markets. Both US dollar appreciation and capital outflows can further destabilize financial markets in emerging economies. However, the risk to emerging market financial stability has been limited so far because the rate hikes have been gradual and anticipated by the markets. However, the risk will grow if rate hikes gain speed and exceed market expectations. The likelihood

Figure J: Indian Rupee and Indonesian Rupiah versus the United States Dollar, 1 June–30 August 2018



LHS = left-hand side, RHS = right-hand side, USD = United States dollar.
Source: Bloomberg LP.

Figure K: Inflation in Select Economies, July 2018



Notes: Inflation data as of July 2018 except for the Kyrgyz Republic (December 2017).
Source: Bloomberg LP.

[6] The 12 markets include Brazil; Hungary; India; Indonesia; Malaysia; the People's Republic of China; the Philippines; the Republic of Korea; South Africa; Taipei,China; Thailand; and Viet Nam.

of such an acceleration will depend on the strength of the US economy. The likelihood has increased in light of the robust short-term US growth momentum, which is buoyed by significant fiscal stimulus and private demand. Current growth is widely seen as being above potential growth, contributing to inflationary pressures that may push the Federal Reserve toward more aggressive monetary tightening.

Finally, escalating global trade tensions linger over the world economy and global financial markets like a dark cloud. Especially worrisome is the increasingly heated trade dispute between the world's two biggest economies, the PRC and the US. Emerging East Asia is closely tied with both economic giants through trade, investment, and other economic links. The rest of the region forms a pivotal regional production network with the PRC in global value chains. Up to now, the negative impacts of their protectionist measures on global growth has been very limited, partly because the implemented and expected measures cover only a small share of global trade and output. For example, the tit-for-tat trade dispute between the PRC and the US directly affects only 0.5% of the PRC's GDP and 0.3% of US GDP. However, the damage to trade and growth is likely to become much more tangible if the tensions significantly escalate. In particular, the trade conflict with the US may further hamper the GDP growth of the PRC, which was already slowing due to deleveraging. The slowdown will pose an additional risk to the region's economic and financial stability if the deceleration is faster than expected.

While the direct and immediate effects of trade tensions will be on global trade, we can also expect secondary effects on financial markets. Specifically, the prospects of a trade conflict may dent consumer and investor confidence and thus adversely affect financial markets. In line with the effects on trade and growth, global financial markets have not been visibly unsettled by the trade disputes so far. However, just as trade and growth will be more affected if the conflict worsens, financial markets too are likely to be hit much harder.

Besides the risks mentioned above, a number of additional downside risks loom. The region's private debt, which has grown rapidly since the global financial crisis, may become a source of instability, especially since global financial conditions are now tightening. Another risk comes from global oil price volatility due to geopolitical developments such as the US imposition of economic sanctions against Iran and domestic political problems in Venezuela. Yet another potential risk to financial stability is new financial technology such as the distributed ledger technology underlying Bitcoin and other cryptocurrencies (**Box 3**). To sum up, the downside risks to emerging East Asia's financial stability currently outweigh the upside risks.

Box 3: Are Cryptocurrencies a Threat to Financial Stability?

The past few years have seen the rapid rise of Bitcoin and other virtual currencies, which are also known as cryptocurrencies. Bitcoin is an electronic currency system in which transactions are validated by a cryptographically protected public ledger, or blockchain, rather than a central authority.

A speculative frenzy caused the price of Bitcoin to triple to nearly USD20,000 from September to December 2017. This was up from less than USD1,000 at the beginning of 2017 and less than USD500 in 2016 (**Figure B3.1**). Prices spiked as well for many other virtual currencies that have emerged recently, such as Ethereum and Ripple, bringing total market capitalization to nearly USD800 billion in early January 2018 before a major selloff erased nearly 70% of that value (**Figure B3.2**). By early February, the price of Bitcoin had fallen to nearly one-third of its peak just a month earlier.

Governments have long been wary of the potential misuse of virtual currencies to evade taxes or finance illicit activities. In view of excessive speculation and rapidly proliferating financial activities involving virtual currencies, some authorities have restricted their use and circulation. Within Asia, the response has been far from uniform. Several economies—including the People's Republic of China; Hong Kong, China; the Republic of Korea; and Singapore—do not allow firms to raise capital through initial coin offerings. This is a new form of initial public offering from a company issuing and selling virtual currencies that ostensibly removes the offering from the sphere of securities laws and regulations; its use has expanded rapidly (**Figure B3.3**).

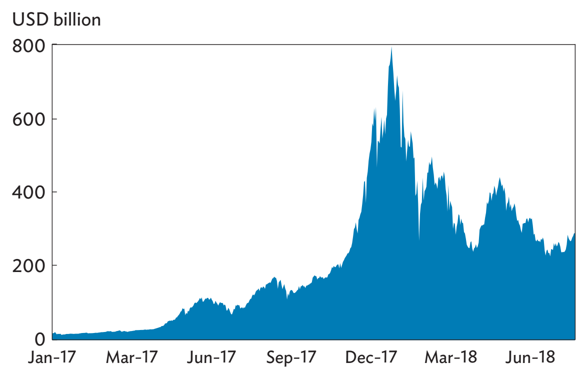
Figure B3.1: Bitcoin Price

Note: Data as of 25 July 2018.
Source: Cryptocompare.

The People's Republic of China has clamped down the most on virtual currency, stepping up measures to remove trading platforms and restrict Bitcoin mining, which exploits cheap electricity in parts of its territory. Viet Nam has banned the use of cryptocurrencies for making payments, while India and the Republic of Korea are among those economies that have issued stern warnings but not yet followed through with a full crackdown.

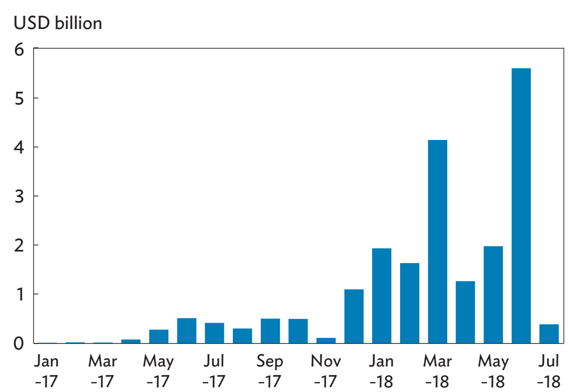
Other governments have embraced virtual currencies, reeling in the slack created by bans elsewhere. Japan recognized Bitcoin as a legal form of payment in 2017, with the currency

Figure B3.2: Market Capitalization of All Cryptocurrencies



Note: Data as of 25 July 2018.
Source: Coin Dance. https://coin.dance/stats/marketcaphistorical (accessed 25 July 2018).

Figure B3.3: Initial Coin Offerings



Note: Initial coin offerings are valued using the Bitcoin exchange rate at the time of the offering.
Source: CoinSchedule. http://coinschedule.com/stats.html (accessed 25 July 2018).

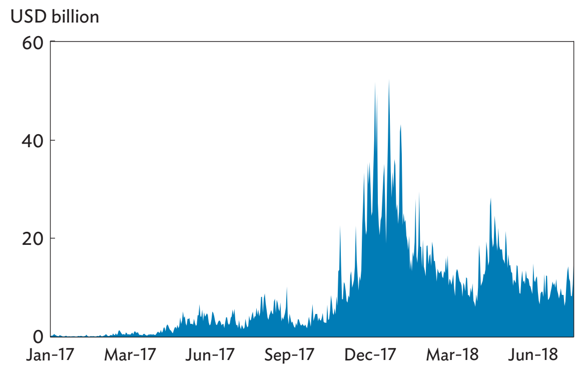
continued on next page

Box 3: Are Cryptocurrencies a Threat to Financial Stability? *continued*

being accepted by a growing number of Japanese retailers. In September 2017, Japan became home to the largest Bitcoin exchange, with a global market share of more than half. Outside the Asia and Pacific region, Switzerland is the most keen to maintain a competitive edge in initial coin offerings and blockchain applications, with the authorities there striving to provide a suitable regulatory environment.

Virtual currencies are too small a phenomenon to pose a threat to domestic or global financial systems, at least so far. Their total market capitalization in March 2018 equaled a mere 0.2% of global equity and bond capitalization, and they are traded and held outside normal financial channels. Many banks still refuse to deal in cryptocurrencies because of concerns over money laundering and terrorism financing. Some even ban customers from buying them with their credit cards. While the risks of contagion are limited, ramps linking the traditional financial system and the cryptocurrency world have proliferated. Most notably, in December 2017, the Chicago Mercantile Exchange and the Chicago Board Options Exchange, two major derivatives exchanges in the United States, created Bitcoin futures contracts. Moreover, many large banks are developing products and services focused on virtual currencies. Daily trading volumes on crypto–fiat currency exchanges (trading between virtual and national currencies) have risen rapidly, albeit with a hiatus earlier this year as prices plunged (**Figure B3.4**).

Figure B3.4: Daily Cryptocurrency Trading Volume



Notes:
1. The figure includes the top 20 cryptocurrencies in terms of market capitalization.
2. Data as of 25 July 2018.

Source: CoinMarketCap.

Regulators are gearing up to ring-fence financial systems against the risks associated with this new asset class. Regulatory responses are being tested at the domestic level, but they are not yet able to deal effectively with a global phenomenon that operates in a widely decentralized manner outside conventional financial channels. International coordination is essential to address these challenges and ensure adherence to domestic rules and regulations. International organizations such as the International Monetary Fund and the Bank for International Settlements are well suited to foster cross-border coordination and legal harmonization, and to help establish international standards and best practices.

The review of cryptocurrencies in this discussion box introduces the broader point that the underlying blockchain technology is viable and ripe for broader application. Indeed, distributed ledger technology (DLT)—the broader but usually interchangeable term—opens opportunities for applications that can revolutionize the financial sector. DLT-based clearing and settlement is beginning to replace inefficient back-office infrastructure, while operations such as exchanging cash for securities will increasingly be accomplished in a matter of seconds, rather than days as is currently the case.

DLT has far-reaching implications for the developing world in multiple areas, including remittances, emergency aid delivery, microcredit, trade finance, smart energy, and individual digital identity. Collaborative efforts joining national governments, international agencies, and technology firms are demonstrating the potential to deliver tangible improvements in development outcomes. The challenges that so far limit DLT applicability to development efforts call for further technical, infrastructural, and regulatory efforts to overcome them.

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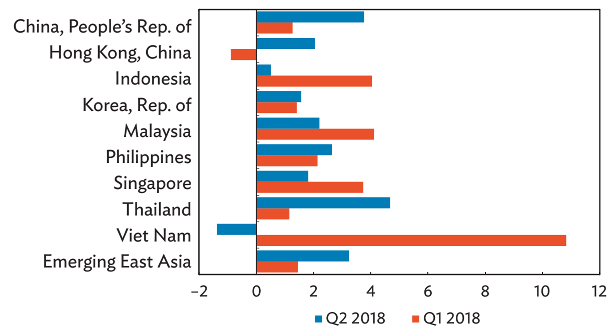
Bond Market Developments in the Second Quarter of 2018

Size and Composition

Emerging East Asia's local currency bond market's quarter-on-quarter growth accelerated to 3.2% in the second quarter of 2018 from 1.5% in the first quarter of 2018 to reach a size of USD12.6 trillion.

Emerging East Asia's local currency (LCY) bond market posted moderate growth of 3.2% quarter-to-quarter (q-o-q) to reach USD12.6 trillion at the end of June 2018.[7] This was an acceleration from the 1.5% q-o-q growth posted in the first quarter (Q1) of 2018 as aggregate bond issuance volume in the region jumped in the second quarter (Q2) of 2018. All individual bond markets in the region expanded on a q-o-q basis in Q2 2018 with the exception of Viet Nam. Five economies posted faster q-o-q growth rates in Q2 2018 than in Q1 2018 (**Figure 1a**).

Figure 1a: Growth of Local Currency Bond Markets in the First and Second Quarters of 2018 (q-o-q, %)



q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 30 June 2018 currency exchange rates and do not include currency effects.
4. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.

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

The People's Republic of China (PRC) is home to the largest LCY bond market in the region, comprising 71.7% of total outstanding bonds. In Q2 2018, the PRC bond market led the region's growth, posting an expansion of 3.8% q-o-q to reach a size of USD9.0 trillion at the end of June. This was higher than the marginal growth of 1.3% q-o-q posted in Q1 2018. The faster growth was driven by a surge in issuance in Q2 2018, primarily due to the August deadline of the PRC's local government debt-to-bond swap program. As the program neared completion, local government bond issuance jumped more than five times in Q2 2018 following tepid issuance in the previous quarter. The outstanding amount of local government bonds grew 6.9% q-o-q to USD2.4 trillion at the end of June. The stock of Treasury bonds and policy bank bonds also rose in Q2 2018, up 3.3% q-o-q and 3.0 q-o-q, respectively. The PRC's corporate bond market expanded 2.1% q-o-q in Q2 2018 to reach a size of USD2.5 trillion at the end of June.

The Republic of Korea's LCY bond market, the second-largest in emerging East Asia with a regional share of 15.8%, rose 1.6% q-o-q to USD2.0 trillion in Q2 2018. This was slightly higher than the 1.4% q-o-q growth posted in Q1 2018 and was driven by both the government and corporate bond segments. The outstanding stock of government bonds increased 2.4% q-o-q, driven by the rise in central government bonds in line with the government's plan to increase borrowing and spending in 2018 to boost growth. The amount of outstanding Monetary Stabilization Bonds, which are issued by the Bank of Korea to manage market liquidity, declined in Q2 2018 despite high issuance due to an even larger volume of maturities. The Republic of Korea's LCY corporate bond market expanded 1.0% q-o-q as companies issued more bonds in Q2 2018 in anticipation of rising interest rates.

In Hong Kong, China, total LCY bonds outstanding reached USD246 billion at the end of June, up 2.1% q-o-q

[7] 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.

from the end of March and a reversal from the 0.9% q-o-q contraction posted in Q1 2018. The expansion was largely driven by the 3.9% q-o-q growth in the corporate bond market. Local companies took advantage of relatively low interest rates to raise funds in anticipation of rising interest rates. Hong Kong's monetary policy is tightly linked to that of the United States (US), where the Federal Reserve is expected to hike rates further during the rest of the year. Outstanding government bonds in Hong Kong, China posted marginal growth of 0.8% q-o-q as the rise in the stock of Hong Kong Special Administrative Region (HKSAR) bonds and Exchange Fund Bills was capped by the decline in Exchange Fund Notes. The growth in the amount of total HKSAR bonds was due to increased issuance in Q2 2018 as part of the Institutional Bond Issuance Programme. Exchange Fund Bills also rose during the quarter due to high demand from investors as the market remained awash with liquidity.

The aggregate size of the LCY bond markets of Association of Southeast Asian Nations (ASEAN) economies for which data are available reached USD1.3 trillion at the end of June on a 2.4% q-o-q increase. Excluding Viet Nam, all economies posted positive q-o-q increases in Q2 2018. Total government bonds outstanding among ASEAN economies rose 2.9% q-o-q to USD903 billion at the end of June, comprising 68% of ASEAN's total bond stock. The corporate bond market reached a size of USD420 billion in Q2 2018 on growth of 1.5% q-o-q.

Thailand remained home to the largest bond market among ASEAN member economies in Q2 2018 and posted the fastest growth in the emerging East Asia region at 4.7% q-o-q, an acceleration from the 1.2% q-o-q expansion in Q1 2018. The outstanding size of Thailand's LCY bond market reached US362 billion at the end of June. The robust growth was driven by the government bond sector, which rose 5.6% q-o-q in Q2 2018 on increased central bank bond issuance from the Bank of Thailand. The central bank gradually increased issuance of short-term bonds in Q2 2018 after having eased such issuance beginning in April 2017. The rapid rise in the Thai baht in 2017 had prompted the Bank of Thailand to reduce issuance of its short-term bonds due to high rates of foreign investor participation. The outstanding size of other central government bonds and bonds issued by state-owned enterprises also rose in Q2 2018. Thailand's corporate bond market expanded 2.4% q-o-q in the same period.

Malaysia's LCY bond market growth slowed to 2.2% q-o-q in Q2 2018 from 4.1% q-o-q in Q1 2018 on reduced issuance volume in both the government and corporate segments. Total outstanding LCY bonds in Malaysia reached a size of USD339 billion at the end of June. The stock of LCY government bonds in Malaysia posted growth of 2.5% q-o-q, led by an increase in the outstanding amounts of Malaysian Government Securities and Government Investment Issues. The expansion of Malaysia's corporate bond market also slowed in Q2 2018 to 1.9% q-o-q from 3.5% q-o-q in the previous quarter. Some companies waited out the period leading up to and following the general elections in May as uncertainties over the policies to be implemented by the new government weighed on market sentiments.

Malaysia remained the largest *sukuk* (Islamic bond) market in emerging East Asia, with outstanding *sukuk* reaching USD817 billion at the end of June on growth of 2.7% q-o-q. *Sukuk* continued to comprise a majority of Malaysia's domestic bond market with a share of 59.7%. Malaysia's LCY corporate bond market is dominated by *sukuk*, with a share of 75.6%, while *sukuk* comprise 45.5% of the government bond market.

In Singapore, growth in the LCY bond market eased to 1.8% q-o-q in June following an increase of 3.7% q-o-q in March, to reach a size of USD281 billion. The growth was solely driven by the rise in the stock of outstanding government bonds as corporate bonds fell 0.1% q-o-q in Q2 2018. The expansion in Singapore's LCY government bond market was due to the robust issuance of central bank bills by the Monetary Authority of Singapore as part of efforts to mop up excess liquidity in the market. The slight decline in Singapore's corporate bond market in Q2 2018 was due to tepid issuance, with the quarter marked by rising interest rates that made it costly for companies to issue bonds.

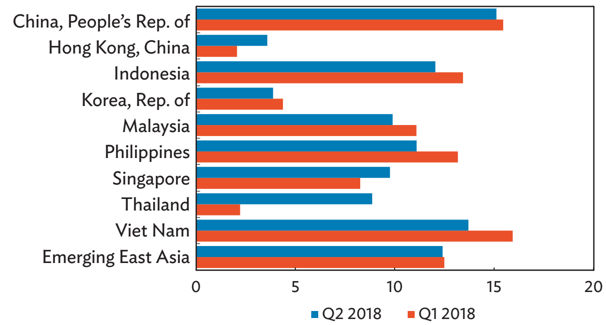
Indonesia's LCY bond market was barely changed from the previous quarter, up only 0.5% q-o-q to reach a total size of USD182 billion at the end of June, a deceleration from the 4.0% q-o-q increase in Q1 2018. The marginal growth was due to reduced issuance of Treasury bonds in Q2 2018 from a high base in the previous quarter, which was in line with the government's frontloading policy in which borrowing is generally conducted at the start of the year. Unsuccessful auctions also contributed to the slow growth as market participants sought higher yields amid an environment of rising interest rates and the continued depreciation of the Indonesian rupiah. The outstanding amount of Indonesia's central bank bills declined in Q2 2018. Indonesia's corporate bond market remained small, posting minimal growth of 0.5% q-o-q.

In the Philippines, the outstanding size of the LCY bond market was up 2.6% q-o-q at the end of June, slightly higher than the 2.1% q-o-q growth posted in Q1 2018. Growth was supported by both government bonds and corporate bonds. Total government bonds outstanding rose 2.5% q-o-q in Q2 2018 as a result of the PHP121.8 billion Retail Treasury Bond issuance in June. However, the large volume of maturities during the quarter capped the bond market's expansion. The government raised its planned issuance for Q2 2018 by 35.0% from Q1 2018, particularly for short-term Treasury bills, due to the high demand for short-term paper observed in the previous quarter. However, the planned issuance volume was not reached because of a number of failed auctions as market participants sought higher yields. The Philippine corporate bond market remains one of the smallest in the region but continued to grow in Q2 2018, posting a 3.2% q-o-q increase.

Viet Nam's LCY bond market was the only market in the region that contracted in Q2 2018, falling 1.4% q-o-q to USD51 billion following a 10.8% q-o-q rise in Q1 2018. The contraction was driven by a drop in outstanding government bonds, which fell 2.1% q-o-q in Q2 2018. Only Treasury bills and bonds posted q-o-q growth in Q2 2018, while the outstanding amount of central bank bills and government-guaranteed and municipal bonds fell during the quarter. Despite comprising a mere 5% of total outstanding government bonds, the drop in the stock of central bank bills, due to maturities exceeding new issuance, was the main driver of the q-o-q decline in government bonds. Viet Nam's corporate bond market remained underdeveloped but continued to expand, posting robust growth of 10.6% q-o-q in Q2 2018.

On a year-on-year (y-o-y) basis, emerging East Asia's LCY bond market expanded 12.4% at the end of June, slightly easing from 12.5% growth in Q1 2018 (**Figure 1b**). Most economies in the region posted lower annual growth rates in Q2 2018, with only three markets having higher growth rates. The PRC and Viet Nam posted the highest annual growth rates at 15.1% y-o-y and 13.7% y-o-y, respectively, the latter being a small, developing market. Hong Kong, China and the Republic of Korea posted the slowest expansions at 3.6% y-o-y and 3.9% y-o-y, respectively.

Figure 1b: Growth of Local Currency Bond Markets in the First and Second Quarters of 2018 (y-o-y, %)



Q1 = first quarter, Q2 = second quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 30 June 2018 currency exchange rates and do not include currency effects.
4. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.

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

Emerging East Asia's LCY bond market continues to be dominated by government bonds, which account for two-thirds of the regional total while the remaining one-third comprises corporate bonds (**Table 1**).

The region's aggregate LCY government bond market rose 4.0% q-o-q in Q2 2018, up from a 1.3% q-o-q increase in Q1 2018. Excluding Viet Nam, all government bond markets in emerging East Asia posted positive q-o-q growth rates in Q2 2018.

The PRC remained the largest government bond market in the region at the end of June with an outstanding size of USD6.5 trillion and a regional share of 78%, thereby driving emerging East Asia's LCY bond market growth by virtue of its size. The Republic of Korea continued to be the second-largest government bond market in the region with outstanding bonds of USD841 and a share of 10%. Among ASEAN economies, Thailand had the largest government bond market at the end of June, followed by Malaysia and Singapore. The Philippines (USD86 billion) and Viet Nam (USD48 billion) remained the smallest government bond markets in emerging East Asia. Thailand and the PRC registered

Table 1: Size and Composition of Local Currency Bond Markets

	Q2 2017		Q1 2018		Q2 2018		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
							Q2 2017		Q2 2018		Q2 2017		Q2 2018	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	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	7,658	100.0	9,177	100.0	9,026	100.0	4.1	12.9	3.8	15.1	5.7	10.7	(1.6)	17.9
Government	5,480	71.6	6,616	72.1	6,548	72.5	5.8	18.8	4.4	16.7	7.5	16.4	(1.0)	19.5
Corporate	2,178	28.4	2,562	27.9	2,479	27.5	(0.1)	0.5	2.1	11.1	1.5	(1.4)	(3.2)	13.8
Hong Kong, China														
Total	239	100.0	241	100.0	246	100.0	0.6	6.1	2.1	3.6	0.1	5.5	2.1	3.1
Government	138	57.8	146	60.8	148	60.1	0.8	6.3	0.8	7.6	0.3	5.6	0.9	7.1
Corporate	101	42.2	94	39.2	98	39.9	0.2	5.9	3.9	(2.0)	(0.2)	5.3	4.0	(2.4)
Indonesia														
Total	175	100.0	189	100.0	182	100.0	1.8	16.4	0.5	12.0	1.6	15.2	(3.7)	4.3
Government	150	85.7	160	84.6	154	84.6	1.5	15.3	0.5	10.5	1.3	14.1	(3.7)	2.9
Corporate	25	14.3	29	15.4	28	15.4	3.6	23.1	0.5	21.0	3.4	21.9	(3.7)	12.8
Korea, Rep. of														
Total	1,869	100.0	2,056	100.0	1,993	100.0	2.1	3.6	1.6	3.9	(0.2)	4.3	(3.1)	6.6
Government	780	41.7	860	41.9	841	42.2	2.3	4.6	2.4	5.1	(0.01)	5.3	(2.3)	7.8
Corporate	1,089	58.3	1,195	58.1	1,152	57.8	1.9	2.9	1.0	3.0	(0.4)	3.6	(3.7)	5.8
Malaysia														
Total	290	100.0	347	100.0	339	100.0	3.3	7.1	2.2	9.9	6.5	0.5	(2.2)	16.8
Government	156	53.8	182	52.6	179	52.8	2.9	4.0	2.5	7.9	6.1	(2.4)	(1.9)	14.7
Corporate	134	46.2	164	47.4	160	47.2	3.8	10.9	1.9	12.2	7.0	4.1	(2.5)	19.3
Philippines														
Total	102	100.0	107	100.0	108	100.0	4.6	10.2	2.6	11.1	4.0	3.0	0.4	5.0
Government	83	81.5	86	80.1	86	80.0	5.0	8.5	2.5	9.0	4.4	1.4	0.3	3.1
Corporate	19	18.5	21	19.9	22	20.0	2.7	18.5	3.2	20.0	2.2	10.7	0.9	13.5
Singapore														
Total	254	100.0	287	100.0	281	100.0	0.4	8.1	1.8	9.7	2.0	5.8	(2.0)	10.9
Government	150	59.2	175	61.1	174	61.8	0.8	13.7	3.0	14.7	2.4	11.3	(0.8)	15.9
Corporate	104	40.8	112	38.9	107	38.2	(0.1)	0.8	(0.1)	2.5	1.4	(1.3)	(3.8)	3.6
Thailand														
Total	323	100.0	366	100.0	362	100.0	(1.7)	5.8	4.7	8.8	(0.5)	9.5	(1.2)	11.8
Government	235	72.6	263	71.9	262	72.5	(3.4)	3.2	5.6	8.7	(2.3)	6.8	(0.3)	11.7
Corporate	89	27.4	103	28.1	99	27.5	3.3	13.5	2.4	9.1	4.5	17.5	(3.4)	12.1
Viet Nam														
Total	45	100.0	52	100.0	51	100.0	0.6	6.8	(1.4)	13.7	0.7	4.8	(2.0)	12.7
Government	43	94.6	49	94.1	48	93.4	1.3	6.8	(2.1)	12.2	1.4	4.8	(2.7)	11.2
Corporate	2	5.4	3	5.9	3	6.6	(10.7)	7.9	10.6	39.6	(10.6)	5.8	9.9	38.3
Emerging East Asia														
Total	10,956	100.0	12,822	100.0	12,587	100.0	3.3	10.6	3.2	12.4	4.2	9.0	(1.8)	14.9
Government	7,215	65.9	8,538	66.6	8,439	67.0	4.7	15.5	4.0	14.5	5.8	13.7	(1.2)	17.0
Corporate	3,741	34.1	4,284	33.4	4,148	33.0	0.7	2.2	1.8	8.3	1.2	0.9	(3.2)	10.9
Japan														
Total	10,140	100.0	10,848	100.0	10,445	100.0	0.6	2.2	0.3	1.5	(0.3)	(6.2)	(3.7)	3.0
Government	9,441	93.1	10,125	93.3	9,754	93.4	0.7	2.2	0.4	1.8	(0.2)	(6.1)	(3.7)	3.3
Corporate	699	6.9	723	6.7	691	6.6	0.4	1.6	(0.3)	(2.6)	(0.5)	(6.7)	(4.4)	(1.1)

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
2. Corporate bonds include issues by financial institutions.
3. Bloomberg LP end-of-period LCY–USD rates are used.
4. For LCY base, emerging East Asia growth figures are based on 30 June 2018 currency exchange rates and do not include currency effects.
5. Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; and Indonesia Stock Exchange); Republic of Korea (*EDAILY BondWeb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore, Singapore Government Securities, and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

the fastest q-o-q growth rates in the region at 5.6% and 4.4%, respectively.

The region's aggregate LCY corporate bond market expanded 1.8% q-o-q in Q2 2018, which was almost at par with the 1.7% q-o-q growth posted in the previous quarter. The PRC continued to be home to the largest corporate bond market in emerging East Asia at a size of USD2.5 trillion, comprising 60% of the regional total. The Republic of Korea was second at USD1.2 trillion and a share of 28%. The corporate bond markets in Indonesia (USD28 billion), the Philippines (USD22 billion), and Viet Nam (USD3 billion) remained the smallest in the region. Viet Nam posted emerging East Asia's fastest growth rate in Q2 2018 at 10.6% q-o-q as its corporate bond market continued to develop with the emergence of new issuers. This was followed by Hong Kong, China (3.9% q-o-q) and the Philippines (3.2% q-o-q). Only Singapore posted a q-o-q decline in its corporate bond market in Q2 2018.

As a percentage of the region's GDP, the size of the emerging East Asian bond market rose to 71.2% in Q2 2018 from 70.4% in Q1 2018 as most economies in the region experienced slower economic growth than bond market growth (**Table 2**). The share of the region's government bond market to GDP rose to 47.7% from 46.9% during the review period, while that of the region's corporate bond market was unchanged at 23.5%. All economies in the region posted higher shares of bonds-to-GDP at the end of June versus the end of March except for Indonesia and Viet Nam. The Republic of Korea and Malaysia continued to have the highest shares of bonds-to-GDP in the region at the end of June at 126.2% and 98.4%, respectively.

Foreign investors' share in Malaysia and Indonesia's LCY government bond markets fell in Q2 2018.

Movements in foreign investor holdings in emerging East Asia's government bond markets were mixed in Q2 2018 as investors assessed the economic fundamentals of each market (**Figure 2**). In the PRC, foreign investors continued to pour funds into government bonds as the PRC gradually opens up its bond market. Investors were also attracted to the

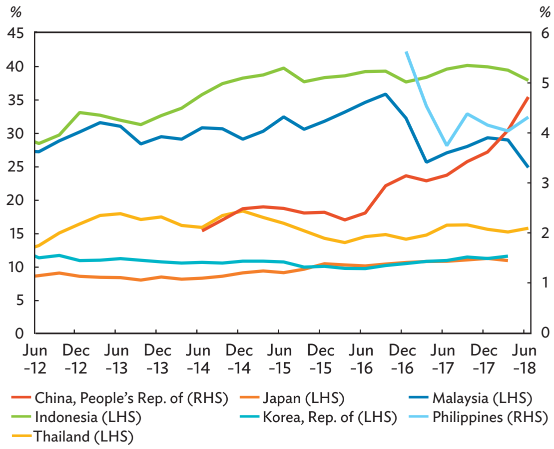
Table 2: Size and Composition of Local Currency Bond Markets (% of GDP)

	Q2 2017	Q1 2018	Q2 2018
China, People's Rep. of			
Total	66.4	68.1	69.1
Government	47.5	49.1	50.1
Corporate	18.9	19.0	19.0
Hong Kong, China			
Total	72.3	69.6	69.7
Government	41.8	42.3	41.9
Corporate	30.5	27.3	27.9
Indonesia			
Total	17.9	18.7	18.4
Government	15.4	15.8	15.6
Corporate	2.6	2.9	2.8
Korea, Rep. of			
Total	127.3	125.3	126.2
Government	53.1	52.4	53.3
Corporate	74.2	72.9	73.0
Malaysia			
Total	96.2	97.6	98.4
Government	51.7	51.4	51.9
Corporate	44.5	46.3	46.5
Philippines			
Total	34.2	34.6	34.7
Government	27.9	27.7	27.8
Corporate	6.3	6.9	7.0
Singapore			
Total	79.8	83.3	83.8
Government	47.2	50.9	51.8
Corporate	32.6	32.4	32.0
Thailand			
Total	73.3	72.8	75.0
Government	53.2	52.3	54.4
Corporate	20.1	20.5	20.6
Viet Nam			
Total	22.0	23.3	22.5
Government	20.9	21.9	21.0
Corporate	1.2	1.4	1.5
Emerging East Asia			
Total	69.0	70.4	71.2
Government	45.4	46.9	47.7
Corporate	23.6	23.5	23.5
Japan			
Total	210.6	210.1	210.3
Government	196.1	196.1	196.4
Corporate	14.5	14.0	13.9

GDP = gross domestic product, Q1 = first quarter, Q2 = second quarter.
Notes:
1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
2. Data for GDP is from CEIC.

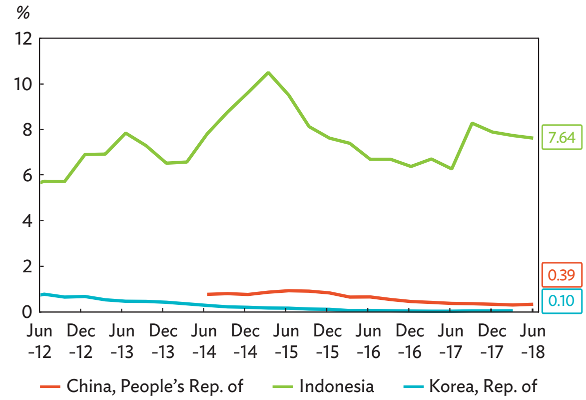
Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; and Indonesia Stock Exchange); Republic of Korea (*EDAILY BondWeb* and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

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



LHS = left-hand side, RHS = right-hand side.
Note: Data as of 30 June 2018 except for Japan and the Republic of Korea (31 March 2018).
Source: *AsianBondsOnline*.

Figure 3: Foreign Holdings of Local Currency Corporate Bonds in Select Emerging East Asian Economies (% of total)



Note: Data as of 30 June 2018 except for the Republic of Korea (31 March 2018).
Sources: Based on data from *Wind*, Otoritas Jasa Keuangan, and The Bank of Korea.

Republic of Korea and Thailand, owing to their stable economic fundamentals. In Thailand, the foreign investor share of government bonds increased slightly to 15.7% at the end of June from 15.2% at the end of March, while the foreign holdings share in the Republic of Korea rose slightly to 11.6% at the end of March from 11.2% at the end of December.

In the case of Indonesia, foreign investors remained cautious over the economy's fundamentals, resulting in the continued outflow of funds. Indonesia's foreign holdings share fell to 37.8% at the end of June from 39.3% at the end of March. Investors are concerned about the depreciation of the rupiah and its impact on Indonesia's current account balance.

Malaysia had the largest decline in its foreign holdings share to 24.8% at the end of June from 28.9% at the end of March. The decline in foreign investor holdings can be attributed to uncertainties over the economic and fiscal policies of the new government that unexpectedly won the May elections. In addition, investors were concerned about the fiscal implication of the revelation that government debt may be higher due to debt obligations relating to 1MDB that were previously unreported.

In the Philippines, the foreign investor share rose to 4.3% at the end of June from 4.0% at the end of March.

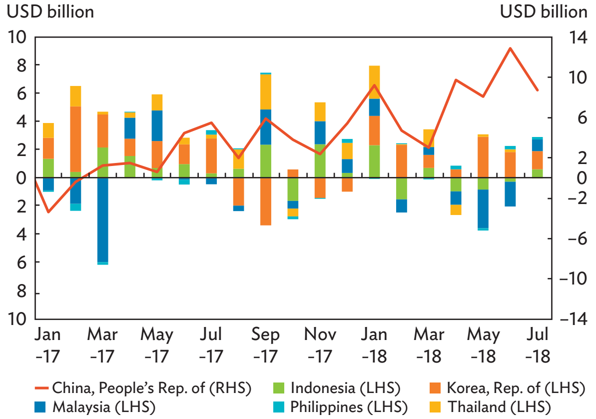
The foreign holdings shares in emerging East Asia's LCY corporate bond markets remained low relative to government bonds (**Figure 3**). For markets in which data are available, the foreign investor shares of corporate bonds were relatively stable during Q2 2018.

Outflows were recorded in Q2 2018 from the LCY bond markets of Indonesia and Malaysia, but foreign investors returned in July.

Similar to movements in the foreign investor share in government bond holdings, outflows were observed in all 3 months of Q2 2018 in Indonesia and Malaysia, owing to unique factors in each market (**Figure 4**). In contrast, Thailand recorded outflows of USD0.7 billion in April and inflows of USD0.2 billion each in May and June. Both the Republic of Korea and the PRC recorded bond inflows during all 3 months of Q2 2018.

In July, all markets for which data are available showed inflows in July, except for Thailand, which had marginal outflows. In the case of Malaysia, investors returned to the bond market in July as they grew increasingly comfortable

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



LHS = left-hand side, RHS = right-hand side, USD = United States dollar.

Notes:

1. The Republic of Korea and Thailand provided data on bond flows. For the People's Republic of China, Indonesia, Malaysia, and the Philippines, month-on-month changes in foreign holdings of local currency government bonds were used as a proxy for bond flows.
2. Data as of 31 July 2018.
3. Figures were computed based on 31 July 2018 exchange rates to avoid currency effects.

Sources: People's Republic of China (*Wind Information*); Indonesia (Directorate General of Budget Financing and Risk Management, Ministry of Finance); Republic of Korea (Financial Supervisory Service); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury); and Thailand (Thai Bond Market Association).

with the new government and Malaysia's resilient economic growth momentum.

In Indonesia, the return of investors to the bond market in July was the result of the continued policy rate hikes conducted by Bank Indonesia to help temper outflows in Q2 2018.

Emerging East Asia's total LCY bond issuance rebound in Q2 2018 on the back of increased debt sales from larger markets.

Emerging East Asia's total LCY bond issuance climbed 26.5% q-o-q to USD1,223 billion in Q2 2018 after posting negative growth in Q1 2018 (**Table 3**). The rebound during the quarter was driven by sizable issuance from large debt-issuing economies like the PRC and the Republic of Korea. The PRC's debt sales reversed from negative growth in Q1 to post a 52.8% q-o-q increase in Q2, while the Republic of Korea's total bond issuance in Q2 2018 was up 15.1% q-o-q. The two economies account for nearly three-quarters of the total bond issuance in the region. Hong Kong, China; the Philippines; and Singapore also saw q-o-q increases in their bond issuance. On the other hand, Indonesia, Malaysia, Thailand, and Viet Nam saw their LCY bond issuance drop in Q2 2018, with Indonesia's and Viet Nam's debt sales each falling more than half during the quarter. The region's government and corporate bond issuance posted positive growth rates in Q2 2018, with the government segment largely propelling the regional bond market's expansion. On an annual basis, the region's issuance growth was at par with the previous quarter at 10.2% y-o-y.

Issuance of LCY government bonds in emerging East Asia increased 39.4% q-o-q to USD866 billion in Q2 2018. Growth in regional issuance during the quarter was driven by the PRC whose issuance of government bonds nearly doubled on a q-o-q basis and comprised about 56% of the emerging East Asian government total. While the Philippines' share of the regional issuance total remained small, it posted a significant 61.3% q-o-q increase in government debt issuance in Q2 2018, the fastest growth rate in the region next to the PRC. Only Malaysia, Indonesia, and Viet Nam saw declines in their issuance during the quarter, with large drops of about 60% q-o-q in the latter two economies. About 71% of issuance in the emerging East Asia bond market in Q2 2018 came from the government segment.

The region's LCY corporate bond issuance rose 3.3% q-o-q in Q2 2018, reversing the negative growth posted in Q1 2018. Corporate issuance reached USD357 billion during the quarter, comprising about 30% of the regional total. Most markets in the region had lower corporate issuance in Q2 2018 compared with Q1 2018, which can be attributed to rising interest rates making borrowing costs higher. Singapore had the largest drop of 56.4% q-o-q, followed by the Philippines at 24.0% q-o-q, albeit their market shares in the region are small. The PRC's corporate bond issuance dropped 1.0% q-o-q, but this comprised a majority share in the regional market at about 57% of the total. The Republic of Korea, Indonesia, and Viet Nam drove the region's increase in total corporate issuance. Much of the growth came from the Republic of Korea, comprising a market share of about 32%, where issuance climbed 22.0% q-o-q.

The PRC's total bond issuance in Q2 2018 amounted to USD692 billion on growth of 52.8% q-o-q in contrast to a quarterly decline in Q1 2018. Compared to a year earlier, the issuance was 8.9% higher. Issuance from the government in Q2 2018 grew at almost twice the rate

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

	Q2 2017		Q1 2018		Q2 2018		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q2 2018		Q2 2018	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of										
Total	620	100.0	477	100.0	692	100.0	52.8	8.9	44.8	11.5
Government	453	73.0	260	54.4	487	70.4	97.9	5.0	87.6	7.5
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	453	73.0	260	54.4	487	70.4	97.9	5.0	87.6	7.5
Corporate	167	27.0	218	45.6	205	29.6	(1.0)	19.5	(6.1)	22.4
Hong Kong, China										
Total	107	100.0	115	100.0	116	100.0	0.8	9.2	0.8	8.6
Government	93	87.5	101	88.0	103	89.3	2.3	11.4	2.3	10.8
Central Bank	92	86.2	101	87.8	103	88.6	1.7	12.1	1.7	11.6
Treasury and Other Govt.	1	1.3	0.2	0.2	0.8	0.7	261.1	(39.3)	261.2	(39.6)
Corporate	13	12.5	14	12.0	12	10.7	(10.2)	(6.3)	(10.2)	(6.7)
Indonesia										
Total	12	100.0	18	100.0	8	100.0	(54.5)	(26.3)	(56.5)	(31.4)
Government	9	75.4	16	89.0	6	74.7	(61.9)	(27.1)	(63.5)	(32.1)
Central Bank	0.1	0.7	0.3	1.7	0.2	2.1	(42.8)	121.8	(45.2)	106.6
Treasury and Other Govt.	9	74.7	16	87.4	6	72.5	(62.3)	(28.5)	(63.9)	(33.4)
Corporate	3	24.6	2	11.0	2	25.3	5.2	(24.1)	0.8	(29.3)
Korea, Rep. of										
Total	176	100.0	180	100.0	198	100.0	15.1	9.6	9.8	12.5
Government	78	44.1	82	45.7	84	42.5	6.8	5.5	1.9	8.2
Central Bank	38	21.8	38	21.1	40	20.4	11.7	2.7	6.6	5.4
Treasury and Other Govt.	39	22.3	44	24.7	44	22.0	2.6	8.2	(2.1)	11.0
Corporate	98	55.9	98	54.3	114	57.5	22.0	12.9	16.4	15.9
Malaysia										
Total	17	100.0	26	100.0	22	100.0	(9.3)	27.7	(13.2)	35.8
Government	7	42.9	15	57.5	13	56.1	(11.5)	67.2	(15.3)	77.7
Central Bank	0.3	2.1	4	16.9	5	20.9	12.4	1,166.7	7.6	1,246.4
Treasury and Other Govt.	7	40.8	11	40.6	8	35.2	(21.4)	10.3	(24.8)	17.3
Corporate	9	57.1	11	42.5	10	43.9	(6.3)	(1.9)	(10.3)	4.2
Philippines										
Total	9	100.0	6	100.0	8	100.0	43.1	(9.7)	40.0	(14.6)
Government	8	88.3	4	78.7	7	88.7	61.3	(9.4)	57.8	(14.3)
Central Bank	0	0.0	0	0	0	0.0	–	–	–	–
Treasury and Other Govt.	8	88.3	4	78.7	7	88.7	61.3	(9.4)	57.8	(14.3)
Corporate	1	11.7	1	21.3	0.9	11.3	(24.0)	(12.5)	(25.7)	(17.2)
Singapore										
Total	79	100.0	93	100.0	103	100.0	15.0	29.1	10.7	30.4
Government	76	95.7	89	95.5	101	98.3	18.4	32.6	13.9	33.9
Central Bank	70	88.9	83	89.7	93	90.2	15.7	31.1	11.4	32.4
Treasury and Other Govt.	5	6.8	5	5.8	8	8.1	59.2	52.7	53.2	54.2
Corporate	3	4.3	4	4.5	2	1.7	(56.4)	(48.7)	(58.0)	(48.2)
Thailand										
Total	67	100.0	72	100.0	67	100.0	(2.3)	(3.4)	(7.8)	(0.8)
Government	54	80.1	57	79.5	56	83.3	2.5	0.4	(3.3)	3.1
Central Bank	40	59.0	47	64.4	45	67.6	2.5	10.6	(3.2)	13.6
Treasury and Other Govt.	14	21.2	11	15.1	10	15.7	2.2	(28.2)	(3.5)	(26.2)
Corporate	13	19.9	15	20.5	11	16.7	(20.5)	(18.9)	(25.0)	(16.7)

continued on next page

Table 3 *continued*

	Q2 2017		Q1 2018		Q2 2018		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q2 2018		Q2 2018	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y
Viet Nam										
Total	2	100.0	22	100.0	10	100.0	(54.7)	317.1	(55.0)	313.4
Government	2	98.8	22	99.6	10	96.3	(56.2)	306.4	(56.5)	302.8
Central Bank	0	0.0	19	86.7	9	86.0	(55.1)	–	(55.4)	–
Treasury and Other Govt.	2	98.8	3	12.9	1	10.3	(63.9)	(56.6)	(64.1)	(57.0)
Corporate	0.03	1.2	0.1	0.4	0.4	3.7	303.3	1,203.1	300.8	1,191.3
Emerging East Asia										
Total	1,089	100.0	1,010	100.0	1,223	100.0	26.5	10.2	21.1	12.3
Government	780	71.6	647	64.1	866	70.8	39.4	9.1	33.9	11.1
Central Bank	241	22.1	293	29.0	294	24.1	3.4	21.2	0.6	22.4
Treasury and Other Govt.	539	49.5	354	35.1	572	46.8	69.8	3.8	61.4	6.1
Corporate	309	28.4	363	35.9	357	29.2	3.3	12.8	(1.7)	15.5
Japan										
Total	413	100.0	415	100.0	399	100.0	0.4	(4.7)	(3.7)	(3.3)
Government	379	91.7	396	95.5	364	91.1	(4.2)	(5.3)	(8.1)	(3.9)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	379	91.7	396	95.5	364	91.1	(4.2)	(5.3)	(8.1)	(3.9)
Corporate	34	8.3	19	4.5	35	8.9	97.1	1.8	89.2	3.3

( ) = negative, – = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Corporate bonds include issues by financial institutions.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. For LCY-base, emerging East Asia growth figures are based on 30 June 2018 currency exchange rates and do not include currency effects.
Sources: People's Republic of China (*ChinaBond* and *Wind Information*); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; and Indonesia Stock Exchange); Republic of Korea (*EDAILY Bondweb* and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bloomberg LP); Singapore (Singapore Government Securities and Bloomberg LP); Thailand (Bank of Thailand and ThaiBMA); Viet Nam (Bloomberg LP and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

as in the preceding quarter to reach USD487 billion. The significant increase was largely associated with the acceleration of debt-for-bond issuance as local governments tried to maximize their quotas before the bond swap program came to an end in August. Also adding to the increase was the issuance of new bonds by local governments to fund their financing needs. Corporate issuance moved in the opposite direction, decreasing 1.0% q-o-q, although the decline was less than in Q1 2018.

The second-largest debt issuer in the region, the Republic of Korea, sold a total of USD198 billion in Q2 2018, representing about 16% of the regional total. Growth in issuance accelerated in Q2 2018 to 15.1% q-o-q, driven by a rebound in the corporate sector as growth in government issuance eased. The government issued a total of USD84 billion, expanding 6.8% q-o-q, with all government bond categories exhibiting moderate increases. While slower, the continued positive growth in bond issuance was in line with the Government of the Republic of Korea's plan to increase its state spending in 2018 to boost job creation. Corporate issuance grew solidly at 22.0% q-o-q, reversing a decline in the previous quarter. Corporates increased their bond issuance in Q2 2018 on the expectation that the Bank of Korea would raise its policy rate later in the year, which would send financing costs climbing.

In Hong Kong, China, issuance growth decelerated to 0.8% q-o-q to USD116 billion in Q2 2018. Issuance growth from the government was positive at 2.3% q-o-q, after declining in the previous quarter, led by increased Exchange Fund Bill and HKSAR bond issuance. On the other hand, corporate issuance declined 10.2% q-o-q in Q2 2018 after posting about a 50% q-o-q increase in the previous quarter. Corporates were wary of tapping the capital market in the face of rising interest rates.

Indonesia's total bond issuance in Q2 2018 fell more than half to USD8 billion, dragged down by the 61.9% q-o-q reduction in government issuance. Bond sales from the government amounted to USD6 billion, which reflected significant declines in issuance from the central government and central bank of 62.3% q-o-q and 42.8% q-o-q, respectively. The huge q-o-q drop observed in central government issuance was due to a high issuance base in Q1 2018, resulting from the government's frontloading policy. In addition, most auctions during the quarter either fell short of the target amount or rejected due to higher rates demanded by investors. There were only two auctions of central bank bills in Q2 2018 due to the long Eid'l Fitr holiday, resulting in a lower issuance volume. Corporate issuance posted modest growth of 5.2% q-o-q following a decline of about 50% in Q1 2018.

Malaysia's bond issuance in Q2 2018 declined 9.3% q-o-q to USD22 billion. Both the government and corporate segments reduced issuance during the quarter, with a larger drop in the government bond segment. Upward pressures on domestic bond yields were observed in Q2 2018 on the back of cautious investor sentiment both before and after the general elections in May. Persistent foreign fund outflows due to downside risks from global developments may have also caused issuers to reduce debt sales. Issuance from the government was down 11.5% q-o-q as a result of weak issuance from the central government even as issuance of Bank Negara Malaysia Interbank bills increased. Corporate issuance faltered to MYR39.9 billion (USD10 billion) in Q2 2018, reaching its lowest level since Q1 2017. The lower corporate issuance can be attributed to the new government's review of various infrastructure projects in line with fiscal management measures to restrain government debt, which may have also affected the debt sales of major corporate issuers.

The Philippines' total bond issuance grew 43.1% q-o-q in Q2 2018, recording the fastest growth rate among emerging East Asian economies next to the PRC. Total issuance amounted to USD8 billion, mainly spurred by issuance of government securities, which climbed 61.3% q-o-q. The increase largely came from the issuance of Retail Treasury Bonds in June amounting to USD2.3 billion. Corporate issuance recorded the second-fastest pace of decline in emerging East Asia during Q2 2018 at 24.0% q-o-q, which can be attributed to rising borrowing costs. Bangko Sentral ng Pilipinas (BSP) raised its key policy rate twice in Q2 2018 for a total of 50 basis points (bps), which may have resulted in firms holding back on issuance. Even so, corporate issuance only comprised about 11% of the Philippine bond market's total issuance during the quarter.

Total issuance in Singapore rose 15.0% q-o-q in Q2 2018, amounting to USD103 billion, underpinned by increased issuance of government securities. Issuance from the government was up 18.4% in Q2 2018 from a marginal decrease of 0.1% q-o-q in Q1 2018. It amounted to USD101 billion, propelled by issuance of Monetary Authority of Singapore bills and Treasury bills and bonds. Government bonds form about 98% of total debt sales in the Singaporean market. On the other hand, Singapore recorded the fastest decline in corporate debt sales, which plunged 56.4% q-o-q in Q2 2018 after posting a 38.2% q-o-q increase in the preceding quarter. The large drop was due to a high base in Q1 2018, spurred by large issuances of infrastructure bonds.

In Thailand, total debt decreased 2.3% q-o-q to USD67 billion on the back of easing growth in government issuance and a drop in corporate issuance. Issuance from the government, which accounted for about 83% of the total in Q2 2018, grew 2.5% q-o-q to USD56 billion. Growth moderated from 9.9% q-o-q in Q1 2018. Corporate issuance decreased 20.5% q-o-q in Q2 2018 to USD11 billion following growth of 3.0% q-o-q in Q1 2018. The market's lower corporate debt issuance can be attributed to the Securities and Exchange Commission's stricter regulations on bond issuance despite Thailand's low-interest-rate environment.

Viet Nam's total issuance fell the most among all emerging East Asian economies in Q2 2018, plunging 54.7% q-o-q after expanding 40.8% q-o-q in the previous quarter. The large drop emanated from the government segment, which comprises nearly the entire Vietnamese LCY bond market. Most auctions of government securities were not fully awarded because of the higher rates demanded by investors, making it costlier for the government to borrow. Issuance from the corporate sector grew three-fold during the quarter, albeit from a very small base that has little impact on the overall market.

Cross-border bond issuance in emerging East Asia reached USD5.3 billion in Q2 2018.

Total cross-border bond issuances of emerging East Asian economies amounted to USD5.3 billion in Q2 2018, representing a decline of 37.2% q-o-q, and an increase of 63.6% from a year earlier. The PRC saw the largest decline of 61.6% in its cross-border issuances to USD2.3 billion from USD6.0 billion in Q1 2018, but remained the largest issuer in Q2 2018. Hong Kong, China almost tripled its issuances to USD1.4 billion in Q2 2018 from USD0.5 billion in Q1 2018. Singapore, on the other hand, more than doubled its issuances to USD0.5 billion in Q2 2018 from USD0.2 billion in Q1 2018.

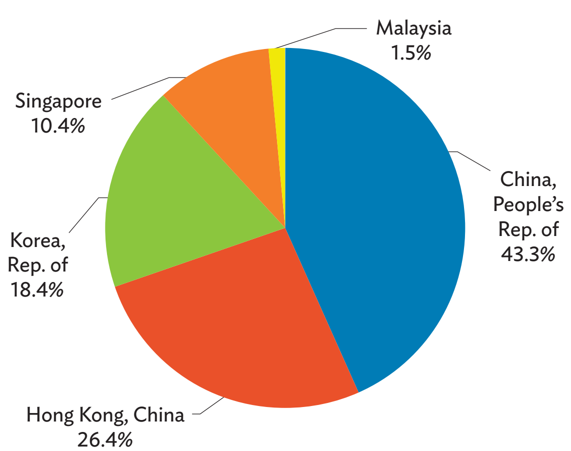
Only five markets engaged in intra-regional bond issuances during the quarter. The PRC issued the most cross-border bonds at USD2.3 billion, accounting for 43.3% of all issuances during the quarter (**Figure 5**). This was followed by Hong Kong, China with USD1.4 billion and a regional share of 26.4%, and the Republic of Korea with issuance of USD1.0 billion and a regional 18.4% share. Rounding out the list of markets with intra-regional bond issuances were Singapore (USD0.5 billion, 10.4%) and Malaysia (USD0.1 billion, 1.5%).

The PRC issued in both Hong Kong dollars and Singapore dollars. Cross-border bond issuances by Hong Kong, China were denominated in Chinese renminbi and Singapore dollars. The Republic of Korea issued bonds denominated in Chinese renminbi and Hong Kong dollars. The Export–Import Bank of Korea issued seven bonds with tenors ranging from 2 years to 5 years. Singapore issued in Chinese renminbi, Hong Kong dollars, and Philippine pesos, while Malaysia issued only in Hong Kong dollars through Malayan Banking Berhad.

The top 10 issuers accounted for 73.9% of all cross-border bond issuances valued at USD3.9 billion. GLP China Holdings, a transportation and logistics company, led all issuances in terms of amount issued. It also accounted for the largest issue during the quarter with a 9-year bond with variable coupon. The Zhongsheng Group, a holding company from the PRC, issued a 5-year, zero-coupon, convertible puttable bond worth HKD4.7 billion for the repurchase of its existing zero-coupon bond maturing this year, and to expand its network of stores and service its debts.

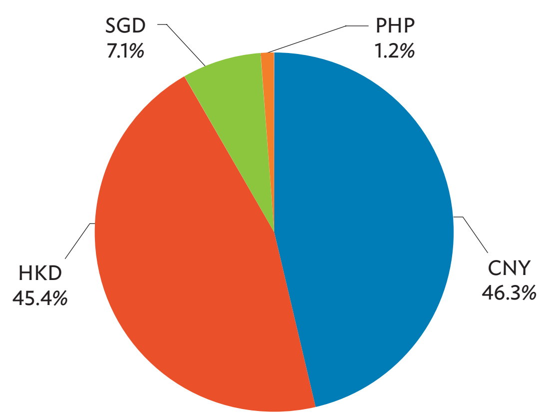
Four currencies were utilized through intra-regional bond issuances in emerging East Asia (**Figure 6**). CNY-denominated bonds by issuers from Hong Kong, China; the Republic of Korea; and Singapore dominated the issuances, totaling USD2.4 billion or 46.3% of all cross-border issuances. Hong Kong dollar bonds worth USD2.4 billion (45.4%) were issued by the PRC, the Republic of Korea, Malaysia, and Singapore.

Figure 5: Origin Economy of Intra-Emerging East Asian Bond Issuance in the Second Quarter of 2018



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

Figure 6: Currency Share of Intra-Emerging East Asian Bond Issuance in the Second Quarter of 2018



CNY = Chinese renminbi, HKD = Hong Kong dollar, PHP = Philippine peso, SGD = Singapore dollar.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

A small share of the pie comprised SGD-denominated bonds (USD0.4 billion, 7.1%) from the PRC and Hong Kong, China, and PHP-denominated bonds (USD0.1 billion, 1.2%) from issuers in Singapore.

Emerging East Asia's G3-denominated bond sales slid to USD171.9 billion in the first 7 months of the year.

Reflecting tighter market conditions, G3 currency bond sales from emerging East Asia slowed in the first 7 months of 2018 to USD171.9 billion from USD194.1 billion in the same 7-month period a year earlier.[8] Between January and July, G3 bond issuance accounted for about 50% of the full-year 2017 total of USD341.6 billion (**Table 4**). Issuers from both the government and corporate segments turned to G3 bond markets as they anticipated rising borrowing costs as the Federal Reserve has signaled two more hikes in the second half of the year.

US dollars were still the currency of choice among G3 issuers in the region, with USD-denominated bonds accounting for 90% of the aggregate G3 issuance volume during the review period. Bonds denominated in euros accounted for an 8.0% share of the total and the remaining 2.0% comprised bonds denominated in Japanese yen. Compared with the same 7-month period in 2017, the relative shares of each currency were little changed.

Some of the largest G3 bond issuers in the region posted y-o-y declines in issuance volume in the first 7 months of the year. In nominal terms, the largest decline in G3 bond issuance was recorded in the PRC. Other markets in the region that posted y-o-y declines in issuance in January–July were Hong Kong, China; Malaysia; Indonesia; and the Republic of Korea.

Nonetheless, the PRC led the region in terms of G3 bond issuance as it accounted for nearly 60% of the aggregate issuance volume of the region during the review period. Hong Kong, China was the second-largest G3 source with a share of 11.7% of the region's total. The Republic of Korea was next with a 10.9% share of the total.

Between January and July, G3 bond issuance from the PRC reached an equivalent of USD99.8 billion for a decline of 18.2% y-o-y. Onshore borrowing conditions continued to tighten following the government's deleveraging efforts. The number of defaults among corporate borrowers also rose, making it increasingly difficult to issue bonds in both domestic and international markets. The PRC was among the region's markets whose currency depreciated significantly this year.

A total of 280 new G3 bonds were issued by PRC-based issuers between January and July. The largest G3 bond issuer from the PRC was CNAC HK Finbridge, which issued an aggregate of USD6.4 billion worth of bonds in euros and US dollars in March. Next were Tencent Holdings' multitranche issuance worth USD5.0 billion in January and State Grid Overseas Investment's euro and US dollar issuance valued at USD2.7 billion in May. In Q2 2018, the largest G3 bond issue from the PRC market was the USD1.0 billion issuance of 10-year bonds with a coupon rate of 4.375% by CNOOC Finance (2016) USA.

In the first 7 months of the year, G3 bond issuance from Hong Kong, China totaled USD20.0 billion on a decline of 17.7% y-o-y. There were a total of 103 G3 bonds, of which 60.2% were denominated in US dollars and 37.9% were in Japanese yen. CHMT Peaceful Development Asia Property remained the largest issuer with an aggregate issuance amount of USD4.1 billion. Taking the second spot was ICBC Asia, which has tapped the G3 bond market three times to date in 2018 (March, June, and July) for aggregate issuance valued at USD3.1 billion. CHMT Peaceful Development Asia Property also sold the largest G3 bond issue from Hong Kong, China in Q2 2018 with a USD3.3 billion 1.5-year bond carrying a coupon rate of 7.5% in April.

G3 bond sales from the Republic of Korea stood at USD18.7 billion in January–July, with issuance declining a marginal 0.8% y-o-y. Bucking the regional trend, the Republic of Korea was the only emerging East Asian market whose G3 issuance exhibited a steady increase from April through July. About one-third of newly issued bonds during the January–July period were sold by government agencies. Leading the list of issuers was state-owned lender Export–Import Bank of Korea, which issued in all three G3 currencies for an aggregate amount of USD4.4 billion. The single-largest G3 bond issue in

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

Table 4: G3 Currency Bond Issuance

2017			January to July 2018		
Issuer	Amount (USD billion)	Issue Date	Issuer	Amount (USD billion)	Issue Date
China, People's Rep. of	**225.4**		**China, People's Rep. of**	**99.8**	
Postal Savings Bank of China 4.50% Perpetual	7.3	27-Sep-17	Tencent Holdings 3.595% 2028	2.5	19-Jan-18
China Evergrande Group 8.75% 2025	4.7	28-Jun-17	CNAC (HK) Finbridge 5.125% 2028	1.8	14-Mar-18
Alibaba Group Holding 3.40% 2027	2.6	6-Dec-17	CNAC (HK) Finbridge 1.75% 2022	1.4	14-Mar-18
State Grid Overseas Investment 3.50% 2027	2.4	4-May-17	CNAC (HK) Finbridge 4.625% 2023	1.3	14-Mar-18
China Zheshang Bank 5.45% 2050	2.2	29-Mar-17	Tsinghua Unic 4.75% 2021	1.1	31-Jan-18
Kaisa Group Holdings 9.38% 2024	2.1	30-Jun-17	Baidu 3.875% 2023	1.0	29-Mar-18
CNAC (HK) Synbridge Company 5.00% 2020	2.0	5-May-17	Bank of China (HK) 2.8973% 2023	1.0	8-Mar-18
CNAC (HK) Finbridge Company 3.85% 2020	2.0	22-Dec-17	Bank of China (HK) 2.7973% 2021	1.0	8-Mar-18
Others	200.3		Others	88.8	
Hong Kong, China	**36.7**		**Hong Kong, China**	**20.0**	
Radiant Access Limited 4.60% Perpetual	1.5	18-May-17	CHMT Peaceful Development Asia Property 7.50% 2019	3.3	25-Apr-18
China Cinda Finance 3.65% 2022	1.3	9-Mar-17	Industrial and Commercial Bank of China Asia 4.90% Perpetual	2.5	21-Mar-18
Others	33.9		Others	14.2	
Cambodia	**0.0**		**Cambodia**	**0.3**	
Indonesia	**26.7**		**Indonesia**	**14.9**	
Perusahaan Penerbit SBSN *Sukuk* 4.15% 2027	2.0	29-Mar-17	Perusahaan Penerbit SBSN *Sukuk* 4.40% 2028	1.8	1-Mar-18
Indonesia (Sovereign) 4.35% 2048	1.8	11-Dec-17	Perusahaan Penerbit SBSN *Sukuk* 3.75% 2023	1.3	1-Mar-18
Perusahaan Listrik Negara 4.13% 2027	1.5	15-May-17	Indonesia (Sovereign) 1.75% 2025	1.2	24-Apr-18
Indonesia (Sovereign) 3.5% 2028	1.3	11-Dec-17	Perusahaan Listrik Negara 6.15% 2048	1.0	21-May-18
Indonesia (Sovereign) 2.15% 2024	1.2	18-Jul-17	Perusahaan Listrik Negara 5.45% 2028	1.0	21-May-18
Others	19.0		Others	8.7	
Korea, Rep. of	**29.8**		**Korea, Rep. of**	**18.7**	
Republic of Korea (Sovereign) 2.75% 2027	1.0	19-Jan-17	Hanwha Life Insurance 4.70% 2048	1.0	23-Apr-18
Export–Import Bank of Korea 3.00% 2022	1.0	1-Nov-17	Export–Import Bank Korea 0.625% 2023	0.9	11-Jul-18
Export–Import Bank of Korea 0.50% 2022	0.9	30-May-17	Export–Import Bank Korea 2.87531% 2021	0.8	1-Jun-18
Others	26.9		Others	16.0	
Lao People's Democratic Rep.	**0.03**		**Lao People's Democratic Rep.**	**0.0**	
Malaysia	**4.4**		**Malaysia**	**0.8**	
Genting Overseas Holdings Limited Capital 4.25% 2027	1.0	24-Jan-17	Cindai Capital 0.00% 2023	0.3	8-Feb-18
CIMB Bank 1.93% 2020	0.6	15-Mar-17	Malayan Banking 0.00% 2048	0.2	29-Mar-18
CIMB Bank 3.26% 2022	0.5	15-Mar-17	Malayan Banking 3.08903% 2023	0.1	12-Jan-18
Others	2.3		Others	0.3	
Philippines	**4.0**		**Philippines**	**3.9**	
Republic of the Philippines (Sovereign) 3.7% 2042	2.0	2-Feb-17	Republic of the Philippines (Sovereign) 3.00% 2028	2.0	1-Feb-18
Others	2.0		Others	1.9	
Singapore	**12.5**		**Singapore**	**10.3**	
DBS Bank 0.38% 2024	0.9	23-Jan-17	DBS Group Holdings 4.52% 2028	0.8	11-Jun-18
DBS Group Holdings 1.71% 2020	0.8	8-Jun-17	Puma International Finance 5.00% 2026	0.8	24-Jan-18
Others	10.9		Others	8.8	
Thailand	**2.2**		**Thailand**	**2.8**	
PTTEP Treasury Center Company 4.60% Perpetual	0.5	17-Jul-17	Sea Limited 2.25% 2023	0.6	18-Jun-18
Others	1.7		Others	2.2	
Viet Nam	**0.0**		**Viet Nam**	**0.5**	
Emerging East Asia Total	**341.6**		**Emerging East Asia Total**	**171.9**	
Memo Items:			**Memo Items:**		
India	**15.1**		**India**	**4.2**	
Vedanta Resources 6.375% 2022	1.0	30-Jan-17	Abja Investment 5.45% 2028	1.0	24-Jan-18
Others	14.1		Others	3.2	
Sri Lanka	**3.7**		**Sri Lanka**	**3.8**	

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

Q2 2018 also came from Hanwha Life Insurance through its issuance of a USD1.0 billion 30-year variable rate bond.

ASEAN member economies' G3 bond issuance totaled USD33.5 billion in the first 7 months of the year, representing nearly 20% of the regional total. Collectively, issuance climbed 15.7% y-o-y during the January–July period from USD28.9 billion during the same period in 2017. Indonesia's G3 bond issuance during the review period, valued at USD14.9 billion, was the largest among all ASEAN member markets.

Compared with a year earlier, G3 bond issuance in Indonesia in January–July 2018 posted a slight drop from USD15.1 billion to USD14.9 billion. A total of 36 new bond issues were sold during the review period, of which nearly a third were issued in May. The Government of Indonesia was the largest issuer of G3 bonds, issuing in all three G3 currencies and completing its foreign currency issuance plan for the year by July. The government accounted for 40.8% of the aggregate G3 issuance of Indonesia during the 7-month period. Bank Indonesia came next with issuance valued at USD3.0 billion from its regular sale of foreign exchange bills. In Q2 2018, the single-largest bond issue was the government's 7-year EUR-denominated issue in April equivalent to USD1.2 billion and with a coupon rate of 1.75%.

Issuers from Singapore sold a total of USD10.3 billion of G3 bonds in the first 7 months of the year on growth of 46.8% y-o-y. New G3 bonds issued during the period reached 48 issues, mostly denominated in US dollars. United Overseas Bank remained the largest G3 issuer, with an aggregate issuance volume of USD2.0 billion, followed by Oversea-Chinese Banking Corporation at USD1.7 billion. In Q2 2018, the single-largest G3 issue was DBS Group Holding's issuance of a 10-year bond worth USD0.8 billion and carrying a coupon rate of 4.52%.

In the first 7 months of the year, G3 bond sales from the Philippines reached USD3.9 billion, rising from USD2.0 billion in January–July 2017. Six issues came from the Philippines during the review period, all of which were issued between January and April and denominated in US dollars. The largest issuer was the Government of the Philippines, which raised USD2.0 billion worth of bonds in February, with a maturity of 10 years and a coupon rate of 3.0%. The largest issue in Q2 2018 was the USD0.3 billion 5-year bond with a coupon rate of 4.25% issued by Philippine National Bank.

Thailand also saw a y-o-y increase in issuance of G3 bonds in January–July 2018, with aggregate issuance rising to USD2.8 billion from USD1.6 billion a year earlier. There were eight bond issues, all of which were issued by Thai corporates and denominated in US dollars. The largest G3 issuer from Thailand was ThaiOil Treasury Center with issuance valued at USD0.6 billion. The largest issue in Q2 2018 was sold by Sea Limited, which raised USD0.6 billion of 5-year bonds with a coupon rate of 2.25%.

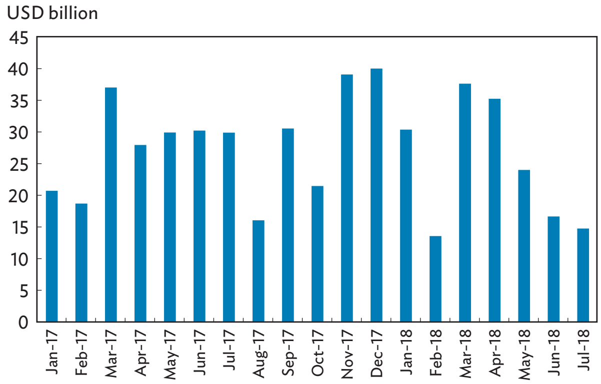
New G3 bond issuance from Malaysia tallied USD0.8 billion between January and July on a decline of 73.3% y-o-y. A total of 10 bonds were issued, all denominated in US dollars except for one bond denominated in Japanese yen. The largest G3 bond issuer was Malayan Banking Berhad with cumulative issuance amounting to USD0.4 billion. In Q2 2018, the single-largest issue was the USD0.05 billion 5-year floating rate bond issued by the Export–Import Bank of Malaysia.

G3 bond sales from Viet Nam climbed to USD0.5 billion in the first 7 months of the year. The largest issuer was Vinpearl, which raised USD0.3 billion from a 5-year bond at a coupon rate of 3.5% in June. The other G3 issuer from Viet Nam was real estate firm No Va Land Investment Group, which sold a USD0.2 billion 5-year bond with a coupon rate of 5.5% in April.

Cambodia tapped the G3 bond market in May for the first time in 2018 with issuance of a USD0.3 billion bond from Naga Corp, a casino and hotel operator. The bond carried a 3-year maturity with a coupon rate of 9.375%.

Monthly G3-denominated bond issuance in emerging East Asia steadily declined through July after hitting a high of USD37.6 billion in March (**Figure 7**). Borrowing offshore became more expensive as investors priced in future rate hikes by the Federal Reserve as well as the weakening of most emerging East Asian currencies versus the US dollar. Some issuers were also hesitant to take on higher funding costs, choosing to wait for the right time to access the G3 bond market.

Figure 7: G3 Currency Bond Issuance in Emerging East Asia



USD = United States dollar.
Notes:
1. Emerging East Asia comprises Cambodia; the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
3. Figures were computed based on 31 July 2018 currency exchange rates and do not include currency effects.

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

The government bond yield curve movements in emerging East Asia were largely mixed due to global and domestic uncertainties, leading to divergent responses from the region's central banks.

The global economy largely proceeded as expected in Q2 2018, with some minor hiccups. Among advanced economies, the US continued to lead in terms of growth as its GDP expanded at annual rate of 4.2% in Q2 2018, up from 2.2% in Q1 2018. In addition, the labor market in the US remained strong, with the unemployment rate falling in July to 3.9%.

This strong growth has allowed the US Federal Reserve to proceed with its gradual pace of monetary normalization. On 13–14 June, it raised the Federal Funds target range by 25 bps to between 1.75% and 2.00%. In addition, the Federal Reserve upgraded its 2018 GDP forecast slightly to 2.8% from 2.7% in its March forecast.

While US economic growth accelerated, the euro area experienced a slight slowdown in Q2 2018, with its GDP growth dipping to 2.2% y-o-y from 2.5% y-o-y in Q1 2018. The European Central Bank (ECB) lowered its growth forecast for 2018 to 2.1% from 2.4% in its March forecast. However, the ECB noted that while growth was lower in Q2 2018, the economy continued to expand at a solid pace, thereby allowing the ECB to announce during its 14 June meeting that that it would end its quantitative easing program after December 2018, subject to incoming data.

In Japan, while GDP growth rebounded to an annual rate of 3.0% in Q2 2018 after contracting 0.9% in the previous quarter, the Bank of Japan (BOJ) indicated that economic growth was expected to slow. The BOJ reduced its forecast for Japan's GDP growth slightly to 1.5% for fiscal year 2018 from 1.6% in its April forecast. As a result, during its July meeting, the BOJ left unchanged its monetary policy stance aside from tweaking the range for the 10-year bond yield.

Excluding the US, advanced economies may see slower growth moving forward. In addition, US threats of trade wars and the imposition of sanctions on some economies has increased uncertainty regarding global economic growth and brought higher risk aversion.

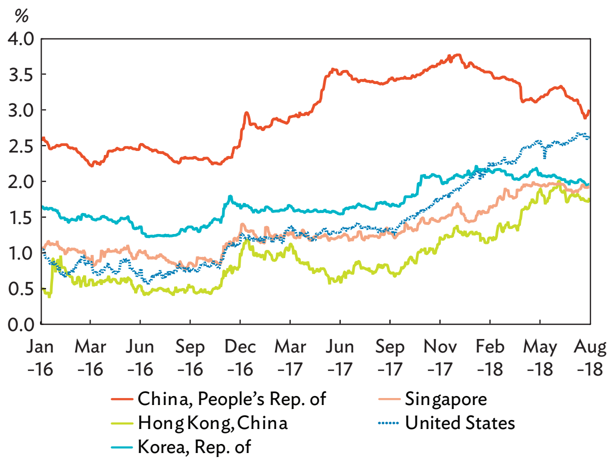
The PRC has been the hardest hit as a result of an ongoing trade spat with the US. The PRC's 2-year yield showed a steep decline starting in the last week of June over concerns that a trade war could impact the PRC's economic growth (**Figure 8a**). The outlook for the PRC's economy was also exacerbated by the past deleveraging measures of the government, resulting in tighter liquidity. Risk aversion was heightened by a number of corporate bond defaults, leading the People's Bank of China to reduce reserve requirement ratios on 24 June to help ease liquidity pressures. A slower economic outlook also led to a decline in yields in the Republic of Korea, Singapore, and Malaysia (**Figure 8b**).

In contrast, 2-year yields rose in Indonesia, the Philippines, Thailand, and Viet Nam. The increase was largely due to economic fundamentals and the responses of their respective central banks.

Emerging East Asia's 10-year yields largely tracked the respective 2-year yield movements in individual economies (**Figures 9a, 9b**).

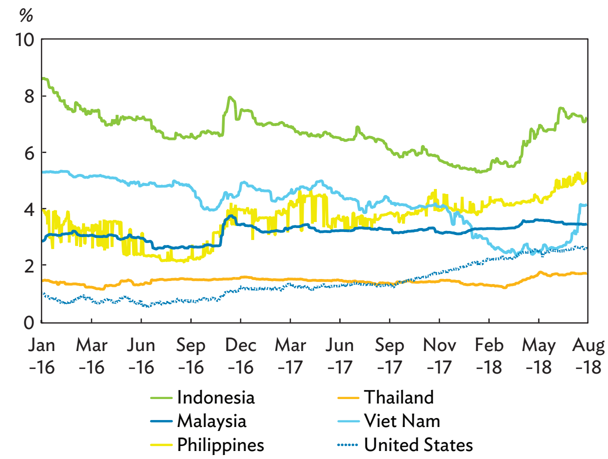
Between 1 June and 15 May, the yield curves of the PRC, the Republic of Korea, Malaysia, and Singapore largely shifted downward amid prospects of slower economic growth (**Figure 10**). In contrast, Hong Kong, China;

Figure 8a: 2-Year Local Currency Government Bond Yields



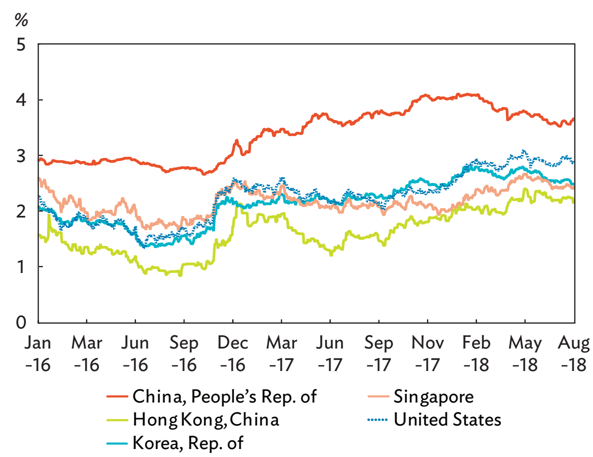
Note: Data as of 15 August 2018.
Source: Based on data from Bloomberg LP.

Figure 8b: 2-Year Local Currency Government Bond Yields



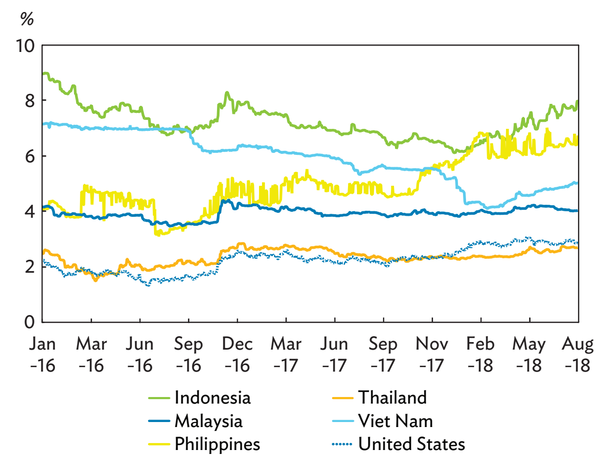
Note: Data as of 15 August 2018.
Source: Based on data from Bloomberg LP.

Figure 9a: 10-Year Local Currency Government Bond Yields



Note: Data as of 15 August 2018.
Source: Based on data from Bloomberg LP.

Figure 9b: 10-Year Local Currency Government Bond Yields

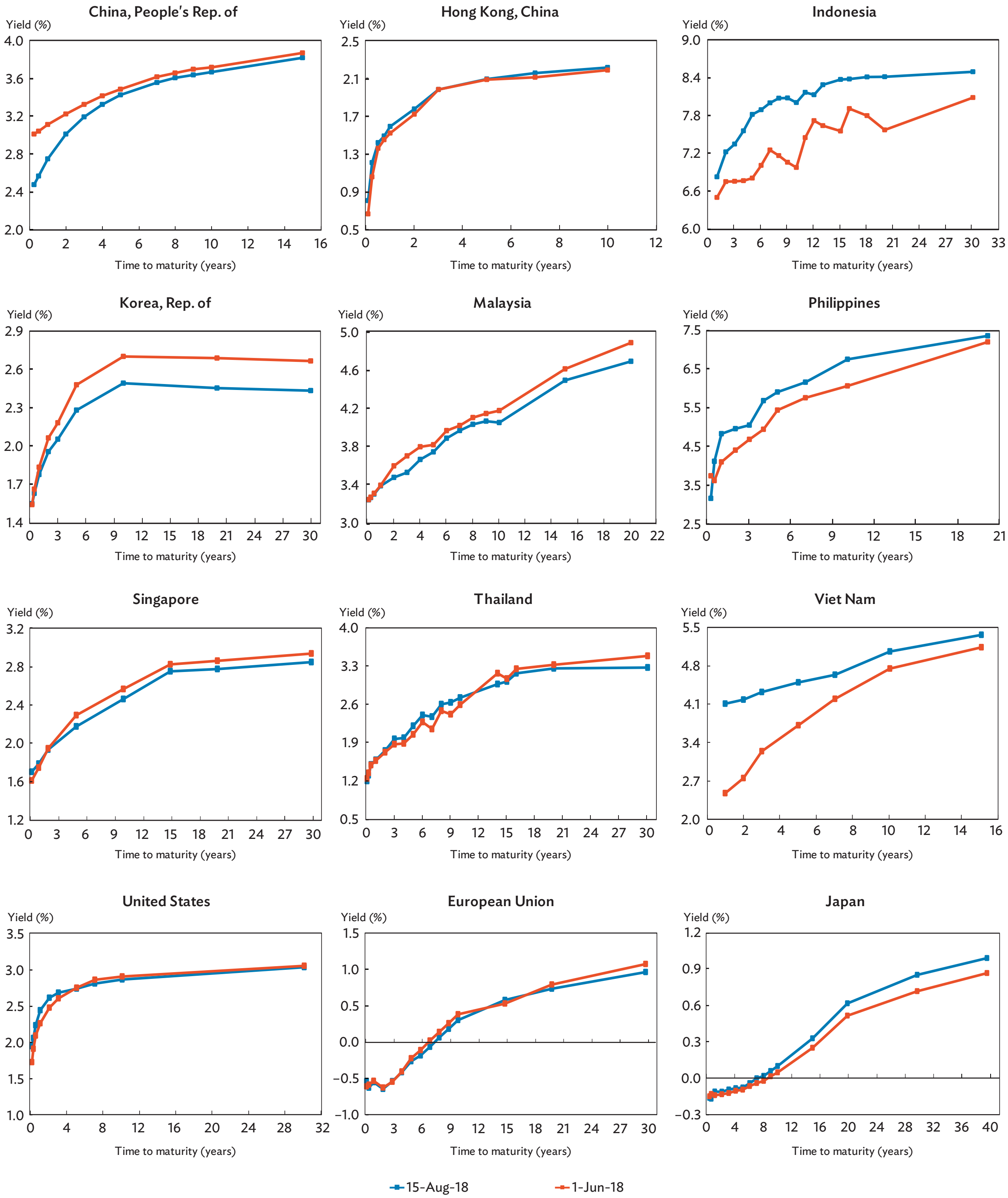


Note: Data as of 15 August 2018.
Source: Based on data from Bloomberg LP.

Indonesia; the Philippines; Thailand; and Viet Nam saw rising yield curves during the review period.

Economic growth in all emerging East Asian markets slowed in Q2 2018 on a y-o-y basis with the exception of the Republic of Korea and Indonesia. The Republic of Korea's GDP growth was unchanged at 2.8% y-o-y in Q2 2018 from Q1 2018, while Indonesia's GDP grew 5.3% y-o-y, up from 5.1% y-o-y. The PRC's GDP growth slowed to 6.7% y-o-y in Q2 2018 from 6.8% y-o-y in Q1 2018, while Hong Kong, China's economy grew 3.5% y-o-y versus 4.6% y-o-y. Malaysia's GDP growth slowed to 4.5% y-o-y in Q2 2018 from 5.4% y-o-y in the previous quarter. In the same period, the Philippines' GDP growth slowed to 6.0% y-o-y from 6.6% y-o-y, Singapore's slowed to 3.9% y-o-y from 4.5% y-o-y, and Thailand's slowed to 4.6% y-o-y from 4.9% y-o-y. Viet Nam's economic growth also decelerated, with year-to-date

Figure 10: Benchmark Yield Curves—Local Currency Government Bonds



Sources: Based on data from Bloomberg LP and Thai Bond Market Association.

GDP growth slowing to 7.1% y-o-y in Q2 2018 from 7.4% in Q1 2018, yet it remained the fastest-growing economy in emerging East Asia.

Inflation has been more mixed. Inflation trended upward in Q2 2018 in the PRC; Hong Kong, China; the Philippines; Singapore; Thailand; and Viet Nam (**Figures 11a, 11b**). Among the central banks of these economies, only the BSP raised policy rates in response to rising inflation (**Figure 12a**). This is because the Philippines experienced a much steeper increase in inflation compared with mild upticks in other emerging East Asian economies, owing largely to rising supply prices that have been associated with the implementation of the tax reform program and rising fuel prices.

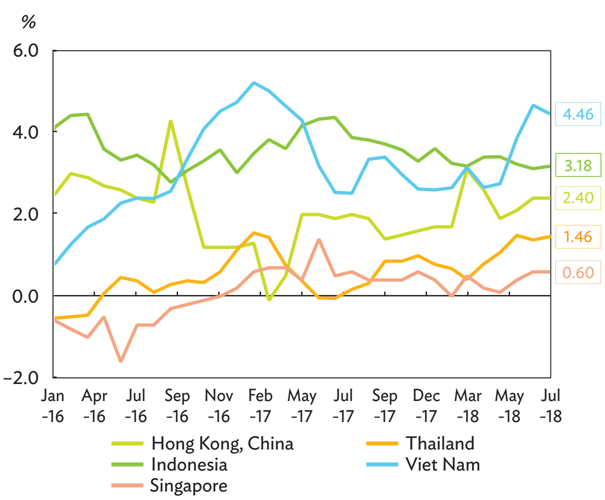
In response to rising inflation, the BSP moved aggressively and raised its policy rate 50 bps on 9 August, following a 25-bps rate hike each on 20 June and 10 May. In Viet Nam, while the State Bank of Vietnam has largely left policy rates unchanged, it began tightening liquidity to address rising inflation and arrest the depreciation of the dong (**Figure 12b**).

Indonesia's central bank has also been mindful of the depreciation of the rupiah and the impact on its current account balance, leading to a 25-bps rate hike on 15 August and a 50-bps increase on 29 June.

Other central banks in emerging East Asia had different responses, owing to their more stable economies. Most yield movements in emerging East Asia can be largely attributed to central bank actions as seen in the rise in yields in Indonesia, the Philippines, and Viet Nam. In contrast, other central banks have largely held off adjusting their respective monetary policy stances. The central banks in the Republic of Korea, Malaysia, and Thailand largely left monetary policy unchanged on a wait-and-see attitude toward ongoing developments in the global economy. Outside of a 25-bps rate hike in January, Bank Negara Malaysia has left policy rates unchanged in subsequent meetings over a stable economy. Thailand's central bank has indicated that it may seek to normalize policy in the future as it expects the domestic economy to be stable in 2018.

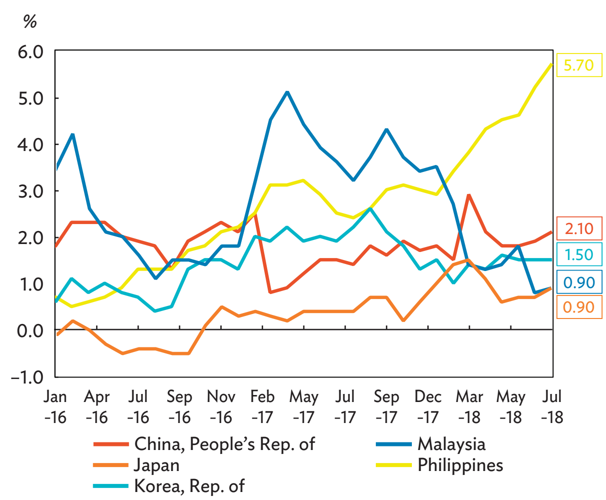
The 2-year versus 10-year yield spread fell in all emerging East Asian economies with the exception of the PRC, Indonesia, the Philippines, and Thailand (**Figure 13**).

Figure 11a: Headline Inflation Rates



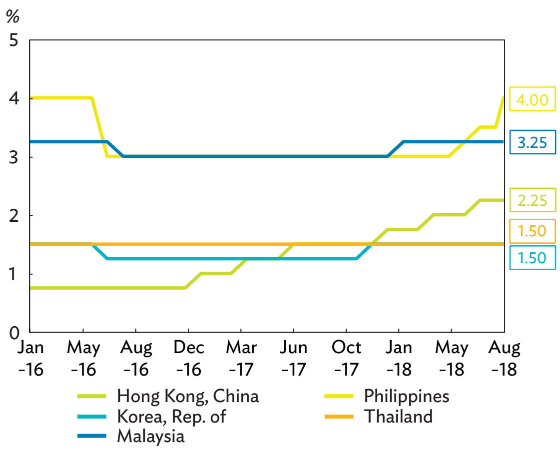
Note: Data as of July 2018.
Source: Based on data from Bloomberg LP.

Figure 11b: Headline Inflation Rates



Note: Data as of July 2018.
Source: Based on data from Bloomberg LP.

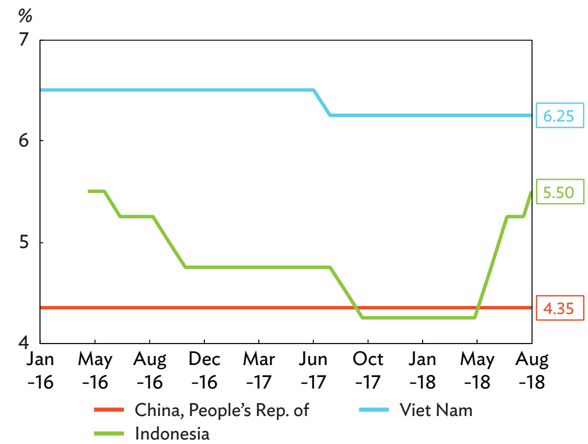
Figure 12a: Policy Rates



Notes:
1. Data as of 15 August 2018.
2. The policy rate of the Philippines was adjusted to 3.0% from 4.0% in June 2016 following the shift in the Bangko Sentral ng Pilipinas' monetary operations to an interest rate corridor system.

Source: Based on data from Bloomberg LP.

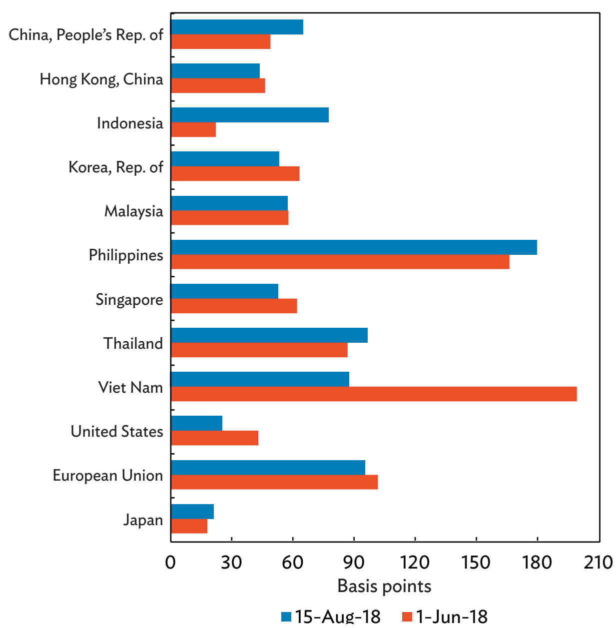
Figure 12b: Policy Rates



Notes:
1. Data as of 15 August 2018.
2. Bank Indonesia shifted its policy rate to the 7-day reverse repurchase rate effective 19 August 2016.

Source: Based on data from Bloomberg LP.

Figure 13: Yield Spreads Between 2-Year and 10-Year Government Bonds



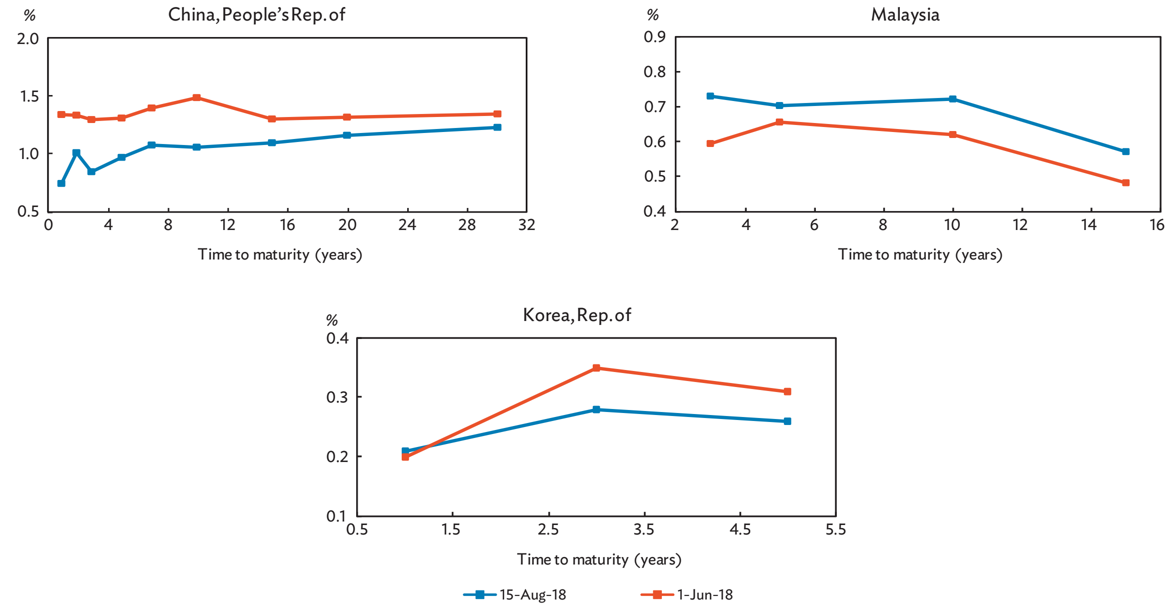
Source: Based on data from Bloomberg LP.

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

Due to rising risk aversion in the PRC as well as concerns over credit defaults, investor demand has largely shifted toward better-rated corporate bonds and government securities (**Figure 14a**).

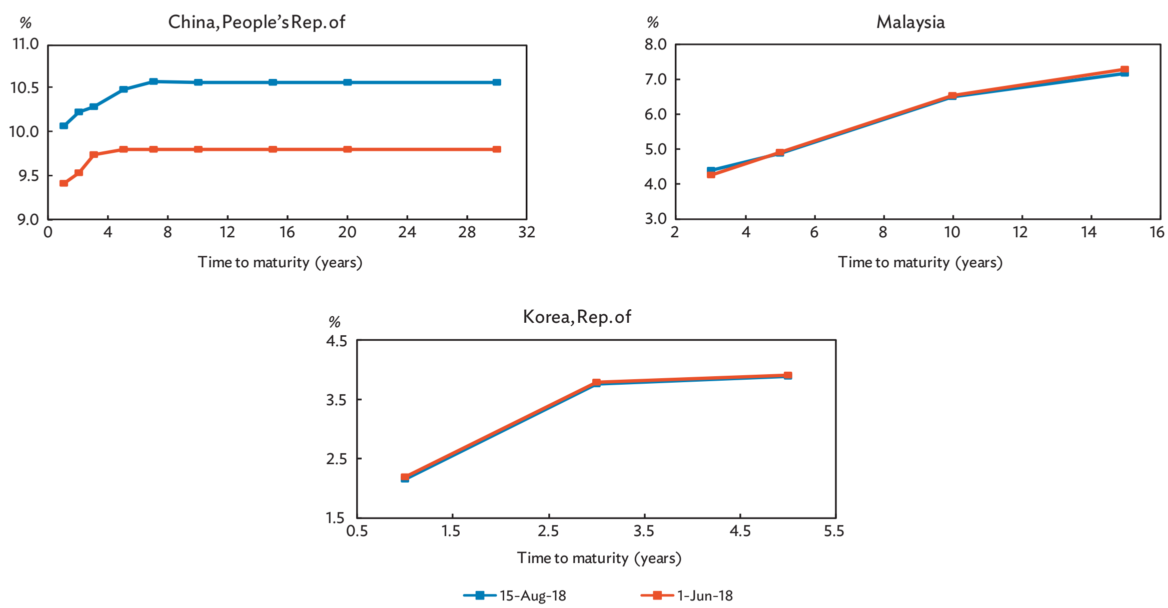
The spread rose between AAA-rated corporate bonds and lower-rated bonds in the PRC due to the abovementioned risk aversion, but was unchanged in the Republic of Korea and Malaysia (**Figure 14b**).

Figure 14a: Credit Spreads—Local Currency Corporates Rated AAA vs. Government Bonds



Notes:
1. Credit spreads are obtained by subtracting government yields from corporate indicative yields.
2. For Malaysia, data on corporate bonds yields are as of 31 May and 14 August 2018.
Sources: People's Republic of China (*Wind Information*), Republic of Korea (*EDAILY BondWeb*), and Malaysia (Bank Negara Malaysia).

Figure 14b: Credit Spreads—Lower-Rated Local Currency Corporates vs. AAA



Notes:
1. For the People's Republic of China and the Republic of Korea, credit spreads are obtained by subtracting corporate indicative yields rated AAA from corporate indicative yields rated BBB+.
2. For Malaysia, credit spreads are obtained by subtracting corporate indicative yields rated AAA from corporate indicative yields rated BBB.
3. For Malaysia, data on corporate bond yields are as of 31 May and 14 August 2018.
Sources: People's Republic of China (*Wind Information*), Republic of Korea (*EDAILY BondWeb*), and Malaysia (Bank Negara Malaysia).

Policy and Regulatory Developments

People's Republic of China

People's Bank of China Expands Collateral Usage

On 1 June, the People's Bank of China (PBOC) issued guidelines expanding the types of collateral that banks can use for the central bank's medium-term lending facility. The expanded collateral coverage will include bonds issued by small- and micro-sized institutions, green and agricultural financial bonds rated AA and above, corporate bonds rated AA+ or AA, and high-quality small- and micro-sized loans and green loans.

People's Bank of China Reduces Reserve Requirement Ratio

On 24 June, the PBOC reduced the reserve requirement ratio of some banks by 50 basis points. Specifically, the following larger banks and 12 joint-stock commercial banks, must use freed-up funds to carry out debt–equity swap programs: Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, China Construction Bank, and Bank of Communications. In addition, Postal Savings Bank of China, city commercial banks, non-county rural banks, and foreign-funded banks must use funds freed up by the reduction to support lending to small- and micro-sized enterprises.

Hong Kong, China

People's Bank of China Enhances Cross-Border Fund Flow Management

In May, the PBOC announced a series of measures to enhance cross-border fund flow management. These include enhancing the existing policy framework to allow offshore renminbi business-clearing banks and participating banks to tap renminbi liquidity from the onshore market to support offshore renminbi business development, implementing the central bank's bilateral currency swap agreements, adjusting the required reserve ratio of renminbi deposits placed by Hong Kong, China's renminbi business-clearing bank in the settlement account in PBOC's Shenzhen subbranch to 0%, and further enhancing the currency conversion mechanism for Shanghai–Hong Kong Stock Connect and Shenzhen–Hong Kong Stock Connect to facilitate overseas investors' use of renminbi and foreign currencies for investments. The changes were well received by the Hong Kong Monetary Authority, which believes the new measures will ensure smooth offshore market operations and support Hong Kong, China's development as the global offshore renminbi business hub.

Indonesia

Bank Indonesia Resumes Issuance of 9-Month and 12-Month Conventional SBI

On 23 July, Bank Indonesia resumed issuance of 9-month and 12-month Sertifikat Bank Indonesia (SBI). The central bank sold IDR4.2 trillion of 9-month SBI and IDR1.8 trillion of 12-month SBI during the auction. The issuance of conventional SBI is expected to help attract foreign portfolio investment into the Indonesian market and provide more diversity in the instruments being issued by the central bank. Since December 2016, only Sharia-compliant SBI had been issued on a monthly basis.

Bank Indonesia Introduces New Overnight Reference Rate

On 1 August, Bank Indonesia launched a new interbank overnight reference rate called the Indonesia Overnight Index Average (IndONIA). This new rate replaces the overnight Jakarta Interbank Offered Rate (JIBOR). However, JIBOR remains as a pricing reference for longer tenors. Bank Indonesia will continue to provide overnight JIBOR rates until the end of year as the market transitions to using the IndONIA. The shift to a new overnight reference rate will provide a more reliable market-based reference pricing for loan rates and financial instruments. IndONIA is based on the weighted average of all transactions in the interbank lending market by all banks during the day. JIBOR is based on the average loan rates quoted by banks. The new rate will be published by Bank Indonesia at 7:30 p.m. each day (local time).

Republic of Korea

Ministry of Economy and Finance Announces Economic Policies for Second Half of 2018

In July, the Ministry of Economy and Finance (MEF) released its assessment of economic policies implemented in the first half of 2018 and the planned program for the second half. The MEF reiterated its focus on consumption as a driver of growth through improved employment, wages, and innovation. For the first half of the year, the MEF described positive trends in exports and consumption, but noted risks such as the trade conflict between the People's Republic of China and the United States, rising oil prices, and financial market volatility in some emerging markets. Employment growth has been slowing in major industries amid a decline in the working-age population. Improvements are expected in the second half of the year with the implementation of the supplementary budget. For the remainder of the year, policies will continue to focus on creating new jobs and improving (and working on passage of) new regulations promoting innovation. To continue with an expansionary fiscal policy, the government will increase spending by around KRW4 trillion.

Malaysia

Malaysia's New Administration Scraps Goods and Services Tax

Malaysia scrapped the 6% goods and services tax (GST), effective 1 June, as a fulfillment of Prime Minister Mahathir Mohamad's campaign promise after his unexpected victory in the general election on 9 May. The abolition of the GST aimed to spur spending in Malaysia and address the rising costs of living. The new administration plans to replace the abolished GST with a sales and services tax (SST). Under the SST, the provision of services will be taxed at 6%, while the sale of goods will incur a 10% tax. The Ministry of Finance stated that the SST system would benefit Malaysia's low-income earners in the long run. The new tax system is expected to be implemented beginning 1 September after the necessary laws have been passed in Parliament.

Philippines

BSP Relaxes Rules on Foreign Exchange

On 18 May, the Bangko Sentral ng Pilipinas announced that the conversion of foreign currency loans to pesos and the transfer of such loans to regular banking unit books no longer requires prior central bank approval, provided that the concerned bank understands the risks inherent in such actions. It must have proper risk management policies in place to mitigate risks in managing such transactions. The move is part of the central bank's efforts to liberalize foreign exchange rules.

Singapore

International Finance Corporation and Monetary Authority of Singapore Work Together to Promote Green Bonds in Asia

On 7 June, the International Finance Corporation and Monetary Authority of Singapore signed a memorandum of understanding to promote green bonds in Asia and the Pacific. They will hold capacity building programs to improve awareness and knowledge of green financing issuances, and will promote international best practices and frameworks related to green bonds. Through the partnership, they hope to address climate change through the financing of low-carbon investments in the region.

Thailand

Thailand's Cabinet Approves Medium-Term Fiscal Plan, 2019–2020

Thailand's cabinet approved the medium-term fiscal plan for 2019-2020 in accordance with the Fiscal Responsibility Act, which seeks to maximize the effectiveness of budget spending and prevent pork barrel schemes. Under the approved plan, the government is set to increase tax collections and reduce infrastructure expenditures through public–private partnerships and the Thailand Future Fund. In addition, the government will run a budget deficit of THB450 billion in 2018–2019, THB452 billion in 2020, and THB524 billion in 2021.

Viet Nam

State Bank of Vietnam Issues Regulation Governing Purchase of Corporate Bonds by Banking Institutions

In June, the State Bank of Vietnam issued a regulation that restricts the purchase of corporate bonds by banking institutions, including foreign banks. Under the regulation, credit institutions and foreign bank branches are required to conduct an internal credit scoring and rating of corporate bonds that they plan to purchase. Also, internal management regulations are required to be made for evaluating bond investments, particularly for corporate bonds issued to finance projects in potentially risky areas. Credit institutions and foreign bank branches are also prohibited from purchasing corporate bonds that are issued to fund corporate debt restructuring. This law came into effect in August.

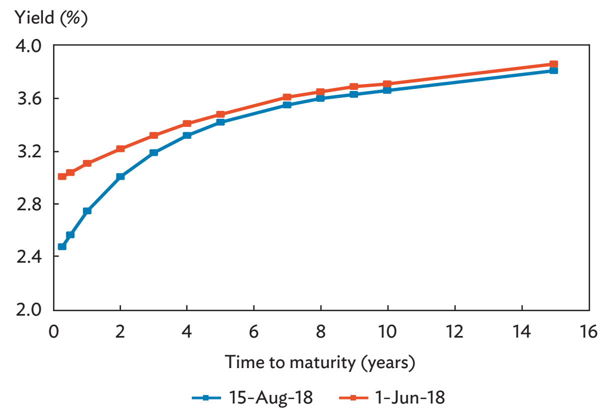
Market Summaries

People's Republic of China

Yield Movements

The People's Republic of China's (PRC) government bond yield curve fell between 1 June and 15 August (**Figure 1**). The entire yield curve shifted downward by an average of 18 basis points (bps), with the shorter-end declining by a much larger amount. Yields fell from 13 bps to 53 bps for tenors of 3 years or less, while yields fell between 5 bps and 9 bps for longer tenors. The spread between the 2-year and 10-year tenors widened from 49 bps on 1 June to 65 bps on 15 August.

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



Source: Based on data from Bloomberg LP.

Yields in the PRC declined on weaker economic data. The PRC's gross domestic product (GDP) growth fell to 6.7% year-on-year (y-o-y) in the second quarter (Q2) of 2018 from 6.8% y-o-y in the first quarter (Q1) of 2018. On 29 May, the International Monetary Fund announced that it was maintaining its GDP growth forecast of 6.6% for full-year 2018, down from 6.9% in 2017.

Yields have been driven lower by increased risk aversion and uncertainty arising from the PRC's ongoing trade tensions with the United States (US), which has led to uncertainty regarding the PRC's economic outlook.

The PRC's government bond market has also benefited from increased demand from investors moving funds out of the stock market, largely due to the ongoing trade tensions. The PRC's equity market fell 11.4% between 1 June and 15 August.

In response, the People's Bank of China (PBOC) reduced the reserve requirement ratio of some banks by 50 bps to mitigate the impact of the ongoing trade tensions with the US. The PBOC is requiring larger banks to use the funds freed up for debt–equity swaps, while for smaller banks the funds are to be used for lending to small- and micro-sized enterprises.

Size and Composition

The PRC's local currency (LCY) bonds outstanding rose 3.8% quarter-on-quarter (q-o-q) and 15.1% y-o-y to reach CNY59.8 trillion (USD 9.0 trillion). The PRC's bond market q-o-q growth rate quickened from the previous quarter's 1.3% (**Table 1**).

Government bonds. The PRC's government bond market's growth rate accelerated to 4.4% q-o-q in Q2 2018 from 0.8% q-o-q in Q1 2018. The faster growth rate was largely due to gains in the category of "Treasury Bonds and Other Government Bonds," which expanded 5.1% q-o-q in Q2 2018, up from 0.7% q-o-q in the previous quarter. Within this category, the primary growth driver was an increase in local government bonds outstanding.

Local government bonds grew 6.9% q-o-q in Q2 2018, up from 1.5% q-o-q in Q1 2018, largely due to an increase in issuance, which rebounded in Q2 2018 ahead of the scheduled end of the local government debt swap program in August, leading to a rush in issuance during the quarter in order to fully utilize the quotas set by the central government. For full-year 2018, local governments were given a total debt ceiling of CNY21.0 trillion. A report released on 14 June said that the current cumulative debt of local governments was CNY16.6 trillion in May, well below the ceiling set by the central government.

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

	Outstanding Amount (billion)						Growth Rates (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	CNY	USD	CNY	USD	CNY	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**51,931**	**7,658**	**57,591**	**9,177**	**59,762**	**9,026**	**4.1**	**12.9**	**3.8**	**15.1**
Government	37,159	5,480	41,516	6,616	43,352	6,548	5.8	18.8	4.4	16.7
Treasury Bonds and Local Government Bonds	24,405	3,599	27,916	4,448	29,347	4,432	8.4	28.7	5.1	20.3
Central Bank Bonds	0	0	0	0	0	0	0.0	(100.0)	0.0	0.0
Policy Bank Bonds	12,755	1,881	13,600	2,167	14,005	2,115	1.2	7.2	3.0	9.8
Corporate	14,771	2,178	16,075	2,562	16,410	2,479	(0.1)	0.5	2.1	11.1
Policy Bank Bonds										
China Development Bank	7,183	1,059	7,571	1,206	7,743	1,169	(0.03)	3.0	2.3	7.8
Export–Import Bank of China	2,217	327	2,329	371	2,366	357	1.2	11.5	1.6	6.8
Agricultural Devt. Bank of China	3,355	495	3,700	590	3,895	588	3.9	14.1	5.3	16.1

( ) = negative, CNY = Chinese yuan, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Treasury bonds include savings bonds and local government bonds.
3. Bloomberg LP end-of-period LCY–USD rates are used.
4. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: *ChinaBond, Wind Information*, and Bloomberg LP.

There were no central bank bonds outstanding in Q2 2018 as the PBOC no longer issues such bonds.

Corporate bonds. The PRC's corporate bonds outstanding grew 2.1% q-o-q in Q2 2018, down from Q1 2018's growth of 2.4%. Medium-term notes, state-owned enterprise bonds, and financial bonds increased on a q-o-q basis in Q2 2018, while the outstanding amounts of local corporate bonds and commercial paper declined (**Table 2**).

The weaker corporate bond growth was largely a result of increased risk aversion due to ongoing uncertainties in the PRC's financial markets due to trade tensions with the US and rising corporate bond defaults. This led to a 1.0% q-o-q contraction in corporate bond issuance in Q2 2018 to CNY1.4 trillion. Other than local corporate bonds, all major categories of corporate bonds had lower issuance levels in Q2 2018 than in the previous quarter (**Figure 2**).

The PRC's LCY corporate bond market continues to be dominated by a few big issuers (**Table 3**). At the end of Q2 2018, the top 30 corporate bond issuers accounted for CNY6.7 trillion worth of corporate bonds outstanding, or about 40.9% of the total market. Of the top 30, the 10 largest issuers accounted for CNY4.3 trillion. China Railway, the top issuer, had more than four times the outstanding amount of bonds as the Agricultural Bank of China, the second-largest issuer. The top 30 issuers include 13 banks, which continue to dominate the list as they generate funding to strengthen their capital bases, improve liquidity, and lengthen their maturity profiles.

Table 4 lists some of the largest corporate bond issuances in Q2 2018.

Investor Profile

Treasury bonds and policy bank bonds. Banks were the single-largest holder of Treasury bonds and policy bank bonds at the end of June, though this share declined to 65.1% from 67.3% a year earlier (**Figure 3**). In contrast, the share held by funds institutions rose to 16.2% from 14.8% in the same period.

Corporate bonds. Funds institutions were the largest holders in the LCY corporate bond market at the end of June with a share of 46.3% of total outstanding corporate bonds, down from 47.5% at the end of June 2017 (**Figure 4**). The share held by banks rose to 16.9% from 15.9% during the review period.

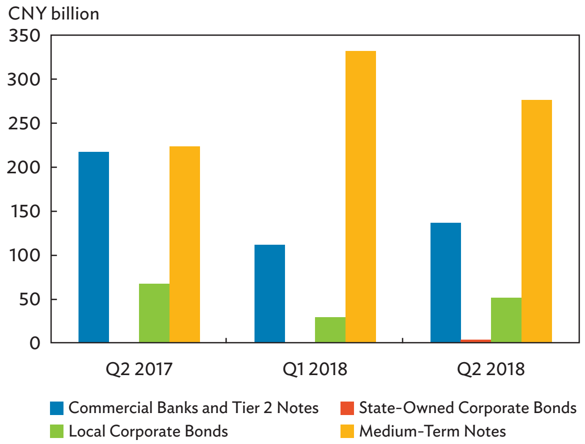
Figure 5 presents investor profiles across different corporate bond categories at the end of June. Funds institutions were the dominant buyers in the PRC local corporate bonds, while banks were the dominant holders of medium-term notes and commercial bank bonds.

Table 2: Corporate Bonds Outstanding in Key Categories

	Amount (CNY billion)			Growth Rate (%)			
				Q2 2017		Q2 2018	
	Q2 2017	Q1 2018	Q2 2018	q-o-q	y-o-y	q-o-q	y-o-y
Commercial Bank Bonds and Tier 2 Notes	2,713	3,125	3,226	1.1	23.5	3.2	18.9
SOE Bonds	519	465	468	1.0	(11.0)	0.6	(9.9)
Local Corporate Bonds	2,932	2,911	2,771	1.0	9.0	(4.8)	(5.5)
Commercial Paper	1,657	1,796	1,715	0.8	(41.7)	(4.5)	3.5
Medium-Term Notes	4,662	5,049	5,222	1.0	1.9	3.4	12.0

( ) = negative, CNY = Chinese yuan, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, SOE = state-owned enterprise, y-o-y = year-on-year.
Sources: *ChinaBond* and *Wind Information*.

Figure 2: Corporate Bond Issuance in Key Sectors



CNY = Chinese yuan, Q1 = first quarter, Q2 = second quarter.
Sources: *ChinaBond* and *Wind Information*.

Liquidity

The volume of interest rate swaps rose 2.5% q-o-q in Q2 2018. The 7-day repurchase remained the most used interest rate swap, comprising an 83.3% share of the total interest rate swap volume during the quarter (**Table 5**).

Policy, Institutional, and Regulatory Developments

People's Bank of China Expands Collateral Usage

On 1 June, the PBOC issued guidelines expanding the types of collateral that banks can use for the central bank's medium-term lending facility. The expanded collateral coverage will include bonds issued by small- and micro-sized institutions, green and agricultural financial bonds rated AA and above, corporate bonds rated AA+ or AA, and high-quality small- and micro-sized loans and green loans.

People's Bank of China Reduces Reserve Requirement Ratio

On 24 June, the PBOC reduced the reserve requirement ratio of some banks by 50 bps. Specifically, the following larger banks, and 12 joint-stock commercial banks, must use freed-up funds to carry out debt–equity swap programs: Industrial and Commercial Bank of China, Agricultural Bank of China, Bank of China, China Construction Bank, and Bank of Communications. In addition, Postal Savings Bank of China, city commercial banks, non-county rural banks, and foreign-funded banks must use funds freed up by the reduction to support lending to small- and micro-sized enterprises.

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

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (CNY billion)	LCY Bonds (USD billion)			
1.	China Railway	1,675.5	253.06	Yes	No	Transportation
2.	Agricultural Bank of China	358.0	54.07	Yes	Yes	Banking
3.	Industrial and Commercial Bank of China	356.0	53.77	Yes	Yes	Banking
4.	State Grid Corporation of China	331.8	50.11	Yes	No	Public Utilities
5.	China National Petroleum	325.0	49.09	Yes	No	Energy
6.	Bank of China	318.9	48.16	Yes	Yes	Banking
7.	China Construction Bank	272.0	41.08	Yes	Yes	Banking
8.	Bank of Communications	265.0	40.02	No	Yes	Banking
9.	Central Huijin Investment	200.0	30.21	Yes	No	Asset Management
10.	Shanghai Pudong Development Bank	198.6	30.00	No	Yes	Banking
11.	China CITIC Bank	192.5	29.07	No	Yes	Banking
12.	China Minsheng Banking	185.1	27.96	No	Yes	Banking
13.	China Everbright Bank	180.9	27.32	Yes	Yes	Banking
14.	Industrial Bank	155.0	23.41	No	Yes	Banking
15.	Huaxia Bank	148.4	22.41	Yes	No	Banking
16.	State Power Investment	147.4	22.27	Yes	No	Energy
17.	Tianjin Infrastructure Construction and Investment Group	137.3	20.74	Yes	No	Industrial
18.	CITIC Securities	126.8	19.15	Yes	Yes	Brokerage
19.	Bank of Beijing	122.9	18.56	Yes	Yes	Banking
20.	China Cinda Asset Management	102.0	15.41	Yes	Yes	Asset Management
21.	China Huarong Asset Management	96.0	14.50	Yes	Yes	Asset Management
22.	PetroChina	95.0	14.35	Yes	Yes	Energy
23.	China Datang	93.2	14.08	Yes	Yes	Energy
24.	China Merchants Securities	93.1	14.05	No	Yes	Brokerage
25.	Dalian Wanda Commercial Properties	93.0	14.05	No	Yes	Real Estate
26.	China Three Gorges	89.5	13.52	Yes	No	Public Utilities
27.	Shaanxi Coal and Chemical Industry Group	89.0	13.44	Yes	No	Energy
28.	China Merchants Bank	89.0	13.44	Yes	Yes	Banking
29.	China Southern Power Grid	88.0	13.29	Yes	No	Power
30.	Guotai Junan Securities	86.5	13.06	Yes	Yes	Brokerage
Total Top 30 LCY Corporate Issuers		**6,711.36**	**1,013.65**			
Total LCY Corporate Bonds		**16,410.31**	**2,478.52**			
Top 30 as % of Total LCY Corporate Bonds		**40.9%**	**40.9%**			

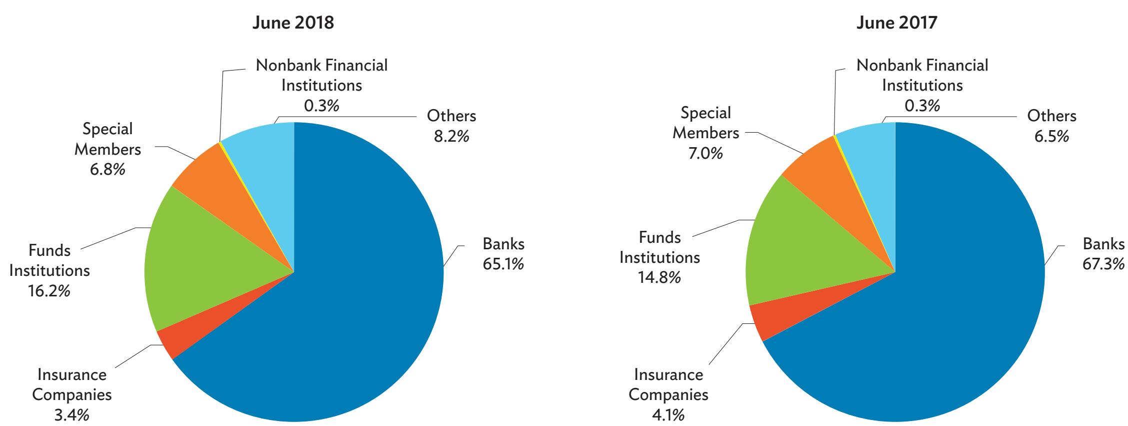
CNY = Chinese yuan, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

Table 4: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (CNY billion)
China Railway Corp		
5-year bond	4.15	13.0
5-year bond	4.52	10.0
5-year bond	4.42	13.0
5-year bond	4.46	10.0
5-year bond	4.63	13.0
5-year bond	4.46	10.0
5-year bond	4.46	10.0
10-year bond	4.80	10.0
10-year bond	4.78	10.0
10-year bond	4.74	7.0
10-year bond	4.78	7.0
10-year bond	4.73	7.0
10-year bond	4.78	10.0
10-year bond	4.78	10.0
Central Huijin Investment		
2-year bond	4.52	9.0
2-year bond	4.50	3.0
2-year bond	4.47	8.0
3-year bond	4.56	7.0
3-year bond	4.58	12.0
3-year bond	4.55	7.0
Agricultural Bank of China		
10-year bond	4.45	40.0
China CITIC Securities		
2-year bond	5.10	3.0
2-year bond	5.05	4.8
3-year bond	4.90	0.6
3-year bond	5.09	2.5
3-year bond	4.80	2.4
Tianjin Infrastructure Construction and Investment (Group)		
3-year bond	5.19	1.8
3-year bond	4.55	1.0
3-year bond	5.13	1.0
5-year bond	4.73	2.0
5-year bond	5.40	2.0
5-year bond	5.48	1.2
5-year bond	5.20	3.0

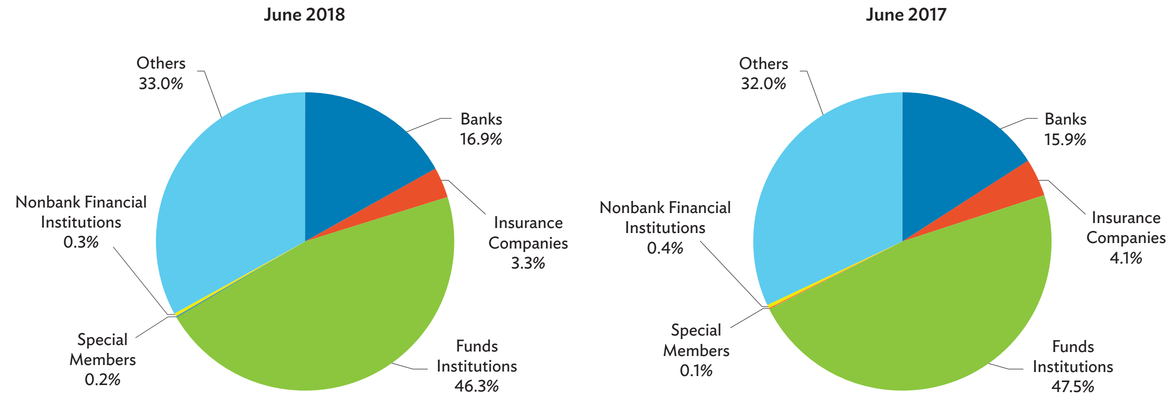
CNY = Chinese yuan.
Source: Based on data from Bloomberg LP.

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



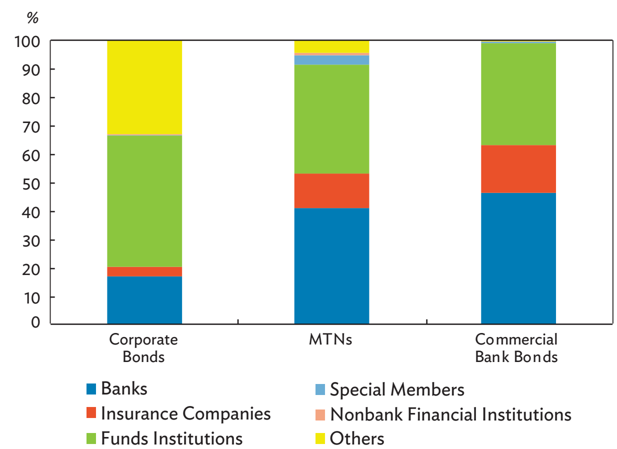
Source: *ChinaBond*.

Figure 4: Local Currency Corporate Bonds Investor Profile



Source: *ChinaBond*.

Figure 5: Investor Profile across Bond Categories



MTNs = medium-term notes.
Note: Data as of end-June 2018.
Source: *ChinaBond*.

Table 5: Notional Values of the People's Republic of China's Interest Rate Swap Market in the Second Quarter of 2018

Interest Rate Swap Benchmarks	Notional Amount (CNY billion)	Share of Total Notional Amount (%)	Growth Rate (%)
	Q2 2018		q-o-q
7-Day Repo Rate	4,903.1	83.28	10.05
Overnight SHIBOR	15.0	0.25	(6.60)
3-Month SHIBOR	849.1	14.42	8.44
1-Year Lending Rate	2.4	0.01	n.a.
LPR1Y	0.5	0.04	n.a.
3-Year Lending Rate	0.1	0.01	(70.57)
5-Year Lending Rate	0.3	0.00	(89.38)
Depository Institution 7-Day Repo Rate	38.0	0.01	(84.62)
10-Year Bond Yield	75.7	0.65	304.26
10-Year Treasury Yield	0.7	1.28	310.03
3-Year AAA Short-Term Notes/ Government Debt	0.3	0.01	250.00
10-Year Bond Yield/10-Year Government Bond Yield	1.7	0.01	(62.50)
Loan Interest Rate—1 Year * 1.10	0.5	0.03	415.15
Loan Interest Rate—1 Year * 1.05	0.5	0.01	–
Total	**5,887.7**	**100.00**	**2.51**

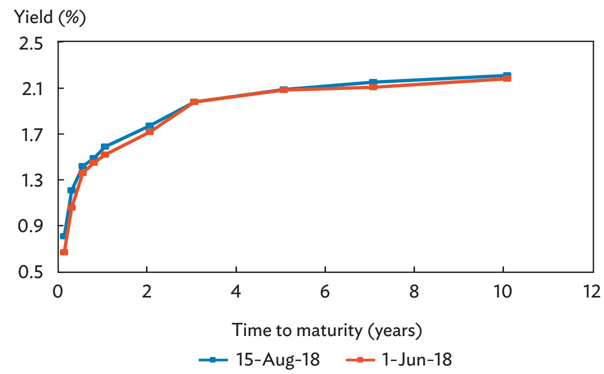
( ) = negative, CNY = Chinese yuan, LPR1Y = 1-Year Loan Prime Rate, n.a. = not available, q-o-q = quarter-on-quarter, Q2 = second quarter, Repo = repurchase, SHIBOR = Shanghai Interbank Offered Rate.
Note: Growth rate computed based on notional amounts.
Sources: *AsianBondsOnline* and *ChinaMoney*.

Hong Kong, China

Yield Movements

Hong Kong, China's local currency (LCY) government bond yield curve slightly shifted upward as yields for all tenors, except the 3-year tenor, rose marginally between 1 June and 15 August (**Figure 1**). Yields for shorter-dated bonds (1 year or less) rose an average of 9 basis points (bps) compared with yields for longer-dated bonds (2 years or more), which, excluding the 3-year tenor, rose an average of 3 bps, causing the yield curve to climb steeply at the shorter-end and flatten toward the longer-end. Consequently, the yield spread between the 2-year and 10-year tenors narrowed to 44 bps on 15 August from 46 bps on 1 June.

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



Source: Based on data from Bloomberg LP.

The movements in Hong Kong, China's bond yields closely track the movements of United States (US) Treasury yields due to the Linked Exchange Rate System under which the Hong Kong dollar is pegged to the US dollar. In June, the Hong Kong Monetary Authority (HKMA) raised its base rate by 25 bps to 2.25% following a 25-bps hike in the target range for the US federal funds rate. In August, the weak-end of the trading band of HKD7.85 against the US dollar was triggered for the third time since April, prompting the HKMA to sell US dollars in exchange for HKD2.2 billion dollars to reduce the Aggregate Balance to HKD107.2 billion. As a result, the Hong Kong Interbank Offered Rate (HIBOR) gradually increased, bringing interbank liquidity down and, in turn, limiting capital outflows.

The rise of the yield curve was accompanied by a slowdown in the local economy. Hong Kong, China's gross domestic product (GDP) in the second quarter (Q2) of 2018 rose 3.5% year-on-year (y-o-y), decelerating from 4.6% y-o-y GDP growth in the first quarter (Q1) of 2018, due to a slowdown in the growth of goods exports and domestic demand. Exports of goods rose 4.6% y-o-y, decelerating from growth of 5.2% y-o-y in Q1 2018, as the impact of the rising trade conflict between the People's Republic of China (PRC) and the US became more pronounced in the export performance of Hong Kong, China in June. Domestic demand rose 6.1% y-o-y, decelerating from 8.8% y-o-y growth in the previous quarter. On a seasonally adjusted quarter-on-quarter (q-o-q) basis, GDP contracted 0.2% in Q2 2018 after an expansion of 2.1% in Q1 2018.

Consumer prices rose 2.4% y-o-y in June, up from 2.1% y-o-y in May, due to increases in private housing rentals, prices of saltwater fish, and charges for package tours. The government noted that robust economic conditions, in general, steered prices higher in June. Inflation held steady in July at 2.4% y-o-y.

Size and Composition

Hong Kong, China's LCY bonds outstanding grew in Q2 2018 on both a q-o-q and y-o-y basis to reach HKD1,929 billion (USD246 billion) at the end of June (**Table 1**). Q-o-q growth was 2.1%, reversing the 0.9% q-o-q decline in Q1 2018, driven by growth in both government and corporate bonds. Y-o-y growth was 3.6%, accelerating from the 2.1% y-o-y growth in the previous quarter, solely driven by growth in government bonds. During the review period, the LCY bond market comprised about 60% government bonds and 40% corporate bonds.

Government bonds. LCY government bonds outstanding amounted to HKD1,159 billion at the end of June, up 0.8% q-o-q in Q2 2018, reversing the 0.4% q-o-q decline in Q1 2018, and 7.6% y-o-y, maintaining the previous quarter's y-o-y growth rate. Q-o-q growth in government bonds were mostly accounted for by Hong Kong Special Administrative Region (HKSAR) bonds, while y-o-y growth was solely driven by the strong issuance of Exchange Fund Bills (EFBs). The aggregate amount of

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	HKD	USD	HKD	USD	HKD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,862**	**239**	**1,890**	**241**	**1,929**	**246**	**0.6**	**6.1**	**2.1**	**3.6**
Government	1,076	138	1,149	146	1,159	148	0.8	6.3	0.8	7.6
Exchange Fund Bills	923	118	1,014	129	1,019	130	0.4	7.4	0.5	10.4
Exchange Fund Notes	43	6	37	5	35	4	(6.5)	(19.5)	(4.9)	(18.6)
HKSAR Bonds	111	14	98	13	105	13	7.5	10.2	6.6	(5.5)
Corporate	786	101	741	94	771	98	0.2	5.9	3.9	(2.0)

( ) = negative, HKD = Hong Kong dollar, HKSAR = Hong Kong Special Administrative Region, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Hong Kong Monetary Authority.

government bonds outstanding at the end of the review period was predominantly composed of EFBs.

Exchange Fund Bills. EFBs outstanding amounted to HKD1,019 billion at the end of June, accounting for about 88% of the aggregate government bond market and growing at a pace of 0.5% q-o-q and 10.4% y-o-y. Issuance of EFBs reached HKD805 billion at the end of June.

Exchange Fund Notes. Exchange Fund Notes outstanding continued to decline in Q2 2018 dropping to HKD35 billion at the end of June, down 4.9% q-o-q and 18.6% y-o-y.

HKSAR bonds. HKSAR bonds outstanding amounted to HKD105 billion at the end of June, up 6.6% q-o-q but down 5.5% y-o-y. In Q2 2018, the government issued two HKSAR bonds, valued at HKD4 billion with a 3-year tenor and the other valued at HKD2.5 billion with a 5-year tenor, under the Institutional Bond Issuance Programme.

Corporate bonds. The amount of corporate bonds outstanding totaled HKD771 billion at the end of June, up 3.9% q-o-q but down 2.0% y-o-y. Hong Kong, China's top 30 nonbank corporate issuers had LCY outstanding bonds amounting to HKD202 billion at the end of June, accounting for 26.3% of the total corporate bonds outstanding (**Table 2**). In the lead was Hong Kong Mortgage Corporation with an outstanding amount of HKD29 billion. Real estate firms dominated the list, comprising more than one-third of the top 30, followed by financing firms. Of the top 30, two-thirds were listed on the Hong Kong Stock Exchange and four were state-owned corporations.

In Q2 2018, the top five nonbank issuances came from the government, financial firms, and a real estate company. Government-owned Hong Kong Mortgage Corporation remained the top corporate issuer with 13 issuances (**Table 3**). Haitong International Securities, a financing firm, came in second with six issuances, two of which were the largest issuances for the period, amounting to HKD1.5 billion each. LT Commercial Real Estate was third, followed by financing firms AIA Group and Value Success International.

Policy, Institutional, and Regulatory Developments

People's Bank of China Enhances Cross-Border Fund Flow Management

In May, the People's Bank of China announced a series of measures to enhance cross-border fund flow management. These include enhancing the existing policy framework to allow offshore renminbi business-clearing banks and participating banks to tap renminbi liquidity from the onshore market to support offshore renminbi business development, implementing the central bank's bilateral currency swap agreements, adjusting the required reserve ratio of renminbi deposits placed by Hong Kong, China's renminbi business-clearing bank in the settlement account in People's Bank of China's Shenzhen subbranch to 0%, and further enhancing the currency conversion

Table 2: Top 30 Nonbank Corporate Issuers of Local Currency Corporate Bonds in Hong Kong, China

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (HKD billion)	LCY Bonds (USD billion)			
1.	The Hong Kong Mortgage Corporation	28.51	3.63	Yes	No	Finance
2.	Haitong International Securities Group	13.26	1.69	No	Yes	Finance
3.	Sun Hung Kai & Co.	12.90	1.64	No	Yes	Real Estate
4.	MTR Corporation	12.49	1.59	Yes	Yes	Transportation
5.	The Hong Kong and China Gas Company	11.34	1.44	No	Yes	Utilities
6.	Hong Kong Land	9.69	1.23	No	No	Real Estate
7.	New World Development	9.41	1.20	No	Yes	Diversified
8.	The Wharf (Holdings)	9.07	1.16	No	Yes	Finance
9.	CLP Power Hong Kong Financing	8.81	1.12	No	No	Finance
10.	Swire Pacific	8.57	1.09	No	Yes	Diversified
11.	Link Holdings	7.95	1.01	No	No	Finance
12.	Henderson Land Development	6.63	0.85	No	No	Real Estate
13.	Swire Properties	5.93	0.76	No	Yes	Real Estate
14.	Hongkong Electric	5.84	0.74	No	No	Utilities
15.	China Merchants Port Holdings	5.70	0.73	No	Yes	Transportation
16.	Hang Lung Properties	4.61	0.59	No	Yes	Real Estate
17.	Value Success International	4.25	0.54	No	No	Finance
18.	CK Asset Holdings	4.20	0.53	No	Yes	Real Estate
19.	AIA Group	3.90	0.50	No	Yes	Insurance
20.	IFC Development Corporation	3.50	0.45	No	No	Finance
21.	Kowloon-Canton Railway	3.40	0.43	Yes	No	Transportation
22.	LT Commercial Real Estate	3.02	0.38	No	Yes	Real Estate
23.	Urban Renewal Authority	2.80	0.36	Yes	No	Real Estate
24.	Emperor International Holdings	2.60	0.33	No	Yes	Real Estate
25.	Wharf Real Estate Investment	2.59	0.33	No	Yes	Real Estate
26.	CK Hutchison Holdings	2.50	0.32	No	Yes	Diversified
27.	China Dynamics (Holdings)	2.36	0.30	No	Yes	Diversified
28.	ASM Pacific Technology	2.25	0.29	No	Yes	Technology
29.	The 13 Holdings	2.22	0.28	No	Yes	Industrial
30.	Hysan Development	2.15	0.27	No	Yes	Real Estate
Total Top 30 Nonbank LCY Corporate Issuers		**202.42**	**25.80**			
Total LCY Corporate Bonds		**770.55**	**98.20**			
Top 30 as % of Total LCY Corporate Bonds		**26.27%**	**26.27%**			

LCY = local currency.
Notes:
1. Data as of 30 June 2018.
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 LP data.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (HKD billion)	Corporate Issuers	Coupon Rate (%)	Issued Amount (HKD billion)
The Hong Kong Mortgage Corporation			Haitong International Securities		
3-month bond	0.00	0.55	6-month bond	0.00	1.00
3-month bond	1.30	0.62	6-month bond	0.00	1.50
3-month bond	0.00	0.08	1-year bond	2.70	0.45
3-month bond	0.00	0.45	1-year bond	2.00	0.35
1-year bond	1.89	0.43	1-year bond	2.10	0.34
1-year bond	1.84	0.29	1-year bond	0.00	1.50
1-year bond	2.02	0.38	LT Commercial Real Estate		
2-year bond	1.69	1.00	3-year bond	2.00	4.00
2-year bond	1.69	0.30	AIA Group		
2.5-year bond	2.18	0.30	3-year bond	2.76	3.90
3-year bond	2.29	0.30	Value Success International		
3-year bond	2.31	0.35	1-year bond	2.65	1.50
10-year bond	2.69	0.40	1-year bond	2.50	1.20

HKD = Hong Kong dollar.
Source: Bloomberg LP.

mechanism for Shanghai–Hong Kong Stock Connect and Shenzhen–Hong Kong Stock Connect to facilitate overseas investors' use of renminbi and foreign currencies for investments. The changes were well received by the HKMA, which believes the new measures will ensure smooth offshore market operations and support Hong Kong, China's development as the global offshore renminbi business hub.

Government Increases Shareholding in HKEx to 6.0%

In June, the government increased its shareholding with the Hong Kong Exchanges and Clearing Limited (HKEx) for the exchange fund account to 6.0%, a modest and limited increase from 5.88% in September 2007. Exchange fund shareholding is the government's approach to contribute to the development of the HKEx, particularly in strategic partnerships and linkages with other institutions in the region.

HKMA Co-Hosts the 2018 Green and Social Bond Principles Annual General Meeting and Conference

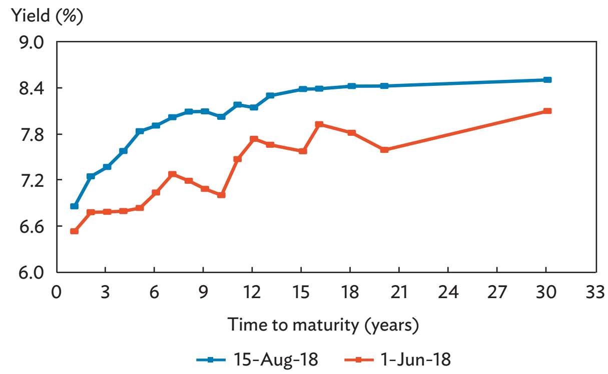
In cooperation with the International Capital Market Association, the HKMA hosted the 2018 Green and Social Bond Principles Annual General Meeting and Conference in Hong Kong, China in June. The flagship event, which was held for the first time in Asia, signified the growing influence of the region in the development of green bonds and sustainable finance, and recognized Hong Kong, China's status as an international financial center. The conference focused on developing the global green, social, and sustainability bond markets, and on the convergence toward market-based global standards. The 2018 update of the Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines, along with publications providing guidance to further strengthen and interconnect the market ecosystem, is expected to be released following the conference.

Indonesia

Yield Movements

Between 1 June and 15 August, local currency (LCY) government bond yields in Indonesia increased, resulting in the entire yield curve shifting upward (**Figure 1**). Yield upticks were most prominent in the belly of the curve, particularly the 5-, 9- and 10-year maturities, which rose by 100, 101, and 102 basis points (bps), respectively. Bond yields at the shorter-end climbed the least, with the 1-year maturity rising only 32 bps. All other yields across the curve gained an average of 66 bps. As yields rose faster at the longer-end than the shorter-end of the curve, the spread between the 2-year and 10-year maturities widened from 22 bps on 1 June to 77 bps on 15 August.

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



Source: Based on data from Bloomberg LP.

Negative sentiments toward emerging market assets impacted Indonesian bonds, extending the market sell-off that began in February. Foreign investors, which account for the largest investor group in Indonesia's LCY government bond market, reduced their holdings of bonds to a share of 37.8% in mid-August from 38.1% in early June and a high of over 40.0% in January.

Global and domestic issues weighed on the domestic bond market, pushing yields higher during the review period. Positive economic conditions in the United States (US) continued to gain traction, signaling that the Federal Reserve is on track to proceed with its monetary policy normalization. Further exacerbating the global outlook were risks related to trade tensions between the US and the People's Republic of China, and concerns that financial woes in Turkey could spark a contagion in other emerging markets, including Indonesia.

On the domestic front, the Indonesian rupiah was the worst-performing currency among its peers in emerging East Asia between 1 January and 15 August, with its value weakening by 7.0%. The current account deficit widened in the second quarter (Q2) of 2018 to USD8.0 billion (3.0% of gross domestic product [GDP]) from USD5.7 billion (2.2% of GDP) in the first quarter (Q1).

Against this backdrop, Bank Indonesia actively intervened in the foreign currency and bond markets. The central bank also tightened monetary policy, raising its policy rates for a fourth time since May for cumulative hikes of 125 bps. During its 14–15 August meeting, Bank Indonesia raised the 7-day reverse repurchase (repo) rate by 25 bps to 5.50%. Corresponding adjustments were also made for the deposit facility rate (4.75%) and the lending facility rate (6.25%). According to Bank Indonesia, the rate hike was part of efforts to maintain the competitiveness of Indonesia's domestic financial markets and manage the current account deficit. The central bank also reinforced its monetary operations by enhancing money market rates through the introduction of a new overnight rate, IndONIA (see Policy and Regulatory Developments).

The Government of Indonesia is looking at measures to trim the current account deficit through the levy of import tariffs on certain goods and online purchases. Some state projects with a heavy import-dependence will also be put on hold to reduce imports.

Consumer price inflation remains relatively controlled, with the inflation rate staying within the full-year 2018 target of 2.5%–4.5% set by Bank Indonesia. Consumer price inflation rose 3.4% year-on-year (y-o-y) in April, before easing to 3.2% in May and 3.1% in June. Consumer prices inched up slightly to 3.2% y-o-y in July.

Bank Indonesia expects economic growth to range between 5.0%–5.4% for full-year 2018. In Q2 2018, real gross domestic product growth climbed to 5.3% y-o-y from 4.9% y-o-y in Q1 2018. Growth was largely buoyed by strong domestic consumption and modest growth in investments. Household consumption gained 5.1% y-o-y in Q2 2018 on the back of rising incomes and increased spending during the Ramadan and Eid'l Fitr holidays. Government expenditures also contributed to overall GDP growth, accelerating to 5.3% y-o-y in Q2 2018 from 2.7% y-o-y in Q1 2018. Investment growth eased to 5.9% y-o-y from 8.0% y-o-y in the review period. On a quarter-on-quarter (q-o-q) basis, the economy expanded 4.2% in Q2 2018.

Size and Composition

The local currency bond market in Indonesia managed to expand in Q2 2018 amid the volatility that prevailed in financial markets. The amount of outstanding bonds climbed to IDR2,611.4 trillion at the end of June, with growth slowing on both a q-o-q and y-o-y basis (**Table 1**). In Q2 2018, the bond market grew a marginal 0.5% q-o-q and 12.0% y-o-y, with growth largely driven by the government bond segment.

Indonesia's LCY bond market is dominated by government bonds, which represented 84.6% of the aggregate LCY bond stock at the end of Q2 2018. The respective shares of the stock of government and corporate bonds were unchanged from the previous quarter. Conventional bonds continued to account for a larger share of the bond market, representing 85.4% of the total. *Sukuk* (Islamic bonds) accounted for the remaining 14.6% share, inching up from a 13.8% share at the end of March.

Government bonds. At the end of June, the outstanding amount of LCY government bonds rose to IDR2,208.9 trillion on hikes of 0.5% q-o-q and 10.5% y-o-y. Treasury instruments, comprising bills and bonds issued by the Ministry of Finance for budget financing, were the main driver of growth. In contrast, the stock of central bank bills, which are known as Sertifikat Bank Indonesia (SBI), contracted during the review period.

Central government bonds. The outstanding amount of central government bonds climbed to IDR2,196.9 trillion at the end of June, posting growth of 0.6% q-o-q and 12.5% y-o-y. Despite a slowdown in issuance during Q2 2018, new issuance of Treasury bills and bonds exceeded maturities.

During the quarter, new issuance of central government bonds came from the auction of Treasury bills and bonds. Total issuance volume reached IDR82.8 trillion in Q2 2018, declining significantly by 62.3% q-o-q and 28.5% y-o-y. The drop on a q-o-q basis was due to a high base, as the government adopted a frontloading policy at the start of the year. In Q2 2018, issuance volume was pared as most Treasury auctions from April through mid-May fell short of the targeted amount, including one auction in which the government rejected all bids. Investors demanded higher rates as they priced in uncertainties in the global market and concerns over the depreciation of the Indonesian rupiah. Subsequently, bond auctions were awarded in excess of the targeted amount after Bank Indonesia moved to tighten its

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	IDR	USD	IDR	USD	IDR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**2,331,240**	**175**	**2,598,075**	**189**	**2,611,428**	**182**	**1.8**	**16.4**	**0.5**	**12.0**
Government	1,998,689	150	2,197,585	160	2,208,882	154	1.5	15.3	0.5	10.5
Central Govt. Bonds	1,952,234	146	2,184,588	159	2,196,915	153	3.2	18.5	0.6	12.5
of which: *Sukuk*	297,424	22	329,204	24	354,277	25	8.4	35.8	7.6	19.1
Central Bank Bills	46,455	3	12,997	0.9	11,967	0.8	(41.2)	(46.0)	(7.9)	(74.2)
of which: *Sukuk*	46,455	3	12,997	0.9	11,967	0.8	278.5	521.9	(7.9)	(74.2)
Corporate	332,550	25	400,490	29	402,546	28	3.6	23.1	0.5	21.0
of which: *Sukuk*	13,385	1	16,449	1	13,958	1	13.1	40.0	(15.1)	4.3

( ) = negative, IDR = Indonesian rupiah, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
4. The total stock of nontradable bonds as of end-June stood at IDR222.8 trillion.
Sources: Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; Indonesia Stock Exchange; and Bloomberg LP.

monetary policy. As a result of the slowdown in Q2 2018, the government may need to issue a much larger volume in the second half of the year.

Central bank bills. At the end of June, the outstanding stock of SBI slipped to IDR12.0 trillion on contractions of 7.9% q-o-q and 74.2% y-o-y. SBI issuance reached IDR2.4 trillion in Q2 2018, declining 42.8% q-o-q but rising more than 100.0% on a y-o-y basis. Bank Indonesia only conducted two auctions of Sharia-compliant SBI during the quarter, one each in April and May. There was no issuance in June due to the long Eid'l Fitr holiday. To help attract foreign portfolio investment, Bank Indonesia announced the resumption of conventional SBI issuance in July. (The central bank previously ceased issuance of conventional SBI in January 2017.) This is expected to boost the supply of SBI beginning in the third quarter of 2018 (see Policy and Regulatory Developments).

Corporate bonds. The stock of corporate bonds climbed to IDR402.5 trillion at the end of June, rising a marginal 0.5% q-o-q but a more rapid 21.0% y-o-y. The uptick was due to a modest growth in new corporate debt issues during the review period.

At the end of June, a total of 113 firms comprised the entire corporate bond market in Indonesia. The 30 largest issuers of corporate bonds had an aggregate bond market size of IDR300.4 trillion, representing a 74.6% share of the corporate total (**Table 2**). Dominating the top 30 list were firms from the banking and financial industry, which together account for about 70% of the list. Nearly half of the firms in the list were state-owned firms, with 7 such firms landing in the top 10.

The top 30 list was led by three state-owned firms whose respective standings were unchanged from the prior quarter. Leading the list were Indonesia Eximbank (IDR34.1 trillion), Bank Rakyat Indonesia (IDR25.4 trillion), and Bank Tabungan Negara (IDR18.0 trillion).

In Q2 2018, a total of 24 corporate firms tapped the bond market, raising funds worth IDR28.9 trillion. Total issuance climbed 5.2% q-o-q but fell 24.1% y-o-y during the review period. There were 58 new bond series issued during the quarter, of which 4 bond series were structured as *sukuk mudharab'ah* (Islamic bonds backed by a profit-sharing scheme from a business venture or partnership).

Among the new bond issues in Q2 2018, state-owned Indonesia Eximbank had the largest aggregate issuance at IDR3.2 trillion. It was followed by Federal International Finance, which issued a total of IDR3.0 trillion from a dual-tranche bond sale. Third on the list was telecommunications firm Indosat with aggregate issuance of IDR2.7 trillion from a multitranche bond issue. **Table 3** presents some of the largest aggregate new bond issuances during the quarter.

Foreign currency bonds. In April, the Government of Indonesia tapped the euro and US dollar bond markets, marking the second time it sold dual-currency bonds. The government sold EUR1.0 billion of 7-year bonds with a coupon rate of 1.75%, its fifth issuance of EUR-denominated bonds. The sovereign also sold USD1.0 billion of 10-year bonds with a coupon rate of 4.1%. Both the EUR- and USD-denominated bonds marked Indonesia's first US Securities and Exchange Commission shelf-registered issuance.

In May, the Government of Indonesia also raised JPY100 billion worth of samurai bonds in four tranches. The bond sale comprised JPY49 billion of 3-year bonds with a coupon rate of 0.67%, JPY39 billion of 5-year bonds with a coupon rate of 0.92%, JPY3.5 billion of 7-year bonds with a coupon rate of 1.07%, and JPY8.5 billion of 10-year bonds with a coupon rate of 1.27%.

With these issuances, the government completed its planned foreign currency funding for the year. Prior to which, the government had frontloaded its 2018 financing via a December 2017 issuance of USD4.0 billion of global bonds and an aggregate of USD3.0 billion from a global *sukuk* issuance in March 2018.

Investor Profiles

Central government bonds. Foreign investors remain the largest holder of LCY government bonds in Indonesia, albeit their share fell to 37.8% at the end of June from 39.5% in June 2017 (**Figure 2**). The decline in the foreign holdings share was driven by a market sell-off as US Treasury yield rose and the US dollar appreciated against most major currencies. This resulted in foreign investors dumping holdings of IDR-denominated bonds as they rebalanced their portfolios. In nominal terms, nonresident bond holdings totaled IDR830.2 trillion at the end of June compared with IDR770.6 trillion a year earlier.

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

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (IDR billion)	LCY Bonds (USD billion)			
1.	Indonesia Eximbank	34,117	2.38	Yes	No	Banking
2.	Bank Rakyat Indonesia	25,370	1.77	Yes	Yes	Banking
3.	Bank Tabungan Negara	17,950	1.25	Yes	Yes	Banking
4.	Indosat	17,519	1.22	No	Yes	Telecommunications
5.	PLN	17,357	1.21	Yes	No	Energy
6.	Bank Pan Indonesia	14,025	0.98	No	Yes	Banking
7.	Sarana Multi Infrastruktur	12,900	0.90	Yes	No	Finance
8.	Waskita Karya	12,509	0.87	Yes	Yes	Building Construction
9.	Federal International Finance	12,077	0.84	No	No	Finance
10.	Bank Mandiri	11,000	0.77	Yes	Yes	Banking
11.	Adira Dinamika Multifinance	10,562	0.74	No	Yes	Finance
12.	Perum Pegadaian	9,840	0.69	Yes	No	Finance
13.	Pupuk Indonesia	9,076	0.63	Yes	No	Chemical Manufacturing
14.	Telekomunikasi Indonesia	8,995	0.63	Yes	Yes	Telecommunications
15.	Sarana Multigriya Finansial	8,456	0.59	Yes	No	Finance
16.	Astra Sedaya Finance	7,825	0.55	No	No	Finance
17.	Bank CIMB Niaga	7,018	0.49	No	Yes	Banking
18.	Hutama Karya	6,825	0.48	Yes	No	Non-Building Construction
19.	Permodalan Nasional Madani	6,746	0.47	Yes	No	Finance
20.	Bank Maybank Indonesia	6,247	0.44	No	Yes	Banking
21.	Bank OCBC NISP	5,604	0.39	No	Yes	Banking
22.	BFI Finance Indonesia	5,541	0.39	No	Yes	Finance
23.	Medco-Energi Internasional	5,252	0.37	No	Yes	Petroleum and Natural Gas
24.	Maybank Indonesia Finance	4,400	0.31	No	No	Finance
25.	Indomobil Finance Indonesia	4,184	0.29	No	No	Finance
26.	Bank Permata	4,060	0.28	No	Yes	Banking
27.	Indofood Sukses Makmur	4,000	0.28	No	Yes	Food and Beverages
28.	Bank UOB Buana	3,800	0.27	No	No	Banking
29.	Adhi Karya	3,747	0.26	Yes	Yes	Building Construction
30.	Wahana Ottomitra Multiartha	3,362	0.23	No	No	Finance
Total Top 30 LCY Corporate Issuers		**300,361**	**20.96**			
Total LCY Corporate Bonds		**402,546**	**28.09**			
Top 30 as % of Total LCY Corporate Bonds		**74.6%**	**74.6%**			

IDR = Indonesian rupiah, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
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.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

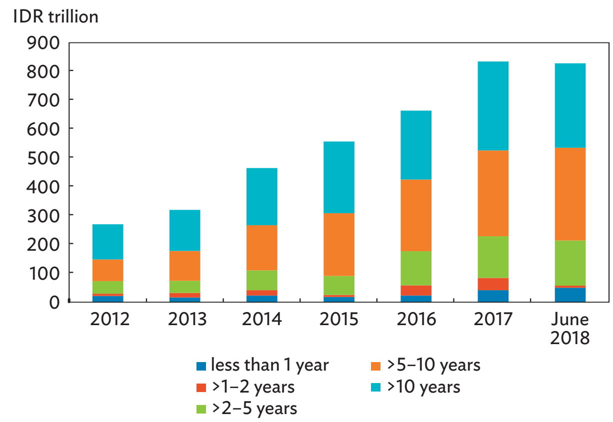
Corporate Issuers	Coupon Rate (%)	Issued Amount (IDR billion)
Indonesia Eximbank		
370-day *sukuk mudharabah*	6.15	135
3-year bond	7.50	938
3-year *sukuk mudharabah*	7.50	365
5-year bond	7.70	35
7-year bond	8.30	1,756
Federal International Finance		
370-day bond	6.10	1,592
3-year bond	7.45	1,408
Indosat		
370-day bond	6.05	1,209
3-year bond	7.40	630
5-year bond	7.65	98
7-year bond	8.20	266
10-year bond	8.70	516
Permodalan Nasional Madani		
3-year bond	8.00	1,254
5-year bond	8.50	1,246
Astra Sedaya Finance		
370-day bond	6.10	570
370-day *sukuk mudharabah*	6.10	325
3-year bond	7.50	550
3-year *sukuk mudharabah*	7.50	175
Bank Pan Indonesia		
3-year bond	7.40	1,500

IDR = Indonesian rupiah.
Note: *Sukuk mudharabah* are Islamic bonds backed by a profit-sharing scheme from a business venture or partnership.
Source: Indonesia Stock Exchange.

Nonresident investors also include holdings by foreign governments and central banks, which accounted for nearly 7.0% of the total LCY bonds at the end of June.

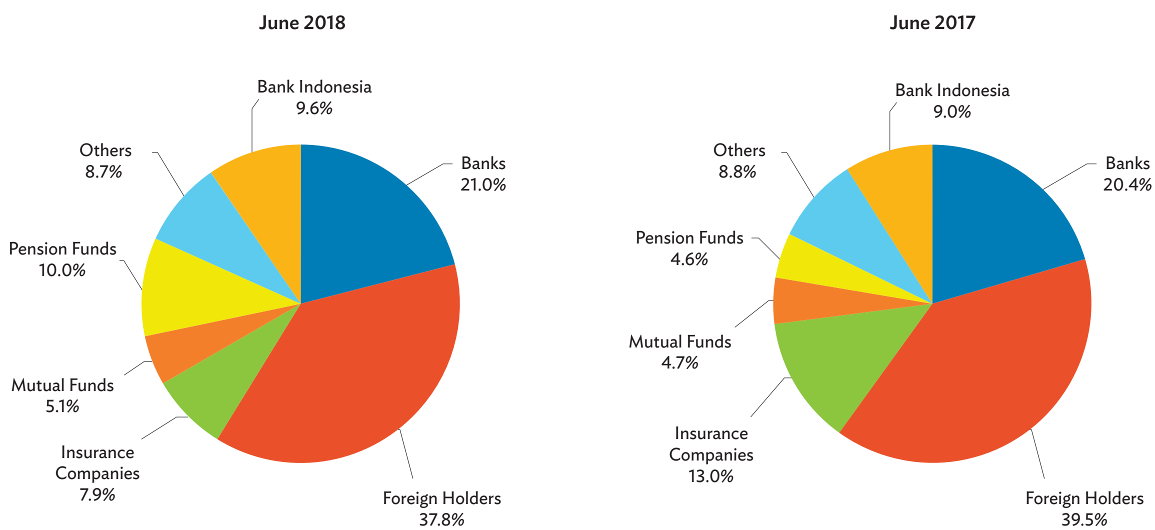
Despite the volatile market conditions, foreign investor holdings of bonds were still largely placed in longer-dated maturities. About 35% of their aggregate bond holdings were in maturities of 10 years or more, and about 39% were in bonds with maturities of more than 5 years to 10 years (**Figure 3**). Nonresident holdings of bonds with

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



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

Figure 2: Local Currency Central Government Bonds Investor Profile



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

maturities of 1 year or less only accounted for about 6% of total foreign investor holdings at the end of June. This reflects foreign investors maintaining a positive outlook on Indonesia's macroeconomic fundamentals.

Among domestic investors, banking institutions were the largest holders of LCY government bonds, with holdings that were broadly unchanged from a year earlier at 21.0% at the end of June. Pension fund holdings gained the most in terms of share to total, more than doubling to 10.0% at the end of June from only 4.6% a year earlier. Bank Indonesia also increased its holdings of bonds as part of dual-intervention measures initiated to help stabilize the Indonesian rupiah. The central bank continued to actively engage in bond purchases in the secondary market in Q2 2018.

In contrast, holdings of insurance companies declined to 7.9% from 13.0% during the same period. All other domestic investors had marginal changes in their respective holdings of LCY government bonds during the review period.

Ratings Update

On 31 May, Standard & Poor's (S&P) affirmed Indonesia's long-term and short-term credit ratings at BBB–. The long-term rating was given a stable outlook. In making its decision, S&P took note of the government's low debt levels and moderate fiscal performance and external indebtedness.

Policy, Institutional, and Regulatory Developments

Bank Indonesia Resumes Issuance of 9-Month and 12-Month Conventional SBI

On 23 July, Bank Indonesia resumed issuance of 9-month and 12-month SBI. The central bank sold IDR4.2 trillion of 9-month SBI and IDR1.8 trillion of 12-month SBI during the auction. The issuance of conventional SBI is expected to help attract foreign portfolio investment into the Indonesian market and provide more diversity in the instruments being issued by the central bank. Since December 2016, only Sharia-compliant SBI had been issued on a monthly basis.

Bank Indonesia Introduces New Overnight Reference Rate

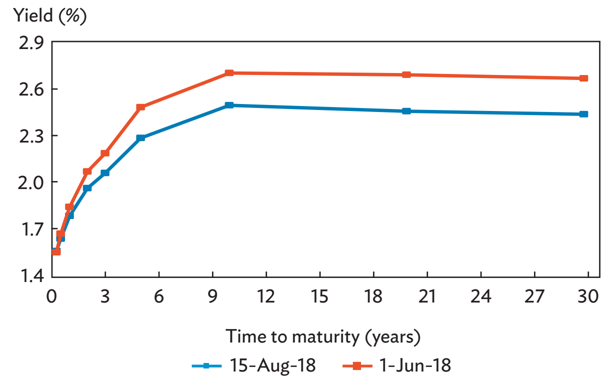
On 1 August, Bank Indonesia launched a new interbank overnight reference rate called the Indonesia Overnight Index Average (IndONIA). This new rate replaces the overnight Jakarta Interbank Offered Rate (JIBOR). However, JIBOR remains as a pricing reference for longer tenors. Bank Indonesia will continue to provide overnight JIBOR rates until the end of year as the market transitions to using the IndONIA. The shift to a new overnight reference rate will provide a more reliable market-based reference pricing for loan rates and financial instruments. IndONIA is based on the weighted average of all transactions in the interbank lending market by all banks during the day. JIBOR is based on the average loan rates quoted by banks. The new rate will be published by Bank Indonesia at 7:30 p.m. each day (local time).

Republic of Korea

Yield Movements

Between 1 June and 15 August, local currency (LCY) government bond yields in the Republic of Korea fell for all tenors except the 3-month tenor, which was barely changed (**Figure 1**). The drop was most pronounced at the longer-end of the curve with the 20-year and 30-year bonds falling 23 basis points (bps) each. Yields for tenors of between 2 years and 10 years fell 16 bps on average, while yields for the 6-month and 1-year bonds declined an average of 4 bps. The spread between the 2-year and 10-year yields fell to 53 bps from 63 bps, resulting in a flattening of the yield curve.

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



Source: Based on data from Bloomberg LP.

Yields fell in the Republic of Korea during the review period due to increased market expectations that the Bank of Korea would not raise its base rate this year; the last rate hike was in November 2017. Recent domestic and global developments have weighed on the Republic of Korea's economic growth prospects, further contributing to speculation that the Bank of Korea will maintain its current monetary policy. These include concerns over recent employment figures as monthly job creation in 2018 has been low relative to previous years. The creation of new jobs has been one of the new administration's main policies to boost economic growth and the program behind the supplementary budget requested and approved this year. The ongoing trade conflict between the People's Republic of China (PRC) and the United States (US) also poses a downside risk as exports have been one of the main drivers of the Republic of Korea's economic growth. Given subdued inflation, the Bank of Korea is expected to maintain an accommodative monetary policy stance.

In its 12 July meeting, the Monetary Policy Board of the Bank of Korea decided to leave its base rate unchanged at 1.50%. The central bank noted continued growth in the global economy and volatility in financial markets caused by rising trade protectionism and the strengthening US dollar. On the domestic front, the economy continues to be supported by consumption and exports, while inflation remains subdued due to the slow pace of price increase for agricultural and livestock products despite rising global oil prices.

The Bank of Korea also lowered its gross domestic product growth forecasts for 2018 and 2019 to 2.9% year-on-year (y-o-y) and 2.8% y-o-y, respectively, from April forecasts of 3.0% y-o-y and 2.9% y-o-y. The inflation forecast for 2018 was maintained at 1.6% y-o-y, while for 2019 it was lowered to 1.9% y-o-y from 2.0% y-o-y.

The Republic of Korea's economy grew 2.8% y-o-y in the second quarter (Q2) of 2018, unchanged from the first quarter (Q1) of 2018. Growth was mainly driven by the acceleration in the growth of exports to 4.8% y-o-y in Q2 2018. Meanwhile, consumption posted a slower annual increase of 3.3% y-o-y and gross fixed capital formation contracted 1.3% y-o-y in Q2 2018. On a seasonally adjusted quarter-on-quarter (q-o-q) basis, the Republic of Korea's economy grew 0.6% in Q2 2018, down from the 1.0% growth posted in the prior quarter.

Consumer price inflation in the Republic of Korea remained subdued during the April–July period. Inflation for April was 1.6% y-o-y; it eased to 1.5% y-o-y in May and was unchanged in June and July.

Foreign demand for the Republic of Korea's LCY government bonds remained high during the review period. Recent financial market volatility in major emerging markets has resulted in a flight to quality, making the Republic of Korea's domestic bonds attractive

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	KRW	USD	KRW	USD	KRW	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**2,138,183**	**1,869**	**2,186,525**	**2,056**	**2,221,054**	**1,993**	**2.1**	**3.6**	**1.6**	**3.9**
Government	892,171	780	915,090	860	937,267	841	2.3	4.6	2.4	5.1
Central Government Bonds	552,288	483	568,774	535	589,426	529	3.6	6.9	3.6	6.7
Central Bank Bonds	174,810	153	174,790	164	174,630	157	(0.03)	(3.6)	(0.1)	(0.1)
Others	165,073	144	171,526	161	173,211	155	0.6	6.4	1.0	4.9
Corporate	1,246,012	1,089	1,271,435	1,195	1,283,787	1,152	1.9	2.9	1.0	3.0

( ) = negative, KRW = Korean won, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. Growth rates are calculated from local currency (LCY) base and do not include currency effects.
4. "Others" comprise Korea Development Bank Bonds, National Housing Bonds, and Seoul Metro Bonds.
5. Corporate bonds include equity-linked securities and derivatives-linked securities.
Sources: The Bank of Korea and *EDAILY BondWeb*.

to foreign investors. Net foreign bond investments in June amounted to KRW2.1 trillion, easing to USD1.4 trillion in July but remaining high.

Recent global trade tensions have put pressure on most currencies in the region, with the Korean won the second most impacted next to the Chinese renminbi. The Korean won, which had been generally stable in the first 5 months of 2018, depreciated 5.1% against the US dollar between 1 June and August 15. The close trade links between the Republic of Korea and the PRC raised concerns over the impact of PRC–US trade tensions on domestic economic growth.

Size and Composition

The Republic of Korea's LCY bond market expanded to reach a size of KRW2,221 trillion (USD1,993 billion) at end June on 1.6% q-o-q growth (**Table 1**). The growth was driven by both its government and corporate bond segments.

Government bonds. The Republic of Korea's LCY government bond market rose 2.4% q-o-q in Q2 2018 to reach a size of KRW937 trillion. This was largely driven by the 3.6% q-o-q growth in the stock of its central government bonds. Meanwhile, the outstanding size of Monetary Stabilization Bonds issued by the Bank of Korea slightly fell 0.1% q-o-q in Q2 2018 despite higher issuance for the quarter due to an even larger volume of maturities. Government bonds issued by government-related entities inched up 1.0% q-o-q in Q2 2018.

Issuance of government bonds rose in Q2 2018, up 6.8% q-o-q to KRW94 trillion. The main driver of growth was the issuance of central bank bonds, which rose 11.7% q-o-q. Meanwhile, issuance of central government bonds remained high in Q2 2018, albeit up only 4.6% q-o-q due to a high base in Q1 2018 when the government implemented its frontloading policy. This is in line with the government's plan to increase borrowing and spending in 2018 to boost growth.

Corporate bonds. The Republic of Korea's LCY corporate bond market inched up 1.0% q-o-q to reach a size of KRW1,284 trillion at the end of June. The marginal growth was due to maturities despite a jump in issuance during the quarter. **Table 2** lists the top 30 LCY corporate bond issuers in the Republic of Korea with aggregate bonds outstanding of KRW814 trillion at the end of June, comprising 63% of the total LCY corporate bond market. Financial institutions, particularly banks and securities and investment firms, continued to comprise a majority of the top 30 LCY corporate bond issuers in the Republic of Korea. Korea Housing Finance Corporation, a government-related institution providing financial assistance for social housing, remained the largest issuer with outstanding bonds of KRW117 trillion.

Issuance of corporate bonds surged 22.0% q-o-q in Q2 2018 to KRW127 trillion. **Table 3** presents notable corporate bond issuances in Q2 2018. Financial firms such as Nonghyup Bank and NH Investment Securities continued to lead corporate bond issuances in the Republic of Korea. Seoul Metro, one of the two major

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

	Issuers	Outstanding Amount		State-Owned	Listed on		Type of Industry
		LCY Bonds (KRW billion)	LCY Bonds (USD billion)		KOSPI	KOSDAQ	
1.	Korea Housing Finance Corporation	117,202	105.1	Yes	No	No	Housing Finance
2.	Mirae Asset Daewoo Co.	63,778	57.2	No	Yes	No	Securities
3.	NH Investment & Securities	61,646	55.3	Yes	Yes	No	Securities
4.	Korea Investment and Securities	54,389	48.8	No	No	No	Securities
5.	Industrial Bank of Korea	45,370	40.7	Yes	Yes	No	Banking
6.	KB Securities	40,881	36.7	No	No	No	Securities
7.	Hana Financial Investment	37,216	33.4	No	No	No	Securities
8.	Korea Land & Housing Corporation	36,812	33.0	Yes	No	No	Real Estate
9.	Samsung Securities	26,423	23.7	No	Yes	No	Securities
10.	Shinhan Bank	23,503	21.1	No	No	No	Banking
11.	Korea Electric Power Corporation	23,380	21.0	Yes	Yes	No	Electricity, Energy, and Power
12.	Kookmin Bank	21,837	19.6	No	No	No	Banking
13.	Korea Expressway	21,620	19.4	Yes	No	No	Transport Infrastructure
14.	KEB Hana Bank	21,170	19.0	No	No	No	Banking
15.	Korea Deposit Insurance Corporation	19,430	17.4	Yes	No	No	Insurance
16.	Korea Rail Network Authority	19,150	17.2	Yes	No	No	Transport Infrastructure
17.	Woori Bank	17,940	16.1	Yes	Yes	No	Banking
18.	The Export-Import Bank of Korea	15,240	13.7	Yes	No	No	Banking
19.	NongHyup Bank	14,680	13.2	Yes	No	No	Banking
20.	Korea Gas Corporation	13,299	11.9	Yes	Yes	No	Gas Utility
21.	Mirae Asset Securities	13,071	11.7	No	Yes	No	Securities
22.	Shinhan Card	12,980	11.6	No	No	No	Credit Card
23.	Shinyoung Securities	12,447	11.2	No	Yes	No	Securities
24.	Small & Medium Business Corporation	12,373	11.1	Yes	No	No	SME Development
25.	Hyundai Capital Services	12,231	11.0	No	No	No	Consumer Finance
26.	Daishin Securities	11,970	10.7	No	Yes	No	Securities
27.	KB Kookmin Bank Card	11,278	10.1	No	No	No	Consumer Finance
28.	Samsung Card Co. Ltd.	10,878	9.8	No	Yes	No	Consumer Finance
29.	Korea Student Aid Foundation	10,810	9.7	Yes	No	No	Student Loan
30.	Nonghyup	10,600	9.5	Yes	No	No	Banking
Total Top 30 LCY Corporate Issuers		**813,603**	**730**				
Total LCY Corporate Bonds		**1,283,787**	**1,152**				
Top 30 as % of Total LCY Corporate Bonds		**63.4%**	**63.4%**				

KOSDAQ = Korean Securities Dealers Automated Quotations, KOSPI = Korea Composite Stock Price Index, KRW = Korean won, LCY = local currency, SME = small and medium-sized enterprise, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
3. Corporate bonds include equity-linked securities and derivatives-linked securities.
Sources: *AsianBondsOnline* calculations based on Bloomberg LP and *EDAILY BondWeb* data.

operators of the Seoul Metropolitan Subway, issued a KRW350 5-year bond. Lotte Shopping also issued KRW310 billion worth of 5-year bonds.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (KRW billion)
Nonghyup Bank		
2-year bond	2.29	700
3-year bond	2.40	300
10-year bond	3.39	150
NH Investment Securities		
5-year bond	2.97	350
3-year bond	2.72	300
Seoul Metro		
5-year bond	2.68	350
Lotte Shopping		
5-year bond	2.96	310
Korea Rural Community and Agricultural Corp.		
3-year bond	2.35	300
KEB Hana Bank		
10-year bond	3.32	300
Kookmin Bank		
10-year bond	3.31	250

KRW = Korean won.
Source: Based on data from Bloomberg LP.

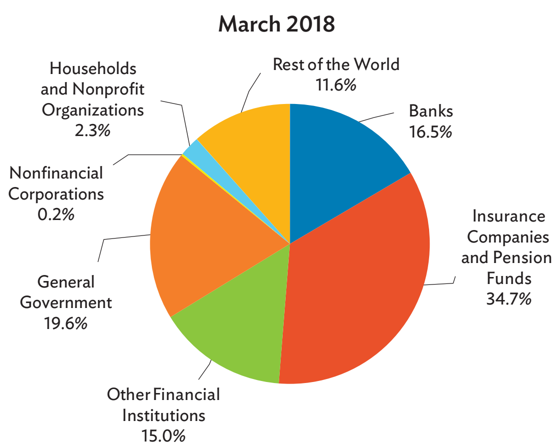
Investor Profile

Insurance companies and pension funds remained the top holders of the Republic of Korea's LCY government bonds with a market share of 34.7% at the end of March, up from 33.2% a year earlier (**Figure 2**). The general government was second with a share of 19.6%, slightly higher than the 18.9% share in March 2017. The share of banks increased to 16.5% at the end of March from 14.7% a year earlier. Meanwhile, the share of other institutions and households fell on a y-o-y basis at the end of March, while foreign holdings of LCY government bonds inched up to 11.6% from 10.8%.

In the Republic of Korea's LCY corporate bond market, insurance companies and pension funds held the largest share at 38.5% at the end of March, up from 35.8% a year earlier (**Figure 3**). The share of other nonbank financial institutions rose to 33.2% from 31.2% during the review period. The shares of the general government and banks were almost unchanged at 12.8% and 6.8%, respectively. Foreign holdings of the Republic of Korea's LCY corporate bond market remained negligible.

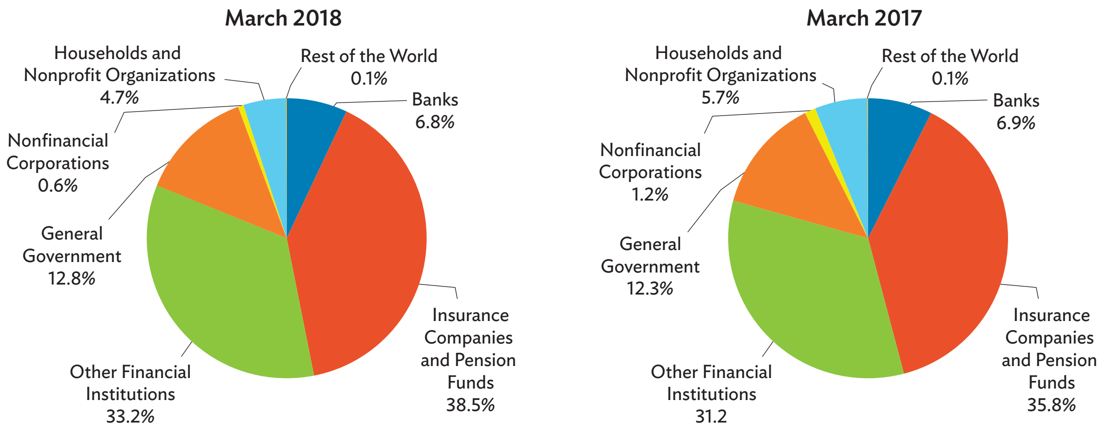
Net foreign inflows into the Republic of Korea's LCY bond market remained high during the May–July period (**Figure 4**). Following an easing to KRW708 billion in April, partly due to the steep rise in US interest rates

Figure 2: Local Currency Government Bonds Investor Profile



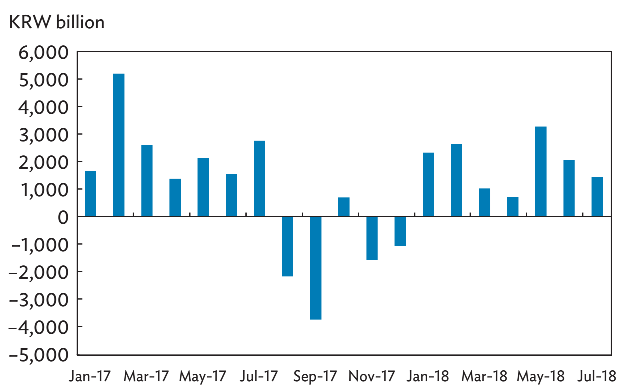
Sources: *AsianBondsOnline* and the Bank of Korea.

Figure 3: Local Currency Corporate Bonds Investor Profile



Sources: *AsianBondsOnline* and the Bank of Korea.

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



KRW = Korean won.
Source: Financial Supervisory Service.

and the strengthening of the US dollar, foreign inflows rebounded to KRW3.3 trillion in May. This was the highest monthly total posted in 2018 as geopolitical tensions eased, which was coupled with a stable Korean won relative to other currencies in the region. Foreign inflows remained high in June and July, but slightly eased to KRW2.1 trillion and KRW1.5 trillion, respectively, due to the trade spat between the PRC and the US. Despite this, the Republic of Korea is still deemed a safe haven in the region, particularly as other economies in the region continue to experience weakening domestic currencies and capital outflows.

Policy and Regulatory Developments

Ministry of Economy and Finance Announces Economic Policies for Second Half of 2018

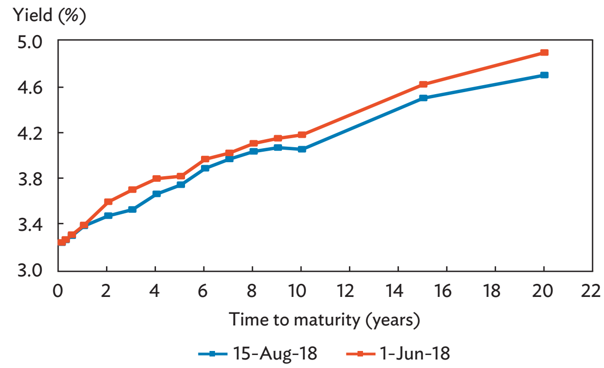
In July, the Ministry of Economy and Finance (MEF) released its assessment of economic policies implemented in the first half of 2018 and the planned program for the second half. The MEF reiterated its focus on consumption as a driver of growth through improved employment, wages, and innovation. For the first half of the year, the MEF described positive trends in exports and consumption, but noted risks such as the trade conflict between the PRC and the US, rising oil prices, and financial market volatility in some emerging markets. Employment growth has been slowing in major industries amid a decline in the working-age population. Improvements are expected in the second half of the year with the implementation of the supplementary budget. For the remainder of the year, policies will continue to focus on creating new jobs and improving (and working on passage of) new regulations promoting innovation. To continue with an expansionary fiscal policy, the government will increase spending by around KRW4 trillion.

Malaysia

Yield Movements

Yields of local currency (LCY) government bonds declined across all maturities between 1 June and 15 August (**Figure 1**). Short-term Treasury bills (maturities of 1 year or less) and bonds with tenors of between 5 years to 9 years saw modest declines in their yields during the review period, which ranged from 0.3 basis point (bp) to 8 bps. The smallest declines were observed in 3-month to 6-month Treasury bills, which averaged 0.5 bp. On the other hand, bonds with maturities of between 2 years and 4 years and 10 years and above saw double-digit decreases in their yields, averaging 14 bps. The largest drop in yields was seen for the 20-year government bond at 19 bps. The yield spread between 2-year and 10-year maturities marginally narrowed from 58 bps to 57 bps during the review period.

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



Source: Based on data from Bloomberg LP.

The general decline in yields during the review period can be attributed to Bank Negara Malaysia (BNM) maintaining its policy rate after raising it by 25 bps in January as a preemptive move. The central bank's tone regarding its monetary policy remains neutral amid sustained economic growth momentum and a subdued inflation forecast. The positive outlook on the Malaysian economy is also a driving force for local bond demand, which could help moderate potential increases in yields, even with the backdrop of a faster pace of US interest rate hikes than previously expected and signals from major central banks that they will tighten their monetary policies. The return of foreign funds to the local bond market in July also helped hold down yield increases.

The Monetary Policy Committee of BNM maintained the overnight policy rate at 3.25% during its meeting on 11 July in line with market expectations. Malaysia's economy is forecast to remain on a steady growth path, supported by private consumption, while the financial sector is benefiting from the improving external position that underpins the economy's fundamentals. Inflation is projected to be lower than earlier forecast in full-year 2018 after taking into account the recent policy measures on domestic cost factors (see Policy and Regulatory Developments).

Consumer price inflation in Malaysia rose to 0.9% y-o-y in July after posting a 3-year low of 0.8% y-o-y in June. Malaysia's low inflation can be traced to the tax holidays following the government's removal of the goods and services tax on 1 June. The July inflation was largely driven by higher transport prices, which increased 6.7% y-o-y in July from 5.5% y-o-y in June on the back of costlier fuel. All other components of the Consumer Price Index either registered subdued price growths or price declines.

The Malaysian ringgit continued to slide against the United States (US) dollar between 1 June and 15 August, losing about 3.0% in value. The weakening of the ringgit was due to external developments such as rising yields for US Treasuries, speculation of accelerated interest rate hikes by the US Federal Reserve and monetary policy normalization among other major central banks, and global trade tensions. On the local front, the ringgit was weighed down by risk factors such as the unexpected win of the Pakatan Harapan coalition in the May elections, which generated some market nervousness due to uncertainty over future policies, and the fiscal implications of the 1Malaysia Development Berhad scandal.

Malaysia's GDP expanded 4.5% y-o-y in the second quarter (Q2) of 2018, which was slower than the expansion logged in the first quarter (Q1) of 5.4% y-o-y.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	MYR	USD	MYR	USD	MYR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,246**	**290**	**1,339**	**347**	**1,369**	**339**	**3.3**	**7.1**	**2.2**	**9.9**
Government	670	156	705	182	722	179	2.9	4.0	2.5	7.9
Central Government Bonds	634	148	656	170	676	167	3.5	5.6	3.0	6.6
of which: *Sukuk*	263	61	287	74	295	73	4.6	13.6	3.0	12.2
Central Bank Bills	7	2	20	5	18	5	(23.4)	(51.8)	(9.0)	149.0
of which: *Sukuk*	0	0	1	0.3	6	1	–	–	450.0	–
Sukuk Perumahan Kerajaan	28	7	28	7	28	7	0.0	0.0	0.0	0.0
Corporate	576	134	635	164	646	160	3.8	10.9	1.9	12.2
of which: *Sukuk*	425	99	480	124	489	121	4.0	13.3	1.8	15.0

( ) = negative, – = not applicable, MYR = Malaysian ringgit, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. Growth rates are calculated from local currency base and do not include currency effects.
4. Sukuk Perumahan Kerajaan are Islamic bonds issued by the Government of Malaysia to refinance funding for housing loans to government employees and to extend new housing loans.

Sources: Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST) and Bloomberg LP.

It was the lowest GDP growth since the fourth quarter of 2016. On the demand side, private consumption and gross fixed capital formation supported the expansion in Q2. On the supply side, the services, manufacturing, and construction sectors remained supportive of the economic expansion, although a growth slowdown was observed in the latter two sectors. Bank Negara Malaysia revised downwards Malaysia's full-year GDP growth to 5.0% for 2018 from an earlier projection of 5.5%–6.0% due to extended disruptions in oil and gas production, and the subdued performance of the agriculture sector.

Size and Composition

Malaysia's total LCY bonds outstanding expanded 2.2% quarter-on-quarter (q-o-q) and 9.9% y-o-y to reach MYR1,369 billion (USD339 billion) at the end of the second quarter (Q2) of 2018 (**Table 1**). The growth logged in Q2 2018 was slower than in the previous quarter on both a q-o-q and y-o-y basis. The government and corporate segments each showed expansion in Q2 2018, with government bonds outpacing the growth in corporate bonds. Government bonds outstanding amounted to MYR722 billion and corporates amounted to MY646 billion at the end of Q2 2018, accounting for 52.8% and 47.2% of the total, respectively. Total *sukuk* (Islamic bonds) amounted to MYR817 billion, accounting for a larger share of Malaysia's bond market at 59.7% in Q2 2018 versus 59.4% in Q1 2018.

Issuance of LCY bonds dropped in Q2 2018 by 9.3% q-o-q on account of lower bond sales from the government and corporates. Malaysia posted total issuance of MYR90.9 billion during the quarter. Upward pressure on domestic bond yields was observed in Q2 2018 on the back of cautious investor sentiment, both before and after the general elections, and due to persistent foreign fund outflows resulting from downside risks in global developments. Increased borrowing cost during the period may have held back debt issuances. On a y-o-y basis, however, LCY bond sales posted growth of 27.7%, with government issuance offsetting the drop in corporate issuance.

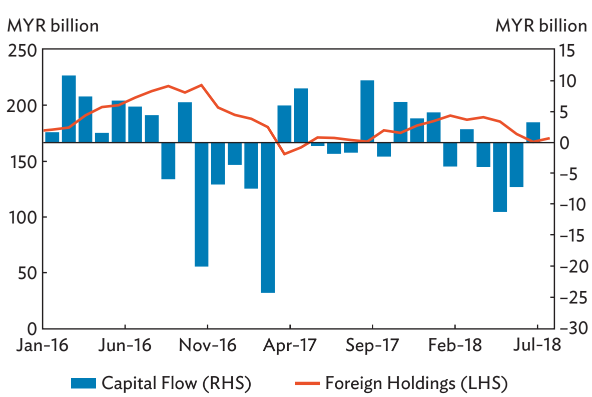
Government bonds. Total LCY government outstanding bonds in Malaysia increased 2.5% q-o-q and 7.9% y-o-y, reaching MYR722 billion at the end of June. Central government bonds remained the driver of growth in the government bond market on an expansion of 3.0% q-o-q. Central bank bills outstanding continued to fall, albeit at a slower pace, on the back high levels of maturing debt even as issuance increased during the quarter. Sukuk Perumahan Kerajaan outstanding were unchanged at MYR28 billion.

Total issuance of LCY government securities decreased to MYR51.0 billion in Q2 2018 from MYR57.6 billion in Q1 2018, reversing the 60.4% q-o-q gain in the previous quarter. Lower issuance volume for Malaysian

Government Securities in Q2 2018 offset the higher issuance volume for Government Investment Issues, resulting in an 8.3% q-o-q decline in long-term government bonds. Issuance of Treasury bills was also down in Q2 2018 to MYR2 billion from MYR8 billion in the preceding quarter. On the other hand, issuance of central bank bills showed an increase of 12.4% q-o-q, underpinned by the continued increase of BNM Interbank Bill issuance, which aims to enhance liquidity in the bond market. Despite some uncertainties over Malaysia's economic and fiscal policies following the change in government in May, the performance of the LCY government bond market remained satisfactory in Q2 2018, owing to the support of local investors.

Foreign holdings of LCY government bonds posted monthly outflows in Q2 2018 after briefly recovering in March (**Figure 2**). Foreign investors shed a total of MYR22.1 billion of their holdings in the LCY bond market during the quarter, largely canceling out the positive inflows in Q1 2018. The sell-off is attributed to several factors, including higher yields for US Treasuries that triggered fund outflows from Malaysia and in other emerging markets; the weakening of the Malaysian ringgit against the US dollar; the unexpected outcome of the May general elections, which clouded expectations of economic and fiscal policies and affected investor sentiment; the hawkish monetary policy stance of several central banks, which prompted investors to hunt for yield; and concerns over global trade tensions. LCY government bonds held by foreign investors amounted to MYR167.6 billion at the end of June, or 24.8% of total government bonds outstanding. The largest monthly attrition in Q2 2018 was recorded in May, when outflows reached MYR11.1 billion, the highest level since March 2017. In July, foreign fund flows into the local bond market recovered with MYR3.3 billion in net inflows following 3 consecutive months of net outflows. Bargain hunting among foreign investors following the earlier outflows, alongside the economy's solid fundamentals, prompted the return of foreign funds to Malaysia's LCY bond market.

Figure 2: Foreign Holdings and Capital Flows of Local Currency Government Bonds in Malaysia



LHS = left-hand side, MYR = Malaysian ringgit, RHS = right-hand side.
Notes:
1. Figures exclude foreign holdings of Bank Negara Malaysia bills.
2. Month-on-month changes in foreign holdings of local currency government bonds were used as a proxy for bond flows.
Source: Bank Negara Malaysia Monthly Statistical Bulletin.

Corporate bonds. Corporate bonds posted growth of 1.9% q-o-q and 12.2% y-o-y in Q2 2018, bringing the total outstanding amount to MYR646 billion at the end of June. The slower growth was driven by reduced issuance of corporate paper during the quarter. The share of ***sukuk*** in total corporate bonds outstanding was 75.6% at the end of June, practically unchanged from the end of March.

Corporate issuance continued to falter in Q2 2018, amounting to MYR39.9 billion, which was down 6.3% q-o-q. Issuance volume in the corporate sector in Q2 2018 was the lowest since Q1 2017, which can be attributed to the new government's review of various infrastructure projects, in line with its fiscal management policies that seek to restrain public debt, affecting the debt sales of major corporate issuers.

The aggregate bonds outstanding of the top 30 LCY corporate issuers amounted to MYR365.2 billion, or 56.5% of the total corporate bond market, at the end of June (**Table 2**). The top 30 corporate issuers are largely from the finance industry with cumulative outstanding bonds equal to MYR181.1 billion. Two-thirds of the list comprises state-owned enterprises, which includes Danainfra Nasional and Cagamas, two of the largest debt issuers.

Table 3 shows notable issuances during Q2 2018. Cagamas and Lembaga Pembiayaan Perumahan Sektor Awam had the single-largest issuances during the quarter at MYR1.5 billion each, with maturities of 5 years and 15 years, respectively.

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

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (MYR billion)	LCY Bonds (USD billion)			
1.	Danainfra Nasional	48.4	12.0	Yes	No	Finance
2.	Cagamas	35.4	8.8	Yes	No	Finance
3.	Project Lebuhraya Usahasama	30.2	7.5	No	No	Transport, Storage, and Communications
4.	Prasarana	26.5	6.6	Yes	No	Transport, Storage, and Communications
5.	Perbadanan Tabung Pendidikan Tinggi Nasional	19.0	4.7	Yes	No	Finance
6.	Khazanah	17.0	4.2	Yes	No	Finance
7.	Pengurusan Air	14.6	3.6	Yes	No	Energy, Gas, and Water
8.	Lembaga Pembiayaan Perumahan Sektor Awam	13.8	3.4	Yes	No	Property and Real Estate
9.	Maybank	13.6	3.4	No	Yes	Banking
10.	CIMB Bank	13.2	3.3	Yes	No	Finance
11.	Danga Capital	10.0	2.5	Yes	No	Finance
12.	Sarawak Energy	9.8	2.4	Yes	No	Energy, Gas, and Water
13.	Jimah East Power	9.0	2.2	Yes	No	Energy, Gas, and Water
14.	CIMB Group Holdings	7.9	2.0	Yes	No	Finance
15.	Public Bank	7.9	1.9	No	No	Banking
16.	Maybank Islamic	7.8	1.9	No	Yes	Banking
17.	Bank Pembangunan Malaysia	7.3	1.8	Yes	No	Banking
18.	GOVCO Holdings	7.3	1.8	Yes	No	Finance
19.	YTL Power International	7.3	1.8	No	Yes	Energy, Gas, and Water
20.	Rantau Abang Capital	7.0	1.7	Yes	No	Finance
21.	Sarawak Hidro	6.5	1.6	Yes	No	Energy, Gas, and Water
22.	ValueCap	6.0	1.5	Yes	No	Finance
23.	Turus Pesawat	5.3	1.3	Yes	No	Transport, Storage, and Communications
24.	Aman Sukuk	5.2	1.3	Yes	No	Construction
25.	EDRA Energy	5.1	1.3	No	Yes	Energy, Gas, and Water
26.	1Malaysia Development	5.0	1.2	Yes	No	Finance
27.	Celcom Networks	5.0	1.2	No	No	Transport, Storage, and Communications
28.	GENM Capital	5.0	1.2	No	No	Finance
29.	Telekom Malaysia	4.8	1.2	No	Yes	Telecommunications
30.	Jambatan Kedua	4.6	1.1	Yes	No	Transport, Storage, and Communications
Total Top 30 LCY Corporate Issuers		**365.2**	**90.4**			
Total LCY Corporate Bonds		**646.5**	**160.1**			
Top 30 as % of Total LCY Corporate Bonds		**56.5%**	**56.5%**			

LCY = local currency, MYR = Malaysian ringgit, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
2. State-owned firms are defined as those in which the government has more than a 50% ownership stake.
Source: *AsianBondsOnline* calculations based on Bank Negara Malaysia Fully Automated System for Issuing/Tendering (FAST) data.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (MYR million)
Cagamas		
3-year MTN	4.22	400
5-year Islamic MTN	4.50	1,500
Danainfra Nasional		
7-year Islamic MTN	4.32	800
10-year Islamic MTN	4.55	700
15-year Islamic MTN	4.90	700
20-year Islamic MTN	5.08	300
Lembaga Pembiayaan Perumahan Sektor Awam		
5-year Islamic MTN	4.10	300
7-year Islamic MTN	4.32	1,000
10-year Islamic MTN	4.54	200
15-year Islamic MTN	4.90	1,500

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

Investor Profile

Social security institutions were the largest holders of LCY government bonds at the end of March, compared with March 2017 when financial institutions had the largest holdings (**Figure 3**). The holdings share of social security institutions rose to 33.2% in March from 29.8% a year earlier. Foreign investors had the second-largest holdings share of government bonds, with their share increasing to 28.9% in March (ahead of the foreign funds' sell-off in Q2 2018) from 25.6% a year earlier. BNM's holdings, which were already the smallest among the investor group in March 2017, fell to 1.0% from 1.6% during the review period.

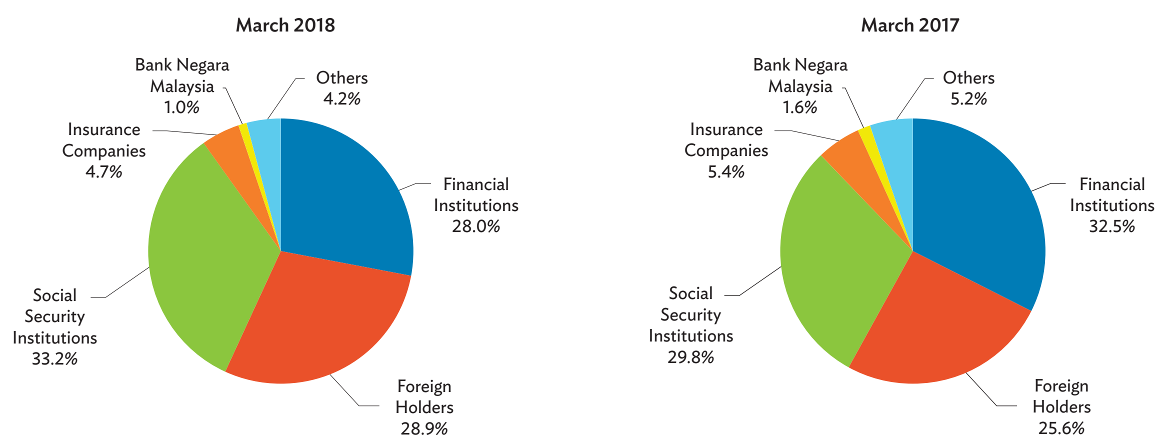
Domestic commercial and Islamic banks remained the largest holders of LCY corporate bonds with their share climbing to 41.5% in June 2018 from 38.9% in June 2017 (**Figure 4**). While life insurance companies had the second-largest holdings at the end of June, their share dipped to 35.0% from 40.0% a year earlier. Foreign commercial and Islamic banks saw their share increase, while the Employees' Provident Fund, investment banks, and general insurance companies all saw their shares decline in June 2018 compared with a year earlier.

Ratings Update

Fitch Ratings Affirms Malaysia's Sovereign Credit Rating at A–

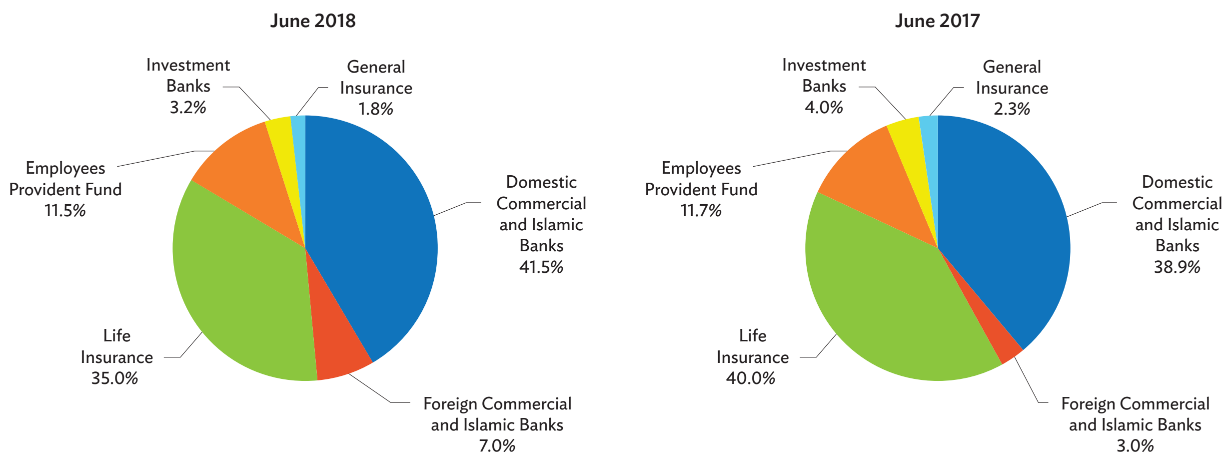
Fitch Ratings affirmed Malaysia's A– rating with a stable outlook on 11 May. According to Fitch, the election result was unlikely to lead to a significant economic policy shift. Nonetheless, it noted that it will monitor the new government's policy agenda as it evolves and highlighted any policy slippage leading to a deterioration in Malaysia's fiscal consolidation as grounds for a negative outlook. The economy's strong growth momentum and the improving external position were the underlying factors for the rating affirmation.

Figure 3: Local Currency Government Bonds Investor Profile



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

Figure 4: Local Currency Corporate Bonds Investor Profile



Note: The Employees Provident Fund's bond holdings data are as of 31 December 2017, as data are based on the EPF's annual report.
Sources: Bank Negara Malaysia and the Employees Provident Fund.

S&P Global Ratings Affirms Malaysia's Sovereign Credit Rating at A–

S&P Global Ratings affirmed Malaysia's sovereign credit rating at A– with a stable outlook on 29 June. The rating agency cited Malaysia's resilient growth performance, robust external position, highly credible monetary policy settings, and well-established institutions that can moderate risks coming from the government's sizable debt burden and the new administration's transition to power. S&P Global Ratings, however, cautioned about downward pressure on the sovereign rating should it assess a weaker commitment to growth and fiscal consolidation.

Policy, Institutional, and Regulatory Developments

Malaysia's New Administration Scraps Goods and Services Tax

Malaysia scrapped the 6% goods and services tax (GST), effective 1 June, as a fulfillment of Prime Minister Mahathir Mohamad's campaign promise after his unexpected victory in the general election on 9 May. The abolition of the GST aimed to spur spending in Malaysia and address the rising costs of living. The new administration plans to replace the abolished GST with a sales and services tax (SST). Under the SST, the provision of services will be taxed at 6%, while the sale of goods will incur a 10% tax. The Ministry of Finance stated that the SST system would benefit Malaysia's low-income earners in the long run. The new tax system is expected to be implemented beginning 1 September after the necessary laws have been passed in Parliament.

Philippines

Yield Movements

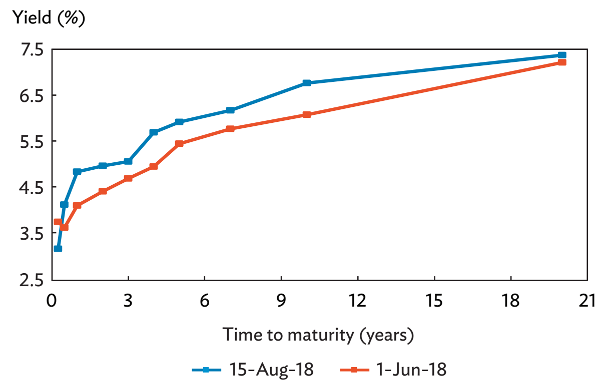
Between 1 June and 15 August, the yields of Philippine local currency (LCY) bonds of all tenors increased except for the 3-month tenor, which decreased 58 basis points (bps) (**Figure 1**). The 4-year maturity increased the most (74 bps), followed by the 1-year maturity (73 bps). The 20-year tenor registered the smallest increase of 16 bps. The yield spread between 2-year and 10-year government bonds expanded 13 bps.

Uncertainties weighed heavily on investor decisions, resulting in a preference for short-dated Treasury bills, particularly the 3-month tenor, as investors chose caution while awaiting the outcomes of domestic and international events. The higher yields also point to the risks that investors see in the long-term. Domestically, buyers were mindful of the Philippines' high inflation and slowing economic growth, coupled with negative sentiments in the foreign exchange market. Investors are also anticipating additional rate hikes by the Bangko Sentral ng Pilipinas (BSP). Internationally, rising oil prices and the trade war between the People's Republic of China (PRC) and the United States (US) affected investor sentiments.

In the second quarter (Q2) of 2018, inflation stayed above the central bank's 2018 inflation target band of 2.0%–4.0%, prompting the BSP to revise its full-year inflation projection to 4.6% from 4.3%. Price inflation for basic goods and services in the Philippines jumped to 5.7% y-o-y in July from 5.2% y-o-y in June, mainly due to higher costs of alcoholic beverages and tobacco attributed to the government's tax reform law, which taxed sin products heavily. On the international scene, oil prices increased due to global oil supply concerns, affecting domestic fuel prices.

Continued increases in the prices of consumer goods and services led the BSP to hike its key interest rates in order to curb inflation and mitigate potential second-round effects. On 9 August, the monetary board of the BSP decided to hike key interest rates by 50 bps each, bringing the total rate hike for policy rates this year to 100 bps. The overnight lending rate stood at 4.5%, while the overnight reverse repurchase and deposit rate stood at 4.0% and

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



Source: Based on data from Bloomberg LP.

3.5%, respectively. The decision came amid expectations that inflation is expected to remain high through the end of the year. The latest interest rate increase, which came on the heels of back-to-back 25 bps rate hikes in May and June, was deemed necessary to ease price pressures. Furthermore, the central bank noted that the sustained economic growth allows room for future rate hikes.

The Philippines' gross domestic product expanded 6.0% year-on-year (y-o-y) in Q2 2018, down from 6.6% y-o-y growth recorded in the first (Q1) of 2018, due to slower growth in the services and mining sectors. Despite the slowdown, the Philippines remained one of the fastest-growing economies in the region, just behind Viet Nam at 6.8% y-o-y and the PRC at 6.7% y-o-y. Various organizations like the Organisation for Economic Co-operation and Development, International Monetary Fund, and World Bank have all projected the country's 2018 gross domestic product growth to fall below the government's target range of 7.0%–8.0% for 2018.

Despite the interest rate hikes and good economic growth, the Philippine peso continued to weaken, breaching the PHP53-to-USD1 exchange rate during the second half of June. The weakness of the peso was also attributed to global events, including the ongoing trade war between the US and the PRC, and the strengthening of the US dollar. The central bank has tapped its foreign reserves to temper the peso's depreciation, with the country's gross international reserves declining since the start of the year. From USD81.2 billion in January, the foreign reserves were down to USD76.7 billion in July. The depreciating peso and price pressures on basic goods and services were also the result of ongoing concerns regarding the Philippines' current account deficit spurred by expanding trade deficits during the first half of 2018. The trade deficit reached USD3.2 billion in June, bringing the total deficit for the first half of 2018 to USD18.9 billion.

Size and Composition

Growth in the Philippines' LCY bond market eased to 2.6% quarter-on-quarter (q-o-q) in Q2 2018 from 4.6% q-o-q in Q2 2017 (**Table 1**). Total LCY bonds amounted to PHP5,741 billion (USD108 billion) at the end of Q2 2018, up from PHP5,593 billion at the end of Q1 2018. The increase was supported by growth in both government and corporate bonds, with the former comprising 80% of total outstanding bonds.

Government bonds. The amount of LCY government bonds stood at PHP4,592 billion at the end of June on growth of 2.5% q-o-q, supported by Treasury bills and bonds, which rose 14.6% q-o-q and 1.6% q-o-q, respectively. Despite the surge in outstanding Treasury bills, they only accounted for PHP381 billion of total outstanding government bonds at the end of Q2 2018. Treasury bonds amounting to PHP4,170 billion at the end of June, or 90.8% of outstanding government bonds, formed the bulk of the government bond market.

A total of PHP376.2 billion worth of LCY government bonds were issued in Q2 2018, up from the PHP233.2 billion recorded in Q1 2018, corresponding to growth of 61.3% q-o-q. This includes reissued Treasury bills and bonds. The growth was supported by the Bureau of the Treasury's issuance of PHP121.8 billion worth of 3-year Retail Treasury Bonds.

During weekly auctions, 91-day Treasury bills were usually fully awarded. On the other hand, most of the longer-tenored 364-day Treasury bills were partially awarded as investors' bids were too high, forcing the Bureau of the Treasury to reject some bids in order to keep rates low. These actions reflected investors' desire for short-term instruments as they wait for events to unfold in domestic and international markets.

Under its program to finance the government's infrastructure program and fund the budget deficit, the Bureau of the Treasury's issuance plans to continue weekly auctions of 91-day, 182-day, and 364-day Treasury bills in the third quarter of 2018. In terms of total Treasury bills and bonds, it plans to borrow PHP300 billion during the quarter, which would be a little lower than the PHP325 billion debt program in Q2 2018. Treasury bond auctions will be held every other week instead of the weekly auctions that were conducted in Q2 2018.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	PHP	USD	PHP	USD	PHP	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**5,168**	**102**	**5,593**	**107**	**5,741**	**108**	**4.6**	**10.2**	**2.6**	**11.1**
Government	4,211	83	4,479	86	4,592	86	5.0	8.5	2.5	9.0
Treasury Bills	318	6	332	6	381	7	11.1	10.4	14.6	19.9
Treasury Bonds	3,842	76	4,106	79	4,170	78	5.1	9.3	1.6	8.5
Others	51	1	40	1	40	1	(27.0)	(33.1)	(0.01)	(20.5)
Corporate	957	19	1,114	21	1,149	22	2.7	18.5	3.2	20.0

( ) = negative, LCY = local currency, PHP = Philippine peso, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
4. "Others" comprise bonds issued by government agencies, entities, and corporations for which repayment is guaranteed by the Government of the Philippines. This includes bonds issued by Power Sector Assets and Liabilities Management (PSALM) and the National Food Authority, among others.
5. Peso Global Bonds (PHP-denominated bonds payable in US dollars) are not included.
Sources: Bloomberg LP and Bureau of the Treasury.

Corporate bonds. LCY corporate bonds grew 3.2% q-o-q during Q2 2018. Total LCY corporate bonds outstanding increased to PHP1,149 billion from PHP1,114 billion in the previous quarter.

At the end of June 2018, the top three sectors comprising LCY corporate bonds outstanding were the property sector (PHP331.9 billion or 28.9%), the banking sector (PHP326.8 billion or 28.4%), and holding firms (PHP247.1 billion or 21.5%) (**Figure 2**). These same sectors dominated the LCY corporate bond market at the end of June 2017. The banking, property, and utilities sectors increased their respective shares of LCY corporate bonds outstanding during the review period, while holding firms, the telecommunications sector, and transport sector all saw a decline.

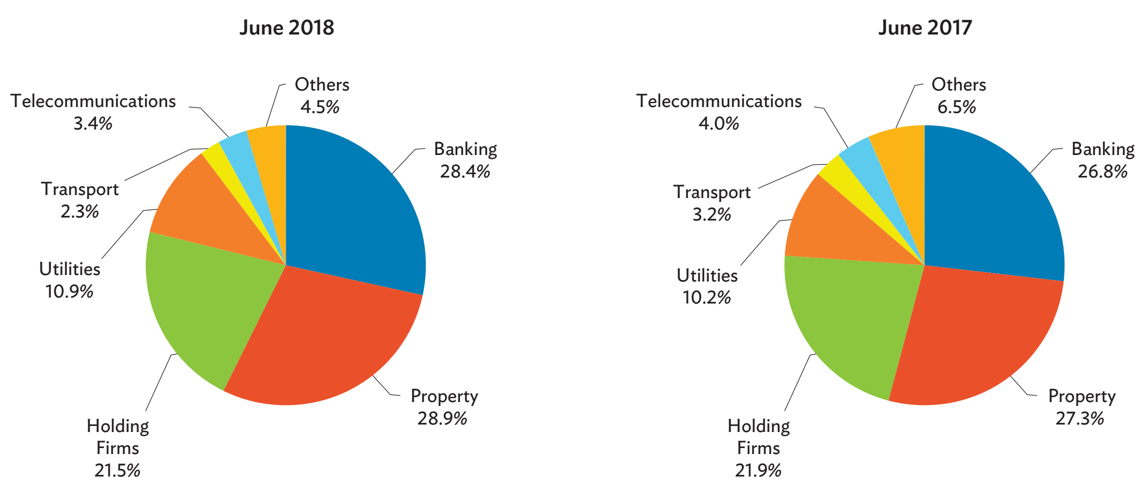
In Q2 2018, PHP48.0 billion worth of LCY corporate bonds were issued, down from the PHP63.2 billion issued in Q1 2018, for a decline of 24.0% q-o-q. Uncertainties in domestic and international financial markets led to fewer companies issuing LCY corporate bonds.

Property developers topped the issuers of LCY corporate bonds at the end of June. Ayala Land issued PHP104.7 billion while SM Prime Holdings issued PHP93.8 billion (**Table 2**). The country's largest bank, BDO Unibank, was the third-largest issuer with PHP63.6 billion of bonds outstanding. Companies in the banking sector comprised the largest sectoral bloc among the top 30 list, cumulatively accounting for 30.2% of all outstanding LCY bonds among the 30 largest corporate issuers. This was followed by the property sector with a 28.6% share, and holding firms with a 23.6% share. Altogether, the top 30 issuers of LCY corporate bonds accounted for PHP1,003.0 billion, or 87.3% of all corporate bonds outstanding at the end of June.

Property companies issued the most notable corporate bonds in Q2 2018 (**Table 3**). Among all corporates, Ayala Land and San Miguel issued the largest amount of corporate bonds during the quarter at PHP10 billion each. Property company Ayala Land issued a 10-year bond with a 5.92% coupon rate in order to cover its capital spending for the year, while food and beverage conglomerate San Miguel issued a 2-year bond with a 5.25% coupon for refinancing its debts and investing in its core business. Philippine Primark Properties offered the highest coupon rate of Q2 2018 at 7.69% for its PHP7 billion 10-year bond. This was followed by Sta. Lucia Land whose 7-year bond had a 7.48% coupon rate. Finally, Ortigas and Company issued PHP3 billion worth of 10-year bonds with a coupon rate of 6.26%.

Foreign currency bonds. On 8 August, the Philippines returned to the samurai bond market after a long hiatus, offering three tranches of JPY-denominated bonds totaling JPY154.2 billion. It offered 3-, 5-, and 10-year samurai bonds with coupon rates of 0.38%, 0.54%, and 0.99%, respectively. Proceeds from the JPY107.2 billion

Figure 2: Local Currency Corporate Bonds Outstanding by Sector



Source: Based on data from Bloomberg LP.

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

Issuers		Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (PHP billion)	LCY Bonds (USD billion)			
1.	Ayala Land	104.7	2.0	No	Yes	Property
2.	SM Prime Holdings	93.8	1.8	No	Yes	Property
3.	BDO Unibank	63.6	1.2	No	Yes	Banking
4.	San Miguel	60.0	1.1	No	Yes	Holding Firms
5.	Metropolitan Bank	59.2	1.1	No	Yes	Banking
6.	SM Investments	52.3	1.0	No	Yes	Holding Firms
7.	Philippine National Bank	41.5	0.8	No	Yes	Banking
8.	Ayala Corporation	40.0	0.7	No	Yes	Holding Firms
9.	Security Bank	37.4	0.7	No	Yes	Banking
10.	San Miguel Brewery	34.8	0.7	No	No	Brewery
11.	Maynilad	33.9	0.6	No	No	Water
12.	Aboitiz Equity Ventures	32.0	0.6	No	Yes	Holding Firms
13.	JG Summit	30.0	0.6	No	Yes	Holding Firms
14.	Filinvest Land	29.0	0.5	No	Yes	Property
15.	Manila Electric Company	28.8	0.5	No	Yes	Electricity, Energy, and Power
16.	East West Banking	27.7	0.5	No	Yes	Banking
17.	Rizal Commercial Banking Corporation	23.6	0.4	No	Yes	Banking
18.	GT Capital	22.0	0.4	No	Yes	Holding Firms
19.	PLDT	20.6	0.4	No	Yes	Telecommunications
20.	Vista Land	19.9	0.4	No	Yes	Property
21.	Petron	18.6	0.3	No	Yes	Electricity, Energy, and Power
22.	Bank of the Philippine Islands	17.2	0.3	No	Yes	Banking
23.	Union Bank of the Philippines	17.0	0.3	No	Yes	Banking
24.	China Bank	15.9	0.3	No	Yes	Banking
25.	Doubledragon	15.0	0.3	No	Yes	Property
26.	SMC Global Power	15.0	0.3	No	No	Electricity, Energy, and Power
27.	Aboitiz Power	13.0	0.2	No	Yes	Electricity, Energy, and Power
28.	Globe Telecom	12.5	0.2	No	Yes	Telecommunications
29.	Megaworld	12.0	0.2	No	Yes	Property
30	Robinsons Land	12.0	0.2	No	Yes	Property
Total Top 30 LCY Corporate Issuers		**1,003.0**	**18.8**			
Total LCY Corporate Bonds		**1,149.0**	**21.5**			
Top 30 as % of Total LCY Corporate Bonds		**87.3%**	**87.3%**			

LCY = local currency, PHP = Philippine peso, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
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 LP data.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (PHP billion)
Ayala Land		
10-year bond	5.92	10.00
San Miguel		
7-year bond	5.25	10.00
Philippine Primark Properties		
10-year bond	7.69	7.00
Sta. Lucia Land		
7-year bond	7.48	5.00
Ortigas and Company		
10-year bond	6.26	3.00

PHP = Philippine peso.
Source: Bloomberg LP.

3-year bond, JPY6.2 billion 5-year bond, and JPY40.8 billion 10-year bond will be used to support the government's ambitious infrastructure program known as "Build, Build, Build." This came after the Government of the Philippines issued global bonds in January and panda bonds in March.

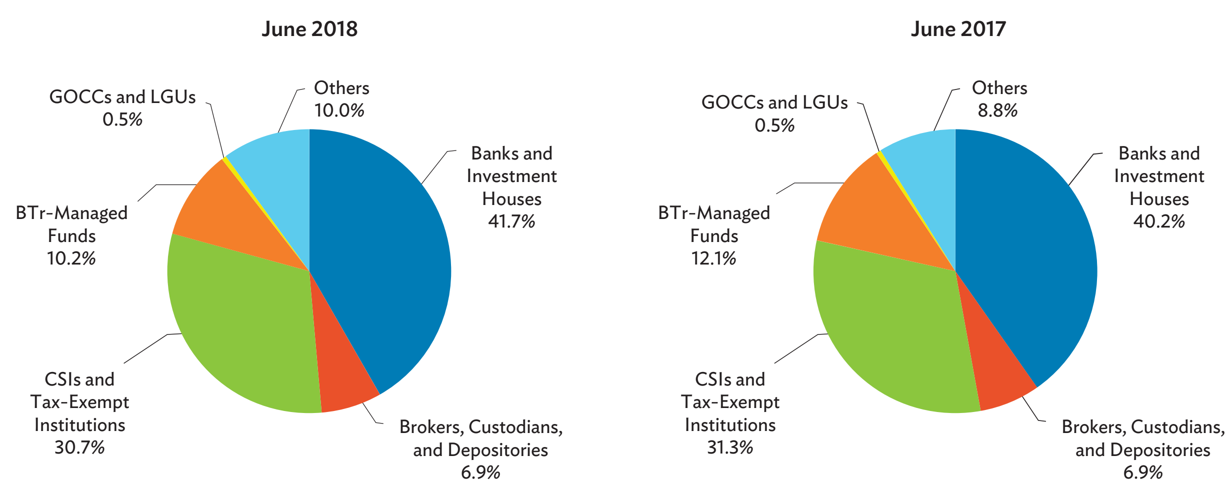
Investor Profile

Banks and investment houses were the single-largest investor category in the LCY government bond market at the end of June with a 41.7% share (**Figure 3**). This was up slightly from 40.2% in June 2017 when they were also the largest investor group. Contractual savings and tax-exempt institutions followed with a 30.7% share at the end of June, a slight dip from a 31.3% share in June 2017. Bureau of the Treasury-managed funds saw a decline in their investment share during the review period to 10.2% from 12.1%. Investors from government-owned or -controlled corporations and local government units, and brokers, custodians, and depositories maintained their shares of the LCY government bond market.

Ratings Update

Fitch Ratings affirmed the Philippines' long-term foreign currency issuer default investment-grade rating of BBB with a stable outlook. The rating agency expects strong domestic economic growth to be maintained, supported by the infrastructure program of the government. It also cited the Philippines' sound banking sector and economic policy framework as basis for the affirmation. Rising inflation, the depreciating peso, and a widening trade deficit were identified as causes for concern, although Fitch Ratings acknowledged the central bank's measures to keep these challenges in check. The stable outlook implies that the rating will likely go unchanged over the next 12–18 months.

Figure 3: Local Currency Government Bonds Investor Profile



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

Policy, Institutional, and Regulatory Developments

BSP Relaxes Rules on Foreign Exchange

On 18 May, the BSP announced that the conversion of foreign currency loans to pesos and the transfer of such loans to regular banking unit books no longer requires prior central bank approval, provided that the concerned bank understands the risks inherent in such actions. It must have proper risk management policies in place to mitigate risks in managing such transactions. The move is part of the central bank's efforts to liberalize foreign exchange rules.

Asian Central Banks Launch Asian Bond Fund Pan-Asia Bond Fund Index Fund Securities Lending

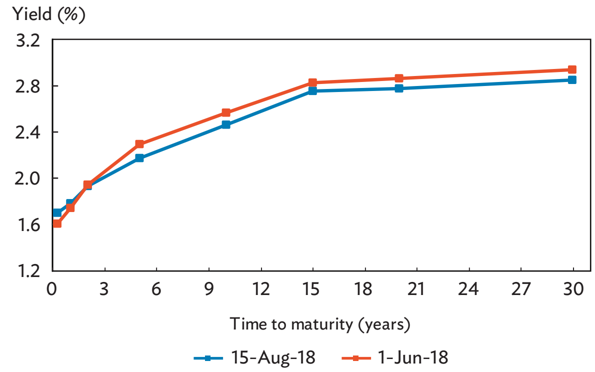
On 26 June, central bank members of the Executives' Meeting of East Asia-Pacific launched the securities lending facility for the Asian Bond Fund Pan-Asia Bond Fund Index Fund (PAIF). PAIF is an exchange-traded bond index fund that invests in LCY government bonds in eight Asian markets and tracks the Markit iBoxx ABF Pan-Asia Index. Starting 10 July, financial firms can borrow LCY bonds under the PAIF in exchange for posting collateral. Through the lending facility, the Executives' Meeting of East Asia-Pacific hope to have improved liquidity and price discovery in the regional bond market.

Singapore

Yield Movements

Between 1 June and 15 August, Singapore's local currency (LCY) bond yields decreased for all maturities except the 3-month and 12-month tenors, which increased 9 basis points (bps) and 4 bps, respectively (**Figure 1**). Among those that decreased, the 5-year maturity decreased the most (12 bps), followed by the 10-year maturity (10 bps). The 2-year tenor registered the smallest decrease of 1 bp. The yield spread between 2-year and 10-year government bonds contracted 9 bps during the review period.

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



Source: Based on data from Bloomberg LP.

Singapore's yields tracked interest rate movements in the United States (US) where short-term tenors increased and long-term tenors declined during the review period. Short-term rates in Singapore also increased due to tightening liquidity in the domestic banking system, as evidenced by rising loan-to-deposit ratios and a narrowing differential between the 1-month and 3-month yields. For long-term tenors, Singapore yields dropped following US Treasury yields' decline after the People's Republic of China (PRC) announced potential tariffs in response to tariffs imposed by the US on Chinese goods.

Singapore's inflation increased during the second quarter (Q2) of 2018. The country recorded inflation of 0.1% year-on-year (y-o-y) in April, which rose to 0.4% y-o-y in May and 0.6% y-o-y in June, where it remained steady in July. The Monetary Authority of Singapore (MAS) expects inflation to gradually increase in the remainder of 2018 due to faster wage growth and rising global oil and food prices. For full-year 2018, inflation is predicted to be in the upper-half of the MAS' 0%–1% forecast.

The Ministry of Trade and Industry revised its gross domestic product growth forecast for full-year 2018 to a range of 2.5%–3.5% from 1.5%–3.5% due to the strong performance of Singapore's economy during the first quarter (Q1) of 2018. However, the growth of Singapore's economy eased to 3.9% y-o-y in Q2 2018 from 4.5% y-o-y during the previous quarter. The decline was due to a slowdown in the performances of the manufacturing and services sectors. Economists expect steady, albeit slower, growth for Singapore during the second half of the year due to concerns over the housing market as the government puts in place cooling measures to curb rising home prices. As an export-dependent economy, growth could also be dampened by a further escalation of the trade war between the PRC and the US. Uncertainties related to global trade tensions affected Singapore's equity and foreign exchange markets in Q2 2018, with the STI Index dropping to a low of 3,191.82 in June from a high of 3,615.28 in May as investors sold Singapore shares.

Similar to its regional counterparts, the Singapore dollar has not fared well in recent months against the US dollar, reaching its weakest level of SGD1.3802 per USD1 in August, down from a peak of SGD1.3073 in January. The Singapore dollar had been hovering above the SGD1.35-to-USD1 level since the second half of June as the trade war between the US and the PRC escalated. Aside from the prospects of a trade war, investors have also been bearish on the local economy amid the US Federal Reserve's tightening policy, raising the possibility of a Federal Reserve rate hike in September after holding rates steady in its August meeting.

Size and Composition

The Singapore LCY bond market grew 1.8% quarter-on-quarter (q-o-q) to SGD383 billion (USD281 billion) in 2018, up from SGD376 billion in Q1 2018 (**Table 1**). The expansion was supported by growth in LCY government bonds, compensating for the slight decline in LCY corporate bonds.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	SGD	USD	SGD	USD	SGD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**349**	**254**	**376**	**287**	**383**	**281**	**0.4**	**8.1**	**1.8**	**9.7**
Government	207	150	230	175	237	174	0.8	13.7	3.0	14.7
SGS Bills and Bonds	112	82	121	92	123	90	(3.9)	2.7	1.7	9.6
MAS Bills	94	69	109	83	114	84	7.2	30.2	4.5	20.8
Corporate	143	104	146	112	146	107	(0.1)	0.8	(0.1)	2.5

( ) = negative, LCY = local currency, MAS = Monetary Authority of Singapore, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, SGD = Singapore dollar, SGS = Singapore Government Securities, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Government bonds are calculated using data from national sources. Corporate bonds are based on *AsianBondsOnline* estimates.
2. SGS bills and bonds do not include the special issue of Singapore Government Securities held by the Singapore Central Provident Fund.
3. Bloomberg LP end-of-period LCY–USD rates are used.
4. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Bloomberg LP, Monetary Authority of Singapore, and Singapore Government Securities.

Government bonds. Total outstanding LCY government bonds increased 3.0% q-o-q to SGD237 billion in Q2 2018 from SGD230 billion during the previous quarter. The growth was mainly due to the expansion of outstanding MAS bills, which increased 4.5% q-o-q to SGD114 billion from SGD109 billion in Q1 2018. Outstanding Singapore Government Securities bills and bonds grew 1.7% q-o-q, with SGD123 billion outstanding in Q2 2018, up from SGD121 billion at the end of the previous quarter.

A total of SGD137.9 billion worth of government bills and bonds were issued during Q2 2018. Of these, SGD126.6 billion, or 91.8%, were MAS bills and the remaining SGD11.3 billion, or 8.2%, were Treasury bills and bonds. MAS bills increased 15.7% q-o-q while Treasury bills and bonds grew 59.2% q-o-q.

Weekly MAS bills auctions were met with robust demand in Q2 2018: the 28-, 84-, and 168-day MAS bills were always fully allocated. For most of the quarter, average yields for the 4-week MAS bills were higher than for the 8-week tenor. Toward the end of June, however, investors preferred the shortest tenor as global uncertainties worried the market.

Corporate bonds. LCY corporate bonds contracted 0.1% q-o-q in Q2 2018. On a y-o-y basis, however, corporate bonds grew 2.5% to SGD146 billion from SGD143 billion in Q2 2017.

The top 30 LCY corporate issuers accounted for SGD69.8 billion, or 47.7% of all LCY corporate bonds outstanding, at the end of June (**Table 2**). The state-owned real estate company Housing & Development Board topped the list, accounting for 15.3% of the total LCY corporate bond market with SGD22.4 billion of corporate bonds outstanding. Another state-owned company Land Transport Authority was a distant second with SGD5.0 billion of bonds outstanding, comprising 3.4% of the total LCY corporate bond market. The real estate sector dominated the top 30 corporate issuers with 50.1% share of the list's bonds outstanding at the end of June. This was followed by the finance and transportation sector with market shares of 15.4% and 12.6%, respectively.

In Q2 2018, SGD2.4 billion worth of LCY corporate bonds were issued, less than half of the corporate bonds issued the previous quarter due to a high base spurred by large issuances led by the Land Transport Authority in Q1 2018. One of the notable issuances was Housing & Development Board's SGD500 million 12-year bond with a coupon of 3.08%, which was part of its SGD32 billion Multicurrency Medium-Term Note Programme (**Table 3**). This was the longest tenor issued in Singapore in Q2 2018. Ezion Holdings, seeking to refinance its debt, had the most issuances during the quarter with 10-year, 7-year, and 6-year bonds worth SGD31 million, SGD92 million, and SGD333 million, respectively, each with a coupon rate of 0.25%. DBS Bank had the largest coupon at 7.02% for its SGD2 million 1-year bond.

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

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (SGD billion)	LCY Bonds (USD billion)			
1.	Housing & Development Board	22.4	16.4	Yes	No	Real Estate
2.	Land Transport Authority	5.0	3.7	Yes	No	Transportation
3.	Temasek Financial I	3.6	2.6	Yes	No	Finance
4.	Frasers Property	3.4	2.5	No	Yes	Real Estate
5.	Singapore Airlines	3.0	2.2	Yes	Yes	Transportation
6.	Capitaland	2.8	2.0	Yes	Yes	Real Estate
7.	United Overseas Bank	2.5	1.8	No	Yes	Banking
8.	Mapletree Treasury Services	2.3	1.7	No	No	Finance
9.	SP Powerassets	1.9	1.4	No	No	Utilities
10.	Keppel Corporation	1.7	1.2	No	Yes	Diversified
11.	Capitaland Treasury	1.6	1.2	No	No	Finance
12.	DBS Group Holdings	1.5	1.1	No	Yes	Banking
13.	Olam International	1.4	1.1	No	Yes	Consumer Goods
14.	Public Utilities Board	1.4	1.0	Yes	No	Utilities
15.	GLL IHT	1.4	1.0	No	No	Real Estate
16.	Hyflux	1.2	0.9	No	Yes	Utilities
17.	Singtel Group Treasury	1.2	0.8	No	No	Finance
18.	CMT MTN	1.1	0.8	No	No	Finance
19.	City Developments Limited	1.1	0.8	No	Yes	Real Estate
20.	National University of Singapore	1.0	0.7	No	No	Education
21.	Sembcorp Industries	1.0	0.7	No	Yes	Shipbuilding
22.	Ascendas	1.0	0.7	No	Yes	Finance
23.	Mapletree Commercial Trust	0.9	0.6	No	Yes	Real Estate
24.	Sembcorp Financial Services	0.9	0.6	No	No	Engineering
25.	DBS Bank	0.8	0.6	No	Yes	Banking
26.	Overseas Union Enterprise	0.8	0.6	No	Yes	Real Estate
27.	SMRT Capital	0.8	0.6	No	No	Transportation
28.	Suntec REIT	0.8	0.6	No	Yes	Real Estate
29.	Keppel Land International	0.7	0.5	No	No	Real Estate
30.	CCT MTN	0.7	0.5	No	No	Real Estate
Total Top 30 LCY Corporate Issuers		**69.8**	**51.2**			
Total LCY Corporate Bonds		**146.3**	**107.4**			
Top 30 as % of Total LCY Corporate Bonds		**47.7%**	**47.7%**			

LCY = local currency, SGD = Singapore dollar, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
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 LP data.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (SGD million)
Housing & Development Board		
12-year bond	3.08	500
Ezion Holdings		
6-year bond	0.25	333
7-year bond	0.25	92
10-year bond	0.25	31
Smart Capital		
10-year bond	3.22	100
DBS Bank		
1-year bond	7.02	2

SGD = Singapore dollar.
Source: Bloomberg LP.

Policy, Institutional, and Regulatory Developments

International Finance Corporation and Monetary Authority of Singapore Work Together to Promote Green Bonds in Asia

On 7 June, the International Finance Corporation and MAS signed a memorandum of understanding to promote green bonds in Asia and the Pacific. They will hold capacity building programs to improve awareness and knowledge of green financing issuances, and will promote international best practices and frameworks related to green bonds. Through the partnership, they hope to address climate change through the financing of low-carbon investments in the region.

Singapore Government Moves to Cool Property Market

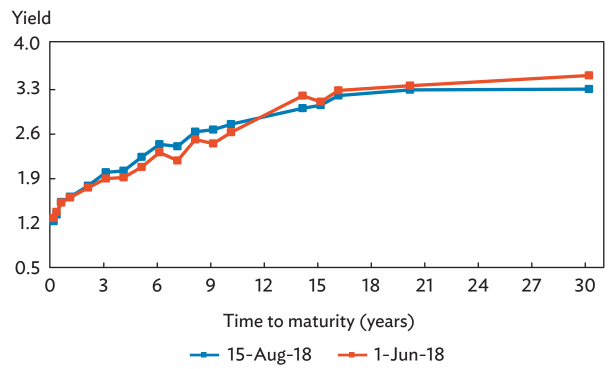
On 5 July, in order to control the rising prices of residential properties, the Government of Singapore increased Additional Buyer's Stamp Duty rates for those buying second and subsequent residential properties and tightened loan-to-value limits for housing loans. The increased rates and tighter lending policy seek to prevent the property market from overheating, eventually requiring corrections that could destabilize the economy, especially as interest rates and the housing supply have both been rising.

Thailand

Yield Movements

Between 1 June and 15 August, declining yields on local currency (LCY) government bonds were observed at both ends of the curve, while yields in the belly of the curve increased (**Figure 1**). Yields on Treasury bills with 1-month and 3-month maturities declined 5 basis points (bps) on average, while bonds at the longer-end of the curve (maturities of 14 year and above) saw declines ranging from 5 bps to 21 bps. On the other hand, yields on government securities with 6-month to 10-year tenors increased in the review period, with the biggest jump noted for the yield of the 7-year tenor at 22 bps and the smallest for the 6-month tenor at 0.9 bps. The yield spread between 2-year and 10-year tenors widened to 96 bps on 15 August from 87 bps on 1 June.

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



Sources: Based on data from Bloomberg LP and Thai Bond Market Association.

The decline in yields for bonds at the shorter-end of the curve can be traced to the Bank of Thailand (BOT) maintaining its key policy rate in its latest policy-setting meeting in August. Expectations of interest rates remaining low, at least in the immediate-term, contributed to the lower bond yields. While the policy rate was left unchanged in August, the central bank stated that there would be less need for an accommodative monetary policy over time, signaling that eventually a policy hike would be forthcoming. This was reflected in the yield increases for medium-term securities. Uncertainties emanating from global developments, monetary policy tightening in developed economies, and trade tensions also influenced the climb in yields. On the domestic front, the weakening Thai baht and the pick-up in inflation may have compelled investors to seek higher interest rates.

The Monetary Policy Committee of the BOT decided to maintain the 1-day repurchase rate at 1.5% in its monetary policy meeting on 8 August, indicating that the BOT would not rush to match the rate hikes of some its regional peers. The decision came on the back of Thai economic growth that continued to gain traction and as inflation, though picking up, is expected to remain within the central bank's target range of 1.0%–4.0%. However, one committee member voted to raise the policy rate during the meeting, viewing it as a means to curb financial stability risks that could negatively affect the sustainability of economic growth.

The Thai baht continued to depreciate against the United States (US) dollar during the review period, losing 3.8% in value between 1 June and 15 August, in line with other currencies in emerging East Asia. The volatility of the domestic currency resulted from uncertainties pertaining to the monetary policy outlook of advanced economies, concerns over global trade tensions, and risks related to emerging markets in general. Market participants expect the baht to recover if clearer hints of a policy rate hike emanate from the BOT.

Consumer price inflation in Thailand climbed to 1.5% year-on-year (y-o-y) in July, the 13th consecutive month of price increases since deflation was last recorded in June 2017. Inflation has rebounded to within the central bank's 2018 target range of 1.0%–4.0% since April and is expected to remain within this range for the remainder of 2018. Core inflation, which excludes raw food and energy prices, slowed to 0.79% y-o-y in July from 0.83% y-o-y in June.

Thailand's economic performance was better than expected in the second quarter (Q2) of 2018, with gross domestic product expanding 4.6% y-o-y. However, the growth was slower compared with an expansion of 4.9% y-o-y in the first quarter (Q1) of 2018. On the expenditure side, the expansion was underpinned by an acceleration in private consumption (4.5% y-o-y), investment (3.6% y-o-y), and exports (6.4% y-o-y), while government consumption growth slowed to 1.4% y-o-y. On the production side, the growth was supported by the accelerated expansion of the agriculture sector to 10.4% y-o-y, while growth in other sectors moderated. For the first half of 2018, Thailand's economy expanded 4.8% y-o-y. According to the National Economic and Social Development Board, the Thai economy is forecast to grow between 4.2% and 4.7% in full-year 2018, supported by improvements in the global economy and favorable expansions in domestic consumption and investment.

Size and Composition

Thailand's total LCY bond market reached a size of THB11.9 trillion (USD362 billion) at the end of June on growth of 4.7% quarter-on-quarter (q-o-q) and 8.8% y-o-y, both of which were up compared with the previous quarter (**Table 1**). On a q-o-q basis, government bonds outpaced corporate bond growth, while the opposite was the case on a y-o-y basis. Government bonds account for 72.5% of the LCY bond market and corporate bonds accounted for 27.5% at the end of June.

Government bonds. The size of the LCY government bond market expanded 5.6% q-o-q, amounting to THB8.7 trillion at the end of June. The q-o-q growth was much faster compared with only a marginal increase at the end of March. All government bond instruments posted positive q-o-q growth in Q2 2018: government bonds and Treasury bills increased 3.0% q-o-q, while central bank bills and state-owned enterprise and other bonds posted growth of 10.0% q-o-q and 3.2% q-o-q, respectively, following contractions in the previous quarter. On a y-o-y basis, growth at the end of June was 8.7% y-o-y, recovering from the decline observed at the end of March.

The higher q-o-q growth rate in government bonds outstanding was driven by increased debt issuance from the central bank and state-owned enterprises in Q2 2018. BOT bill issuance, which represented 81% of total government bond sales during the quarter, increased 2.5% q-o-q while sales of state-owned enterprise bonds more than doubled on a q-o-q in basis. The increase in BOT bonds can be attributed to the central bank's move to increase its short-term bond supply starting 15 May after a year-long tapering program. In April 2017, the BOT cut its short-term bond issuance to restrain the strength of the baht by shifting fund flows into longer-dated from shorter-dated debt. In contrast, the issuance of government bonds and Treasury bills declined 5.4% q-o-q. While growth in issuance from the government remained positive on a q-o-q basis in Q2 2018, it was modest compared to the growth posted in Q1 2018. Total LCY bond issuance from the government during the quarter amounted to THB1.8 billion.

Corporate bonds. The amount of outstanding LCY corporate bonds totaled THB3.3 trillion at the end of June on growth of 2.4% q-o-q and 9.1% y-o-y. These paces of expansion were slower compared with q-o-q and y-o-y growth rates in Q1 2018. The slower growth was due to weaker bonds sales from corporates. Corporate issuance in Q2 2018 declined 20.5% q-o-q and 18.9% y-o-y, reversing the 3.0% q-o-q and 25.9% y-o-y growth in

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	THB	USD	THB	USD	THB	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**10,973**	**323**	**11,410**	**366**	**11,944**	**362**	**(1.7)**	**5.8**	**4.7**	**8.8**
Government	7,964	235	8,203	263	8,661	262	(3.4)	3.2	5.6	8.7
Government Bonds and Treasury Bills	4,103	121	4,425	142	4,559	138	(2.4)	5.6	3.0	11.1
Central Bank Bonds	3,080	91	2,969	95	3,268	99	(6.1)	1.7	10.0	6.1
State-Owned Enterprise and Other Bonds	781	23	808	26	834	25	1.9	(3.2)	3.2	6.8
Corporate	3,009	89	3,208	103	3,284	99	3.3	13.5	2.4	9.1

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, THB = Thai baht, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Bank of Thailand and Bloomberg LP.

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

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (THB billion)	LCY Bonds (USD billion)			
1.	Siam Cement	181.5	5.5	Yes	Yes	Construction Materials
2.	CP All	179.3	5.4	No	Yes	Commerce
3.	PTT Public Company	129.3	3.9	Yes	Yes	Energy and Utilities
4.	Berli Jucker	122.0	3.7	No	Yes	Food and Beverage
5.	Bank of Ayudhya	118.0	3.6	No	Yes	Banking
6.	Charoen Pokphand Foods	87.5	2.6	No	Yes	Food and Beverage
7.	Indorama Ventures	68.4	2.1	No	Yes	Petrochemicals and Chemicals
8.	Thai Airways International	60.1	1.8	Yes	Yes	Transportation and Logistics
9.	Toyota Leasing Thailand	59.8	1.8	No	No	Finance and Securities
10.	Tisco Bank	56.9	1.7	No	No	Banking
11.	Thai Beverage	50.0	1.5	No	No	Food and Beverage
12.	CPF Thailand	44.0	1.3	No	Yes	Food and Beverage
13.	Krungthai Card	43.7	1.3	Yes	Yes	Banking
14.	Banpu	41.8	1.3	No	Yes	Energy and Utilities
15.	Mitr Phol Sugar	41.7	1.3	No	No	Food and Beverage
16.	Land & Houses	40.5	1.2	No	Yes	Property and Construction
17.	Advanced Wireless	40.2	1.2	No	Yes	Communications
18.	TPI Polene	39.0	1.2	No	Yes	Property and Construction
19.	Bangkok Expressway and Metro	38.2	1.2	No	Yes	Transportation and Logistics
20.	True Move H Universal Communication	36.0	1.1	No	No	Communications
21.	Bangkok Commercial Asset Management	34.5	1.0	No	No	Finance and Securities
22.	Thai Union Group	33.8	1.0	No	Yes	Food and Beverage
23.	PTT Exploration and Production Company	29.6	0.9	Yes	Yes	Energy and Utilities
24.	DTAC Trinet	29.5	0.9	No	Yes	Communications
25.	Thanachart Bank	28.5	0.9	No	No	Banking
26.	Kasikorn Bank	28.0	0.8	No	Yes	Banking
27.	CH. Karnchang	27.8	0.8	No	Yes	Property and Construction
28.	Bangkok Dusit Medical Services	26.7	0.8	No	Yes	Medical
29.	True Corp	25.8	0.8	No	Yes	Communications
30.	Thai Oil	23.5	0.7	No	Yes	Energy and Utilities
Total Top 30 LCY Corporate Issuers		**1,765.3**	**53.4**			
Total LCY Corporate Bonds		**3,283.9**	**99.4**			
Top 30 as % of Total LCY Corporate Bonds		**53.8%**	**53.8%**			

LCY = local currency, THB = Thai baht, USD = United States dollar.
Notes:
1. Data as of 30 June 2018.
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 LP data.

issuance logged in Q1 2018. The declines can be traced to the Securities and Exchange Commission's stricter rules governing bond issuance.

The aggregate outstanding bonds of the top 30 corporate issuers at the end of June amounted to THB1.8 trillion, accounting for 53.8% of the total LCY corporate bond market (**Table 2**). The list of top 30 issuers comprised 23 listed firms and 7 unlisted firms, and was led by food and beverage firms with total outstanding bonds of THB379 billion. However, the firm with the highest amount of outstanding bonds at the end of June was state-owned Siam Cement with THB181.5 billion.

Siam Cement also had the single-largest issuance in Q2 2018 with a 4-year tenor valued at THB30 billion and carrying a coupon rate of 3.0%. Other notable issuances during the quarter are listed in **Table 3**, including multitranche bond sales from Indorama Ventures Public Company, CPF Thailand, and Bangkok Expressway and Metro.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

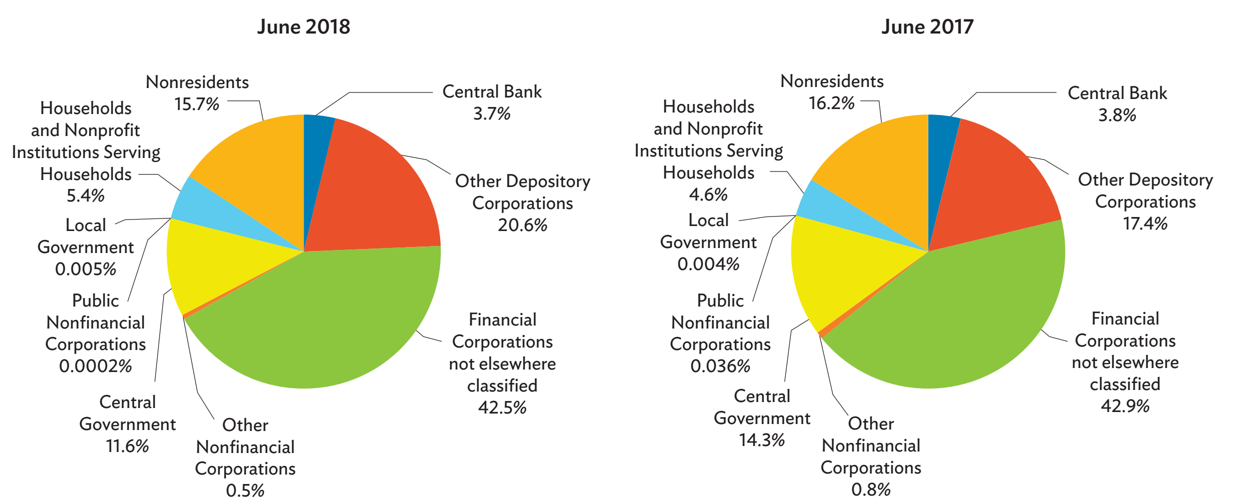
Corporate Issuers	Coupon Rate (%)	Issued Amount (THB million)
Siam Cement		
4-year bond	3.00	30,000
Indorama Ventures Public Company		
3-year bond	2.31	3,000
5-year bond	2.78	3,000
12-year bond	4.12	5,000
15-year bond	4.27	3,200
CPF Thailand		
3-year bond	2.43	4,500
6-year bond	3.24	4,000
12-year bond	4.16	3,500
Bangkok Expressway and Metro		
5-year bond	2.46	3,500
7-year bond	3.01	3,500

THB = Thai baht.
Source: Bloomberg LP.

Investor Profile

Central government bonds. The investor profile of central government bond holders in June was little changed from a year earlier (**Figure 2**). Financial corporations remained the largest holder of central government bonds with a share of 42.5%, marginally down from 42.9% in June 2017. Other depository corporations had the second-largest holdings share at the end of June, accounting for 20.6%, and posted the largest nominal share increase (3.2 percentage points), among all investor groups during the review period. The central government, whose holdings comprised 11.6% of central government bonds outstanding, posted the largest nominal drop in its holdings share from 14.3% a year earlier. Public

Figure 2: Local Currency Government Bonds Investor Profile



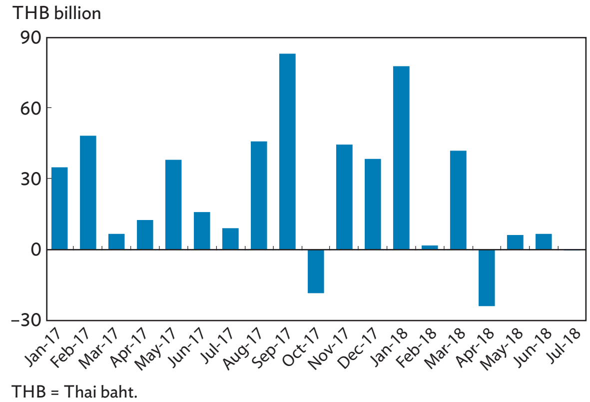
Note: Government bonds include Treasury bills and bonds.
Sources: *AsianBondsOnline* and Bank of Thailand.

nonfinancial corporations continued to have the smallest holdings share of central government bonds in June.

Central bank bonds. Other depository corporations remained the largest holder of central bank bonds in June, although their share declined to 39.5% from 44.2% from a year earlier (**Figure 3**). Financial corporations' holdings share of central bank bonds increased to 27.6% from 23.5% during the review period. Other investor groups that showed increased holdings during the review period were foreign investors, whose share more than doubled to 4.1% from 2.0%; households and nonprofit institutions serving households; and public nonfinancial corporations. The central bank, other nonfinancial corporations, and the central government all experienced decreases in their respective holdings' shares during the same period.

Thailand recorded net inflows of THB109.3 billion into its LCY bond market in January–July, down about 34% from the same period in 2017 (**Figure 4**). The slowdown in fund inflows can be traced to the accelerated pace of interest rate hikes in the US as well as signals of monetary policy tightening from other major central banks at the same time the BOT held its policy rate unchanged. Foreign investors withdrew THB24.0 billion from the Thai bond market in April, with net inflows recovering in May and June to THB6.1 billion and THB6.6 billion, respectively. In July, Thailand recorded net outflows of THB400 million that were triggered by the weakening of the domestic currency.

Figure 4: Foreign Investor Net Trading of Local Currency Bonds in Thailand



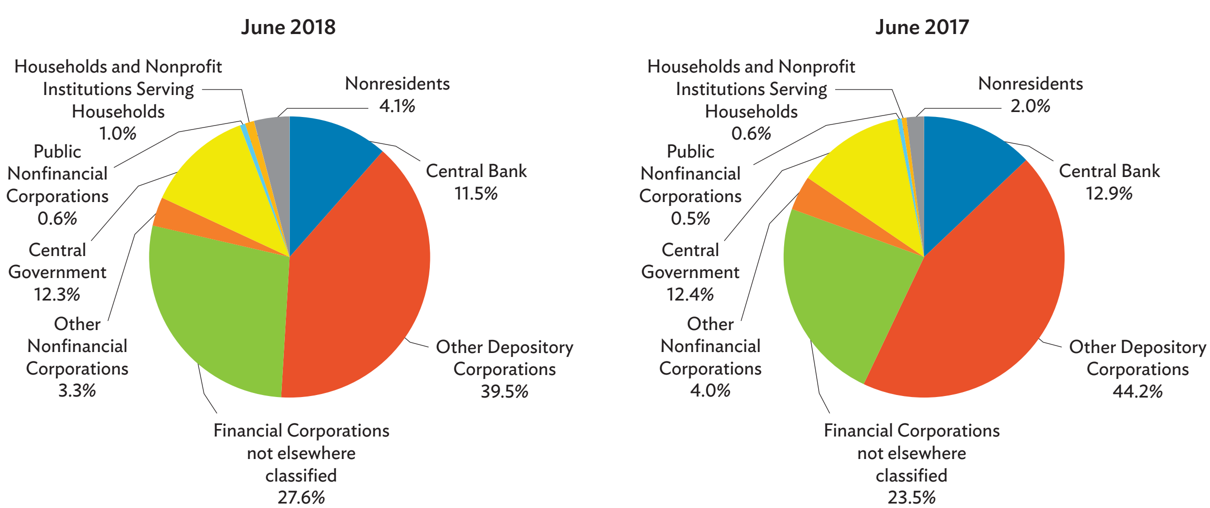
THB = Thai baht.
Source: Thai Bond Market Association.

Ratings Update

Fitch Ratings Affirms Thailand's BBB+ Rating with a Stable Outlook

On 7 June, Fitch Ratings affirmed Thailand's long-term, foreign currency issuer default rating at BBB+ with a stable outlook. According to Fitch Ratings, the

Figure 3: Local Currency Central Bank Securities Investor Profile



Source: Bank of Thailand.

affirmation reflected solid external and public finances, which enhance resiliency to economic shocks. The rating agency cited a sustained and broad-based improvement in growth and the resolution of social and political tensions as grounds for the rating upgrade, while renewed political disruption and a larger and/or sustained rise in government debt ratios could negatively affect Thailand's credit rating.

RAM Ratings Affirms Thailand's Ratings

On 12 June, RAM Ratings affirmed Thailand's global scale rating of $_{g}BBB_{1}$(pi) and the Association of Southeast Asian Nations scale rating of $_{sea}AA_{1}$(pi). The ratings were both given a stable outlook. In making its decision, RAM Ratings took note of Thailand's robust external finances, well-diversified economy, and fiscal position.

Policy, Institutional, and Regulatory Developments

Thailand's Cabinet Approves Medium-Term Fiscal Plan, 2019–2020

Thailand's cabinet approved the medium-term fiscal plan for 2019-2020 in accordance with the Fiscal Responsibility Act, which seeks to maximize the effectiveness of budget spending and prevent pork barrel schemes. Under the approved plan, the government is set to increase tax collections and reduce infrastructure expenditures through public–private partnerships and the Thailand Future Fund. In addition, the government will run a budget deficit of THB450 billion in 2018–2019, THB452 billion in 2020, and THB524 billion in 2021.

Viet Nam

Yield Movements

Between 1 June and 15 August, local currency (LCY) government bond yields in Viet Nam climbed for all tenors, shifting the entire curve upward (**Figure 1**). Yields rose more at the shorter-end than the longer-end, causing the curve to flatten during the review period. Yields gained an average of 138 basis points (bps) for maturities of 1 year to 3 years, and an average of 27 bps for maturities of 10 years and 15 years. As a result, the spread between the 2-year and 10-year tenors narrowed from 199 bps on 1 June to 88 bps on 15 August.

The overall rise in yields was reflective of strong economic growth posted in the first half of the year. The economy, as measured by gross domestic product (GDP), expanded in the first half of the year by 7.1% year-on-year (y-o-y). Much of the growth in the first half of the year was contributed by the industry and construction sector (9.1% y-o-y) and services sector (6.9% y-o-y). To a lesser extent, the agriculture, forestry, and fishery sector (3.9% y-o-y) also contributed to the growth.

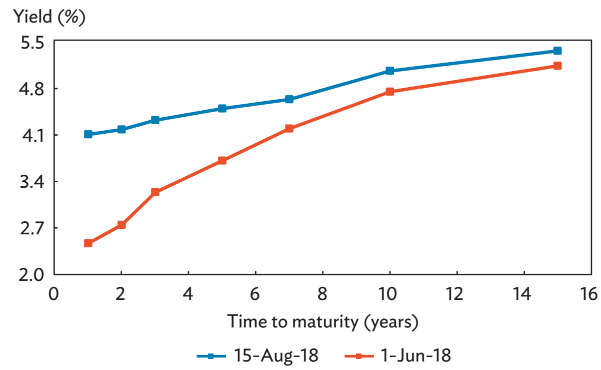
Consumer price inflation has trended upward since the start of the year, with upticks noted in most major subindexes. Consumer price inflation climbed from 2.8% y-o-y in April to 3.9% y-o-y in May, further accelerating to 4.7% y-o-y in June before easing slightly to 4.5% y-o-y in July. The target inflation rate set by the National Assembly (Parliament) for full-year 2018 is 4.0%.

The State Bank of Vietnam (SBV) has engaged in open market operations to rein in inflation and stabilize the value of the Vietnamese dong. The Vietnamese dong depreciated 2.2% against the United States (US) dollar during the review period, in line with the broad strengthening of the US dollar against most emerging market currencies. Further dampening sentiments for the bond market were risks arising from trade tensions between the People's Republic of China and the US, two of Viet Nam's largest trading partners.

Size and Composition

Viet Nam's LCY bond market was the sole market in emerging East Asia that posted a quarter-on-quarter

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



Source: Based on data from Bloomberg LP.

(q-o-q) contraction in bonds outstanding in Q2 2018. At the end of June, the LCY bond market's size stood at VND1,173.2 trillion, which was down 1.4% q-o-q and reversed a 10.8% q-o-q hike in Q1 2018 (**Table 1**). On a y-o-y basis, however, it posted growth of 13.7%.

Government bonds. The outstanding amount of LCY government bonds slipped to VND1,096.0 trillion at the end of June, falling 2.1% q-o-q but rising 12.2% y-o-y. Treasury bills and bonds were the sole sources of growth, as central bank bills and government-guaranteed and municipal bonds posted declines during the review period. Treasury bills and bonds accounted for the largest share of the government bond stock at the end of June, representing a 78.2% share of the total.

The stock of Treasury bills and bonds stood at VND857.5 trillion at the end of June, up 1.7% q-o-q and 8.7% y-o-y. In Q2 2018, issuance of Treasury instruments slowed to VND23.4 trillion on double-digit declines on a q-o-q and y-o-y basis. Most auctions of Treasury bonds fell short of the target amount as investors sought higher yields. The government, however, was unwilling to accept higher borrowing costs in order to fulfill its funding requirements due to the slow disbursement of investment capital. At the end of July, the disbursement of capital by the Government of Viet Nam amounted to VND133.8 trillion, equivalent to only 35.6% of the planned target for the year. Of this amount, disbursement of capital from the issuance of

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q2 2017		Q1 2018		Q2 2018		Q2 2017		Q2 2018	
	VND	USD	VND	USD	VND	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	1,032,075	45	1,189,434	52	1,173,232	51	0.6	6.8	(1.4)	13.7
Government	976,720	43	1,119,575	49	1,095,953	48	1.3	6.8	(2.1)	12.2
Treasury Bonds	789,130	35	843,522	37	857,454	37	2.0	10.2	1.7	8.7
Central Bank Bills	0	0	91,270	4	58,400	3	–	(100.0)	(36.0)	–
State-Owned Enterprise and Municipal Bonds	187,590	8	184,783	8	180,099	8	(1.7)	(0.4)	(2.5)	(4.0)
Corporate	55,354	2	69,859	3	77,279	3	(10.7)	7.9	10.6	39.6

– = not applicable, ( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q1 = first quarter, Q2 = second quarter, USD = United States dollar, VND = Vietnamese dong, y-o-y = year-on-year.
Notes:
1. Bloomberg LP end-of-period LCY–USD rates are used.
2. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Bloomberg LP and Vietnam Bond Market Association.

government bonds amounted to VND7.0 billion, or only 17.6% of the target.

On the other hand, the outstanding stocks of central bank bills and government-guaranteed and municipal bonds declined at the end of June. The stock of central bank bills, which are used mainly for liquidity management, declined 36.0% q-o-q as maturity exceeded new issuance. The outstanding size of government-guaranteed and municipal bonds slipped 2.5% q-o-q due to the absence of issuance of these instruments during the review period.

Corporate bonds. At the end of June, the outstanding amount of corporate bonds climbed to VND77.3 trillion on growth of 10.6% q-o-q and 39.6% y-o-y. The entire LCY corporate bond market of Viet Nam comprised 41 corporate institutions, coming from a diverse set of industries.[9] The majority of these issuers also tapped the equity market for their funding needs.

The 30 largest issuers of corporate bonds had cumulative bonds outstanding of VND75.5 trillion, representing a 97.7% share of the total corporate bond stock at the end of June (**Table 2**). Masan Consumer Holdings led the list with outstanding bonds valued at VND11.1 trillion, accounting for nearly 15% of the total corporate bond stock. In the second and third spots, respectively, was real estate firm Vingroup (VND9.6 trillion) and state-owned lender Vietnam Joint Stock Commercial Bank for Industry and Trade (Vietinbank) (VND8.2 trillion). Together, these three firms represented nearly 40% of the total corporate bond stock at the end of June.

In Q2 2018, a total of eight firms issued new corporate debt, raising a total of VND8.5 trillion. The issuance of corporate bonds during the quarter rose more than four-fold from that of Q1 2018, albeit coming from a low base. Some of the largest corporate debt issues during the quarter are presented in **Table 3**.

Leading the list was state-owned Vietinbank, which raised VND4.0 trillion from the sale of a 10-year bond in June. It was followed by Hoang Anh Gia Lai International Agriculture's issuance of a VND2.2 trillion zero-coupon bond. Third on the list was Nam Long Investment's sale of a 7-year bond worth VND660 billion in June. The three largest issuers of new corporate debt in Q2 2018 were all listed firms.

Policy, Institutional, and Regulatory Developments

State Bank of Vietnam Issues Regulation Governing Purchase of Corporate Bonds by Banking Institutions

In June, the SBV issued a regulation that restricts the purchase of corporate bonds by banking institutions, including foreign banks. Under the regulation, credit institutions and foreign bank branches are required

[9] As most bonds in Viet Nam are issued via private placement, our data on corporate bonds may be understated.

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

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (VND billion)	LCY Bonds (USD billion)			
1.	Masan Consumer Holdings	11,100	0.48	No	No	Diversified Operations
2.	Vingroup	9,600	0.42	No	Yes	Real Estate
3.	Vietnam Joint Stock Commercial Bank for Industry and Trade	8,200	0.36	Yes	Yes	Banking
4.	Asia Commercial Bank	4,600	0.20	No	No	Banking
5.	Hoang Anh Gia Lai	4,000	0.17	No	Yes	Real Estate
6.	No Va Land Investment Group	3,800	0.17	No	Yes	Real Estate
7.	Bank for Investment and Development of Vietnam	3,050	0.13	Yes	Yes	Banking
8.	Masan Group	3,000	0.13	No	Yes	Finance
9.	Vietnam Prosperity Joint Stock Commercial Bank	3,000	0.13	No	Yes	Banking
10.	Vietnam Technological and Commercial Joint Stock Bank	3,000	0.13	No	No	Banking
11.	Sai Dong Urban Investment and Development	2,600	0.11	No	No	Real Estate
12.	Hoang Anh Gia Lai International Agriculture	2,217	0.10	No	Yes	Agriculture
13.	Joint Stock Commercial Bank for Foreign Trade of Vietnam	2,000	0.09	Yes	Yes	Banking
14.	Ho Chi Minh City Infrastructure Investment	1,830	0.08	No	Yes	Infrastructure
15.	Vietnam Electrical Equipment	1,800	0.08	No	Yes	Manufacturing
16.	Saigon Securities	1,650	0.07	No	Yes	Finance
17.	Agro Nutrition International	1,300	0.06	No	No	Agriculture
18.	Saigon-Hanoi Securities	1,150	0.05	No	Yes	Finance
19.	Mobile World Investment	1,135	0.05	No	Yes	Manufacturing
20.	DIC Corporation	1,000	0.04	Yes	No	Chemicals
21.	Vietnam Bank for Agriculture and Rural Development	760	0.03	Yes	No	Banking
22	KinhBac City Development Holding	700	0.03	No	Yes	Real Estate
23.	Nam Long Investment	660	0.03	No	Yes	Real Estate
24.	Sai Gon Thuong Tin Real Estate Joint Stock	600	0.03	No	Yes	Real Estate
25.	Khang Dien House Trading and Investment	534	0.02	No	Yes	Building and Construction
26.	Tasco Corporation	500	0.02	No	Yes	Engineering and Construction
27.	An Phat Plastic & Green Environment	450	0.02	No	Yes	Industrial
28.	Cuu Long Pharmaceutical	450	0.02	No	Yes	Manufacturing
29	Thanh Thanh Cong-Bien Hoa Joint Stock Company	450	0.02	No	Yes	Industrial
30.	Sotrans Corporation	400	0.02	No	No	Logistics
Total Top 30 LCY Corporate Issuers		**75,537**	**3.29**			
Total LCY Corporate Bonds		**77,279**	**3.37**			
Top 30 as % of Total LCY Corporate Bonds		**97.7%**	**97.7%**			

LCY = local currency, USD = United States dollar, VND = Vietnamese dong.
Notes:
1. Data as of 30 June 2018.
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 LP and Vietnam Bond Market Association data.

Table 3: Notable Local Currency Corporate Bond Issuance in the Second Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (VND billion)
Vietnam Joint Stock Commercial Bank for Industry and Trade		
10-year bond	7.50	4,000
Hoang Anh Gia Lai International Agriculture		
1-year bond	0.00	2,217
Nam Long Investment		
7-year bond	6.50	660
Saigon-Hanoi Securities		
2-year bond	8.80	650

VND = Vietnamese dong.
Source: Bloomberg LP.

to conduct an internal credit scoring and rating of corporate bonds that they plan to purchase. Also, internal management regulations are required to be made for evaluating bond investments, particularly for corporate bonds issued to finance projects in potentially risky areas. Credit institutions and foreign bank branches are also prohibited from purchasing corporate bonds that are issued to fund corporate debt restructuring. This law came into effect in August.

State Treasury Plans to Raise VND75 Trillion Through the Issuance of Government Bonds in the Third Quarter of 2018

In July, the State Treasury released its bond issuance plan worth VND75 trillion for the third quarter of 2018. Of this total, about 50% will comprise bonds with maturities of 10 years and 15 years, 30% will comprise bonds with maturities of 5 years and 7 years, and 20% will comprise bonds with maturities of 20 years and 30 years. For full-year 2018, the government plans to issue about VND200 trillion in government bonds, with issuance concentrated in longer-term maturities.

Asia Bond Monitor
September 2018

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 and the People's Republic of China; Hong Kong, China; and the Republic of Korea.

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ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 67 members—48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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