ASIA BOND MONITOR

MARCH 2019

ASIAN DEVELOPMENT BANK

ADB

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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; "Vietnam" as Viet Nam; "Hanoi" as Ha Noi; and "Saigon" as Ho Chi Minh City.

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Highlights

Key Trends

- Local currency (LCY) government bond yields declined in most emerging East Asian markets between 28 December 2018 and 15 February 2019. The exceptions were the bond markets of Indonesia, the Republic of Korea, and Singapore, which all saw marginal gains in their 10-year yields.[1]
- The overall decline in yields stemmed partly from expectations that the United States (US) Federal Reserve would slow its pace of monetary policy normalization, which reduced pressure on emerging East Asia's financial markets.
- Emerging East Asia's equity markets benefited from improved investor sentiment, with all markets in the region rising during the review period except for Malaysia, which declined marginally. The largest gains were in Hong Kong, China; and the People's Republic of China (PRC) amid progress in the PRC–US trade talks and on expectations that authorities in the PRC would ease monetary policy and take measures to boost domestic financial markets.
- Most of the region's currencies appreciated versus the US dollar during the review period. The best-performing currency was the Thai baht, given Thailand's strong economic fundamentals. Next was the Indonesian rupiah, which was buoyed by strong net flows into the Indonesian bond market. In contrast, the Korean won weakened the most, driven by outflows from its equity and bond markets.
- As financial markets in emerging East Asia stabilized, credit default swap spreads narrowed in nearly all markets.
- The foreign holdings share in LCY government bonds climbed during the fourth quarter of 2018 in all markets except the PRC and Malaysia. The largest gains in the share of foreign holdings were observed in the Philippines, due to falling inflation expectations, and in Thailand.
- Emerging East Asia's LCY bond market reached a size of USD13.1 trillion at the end of December. Overall growth moderated in the fourth quarter of 2018 to 2.4% quarter-on-quarter and 11.9% year-on-year.

Risks to the Bond Market

- While the region's financial markets have recently stabilized, risks arising from unsettled trade issues pose a threat to the fragile recovery.
- Uncertainties relating to Brexit, particularly should it become disorderly, could also strain the region's bond markets.

[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.

Executive Summary

Local Currency Government Bond Yields Decline in Emerging East Asia

Between 28 December 2018 and 15 February 2019, local currency (LCY) government bond yields trended downward in most emerging East Asian markets, partly driven by the dovish outlook of the United States (US) Federal Reserve and expectations of a slowdown in global economic growth.[1]

While the Federal Reserve hiked its policy rate target as expected at the 18–19 December meeting of the Federal Market Open Committee, economic projections and notes from the more recent 29–30 January meeting led to market expectations of a more dovish stance from the Federal Reserve. Similarly, the European Central Bank ended its asset purchase program in December, but also noted that incoming economic data pointed toward slower growth.

The Federal Reserve's shifting stance is providing greater stability to financial markets in emerging economies. However, global trade tensions continue to pose a threat to the region's economic growth and financial stability. Trade tensions can also lead to heightened investor risk aversion. Uncertainties regarding the Brexit process, particularly should it become disorderly, could also impact investors.

The March issue of the *Asia Bond Monitor* includes three special discussion boxes. Box 1 explains how emerging market currencies remain vulnerable to external shocks. Box 2 provides background on green bonds in emerging markets. Box 3 examines climate risk and the rising cost of debt in climate-vulnerable economies.

Local Currency Bonds Outstanding in Emerging East Asia Surpass USD13 Trillion in Q4 2018

Emerging East Asia's LCY bonds outstanding climbed to USD13.1 trillion at the end of December, with growth in the fourth quarter (Q4) of 2018 moderating to 2.4% quarter-on-quarter (q-o-q) and 11.9% year-on-year (y-o-y) from 4.3% q-o-q and 12.6% y-o-y in the third quarter (Q3) of 2018. The People's Republic of China (PRC) continued to lead the region in terms of bond market size, accounting for a 72.2% share of the regional total at the end of December, despite a slowdown in its bond market's growth in Q4 2018.

The government bond segment dominated the region's LCY bond market, with government bonds reaching USD8.8 trillion at the end of December and accounting for 66.8% of emerging East Asia's total bond stock. LCY corporate bonds outstanding totaled USD4.3 trillion at the end of December. Growth trends in the two segments of the bond market diverged, with government bonds posting slower growth in Q4 of 2018 compared with Q3 2018, while growth in corporate bonds rose at a much faster pace in Q4 2018.

The aggregate amount of outstanding LCY bonds among member economies of the Association of Southeast Asian Nations (ASEAN) reached USD1.4 trillion at the end of December, up from USD1.3 trillion at the end of September.[2] Thailand has the largest LCY bond market among ASEAN member economies, while Malaysia is home to the largest *sukuk* (Islamic bond) market not just in ASEAN but in all of emerging East Asia.

[1] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
[2] LCY bond statistics for ASEAN include the markets of Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

As a share of regional gross domestic product, emerging East Asia's LCY bond market was barely changed in Q4 2018 at 73.3% versus 73.2% in Q3 2018. The Republic of Korea led the region in terms of its share of bonds to gross domestic product at 125.5% at the end of December.

Gross issuance of LCY bonds in Q4 2018 amounted to USD1.1 trillion, reflecting a decline of 18.7% q-o-q and an increase of 7.1% y-o-y. The q-o-q decline stemmed from lower bond sales from governments that more than offset rising corporate issuance.

Foreign Investor Sentiment Turned Positive in Q4 2018, Resulting in Net Bond Market Inflows

Expectations that the Federal Reserve would slow the pace of its monetary tightening in 2019 led to improved investor sentiment in emerging East Asian LCY bond markets toward the end of Q4 2018. Foreign investor holdings of LCY government bonds rose in all markets in emerging East Asia in Q4 2018 for which data are available, except the PRC and Malaysia.

The foreign holdings share in the Philippines rose the most in the region, rising to 7.5% in Q4 2018 from 4.4% in the previous quarter, as lower inflation expectations and a likely pause in the Bangko Sentral ng Pilipinas' monetary tightening helped boost demand for government bonds. The foreign holdings share in Thailand also climbed to 18.5% from 17.3% in Q4 2018 from Q3 2018, buoyed by strong economic fundamentals. Indonesia's share of foreign holdings rose to 37.7% from 36.9% during the same period.

The region continued to attract foreign funds in Q4 2018, albeit less so than in Q3 2018. Foreign fund inflows were recorded in all markets in Q4 2018, except for the PRC and Malaysia.

Box 1: Are Emerging Market Currencies Out of the Woods?

This box reviews the impacts of monetary policy normalization in the US on global financial markets, particularly its effects on emerging markets and developing Asia. The box explains how tightening global liquidity led to the depreciation of most emerging market currencies in 2018. While risks somewhat abated in Q4 2018, emerging market currencies in 2019 will remain vulnerable to a slowdown in the global economy and uncertainties relating to PRC–US trade tensions.

Box 2: Spotlight on Emerging Market Green Bonds

This box discusses the huge potential of green bonds as an alternative funding source for issuers in emerging markets that will require large-scale investment in infrastructure, and how green bonds can help attract new international investors to finance such projects. It also details the development of green bond markets in emerging economies in 2016–2018, citing the PRC, India, and Mexico as the most prolific issuers.

Box 3: Climate-Vulnerable Developing Economies Face Rising Debt Costs

This box examines the impact of climate vulnerability on the cost of debt, noting that debt tends to be more expensive in markets with greater climate vulnerability. Rising debt costs also increased the cost of projects that climate-vulnerable economies need in order to mitigate the physical impacts of climate change. While investing in climate preparedness can help mitigate these costs, international cooperation is also needed.

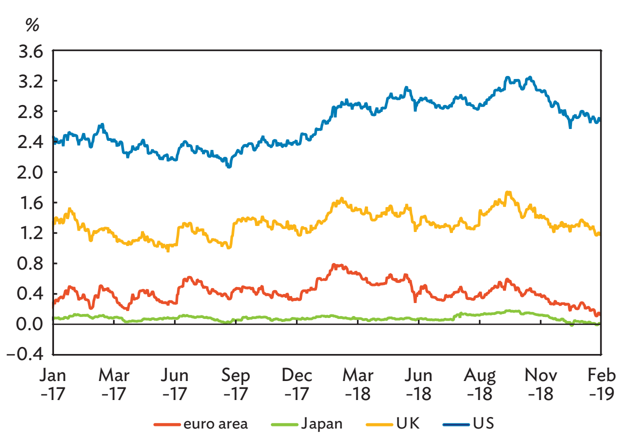
Introduction: Bond Yields Fall in Emerging East Asia

Bond yields fall in emerging East Asia as the Federal Reserve moderates pace of interest rate hikes.

Between 28 December and 15 February, the 10-year government bond yield in most advanced economies and emerging East Asian economies fell despite continued monetary tightening in advanced economies (**Figure A**).[1] The United States (US) Federal Reserve hiked interest rates for the fourth time in 2018 on 19 December and the European Central Bank (ECB) confirmed on 13 December that it would discontinue its asset purchase program at the end of the year. The decline in yields was partly driven by the softening growth outlook for advanced economies as well as changing expectations regarding Federal Reserve monetary policy.

While the Federal Reserve raised its target policy rate by 25 basis points (bps) to 2.25%–2.50% at its December meeting, in line with market expectations, it slightly downgraded its 2019 gross domestic product (GDP) growth forecast, relative to its previous forecast in September, from 2.5% to 2.3%. The Federal Reserve also indicated that it was forecasting two rate hikes in 2019 rather than three as indicated in its earlier assessment. Furthermore, at its January meeting, the Federal Reserve turned more dovish and left its policy rate target unchanged, stating that it would be patient in determining future adjustments of its policy rate given uncertain global economic and financial conditions.

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



UK = United Kingdom, US = United States.
Note: Data as of 15 February 2019.
Source: Bloomberg LP.

The elevated uncertainty is related to slowing global growth momentum. According to the International Monetary Fund's *World Economic Outlook Update January 2019*, the world economy is projected to expand 3.5% in 2019 and 3.6% in 2020, marginally down from estimated growth of 3.7% in 2018. In view of heightened uncertainty in the global economic environment and the persistence of sizable downside risks, the International Monetary Fund cut its global growth forecast by 0.2 percentage points for 2019 and 0.1 percentage point for 2020 compared with its October 2018 forecasts, which had already been downgraded relative to its April 2018 forecasts. The growth of global trade volume is expected to remain steady at 4.0% in 2019 and 2020, the same as the estimated growth in 2018. Persistent trade tensions remain the biggest source of uncertainty and pose a major downside risk to global growth prospects. Although the temporary ceasefire agreed upon by the People's Republic of China (PRC) and the US on 2 December was a welcome development, the conflict still awaits a permanent resolution. On a positive note, global investors' risk aversion toward emerging markets seems to be on the decline. Furthermore, the severe financial stress suffered by vulnerable emerging markets such as Argentina and Turkey in the middle of 2018 has abated in recent months (**Box 1**).

Notwithstanding heightened uncertainty, economic growth in the US remains relatively strong, despite some signs of moderation. The initial estimate for the

[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.

Box 1: Are Emerging Market Currencies Out of the Woods?

The United States (US) Federal Reserve's ongoing monetary policy normalization is tightening global liquidity conditions and poses a risk to emerging markets' financial stability. Higher US interest rates narrow the interest rate gap between advanced economies and emerging markets, render emerging market assets less attractive, and can trigger capital outflows. Tightening global liquidity conditions interact with and amplify other risks. For example, they exacerbate the risk posed by the rapid buildup of private debt in some developing Asian economies. In addition, US monetary tightening increases the pressure on Asian central banks to raise their own interest rates, which can harm short-term growth.

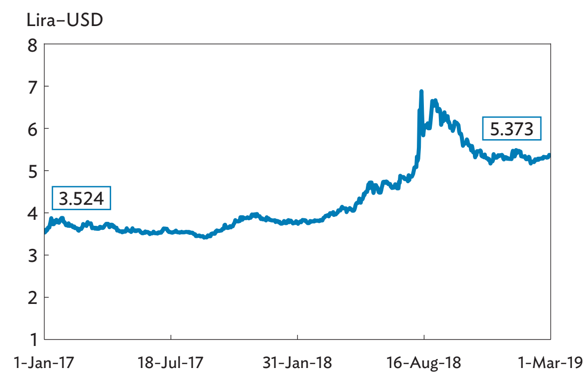
Another downside from tighter global liquidity is broader risk aversion among global investors toward emerging markets. While Asian economies enjoy relatively strong fundamentals that reduce their vulnerability to this risk, they are not immune altogether. Some Asian economies may be susceptible to negative spillovers emanating from vulnerable major economies outside the region. The foreign exchange turmoil that roiled Argentina and Turkey in the second (Q2) and third (Q3) quarters of 2018 underline this risk. The sharp depreciations of the peso and lira were precipitated by economy-specific weaknesses as well as external factors, especially rising US interest rates. Their depreciation both reflected and contributed to a broader deterioration of investor sentiment toward emerging markets. Some currencies in developing Asia, most notably the Indian rupee and Indonesian rupiah, also weakened noticeably, sparking concerns about their overall financial stability.

However, concerns about emerging market financial stability seem to have receded somewhat since the fourth quarter (Q4) of 2018. Above all, a measure of calm appears to have returned to Argentina and Turkey, which were subject to severe stress earlier in 2018. Here we examine and discuss recent developments germane to the financial stability of these two economies, emerging markets as a whole, and developing Asia in particular.

Interest Rate Hikes Calm Investor Nerves in Turkey

The sharp depreciation of the Turkish lira combined with higher energy prices to push inflation in Turkey to double-digit levels in Q2 2018. This prompted the central bank to hike its 1-week repo rate, widely considered to be the key policy rate, three times between May and September. As a result, the 1-week repo rate rose from 16.5% to 24.0%, where it stands now. Although some questioned whether the hikes were bold enough, they have been effective in stabilizing the lira. The combined effects of currency instability, financial market stress, inflationary pressures, and high interest rates slowed Turkey's Q3 2018 gross domestic product (GDP) growth to 1.6% year-on-year (y-o-y), down sharply from 7.4% for full-year 2017, 7.2% y-o-y in Q1 2018, and 5.3% y-o-y in Q2 2018. Q3 2018 marked the worst of the currency crisis, with the lira falling as much as 47% year-to-date during the quarter. Since then, the lira recovered strongly and remained relatively stable throughout December to end around 30% down on the year (**Figure B1.1**).

Figure B1.1: Turkish Lira Trends



USD = United States dollar.
Notes: Local currency unit relative to the US dollar. Data are from 1 January 2017 to 1 March 2019.
Source: Bloomberg LP.

Capital flows provide additional evidence of Turkey's improving financial health. In October, Turkey attracted net inflows of portfolio capital for the first time since January. Although the magnitude of the net inflows was modest at USD491 million, the switch from net outflows to net inflows was a potential inflection point for an economy that experienced USD8.7 billion of net outflows between February and September. Macroeconomic policies implemented since August, in particular concerted monetary tightening and the scaling back of fiscal stimulus, helped to reverse the net portfolio outflows. In fact, the Turkish Treasury's USD2 billion bond issue in October was three times oversubscribed.[a]

[a] The bond matures in December 2023 and has a coupon rate of 7.25% and a yield rate of 7.50% for investors.

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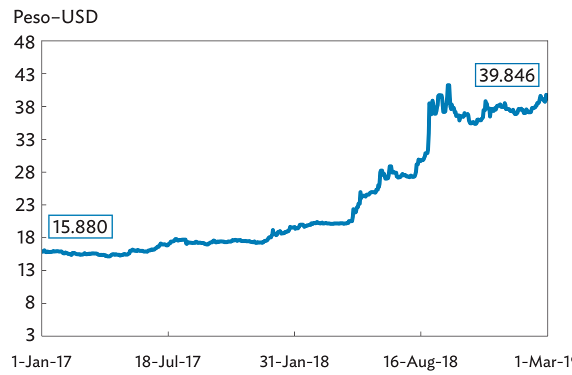
Box 1: Are Emerging Market Currencies Out of the Woods? *continued*

Revamped International Monetary Fund Package Brings Some Stability to Argentina

The Argentine peso lost more than half its value last year and was the worst-performing emerging market currency in 2018. However, like the Turkish lira, it showed signs of stabilization in Q4 2018 after coming under intense pressure in the preceding quarters. As a result of foreign exchange and inflationary pressures, the central bank raised the benchmark interest rate repeatedly beginning in April until it reached 60% on 30 August, the highest in the world. In addition, the government secured a USD50 billion loan package from the International Monetary Fund (IMF) in June. However, the mix of concerted monetary tightening and IMF financing failed to stabilize financial markets. The crux of the problem was the large external and internal imbalances inherited from the previous government, and the current government's gradualist approach to tackling those imbalances, especially the fiscal deficit.

In response to the free fall of the peso despite extraordinary monetary tightening, in September the government requested from the IMF a revision of its loan package. After negotiations, the IMF approved expanding the loan to USD57 billion, the biggest in its history, and accelerating disbursement. The expanded package comes with stringent conditions. In particular, the government has committed to eliminating the primary fiscal deficit by 2019, with the aim of restoring macroeconomic stability and returning to international debt markets by 2020. Furthermore, the central bank has committed to intervene in foreign exchange markets only in cases of severe stress. Specifically, the central bank will intervene to stabilize the peso only if it depreciates below 44 per US dollar. The revised IMF loan package helped to stabilize the peso beginning in Q4 2018 (**Figure B1.2**).

Figure B1.2: Argentine Peso Trends



USD = United States dollar.
Notes: Local currency unit relative to the US dollar. Data are from 1 January 2017 to 1 March 2019.
Source: Bloomberg LP.

Emerging Market Currencies on the Rebound

The Turkish lira and Argentine peso have both stabilized since Q4 2018. Forceful interest rate hikes by the central bank seem to have restored investor confidence in Turkey just as the central bank's earlier failure to raise rates was a major factor in the lira's decline. Other factors, most notably the improvement in relations with the US, also contributed. In the case of Argentina, the expansion and acceleration of the IMF loan package and the government's commitment to fiscal consolidation have arrested the peso's fall. In addition, political uncertainty is likely to recede after the upcoming general elections, which will be held in October 2019. Despite the clear improvements in investor sentiment toward both economies, it is premature to conclude they are completely safe. While the two economies are making tangible progress on macroeconomic stability, they still suffer from substantial imbalances. Argentina's current account deficit was 6.1% of GDP in the first 9 months of 2018 and inflation averaged 32.4% in January–November. The corresponding figures for Turkey were 5.1% of GDP and 16.2% for full-year inflation. Furthermore, inflation has been trending up in recent months in Argentina. In sum, despite recent improvements, the two economies remain vulnerable to shocks.

In line with the stabilization of the lira and peso, the currencies of emerging markets as a whole have performed noticeably better since Q4 2018 (**Figure B1.3**). While the Turkish and Argentine currencies suffered the sharpest declines, the currencies of other emerging markets also weakened to varying degrees. Broadly speaking, emerging market currencies fell sharply during Q2 2018, bottomed out in Q3 2018, and rebounded in Q4 2018. To a large extent, according to the International Institute of Finance, their decline reflected a correction of exchange rate misalignment that prevailed at the beginning of the year. The correction boosted emerging market exports, especially in economies that experienced large corrections. For example, Turkey's exports rose sharply after the lira's depreciation and the country posted a current account surplus in Q3 2018. Since the misalignment has been largely corrected, emerging market currencies are now showing greater stability.

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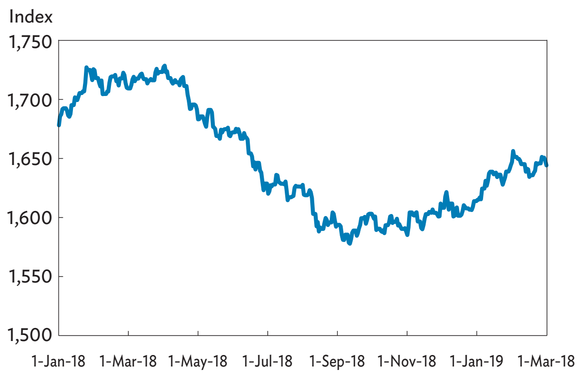
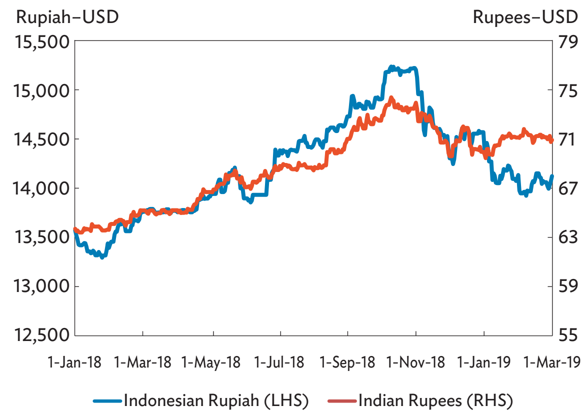
Box 1: Are Emerging Market Currencies Out of the Woods?

Figure B1.3: MSCI Emerging Markets Currency Index



MSCI = Morgan Stanley Capital International.
Notes: MSCI Emerging Market Currency Index measures the total return of 25 emerging market currencies relative to the US dollar where the weight of each currency is equal to its country weight in the MSCI Emerging Markets Index. Data are from 1 January 2018 to 1 March 2019.
Source: Bloomberg LP.

Figure B1.4: Indonesian Rupiah and Indian Rupee



LHS = left-hand side, RHS = right-hand side, USD = United States dollar.
Notes: Local currency unit relative to the US dollar. Data are from 1 January 2018 to 1 March 2019.
Source: Bloomberg LP.

Emerging Asian Currencies Recover As Well

Relatively strong fundamentals are also giving a fillip to emerging market currencies. Inflation is mostly subdued across emerging markets, and exports and growth have held up well despite rising global trade tensions. Indeed, emerging markets as a group actually grew faster in 2017–2018 than in 2015–2016. Emerging Asian economies in particular enjoy relatively healthy fundamentals and are thus well positioned to withstand shocks. For example, inflation is below 4% in the two major Asian markets that came under the most pressure during the emerging market currency turmoil of 2018: India and Indonesia. The same two economies also suffered the most volatility during the “Taper Tantrum” in 2013. In line with the broader recovery of emerging market currencies, both the Indian rupee and Indonesian rupiah rebounded in Q4 2018 (**Figure B1.4**). However, India and Indonesia are each still burdened with twin deficits—fiscal and current account—although the magnitudes of their respective deficits are manageable.

In addition to relatively strong fundamentals, the two economies have benefited from decisive policy actions to stabilize financial markets. The Reserve Bank of India and Bank Indonesia each aggressively hiked their benchmark interest rate during Q2 2018 and Q3 2018 to defend their currencies and stave off inflationary pressures. Between May and November, Bank Indonesia raised its benchmark interest rate six times, from 4.25% to 5.75%. The Indonesian central bank has been one of the most aggressive in tightening monetary policy in response to emerging-market foreign exchange turmoil. The Reserve Bank of India raised its benchmark interest rate twice in 2018, from 6.0% to 6.5%. The currency of another developing Asian economy viewed as potentially vulnerable, the Philippines, also recovered in Q4 2018. Like its Indonesian counterpart, the Bangko Sentral ng Pilipinas aggressively hiked interest rates to contain inflation and shore up the exchange rate. In 2018, it raised the benchmark rate five times, from 3.00% to 4.75%. Given stabilizing exchange rates and receding inflationary pressures, the central banks of all three economies have held their interest rates steady since December.

Fragile but Improving Outlook for Developing Asia’s Financial Stability

Notwithstanding the noticeable trend toward stabilization of emerging market exchange rates since Q4 2018, global financial markets remain febrile and vulnerable to shocks. Global trade tensions, especially tensions between the People’s Republic of China and the US, the world’s two biggest economies, have not yet been resolved, casting a big shadow over the global economic outlook and financial stability. Although the effects of trade tensions seem to be limited so far, their persistence creates uncertainty and thus may yet harm economic growth. Uncertainty over trade and more generally global growth prospects contributed to severe volatility in the US stock market in December. Therefore, risk

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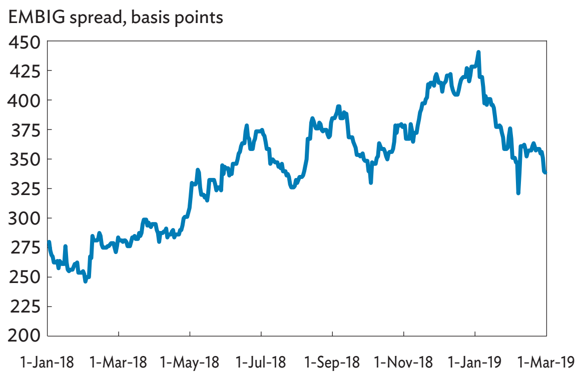
Box 1: Are Emerging Market Currencies Out of the Woods? *continued*

aversion toward emerging markets is likely to remain elevated. As noted above, the most vulnerable emerging markets still suffer from imbalances. Lingering vulnerability helps explain why emerging market credit spreads remain elevated even as emerging market currencies have appreciated (**Figure B1.5**).

Figure B1.5: Emerging Markets Sovereign Bond Spreads



EMBIG = Emerging Markets Bond Index Global.
Notes: EMBIG is JP Morgan's index of USD-denominated sovereign bonds which tracks total returns for traded external debt instruments issued by sovereign and quasi-sovereign entities in emerging markets. A widening of spreads mean investors are shying away from riskier investments in emerging markets and vice versa. Data are from 1 January 2018 to 13 January 2019.
Source: Bloomberg LP.

Therefore, in light of the heightened uncertainty surrounding global growth prospects, partly due to the unsettled status of the People's Republic of China–US trade conflict, as well as the unsettling effect this is having on global financial markets, it is premature to say that emerging markets are completely out of the woods. Nevertheless, on balance, the stability that foreign exchange markets in emerging economies, including those in Asia, gained in Q4 2018 is likely to persist in 2019. For one, the most vulnerable economies have implemented various measures to promote financial stability, including fiscal consolidation and monetary tightening. The stabilizing effects of such confidence-building measures will persist into the near future. The authorities' willingness to prioritize medium-term stability over short-term growth is most evident in Asia but also in other emerging markets.

Perhaps more importantly, there are growing signs that the US Federal Reserve will slow the pace of its monetary policy normalization. Although the US monetary tightening cycle is probably incomplete, the frequency and total magnitude of interest rate hikes are likely to be less in 2019 than in 2018. After raising interest rates four times by a total of 100 basis points in 2018, at its latest meeting on 19 December, the Federal Open Market Committee forecasts two hikes for 2019, down from three hikes projected earlier. A slowing US economy, falling US inflation, and tightening global liquidity conditions are all contributing to the prospects of a more gradual and cautious approach to monetary tightening. Since the Federal Reserve's concerted interest rate hikes were a major destabilizing factor for emerging markets in 2018, especially vulnerable emerging markets with internal and external imbalances, a deceleration of interest rate hikes in 2019 should act as a stabilizing force. The destabilizing effect of rising US interest rates on emerging markets was especially acute in foreign exchange markets due to the strengthening of the US dollar resulting from higher US rates. To conclude, compared with the nerve-wracking foreign exchange market turbulence of 2018, 2019 is likely to be more stable, although potential sources of volatility remain.

The growth trajectory of advanced economies is clearly trending down as the cyclical expansion in the US appears to be nearing its end. The US economy grew at a robust (estimated) pace of 2.9% in 2018, but growth is expected to slow to 2.3% in 2019 and 2.0% in 2020. Advanced economies as a whole expanded by an estimated 2.3% in 2018, but their growth is projected to fall to 2.0% in 2019 and 1.7% in 2020. The corresponding figures for emerging markets and developing economies are 4.6%, 4.5%, and 4.9%, respectively.

The *World Economic Outlook Update January 2019* forecasts consumer price inflation in advanced economies to decline from 2.3% in 2018 to 2.0% in 2019, and 1.7% in 2020. Falling oil prices are containing inflationary pressures in emerging markets. In emerging markets and developing economies, consumer price inflation is projected to fall from 4.6% in 2018 to 4.5% in 2019, before rebounding to 4.9% in 2020.

fourth quarter (Q4) of 2018 showed GDP growing at an annual rate of 2.6% versus 3.4% in the previous quarter. Consumer price inflation has trended downward, with the inflation rate falling from 1.9% year-on-year (y-o-y) in December to 1.6% y-o-y in January. At its 29–30 January meeting, the Federal Reserve noted that although inflation had slowed in recent months, longer-term inflation expectations remain unchanged. The US labor market also remains strong, with nonfarm payrolls adding 304,000 jobs in January, up from a gain of 222,000 in December. The unemployment rate rose slightly from 3.9% to 4.0% between December and January.

In the euro area, the ECB ended its asset purchase program in December. Also, the ECB reduced its 2019 GDP forecast from 1.8% to 1.7%. At its 24 January meeting, the ECB left monetary policy largely unchanged but indicated that incoming economic data had been weaker than expected. The euro area's GDP growth slowed to 1.1% y-o-y in Q4 2018 from 1.6% y-o-y in the previous quarter. Inflation still remains below target, with flash estimates for inflation in February at 1.5% y-o-y.

Unlike the US and the euro area, Japan has yet to normalize its monetary policy. At its monetary meeting on 23 January, the Bank of Japan (BOJ) largely left monetary policy unchanged. GDP for Q4 2018 showed Japan's economy recovering, with GDP growing at 1.9% y-o-y, reversing a contraction of 2.4% y-o-y in the previous quarter. In its January economic outlook, the BOJ slightly raised its 2019 GDP growth forecast to 0.9% from 0.8% in October. However, it lowered its annual inflation forecast to 1.1% from 1.6%.

On 12 February, the BOJ reduced its monthly purchases of bonds with maturities of 10–25 years from JPY200 billion to JPY180 billion. However, the move is unlikely to be a signal of monetary policy tightening since it is consistent with past BOJ statements that it would allow greater volatility in its 10-year yield target. In addition, the BOJ stated that a shift in the target rate rather than changes in the amount of bond purchases would be a more accurate signal of changes to its monetary policy stance.

Despite the elevated global uncertainty due to persistent trade tensions, particularly between the PRC and the US, developing Asia is projected to grow at a healthy pace.[2] According to the Asian Development Bank's *Asian Development Outlook Supplement* released in December 2018, the region's economy is projected to expand 6.0% in 2018 and 5.8% in 2019. Notwithstanding the elevated uncertainty, the Asian Development Bank's December forecasts were unchanged from its September forecasts. Strong domestic demand is helping the economies of emerging East Asia weather strong external headwinds. The PRC, which is bearing the brunt of the trade dispute with the US, is forecast to expand 6.3% in 2019, down from 6.9% in 2017 and an estimated 6.6% in 2018. The aggregate growth figures for the 10 members of the Association of Southeast Asian Nations are 5.2% in 2017 and 5.1% in both 2018 and 2019. The Republic of Korea's economy is projected to grow 2.6% in 2019, after expanding 3.1% in 2017 and an estimated 2.7% in 2018. The growth figures for Hong Kong, China, which is another high-income economy, are 3.8% in 2017, an estimated 3.4% in 2018, and a projected 2.8% in 2019. The region's growth is driven by domestic demand, which remains strong despite the negative impact of global trade tensions. According to the *Asian Development Outlook Supplement*, the region's consumer price inflation rose from 2.2% in 2017 to an estimated 2.6% in 2018. It is projected to rise further to 2.7% in 2019.

In tandem with the decline in yields in advanced economies, 10-year bond yields fell in emerging East Asia during the review period largely due to expectations that the Federal Reserve would reduce the pace of its monetary tightening (**Table A**). This has reduced pressure on emerging East Asia's financial markets and improved investor sentiment in the region. In addition, the prospect of more gradual interest rate hikes by the Federal Reserve has allowed central banks in the region to keep monetary policy rates largely unchanged, with the exception of Thailand.

The exceptions to falling yields in the region were Indonesia, the Republic of Korea, and Singapore, which all saw marginal increases in their 10-year yields. The yield increase for Indonesia's 10-year bond was only 3 bps, while its 2-year bond yield fell 21 bps. The Republic of Korea had a similar trend; its 10-year

[2] Developing Asia comprises the 45 regional developing member economies of the Asian Development Bank. https://www.adb.org/sites/default/files/publication/216421/ado-supplement-dec-2016.pdf.

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	(0.2)	(6)	–	11.7	–
United Kingdom	(0.8)	(11)	(4)	7.5	1.5
Japan	(3)	(2)	(5)	5.5	(0.2)
Germany	5	(14)	(1)	7.0	(1.3)
Emerging East Asia					
China, People's Rep. of	(26)	(13)	(15)	7.6	1.6
Hong Kong, China	(31)	(26)	–	9.4	(0.2)
Indonesia	(21)	3	(28)	3.1	2.9
Korea, Rep. of	(4)	0.9	(8)	7.6	(1.1)
Malaysia	(3)	(21)	(36)	(0.2)	1.7
Philippines	(87)	(75)	(21)	5.9	0.5
Singapore	0	3	–	6.1	0.7
Thailand	7	(5)	2	4.7	4.1
Viet Nam	(114)	(43)	(16)	6.5	(0.1)
Select European Markets					
Greece	(32)	(65)	(76)	8.5	(1.3)
Ireland	4	(17)	(4)	9.3	(1.3)
Italy	2	7	18	10.3	(1.3)
Portugal	1	(28)	(0.9)	10.6	(1.3)
Spain	4	(15)	(4)	7.4	(1.3)

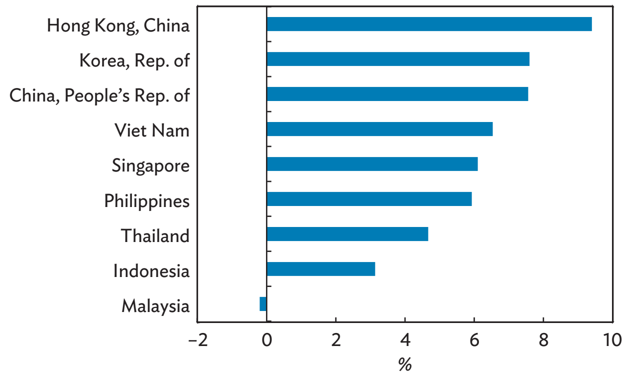
( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 28 December 2018 and 15 February 2019.
2. A positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Sources: Bloomberg LP and Institute of International Finance.

yield rose 0.9 bp, while its 2-year yield fell 4 bps. In Singapore, the 10-year yield rose 3 bps and the 2-year yield was unchanged.

The largest 10-year bond yield decline occurred in the Philippines, where yields fell 75 bps. The dip reflected a decline in the inflation rate, which allowed the Bangko Sentral ng Pilipinas to leave policy rates unchanged at its last two monetary policy meetings on 13 December and 7 February. The next largest decline occurred in Viet Nam, where 10-year yields fell 43 bps and 2-year yields declined 114 bps. The decline in yields was driven by low inflation and government directives to lower lending rates to priority sectors— agriculture, goods exports, small- and medium-sized enterprises, enterprises operating in auxiliary industries, and high-tech enterprises including start-ups—to support economic growth. In Thailand, while the 10-year yield fell 5 bps, the 2-year yield rose 7 bps. The rise in the 2-year yield was largely due to the 25-bps interest rate hike on 19 December. Although the Bank of Thailand left policy rates unchanged on 6 February, two members voted to raise policy rates. In the People's Republic of China (PRC), yields fell for both the 2-year and 10-year bonds, fueled by expectations of easing monetary policy.

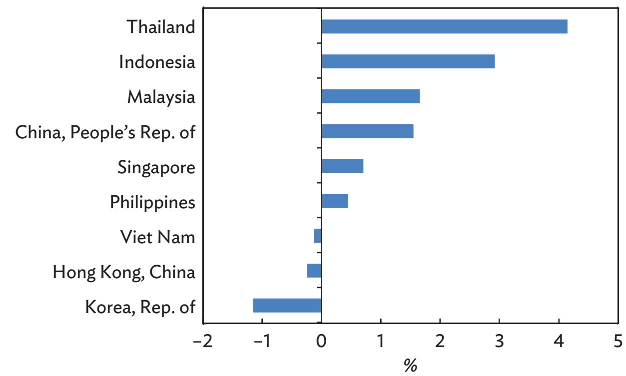
Improved investor sentiment pushed equity markets higher in emerging East Asia between 28 December and 15 February on the back of stronger demand for the region's financial assets (**Figure B**). Hong Kong, China (9.4%) and the PRC (7.6%) saw the largest gains, following progress made in the PRC–US trade talks, and amid expectations that the Government of the PRC would ease monetary policy and take measures to boost financial markets. The Republic of Korea was another

Figure B: Changes in Equity Indexes in Emerging East Asia



Note: Changes between 28 December 2018 and 15 February 2019.
Source: Bloomberg LP.

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

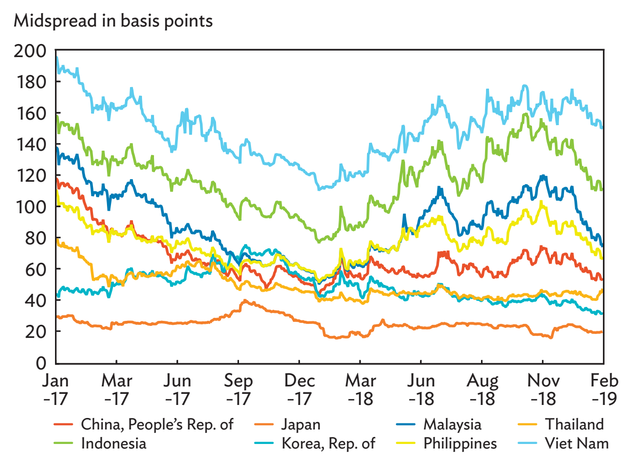


Notes:
1. Changes between 28 December 2018 and 15 February 2019.
2. A positive (negative) value for the foreign exchange rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Source: Bloomberg LP.

big gainer, rising 7.6% during the review period. The exception was Malaysia, where the stock market index slightly declined by 0.2%.

Most emerging East Asian currencies strengthened between 28 December and 15 February, but performances were mixed compared to bond yield and equity price movements (**Figure C**). The improved currency performances reflected expectations that the Federal Reserve would likely slow the pace of its interest rate hikes, weakening the US dollar relative to emerging East Asian currencies. The best-performing currency during the review period was the Thai baht, which gained 4.1%, largely due to strong economic fundamentals and because Thailand was the only economy in the region where the central bank raised its policy rate in December. Indonesia was the second-best gainer, with the rupiah appreciating 2.9% due to strong bond inflows. On the other hand, the Korean won depreciated 1.1% due to outflows from its bond and equity markets. The Hong Kong dollar depreciated marginally by 0.2% due to its link to the US dollar, and the Vietnamese dong declined 0.1%.

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 February 2019.
Source: Bloomberg LP.

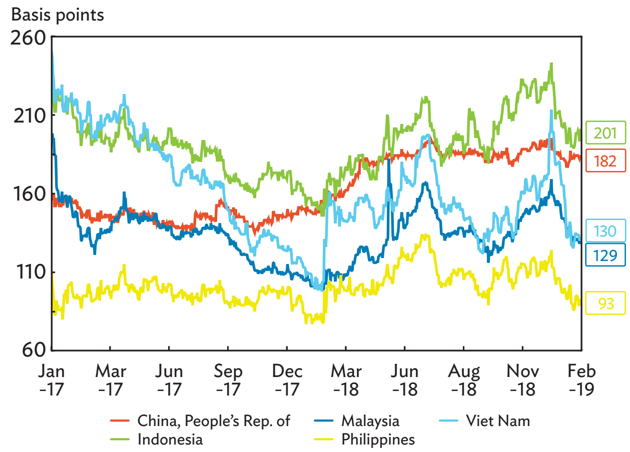
Credit default swap spreads in the region narrowed between 28 December and 15 February due to improved investor sentiment toward emerging markets (**Figure D**). Broader risk aversion toward emerging markets, epitomized by the sharp depreciation of the Argentine peso and Turkish lira in 2018, waned at the prospect of the Federal Reserve raising interest rates more gradually. Malaysia saw the largest decline in emerging East Asia, with spreads narrowing 36 bps. Indonesia experienced the second-largest decline at 28 bps.

The CBOE Volatility Index (VIX) also fell sharply during the review period after rising toward the end of December (**Figure E**). Prior to the VIX's decline, risk aversion had remained elevated amid declines in the US stock market over concerns that continuously rising US interest rates would dampen US economic growth, which was also weighed down by trade tensions and a partial shutdown of the government. Sentiment improved after the Federal Reserve indicated that it would be more patient in assessing the direction of its policy rate. The temporary truce in the PRC–US trade tensions and the end of the US government shutdown also boosted sentiment. The EMBIG spread fell during the review period in line with the improvement of the VIX (**Figure F**).

Foreign holdings of local currency government bonds in emerging East Asia were up in most markets at the end of December, with the exception of the PRC and Malaysia (**Figure G**). In the PRC, the share of foreign holdings fell slightly from 5.1% at the end of September to 5.0% at the end of December, largely due to the depreciation of the renminbi, which rendered CNY-denominated bonds less attractive. In Malaysia, the share fell from 24.6% to 24.0% during the same period. The Philippines saw the largest increase in the share of foreign holdings, which rose sharply from 4.4% to 7.5%, mainly on improved investor sentiment in response to declining inflation, which allowed the Bangko Sentral ng Pilipinas to pause its monetary policy tightening. In Indonesia, the share rose from 36.9% to 37.7% during the review period. Investor sentiment turned positive following indications the Federal Reserve would slow the pace of its rate hikes.

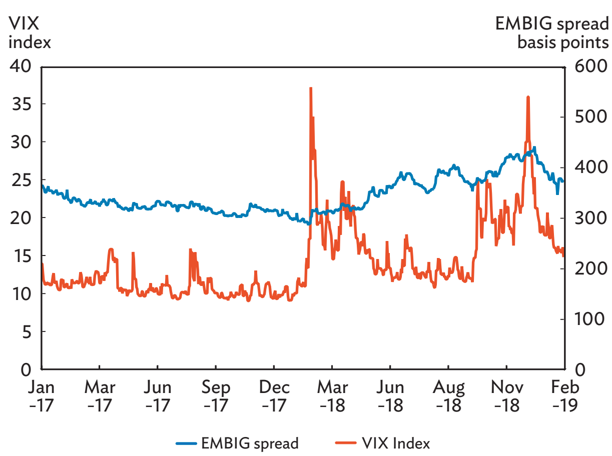
Downside risks to emerging East Asia's financial stability have receded somewhat since Q4 2018. Most significantly, there has been a tangible abatement of the

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



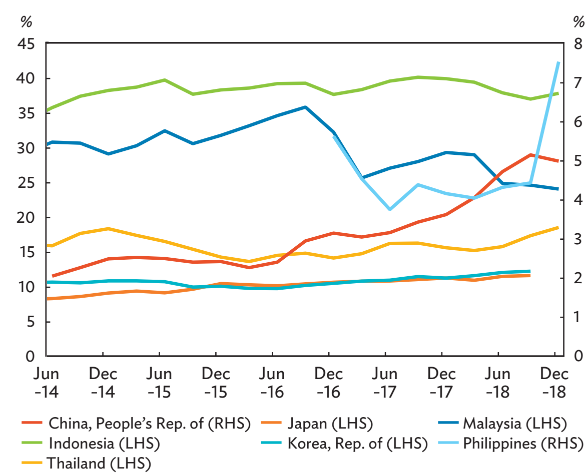
USD = United States dollar.
Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2019.
Source: Bloomberg LP.

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 February 2019.
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 end-December 2018 except for Japan and the Republic of Korea (end-September 2018).
Source: *AsianBondsOnline*.

threat of generalized risk aversion among global investors toward emerging markets triggered by financial instability in vulnerable economies. Furthermore, emerging East Asia continues to enjoy strong economic growth and relatively calm financial conditions. Nevertheless, some downside risks still lurk on the region's horizon. Most notably, trade tensions between the PRC and the US, the world's two biggest economies, remain unresolved and hover over the world economy and global financial markets. In addition, the rapid growth of private debt (household and corporate) poses a threat against the backdrop of tightening global liquidity conditions. The risk of excessively rapid private debt accumulation to financial stability is well known, but debt buildup can also have adverse repercussions for the real economy, including pronounced recessions that further jeopardize financial stability. Over a longer time horizon, we can expect the growing risks of climate change and environmental degradation to serve as a catalyst in the development of green bond markets in emerging markets (**Box 2**). Furthermore, climate risks are raising the cost of debt financing for climate-vulnerable developing economies (**Box 3**).

Against the backdrop of a fragile and febrile global financial and economic environment, one potential

Box 2: Spotlight on Emerging Market Green Bonds

"All financing will be green."

– Patrick Njoroge
Governor, Central Bank of Kenya, 24 May 2018

The Climate Bonds Initiative (CBI) sees huge untapped potential for emerging market economies to issue green bonds.[a] Growing populations and increased urbanization mean that many emerging market economies will require large-scale investment in infrastructure. Given the risks associated with extreme weather events, this infrastructure needs to be low carbon and climate resilient. Emerging market economies are among the most vulnerable to the effects of climate change, but a recent report from the Imperial College Business School and SOAS University of London that was commissioned by the United Nations Environment Programme confirms that for many of these economies the cost of borrowing is higher.[b]

Green bonds provide a vehicle for large-scale public and private sector funding and can attract new international investors to emerging market economies with the capacity to issue such bonds. Aggregation could be a useful strategy to fund smaller projects.

Green bond issuers are keen to determine whether they can expect better pricing for a green bond. This could mean that the new issue premium is either smaller than it may have been historically or lower than had been expected. At present, CBI cannot demonstrate this because of insufficient data. While preferential pricing cannot be guaranteed in any market, green bonds can offer myriad other benefits to issuers.

The International Capital Market Association's Green Bond Principles encourage additional transparency around assets financed and internal management processes to enhance investor comfort in emerging markets. The external review process serves to confirm that adequate procedures are in place to manage the proceeds. For example, the Government of Nigeria issued a local currency green bond in December 2017 that included a mechanism to ring-fence the proceeds.[c] An inspection team comprising stakeholders was appointed to monitor the quality of work. Where the standards were not being met, borrowers were asked to achieve the required standards before more money could be released. This anecdote highlights a critical differentiating feature of green bonds that can be leveraged successfully by emerging market issuers: investors can retain better control of the proceeds.

Between January 2016 and the end of June 2018, USD80.5 billion of green bonds were issued in emerging markets (**Table B2.1**). An overwhelming share of this debt (93%) was denominated in either Chinese renminbi, United States dollars, or euros. About 46% of emerging green bond issues in 2016–2018 were denominated in Chinese renminbi (**Figure B2.1**). During this same period, a total of USD25.9 billion was also issued by supranationals. Most of the proceeds would have been directed into emerging markets, including those with an insufficient credit rating to raise and manage money independently. The most prolific

[a] CBI uses the Morgan Stanley Composite Index Market definition, which is available at https://www.msci.com/market-classification.
[b] Bob Buhr and Ulrich Volz. 2018. *Climate Change and the Cost of Capital in Developing Countries*. https://imperialcollegelondon.app.box.com/s/e8x6t16y9bajb85inazbk5mdrqtvxfzd.
[c] Nigeria has sovereign ratings of B2 (Moody's) and B (S&P).

continued on next page

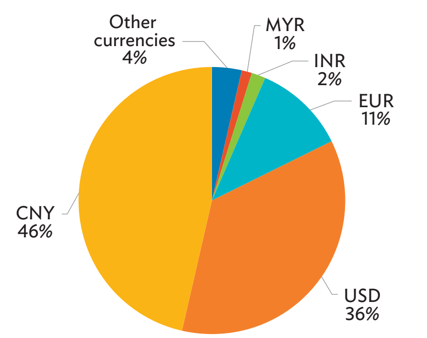
Box 2: Spotlight on Emerging Market Green Bonds *continued*

Table B2.1: Green Bonds Issued in 2016–2018

Economy	Amount (USD billion)
Viet Nam	0.03
Nigeria	0.03
Fiji	0.05
Chile	0.07
Mexico	0.16
Morocco	0.17
South Africa	0.17
Philippines	0.23
Rep. of Korea	0.28
Colombia	0.33
Hong Kong, China	0.33
Taipei,China	0.40
Brazil	0.67
Malaysia	0.98
India	1.37
European Union	8.98
United States	28.89
People's Rep. of China	37.34
Total	**80.47**

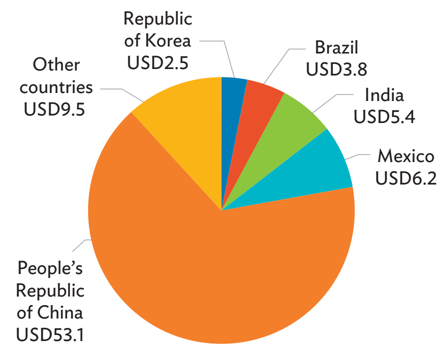
USD = United States dollars.
Source: Climate Bonds Initiative.

Figure B2.1: Denomination of Green Bonds in Emerging Markets, 2016–2018



CNY = Chinese yuan, EUR = euro, INR = Indian rupee, MYR = Malaysian ringgit, USD = United States dollar.
Source: Climate Bonds Initiative.

Figure B2.2: Most Prolific Green Bonds Issuers, 2016–2018 (USD billion)



USD = United States dollar.
Source: Climate Bonds Initiative.

domiciles for green bonds to date have been the People's Republic of China (Moody's: A1; S&P: A+), Mexico (Moody's: A3; S&P: BBB+), and India (Moody's: Baa2; S&P: BBB–) (**Figure B2.2**).

An active green bond market is contingent on an active bond market. CBI pricing work concentrates on investment-grade bonds issued in either US dollars or euros with a minimum size equivalent to USD300 million for bonds issued in 2016–2017 or USD500 million for bonds issued in 2018. The pool of eligible issuances over the past 2.5 years comprises 29 green bonds from 10 emerging market economies. Seven of the green bonds are EUR-denominated, and the remaining 22 are USD-denominated. The combined issuance size of the bonds is USD20.5 billion, or more than a quarter of total emerging market issuance over the same period.

Eight sectors are represented in this sample pool: financial (12 bonds), industrials (4), government (3), quasi-government (2), basic materials (2), consumer cyclical (2), utilities (2), and energy (1). Among the pool of developed market bonds qualifying for CBI pricing research, financials, utilities, and quasi-governments are the three largest sectors represented in terms of issuance size. On the other hand, just two of the emerging market bonds analyzed come from utilities. Green bonds are the ideal vehicle to finance development in infrastructure such as utilities, and CBI hopes to see more issuance in this and other nonfinancial corporate sectors as the market expands.

Demonstration bonds from local sovereign issuers could also contribute to more green bond issuance in emerging markets. Thus far, Poland and Indonesia have issued benchmark-sized bonds in hard currency. Nigeria and Fiji have issued green bonds in local currency, though not in amounts large enough to qualify for CBI research. Benchmark-sized and hard currency bonds could help other emerging

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Box 2: Spotlight on Emerging Market Green Bonds *continued*

market governments attract funding from the international investment community. The Sustainable Banking Network recently published *Creating Green Bond Markets*, which includes an overview of regulations and guidelines for green bonds in emerging markets as well as several case studies.[d]

The appetite for green bonds in hard currency has sufficiently evolved for the market to absorb larger bonds, with more dedicated green bond funds situated in Europe. As part of CBI's research into the distribution of green bonds, data have been gathered for 8 out of 28 emerging market green bond issuances over the past 2.5 years. On average, 31% of these bond issuances were bought by investors describing themselves as green. Poland 2026 (41% of the total) and ICBC 2022 (43%) were the two issuances with the largest allocation shares going to green investors. Both of these issuers have an average credit rating of A. Meanwhile, Indian Railway 2027 (24%) and Rural Electric 2027 (24%) had the smallest allocation shares going to green investors, with both bonds carrying India's country risk.

Mexico City Airport (Moody's: Baa1; S&P: BBB+) has raised a total of USD6.0 billion split between four bonds, making Mexico the most prolific investment-grade emerging market domicile of green bonds in our sample. The order book for Mexico 2026, with a coupon rate of 4.25% and an issuance size of USD1 billion, received indications of interest 10 times the size of the bond, the most CBI has observed for either a green bond or a vanilla equivalent over the last 2.5 years.

Entities from the People's Republic of China are an overwhelming presence in the emerging market green bond space due to clear policy guidelines from the People's Bank of China. Chinese issuance totaled USD53.1 billion between January 2016 and June 2018. Most Chinese green bonds are CNY-denominated, but USD5.8 billion worth of bonds have qualified for CBI pricing studies, divided between four EUR-denominated and six USD-denominated green bonds. Bank of China (Moody's A1; S&P: A) and China Development Bank (Moody's: A1; S&P: A) have each issued green bonds in both euros and US dollars. Crucially, Chinese bonds issued in hard currencies enable investors to express a view on the People's Republic of China without needing an onshore presence or having to trade through Bond Connect.

Poland (Moody's: A2; S&P: BBB+) is the third-largest emerging market in the CBI sample due to a pair of green sovereign bonds issued in December 2016 and January 2018. Poland is an emerging market green bond issuer with comparable bonds. Poland's first green bond issued in 2016 came with a small new issue premium, while the green bond issued in January 2018 was priced on the curve. Looking at two other recent issues from Poland, they also both were priced on the curve. Therefore, investors required a small premium for the demonstration green bond, but the second bond priced no different than a nongreen bond. During the pricing process, spreads for each of the green bonds moved 12 basis points (bps) from the initial price talk to final pricing, compared with 5 bps and 7 bps for the vanilla bonds. The order books of the green bonds for which data are available are at least double that of the vanilla bonds. In terms of distribution, 41% and 61% of the two green bonds went to dedicated green funds, thus introducing a new investor category to Poland. This is an important feature for emerging markets because a diverse investor base affords the issuer more flexibility when reopening bonds.

[d] Sustainable Banking Network. 2018. *Creating Green Bond Markets: Insights, Innovations, and Tools from Emerging Markets*. https://www.ifc.org/wps/wcm/connect/55e5e479-b2a8-41a6-9931-93306369b529/SBN+Creating+Green+Bond+Markets+Report+2018.pdf?MOD=AJPERES.

upside risk is the expected slowdown in the pace of the US Federal Reserve's interest rate hikes. The Federal Reserve raised interest rates four times for a total of 100 bps in 2018, but the market currently foresees only two rate hikes totaling 50 bps in 2019. There is some uncertainty about the pace and magnitude of the Federal Reserve's rate hikes. For example, if the US labor market continues to tighten, generating strong upward wage pressures, the Federal Reserve's rate hikes may exceed market expectations. Nevertheless, the market consensus points to a moderation of US monetary policy tightening, especially since US economic growth momentum shows clear signs of slowing. Falling inflation and tightening global liquidity conditions also support a more cautious and gradual approach to raising interest rates. Since the Federal Reserve's forceful interest rate hikes contributed to the financial instability of emerging markets in 2018, we can expect the prospect of gentler, smaller rate hikes to contribute to their financial stability in 2019. That is, a common destabilizing factor that

Box 3: Climate-Vulnerable Developing Economies Face Rising Cost of Debt

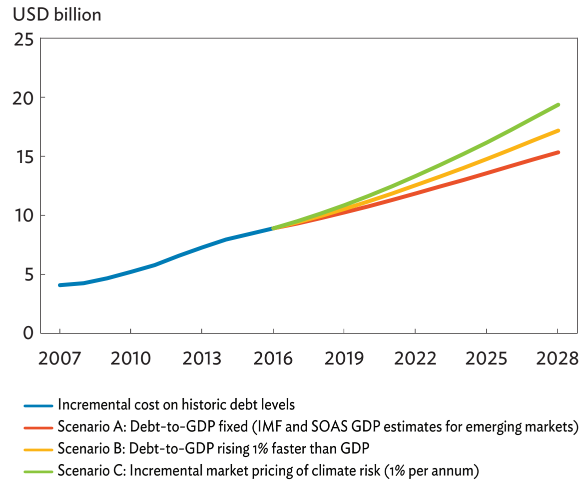
Integrating climate risk into financial decision-making is key to addressing the financial stability risks associated with climate change. It is also vital for pricing the correct cost of carbon-intensive investments and fostering sustainable investment and development. Yet, properly accounting for the risks and costs posed by climate change will have unintended adverse consequences for those who are particularly vulnerable to climate change and lack the resources to invest in resilience.

In a recent report commissioned by the United Nations Environment Programme, researchers from the Imperial College Business School and SOAS University of London conducted the first systematic analysis of the relationship between climate vulnerability, sovereign credit profiles, and the cost of debt. The empirical work indicates that interest rates on the debt of climate-vulnerable developing economies are already higher than they would otherwise be due to climate vulnerability. The estimates suggest that exposure to climate risks has increased the cost of debt for these economies by an average of 117 basis points. This means that for every USD10 that climate-vulnerable developing economies spend on interest payments, they have to pay another USD1 because of this vulnerability.

In absolute terms, this has translated into more than USD40 billion over the past decade in additional interest payments on government debt alone for 40 climate-vulnerable economies. Incorporating higher sovereign borrowing rates into the cost of private external debt, the report estimates that climate risks have cost debt-issuing vulnerable developing economies over USD62 billion in higher interest payments across the public and private sectors. These additional costs are projected to expand to USD146 billion–USD168 billion over the next decade (**Figure B3**).

Such forecasts provide only a rough estimate of the additional cost facing climate-vulnerable developing economies. If anything, these estimates are conservative. The underlying model incorporates only a subset of climate vulnerabilities, which itself is a subset of the wider range of climate risks. It is implicitly biased downward by its backward-looking nature and the exclusion of indirect effects on the economy, higher project hurdle rates, and the fact that these economies' access to financial markets is already limited.

Figure B3: Climate Risk Incremental Cost of Debt for Climate-Vulnerable Developing Economies



GDP = gross domestic product, IMF = International Monetary Fund, SOAS = School of Oriental and African Studies.
Source: Bob Buhr and Ulrich Volz. 2018. *Climate Change and the Cost of Capital in Developing Countries*. https://imperialcollegelondon.app.box.com/s/e8x6t16y9bajb85inazbk5mdrqtvxfzd .

The increased cost of sovereign debt has a broad impact on an economy as it also raises the cost of capital in the private sector. The worsening of both public and private financing costs constrains crucial investments and the development prospects of societies that are already punished by climate change. The cruel irony is that economies that have not contributed to climate change effectively end up paying twice: for the physical damage their economies face and through higher costs of capital. Climate-vulnerable economies face the unenviable task of managing the increased financial costs of climate change as the physical impacts of climate risks themselves accelerate.

An important corollary is that a higher cost of debt makes investment in climate adaptation more difficult. There is a risk that climate-vulnerable developing economies enter a vicious circle: greater climate vulnerability raises the cost of debt, limiting the fiscal room for investment in climate adaptation, which in turn makes these economies even more vulnerable, with further adverse effects on the cost of capital. As financial markets increasingly price climate risks, the risk premia of vulnerable economies, already high, are likely to rise further.

[a] Bob Buhr and Ulrich Volz. 2018. *Climate Change and the Cost of Capital in Developing Countries*. https://imperialcollegelondon.app.box.com/s/e8x6t16y9bajb85inazbk5mdrqtvxfzd.

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Box 3: Climate-Vulnerable Developing Economies Face Rising Cost of Debt *continued*

The increase in the costs of debt servicing associated with climate vulnerability is an issue of concern beyond economics and finance. It touches upon an economy's capacity to fund education, health, and infrastructure, and to enable basic standards of living. Because poorer economies tend to have relatively weak sovereign ratings and higher borrowing rates, they are particularly sensitive to new financial risks. Greater overall debt burdens could prevent poor economies from funding the investments required to protect their citizens and economies from the physical manifestations of climate change at a time when those investments are most needed.

But the report also reveals a bright spot: the research indicates that investing in climate change social preparedness partially offsets the effects of climate vulnerability. This highlights the crucial importance of investments that enhance the adaptation capacity and resilience of climate-vulnerable economies. Such investments will not only help vulnerable economies to better deal with climate risks, they will also help reduce the cost of their borrowing. Markets have been placing the wrong value on efforts that mitigate climate risks. Such a market failure implies that the hurdle rate for adaptation projects are too high, and the returns on such projects are commensurately greater. Helping people address climate risk is clearly a good investment.

International cooperation and adequate investments in climate resilience are needed to mitigate the increased capital costs facing climate-vulnerable developing economies. International support for increased investments in climate adaptation measures and mechanisms to transfer financial risks can help these economies enter a virtuous circle in which greater investments in adaptation will reduce both vulnerability and the cost of debt, providing these economies with extra room to scale up investments to tackle the climate challenge. Without international support, however, the likely outcomes are increased vulnerability, rising costs of capital, and deferred development.

adversely affected emerging markets as a whole is likely to become less of a destabilizing factor and may even become a stabilizing factor.

Partly due to market expectations of more gradual monetary policy tightening by the Federal Reserve, financial markets in emerging economies have been showing signs of greater stability since the fourth quarter of 2018. The Argentine peso and Turkish lira came under intense pressure in the second and third quarters of 2018 as evidenced by the sharp depreciation of both currencies. The immediate cause of the depreciations lay in economy-specific weaknesses that rendered the two markets more vulnerable than others. At the same time, US monetary policy tightening and the consequent strengthening of the US dollar also played a role. The combination of rising US interest rates and a strengthening dollar increased the attractiveness of US assets and reduced the attractiveness of emerging market assets, triggering capital outflows from emerging markets. Tightening global liquidity conditions tempered the risk appetite of global investors toward emerging markets and induced them to discriminate between markets based on economy-specific factors. The prospect of a more gradual monetary normalization by the Federal Reserve will mitigate the loss of investors' risk appetite toward emerging markets. This, in turn, will restrain capital outflows from emerging markets and reduce their vulnerability to shocks.

The most salient risk to global economic growth and financial stability remains global trade tensions. Although trade tensions with the US encompass a wide range of economies, the simmering conflict between the PRC and the US is by far the most significant and consequential. The two countries are the world's two biggest economies and both are major trading partners for all emerging East Asian economies. On 2 December, the two sides agreed to a temporary truce in a bid to deescalate tensions. The ceasefire stipulates that both governments refrain from increasing tariffs or imposing new tariffs for 90 days until 1 March as the two sides work toward a more permanent and comprehensive agreement. The US agreed not to increase tariffs from 10% to 25% on a list of goods previously drawn up. In addition, the US will refrain from imposing tariffs on an additional USD267 billion worth of Chinese goods, as it had threatened earlier. The PRC committed to purchase more US products, especially agricultural and energy products. However, until the PRC and the US manage to work out a lasting settlement, the trade conflict between the two giants will continue to be a major source of uncertainty for global financial markets and the world economy.

Other global trade conflicts can also have serious repercussions. For example, the US is currently threatening automobiles and automobile parts imported from all countries with steep tariffs on national security grounds. If implemented, the tariffs will disrupt and damage one of the world's biggest manufacturing industries. The European Union (EU) has threatened retaliatory tariffs on USD23.0 billion worth of goods. The threatened US auto tariffs follow US tariffs on imports of European aluminum and steel, which were based on the same national security grounds. The EU retaliated with tariffs on EUR2.8 billion worth of US goods. The US auto tariffs will not only hit the EU hard, but also Japan, the Republic of Korea, and other exporters of automobiles and auto parts. Given the sheer size of the EU economy, any significant escalation of trade tensions between the EU and the US will further exacerbate the already large downside risk that global trade tensions pose to the world economy.

Global trade tensions are contributing significantly to another downside risk to global financial stability, namely the slowdown of global growth momentum. The International Monetary Fund has twice downgraded its forecast for global growth, first in October 2018 and again in January 2019. Advanced economies and emerging markets are both expected to grow at a somewhat slower pace than earlier expected. The risk of a further deceleration is especially evident in Europe. In particular, the failure of the EU and the United Kingdom to smoothly arrive at an agreement is causing the Brexit process to drag on and creating a lot of uncertainty in financial markets. A messy and disruptive no-deal exit of the United Kingdom from the EU is likely to trigger instability in financial markets and damage investor sentiment. It would also further drag down growth in Europe, which is already showing signs of weakness. In Asia, the biggest concern is the adverse effect of the trade conflict with the US on the PRC's economic growth. While the PRC's growth was already moderating for a number of reasons, in particular the authorities' efforts to rein in credit expansion, the trade conflict has eroded business confidence and further dampened growth momentum. A sharper-than-expected slowdown in the PRC would harm the region's growth and stability.

The PRC's efforts to control credit growth stem from concerns about rapid debt buildup. According to the International Monetary Fund, global trade tensions and other potential triggers are more likely to lead to a deterioration of investor sentiment and therefore economic growth when the levels of public and private debt are high.[3] In Asia's case, the rapid accumulation of private debt, which consists of both household and corporate debt, is a source of concern in some economies. Since the global financial crisis, the US and many European countries have experienced a decline in their private-debt-to-gross-domestic-product ratios. In contrast, the relative size of private debt has grown rapidly in emerging markets in the post-crisis period, including emerging markets in Asia. One key driver of the private debt buildup in emerging markets has been the low-global-interest-rate environment resulting from the exceptionally accommodative monetary policies of advanced economies. Excessive private debt buildup has obvious implications for financial stability. If debt reaches unsustainable levels and companies or households are unable to repay their debts, banks and the entire financial system will be negatively impacted. The real economy suffers since households cut back consumption and firms slash investment to repair their balance sheets. Recent research from the Asian Development Bank finds that recessions resulting from excessive debt buildup are more damaging to the economy than normal business-cycle recessions. Furthermore, the research finds that rapid corporate debt buildup is as damaging to the economy as rapid household debt buildup.

Overall, the immediate threat of a generalized risk aversion toward emerging markets triggered by severe stress in vulnerable economies has receded somewhat. One significant positive factor for emerging East Asia's financial stability is the prospect of more gradual and cautious interest rate hikes by the Federal Reserve in 2019. Nevertheless, some downside risks still loom on the horizon of the region's financial landscape. Above all, global trade tensions have not yet been fully resolved and their persistence continues to create uncertainty in financial markets, with adverse implications for growth. There are also other downside risks, most notably the moderation of global growth momentum, the buildup of private debt in emerging markets, and fallout from a disorderly Brexit.

[3] International Monetary Fund. 2018. *Global Financial Stability Report—A Decade after the Global Financial Crisis: Are We Safer?* Washington, DC.

Bond Market Developments in the Fourth Quarter of 2018

Size and Composition

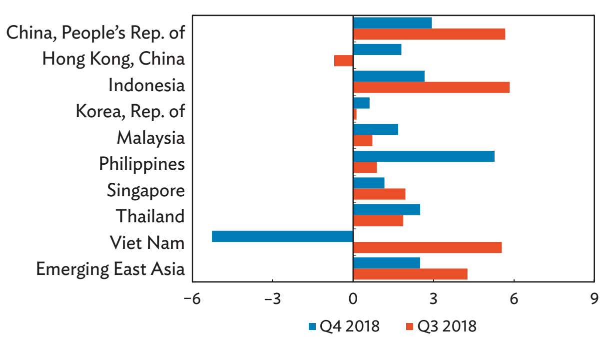
Outstanding local currency bonds in emerging East Asia surpassed USD13 trillion at the end of December.

The size of emerging East Asia's local currency (LCY) bond market reached USD13.1 trillion at the end of December, despite growth moderating in the fourth quarter (Q4) of 2018.[3] Growth slowed to 2.4% quarter-on-quarter (q-o-q) in Q4 2018 from 4.3% q-o-q in the third quarter (Q3) of 2018 (**Figure 1a**). Four out of nine markets in the region posted slower q-o-q growth during the review period. The four markets were the People's Republic of China (PRC), Indonesia, Singapore, and Viet Nam. All other bond markets in the region posted higher q-o-q growth in Q4 2018 than in Q3 2018.

On an annual basis, emerging East Asia's LCY bond market grew 11.9% year-on-year (y-o-y) in Q4 2018, down from the 12.6% y-o-y expansion posted in the previous quarter (**Figure 1b**). All markets in the region posted positive y-o-y growth in Q4 2018. However, the region's aggregate y-o-y growth was affected by a slowdown in the PRC's LCY bond market. Nonetheless, the PRC was still the region's fastest-growing bond market on a y-o-y basis. It was followed by Indonesia and the Philippines, although these growth rates were magnified due to the small base of their respective bond markets.

The PRC continued to have the region's largest LCY bond market, with outstanding bonds of USD9.5 trillion at the end of December. The PRC accounted for 72.2% of emerging East Asia's aggregate LCY bond stock at the end of the review period. However, growth in the PRC bond market moderated to 2.9% q-o-q in Q4 2018

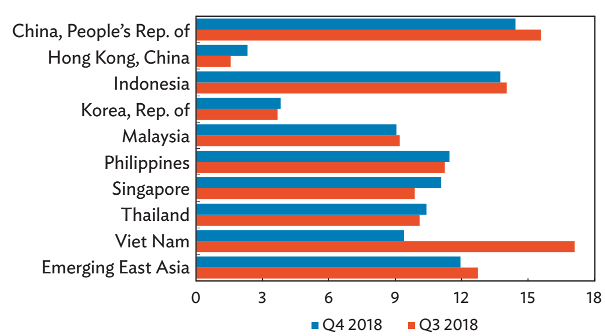
Figure 1a: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2018 (q-o-q, %)



q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 31 December 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).

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



Q3 = third quarter, Q4 = fourth quarter, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Growth rates are calculated from local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 31 December 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).

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

from 5.7% q-o-q in Q3 2018 as a result of slower growth in government bonds. The slowdown in the growth of government bonds stemmed largely from lower issuance volumes, particularly for local government bonds. As issuance quotas for special bonds of local governments had been mostly realized by the end of Q3 2018, there was limited room for new issuance of this type of government bond in Q4 2018. Despite this, the government bond segment still drove much of the q-o-q expansion in Q4 2018. Corporate bonds grew 5.3% q-o-q due to increased issuance volume as some corporates sought to refinance their debt obligations. On an annual basis, the PRC's bond market grew 14.3% y-o-y, with growth broadly balanced between government and corporate bonds.

The Republic of Korea was home to the region's second-largest bond market, with outstanding bonds of USD2.0 trillion at the end of December. Overall growth rose a marginal 0.6% q-o-q in Q4 2018, buoyed by growth in the corporate bond segment. The stock of government bonds contracted 1.5% q-o-q, led by declines in the stock of central government bonds and central bank bonds. Frontloading policy of issuance of bonds and higher tax revenue led the government to pare its issuance of bonds in Q4 2018. The corporate bond stock rose as firms locked in lower borrowing costs ahead of an expected interest rate hike. (The Bank of Korea raised its policy rate by 25 basis points [bps] on 30 November.) The y-o-y growth of the Republic of Korea's bond market was broadly steady in Q4 2018 compared with Q3 2018.

Hong Kong, China's LCY bonds outstanding reached USD249.0 billion at the end of December, up 1.8% q-o-q from the end of September. Much of the growth was driven by corporate bonds, with new corporate issuance exceeding maturities during the quarter. Government bonds also contributed to the overall growth, buoyed by increases in the stock of Hong Kong Special Administrative Region Bonds and Exchange Fund Bills. The stock of Exchange Fund Notes, however, continued to decline as issuance has been limited to the 2-year maturity only. On an annual basis, Hong Kong, China's bond market growth inched up to 2.3% y-o-y in Q4 2018 from 1.5% y-o-y in the previous quarter.

The outstanding LCY bonds of member economies of the Association of Southeast Asian Nations (ASEAN) reached a total of USD1.4 trillion at the end of December, slightly higher than the USD1.3 trillion posted at the end of September.[4] Growth in Q4 2018 (1.9% q-o-q and 10.6% y-o-y) was little changed from Q3 2018 (2.2% q-o-q and 10.6% y-o-y). At the end of December, ASEAN's total government bond stock reached USD0.9 trillion and corporate bonds totaled USD0.4 trillion. The LCY bond market of Thailand was the largest among ASEAN member economies, followed by Malaysia's and Singapore's.

Thailand's LCY bond market reached a size of USD385.0 billion at the end of December, with growth rising 2.5% q-o-q. Government bonds accounted for much of the growth, driven by a lower volume of maturities for Treasury instruments and a higher issuance volume for central bank securities. The corporate bond stock grew marginally from the previous quarter. The Thai bond market posted a 10.3% y-o-y hike in Q4 2018, slightly higher than the 10.0% y-o-y growth in Q3 2018.

Malaysia's LCY bond market expanded to a size of USD338.9 billion at the end of December, with growth picking up from only 0.7% q-o-q in Q3 2018 to 1.6% q-o-q in Q4 2018. The higher growth was led by government bonds, particularly central government bonds as issuance volume exceeded maturity. The stock of central bank bills also rose but to a lesser extent. Growth in corporate bonds was broadly similar to that of central government bonds, rising 1.3% q-o-q in Q4 2018. Growth in Malaysia's bond market in Q4 2018 was 8.9% y-o-y.

Malaysia continued to account for the largest *sukuk* (Islamic bond) market in emerging East Asia, with about 60% of the aggregate bond stock in Malaysia structured following Islamic principles. *Sukuk* comprised about 46% of its government bond market, while corporate *sukuk* accounted for an even larger share of 76% of the corporate bond segment.

Singapore's outstanding LCY bonds totaled USD295.5 billion at the end of December, with growth rising 1.2% q-o-q in Q4 2018. Growth was largely driven by government bonds, particularly increases in the stock of Singapore Government Securities bonds as there was an absence of maturities during the quarter. On the other hand, the corporate bond stock was broadly unchanged,

[4] LCY bond statistics for ASEAN include the markets of Indonesia, Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

rising marginally by 0.7% q-o-q. Between Q4 2017 and Q4 2018, growth in the Singapore bond market accelerated to 11.0% y-o-y.

In Indonesia, LCY bonds outstanding reached USD197.2 billion at the end of December, up 2.7% q-o-q, which was slower than the 5.9% q-o-q growth posted in Q3 2018. Growth was driven largely by increases in the stock of Treasury instruments and, to a lesser extent, central bank bills. The government continued to issue a higher volume of Treasury instruments than its targeted amount, a trend also observed in Q3 2018. This led the government to fulfill its funding requirements ahead of time, resulting in the cancellation of four scheduled auctions in Q4 2018. Central bank bills also contributed to the growth, with the addition of Bank Indonesia *sukuk* as a monetary policy tool beginning in December. In contrast, the corporate bond stock slightly declined, as the volume of maturing bonds exceeded issuance in Q4 2018. On an annual basis, growth of the Indonesian bond market moderated to 13.7% y-o-y from 13.9% y-o-y in Q3 2018.

The Philippines' bond market recorded the fastest q-o-q growth rate among the region's LCY bond markets in Q4 2018. Its outstanding bonds total climbed to USD116.0 billion, with growth rising from 0.9% q-o-q in Q3 2018 to 5.3% q-o-q in Q4 2018. Government bonds expanded 4.1% q-o-q on account of increased issuance. The government took advantage of strong demand and issued more bonds via a tap facility as investor sentiments improved on expectations that the United States (US) Federal Reserve would engage in fewer rate hikes in 2019 and of a pause in rate hikes by the Bangko Sentral ng Pilipinas (BSP). Corporate bonds also helped to boost growth as a number of commercial banks were encouraged to tap the bond market for funding following the relaxation of rules by the BSP for the issuance of bank bonds. On an annual basis, the Philippine bond market rose 11.4% y-o-y in Q4 2018.

Viet Nam's LCY bond market was the sole market in the region that recorded a q-o-q contraction during the review period. LCY bonds outstanding slipped to USD50.9 billion at the end of December, falling 5.3% q-o-q due mainly to a decline in government bonds. All outstanding central bank bills had matured by the end of December, leading to the decline of 6.2% q-o-q in the government bond total. While corporate bonds grew slightly, it was not enough to pull up the overall bond market. On an annual basis, growth in Viet Nam's bond market decelerated to 9.3% y-o-y in Q4 2018 from 17.0% y-o-y in Q3 2018.

At the end of December, the government bond market in emerging East Asia accounted for about two-thirds of the regional stock, with its overall size rising to USD8.8 trillion (**Table 1**). Growth in the region's government bond market moderated to 1.7% q-o-q and 12.5% y-o-y in Q4 2018 from 4.9% q-o-q and 14.6% y-o-y in Q3 2018. The largest government bond markets in the region were those of the PRC (USD6.8 trillion) and the Republic of Korea (USD0.8 trillion). Together, these two markets accounted for 87.5% of emerging East Asia's LCY government bond total at the end of December.

Among ASEAN member economies, the largest government bond market at the end of December was that of Thailand (USD278.0 billion). Next were the markets of Malaysia (USD178.7 billion) and Singapore (USD179.3 billion), followed by Indonesia (USD168.6 billion). The smallest government bond markets were those of Viet Nam and the Philippines, with each of their LCY government bonds outstanding still below the USD100 billion mark.

Emerging East Asia's corporate bond total rose to USD4.3 trillion at the end of December, representing a 33.2% share of the regional LCY bond stock. Unlike the trend in government bonds, growth in the region's corporate bond market accelerated in Q4 2018 relative to Q3 2018 on both a q-o-q and y-o-y basis. The PRC and the Republic of Korea accounted for the largest corporate bond markets in the region, with a combined 87.6% of the regional corporate total. Among ASEAN economies, Malaysia was home to the largest corporate bond market, followed by Singapore and Thailand.

As a share of the region's gross domestic product (GDP), the size of emerging East Asia's LCY bond market was equivalent to 73.3% in Q4 2018 compared with 73.2% in the prior quarter (**Table 2**). The share of government bonds relative to regional GDP slipped to 49.0% in Q4 2018 from 49.3% in Q3 2018. The share of corporate bonds relative to GDP inched up to 24.3% from 24.0% in the same period. The Republic of Korea led the region in terms of its bonds-to-GDP share at 125.5% at the end of December.

Table 1: Size and Composition of Local Currency Bond Markets

	Q4 2017		Q3 2018		Q4 2018		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
							Q4 2017		Q4 2018		Q4 2017		Q4 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	8,739	100.0	9,195	100.0	9,453	100.0	4.0	14.9	2.9	14.3	6.3	22.6	2.8	8.2
Government	6,327	72.4	6,707	72.9	6,837	72.3	4.4	19.2	2.1	14.2	6.7	27.2	1.9	8.1
Corporate	2,413	27.6	2,488	27.1	2,615	27.7	2.9	4.9	5.3	14.6	5.2	12.0	5.1	8.4
Hong Kong, China														
Total	244	100.0	245	100.0	249	100.0	1.1	4.1	1.8	2.3	1.0	3.3	1.8	2.0
Government	148	60.5	147	60.3	149	59.9	3.3	8.4	1.2	1.3	3.3	7.5	1.2	1.1
Corporate	96	39.5	97	39.7	100	40.1	(2.2)	(1.8)	2.7	3.7	(2.2)	(2.5)	2.7	3.5
Indonesia														
Total	184	100.0	185	100.0	197	100.0	2.9	14.0	2.7	13.7	2.3	13.3	6.3	7.1
Government	156	84.5	157	84.8	169	85.5	2.1	12.3	3.5	15.0	1.5	11.6	7.1	8.3
Corporate	29	15.5	28	15.2	29	14.5	7.7	24.3	(1.7)	6.3	7.0	23.5	1.8	0.2
Korea, Rep. of														
Total	2,020	100.0	2,005	100.0	2,014	100.0	0.5	4.3	0.6	3.8	7.8	17.9	0.5	(0.3)
Government	827	40.9	837	41.7	823	40.8	0.3	4.2	(1.5)	3.5	7.6	17.7	(1.7)	(0.5)
Corporate	1,193	59.1	1,168	58.3	1,191	59.2	0.6	4.4	2.1	4.0	8.0	18.0	2.0	(0.1)
Malaysia														
Total	318	100.0	333	100.0	339	100.0	1.8	10.2	1.6	8.9	6.2	22.2	1.7	6.6
Government	166	52.3	175	52.6	179	52.7	0.3	6.2	1.9	9.8	4.7	17.8	2.0	7.5
Corporate	152	47.7	158	47.4	160	47.3	3.5	14.9	1.3	8.0	7.9	27.4	1.5	5.7
Philippines														
Total	110	100.0	107	100.0	116	100.0	5.1	12.5	5.3	11.4	7.2	11.9	8.2	5.6
Government	89	81.4	85	79.3	91	78.4	5.8	12.0	4.1	7.4	7.9	11.4	7.1	1.8
Corporate	20	18.6	22	20.7	25	21.6	2.2	14.4	9.7	28.9	4.3	13.8	12.8	22.3
Singapore														
Total	272	100.0	291	100.0	295	100.0	0.1	7.9	1.2	11.0	1.7	16.9	1.5	8.8
Government	166	61.1	176	60.5	179	60.7	0.6	14.9	1.5	10.2	2.3	24.4	1.8	8.0
Corporate	106	38.9	115	39.5	116	39.3	(0.8)	(1.4)	0.7	12.3	0.8	6.8	1.0	10.0
Thailand														
Total	346	100.0	376	100.0	385	100.0	2.2	3.9	2.5	10.3	13.1	24.6	2.5	11.2
Government	252	72.7	269	71.7	278	72.2	2.7	3.3	3.3	9.6	11.3	21.0	3.3	10.5
Corporate	95	27.3	106	28.3	107	27.8	1.0	5.6	0.5	12.2	18.0	35.5	0.5	13.1
Viet Nam														
Total	48	100.0	53	100.0	51	100.0	1.4	7.9	(5.3)	9.3	1.5	8.2	(4.7)	7.1
Government	44	92.9	49	92.5	47	91.6	(0.2)	6.6	(6.2)	7.8	(0.04)	6.9	(5.6)	5.6
Corporate	3	7.1	4	7.5	4	8.4	27.0	29.3	6.2	29.4	27.2	29.6	6.9	26.7
Emerging East Asia														
Total	12,281	100.0	12,791	100.0	13,099	100.0	3.1	12.0	2.4	11.9	6.4	20.9	2.4	6.7
Government	8,174	66.6	8,604	67.3	8,751	66.8	3.7	16.0	1.7	12.5	6.6	24.7	1.7	7.1
Corporate	4,106	33.4	4,187	32.7	4,348	33.2	2.0	5.0	3.9	10.9	6.1	14.2	3.8	5.9
Japan														
Total	10,212	100.0	10,233	100.0	10,668	100.0	0.6	2.2	0.6	1.7	0.4	6.0	4.3	4.5
Government	9,520	93.2	9,545	93.3	9,939	93.2	0.6	2.4	0.5	1.6	0.5	6.2	4.1	4.4
Corporate	692	6.8	688	6.7	729	6.8	(0.3)	(0.6)	2.2	2.6	(0.5)	3.1	6.0	5.4
Memo Item: India														
Total	1,416	100.0	1,391	100.0	1,466	100.0	1.0	3.6	1.5	13.1	3.2	10.1	5.4	3.6
Government	1,002	70.7	999	71.8	1,044	71.2	0.4	(0.9)	0.5	13.8	2.6	5.4	4.5	4.2
Corporate	414	29.3	392	28.2	423	28.8	2.3	16.3	3.9	11.4	4.6	23.6	7.9	2.0

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

Notes:

1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates. For Japan, Q4 2018 data 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 31 December 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); Japan (Japan Securities Dealers Association); and India (Securities and Exchange Board of India and Bloomberg LP).

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

	Q4 2017	Q3 2018	Q4 2018
China, People's Rep. of			
Total	69.3	71.8	72.2
Government	50.2	52.4	52.2
Corporate	19.1	19.4	20.0
Hong Kong, China			
Total	71.6	68.1	68.5
Government	43.3	41.1	41.1
Corporate	28.3	27.1	27.5
Indonesia			
Total	18.4	19.0	19.1
Government	15.5	16.1	16.4
Corporate	2.9	2.9	2.8
Korea, Rep. of			
Total	124.6	125.7	125.5
Government	51.0	52.5	51.3
Corporate	73.6	73.2	74.3
Malaysia			
Total	95.0	97.7	98.0
Government	49.7	51.4	51.7
Corporate	45.3	46.3	46.3
Philippines			
Total	34.6	34.2	35.0
Government	28.2	27.1	27.5
Corporate	6.5	7.1	7.5
Singapore			
Total	78.0	82.3	82.7
Government	47.7	49.8	50.2
Corporate	30.3	32.5	32.5
Thailand			
Total	73.0	75.3	76.3
Government	53.0	54.0	55.1
Corporate	20.0	21.4	21.2
Viet Nam			
Total	21.6	23.2	21.3
Government	20.0	21.5	19.5
Corporate	1.5	1.7	1.8
Emerging East Asia			
Total	71.1	73.2	73.3
Government	47.3	49.3	49.0
Corporate	23.8	24.0	24.3
Japan			
Total	211.1	211.9	213.2
Government	196.8	197.7	198.6
Corporate	14.3	14.3	14.6

GDP = gross domestic product, Q3 = third quarter, Q4 = fourth quarter.
Notes:
1. Data for GDP are from CEIC.
2. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates. For Japan, Q4 2018 data 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); Viet Nam (Bloomberg LP and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

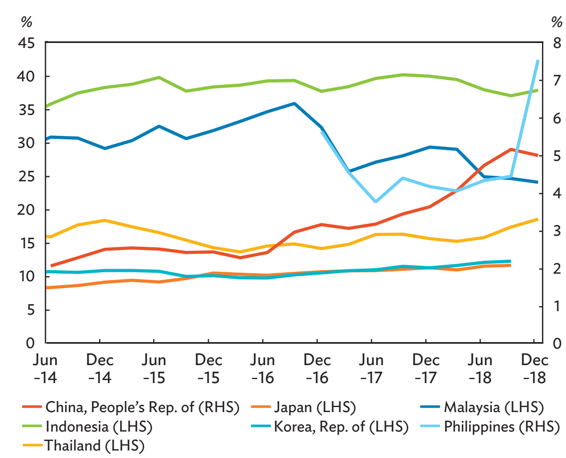
The share of foreign investor holdings in government bonds rose in most emerging East Asian economies in Q4 2018.

The share of foreign investor holdings in the LCY governments bonds of emerging East Asian economies rose for all markets in the region (in which data are available) except the PRC and Malaysia (**Figure 2**). Expectations that the Federal Reserve would slow its pace of monetary tightening in 2019 lifted investor sentiments toward emerging East Asian LCY bonds at the end of 2018.

The largest increase came in the Philippines, where the foreign investor holdings share jumped to 7.5% at the end of December from 4.4% at the end of September. In addition to the expected slowdown in Federal Reserve tightening, lower inflation expectations and a likely pause in BSP monetary tightening also helped boost demand.

Thailand had the next largest increase with its share of foreign holdings rising to 18.5% from 17.3% in the same period. Thailand, benefitting from strong economic fundamentals, has experienced an upward trend in its foreign investor share since June 2018. Indonesia's share of foreign holdings rose to 37.7% from 36.9% in the same period.

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 end-December 2018 except for Japan and the Republic of Korea (end-September 2018).
Source: *AsianBondsOnline*.

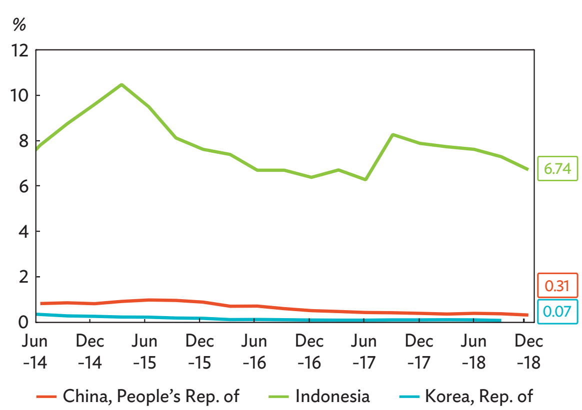
In contrast, the PRC's foreign holdings share fell to 5.0% from 5.1%, reversing the trend of a continuously rising share in place since 2016. Sentiments in the PRC's bond market turned negative after the Federal Reserve hinted of a slowdown in its monetary policy tightening. Uncertainties regarding the domestic economy and the PRC–US trade dispute, which led to a depreciation of the renminbi, also contributed.

Nonresident holdings of corporate bonds, for which data are available, declined between the end of December and the end of September (**Figure 3**). Foreign investor holdings of corporate bonds remained relatively low compared with government bonds, owing to the smaller size of the market and its illiquid nature.

Foreign bond inflows into emerging East Asia's LCY bond markets continued in Q4 2018.

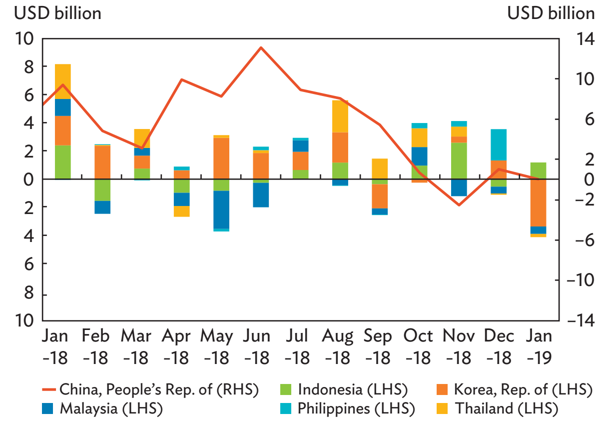
Emerging East Asia's LCY bond markets continued to attract foreign funds in Q4 2018, although the aggregate amount was lower than in Q3 2018. Investor sentiments turned positive as the Federal Reserve hinted at a slower pace of rate hikes in 2019. Foreign fund inflows were observed in all markets in Q4 2018 for which data are available, except the PRC and Malaysia (**Figure 4**).

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



Note: Data as of end-December 2018 except for the Republic of Korea (end-September 2018).
Sources: People's Republic of China (*Wind Information*), Indonesia (Otoritas Jasa Keuangan), and Republic of Korea (The Bank of Korea).

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 end-January 2019 except for the PRC and the Philippines (end-December 2018).
3. Figures were computed based on 31 December 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).

Indonesia gained the most as it attracted a net increase in offshore funds worth USD3.03 billion into its LCY bond market. Nonresident investors picked up Indonesian bonds amid renewed interest in emerging market assets. With inflation contained, investors in Indonesian bonds enjoyed high real interest returns. Sentiments were also boosted by the combined efforts of regulators to ensure stability in Indonesian financial markets.

The Philippines lured global funds worth USD2.99 billion during the quarter in review, following renewed optimism that the BSP would rein in inflation and pause its policy rate hikes. (The central banks of Indonesia and the Philippines had both actively engaged in monetary policy tightening earlier in 2018.) The Philippines was also the sole market in the region for which inflows were recorded in all 3 months of Q4 2018.

Net foreign bond inflows into the Thai bond market reached USD2.0 billion in Q4 2018, while the Republic of Korea's bond market gained USD1.5 billion in foreign investment. The only regional bond markets to experience net foreign outflows during the quarter were the PRC's and Malaysia's.

For full-year 2018, net foreign bond inflows in emerging East Asia's bond markets reached a total of USD95.5 billion. All regional markets posted net foreign bond inflows in 2018 except Malaysia's.

Emerging East Asia's aggregate LCY issuance declined in Q4 2018, with lower debt sales in most economies in the region.

Emerging East Asia's total LCY bond issuance in Q4 2018 amounted to USD1.1 trillion, reflecting a decline of 18.7% q-o-q and reversing the 13.7% q-o-q growth in Q3 2018 (**Table 3**). The contraction during the quarter was due to lower bond sales from the government that offset higher issuance from corporates. The region's issuance in Q4 2018 comprised 58.5% government bonds and 41.5% corporate bonds. Lower debt issuance was seen in all economies in the region except Hong Kong, China; the Republic of Korea; Malaysia; and the Philippines. The PRC and Indonesia had the largest dips in issuance, with declines of 29.7% q-o-q each; their combined issuance in Q4 2018 made up 55.8% of the regional total. On an annual basis, total LCY issuance increased 7.1% y-o-y, lifted by corporate debt issuance as government bond issuance declined.

Total LCY bond issuance in the government sector was weak in Q4 2018, declining 32.6% q-o-q from a growth of 16.0% q-o-q in the previous quarter. Issuance amounted to USD663.5 billion amid lower government bond sales in all economies in the region except Hong Kong, China; Malaysia; the Philippines; and Thailand. The PRC had the largest decline in issuance of 49.0% q-o-q, while the Philippines had the largest increase at 14.6% q-o-q. Both central bank and Treasury and other government securities registered quarterly declines in Q4 2018 in contrast to increases in Q3 2018. On an annual basis, government debt issuance fell 4.6% y-o-y.

The corporate sector's total LCY debt issuance amounted to USD471.1 billion in Q4 2018, growing 14.6% q-o-q. This growth was faster compared with 8.3% q-o-q in Q3 2018, indicating vibrant issuance activity in the private sector. This was largely driven by the PRC and the Republic of Korea, which together comprised about 92.5% of the region's total corporate issuance in Q4 2018 with growth rates of 11.9% q-o-q and 33.3% q-o-q, respectively. Firms in the PRC tapped the bond market for their refinancing needs, while firms in the Republic of Korea issued debt ahead of an expected interest rate hike from the Bank of Korea. Malaysia and the Philippines also registered positive issuance growth in Q4 2018. On an aggregate basis, regional corporate issuance increased 29.4% y-o-y during the quarter.

The PRC's total LCY bond issuance fell 29.7% q-o-q in Q4 2018 following growth of 27.4% q-o-q in Q3 2018. The PRC posted the largest decline in the region in Q4 2018 alongside Indonesia, whose issuance declined by the same magnitude. Total debt sales in the PRC in Q4 2018 were lower at USD622.8 billion, dragged down by the 49.0% q-o-q decrease in government issuance. Lower issuance from local governments was seen during the quarter as they had nearly fully utilized their annual issuance quotas in the previous 3 quarters. By the end of Q3 2018, about 92% of the local government debt sales quota had already been reached.[5] Local governments are expected to accelerate their bond issuance in 2019 to fund infrastructure projects and help revitalize the slowing economy. Government bonds comprised 49.6% of total issuance in the PRC in Q4 2018.

The corporate sector, on the hand, saw increased issuance of 11.9% q-o-q that totaled USD314.1 billion. The corporate bonds will largely be used for refinancing that was necessitated by a large volume of bond maturities in Q1 2019 as well as the weakening Chinese renminbi, which made borrowing costs in USD-denominated bonds more expensive.

The Republic of Korea's LCY bond issuance in Q4 2018 reached USD181.6 billion, increasing 7.2% q-o-q. The Republic of Korea's issuance growth helped moderate the regional decline as being the second-largest issuer next to the PRC, comprising 16.0% of the market. Issuance from the government and corporate sectors moved in opposite directions, with the former registering a decline and the latter registering an increase. Government issuance totaled USD59.9 billion on a decline of 23.3% q-o-q, accelerating from a decrease of 7.4% q-o-q in Q3 2018.

[5] Bloomberg. 2018. *China's $195 Billion Debt Splurge Has Less Bang Than You Might Think*. 22 October. https://www.bloomberg.com/news/articles/2018-10-21/china-s-195-billion-debt-splurge-has-less-bang-than-you-think.

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

	Q4 2017		Q3 2018		Q4 2018		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2018 q-o-q	Q4 2018 y-o-y	Q4 2018 q-o-q	Q4 2018 y-o-y
China, People's Rep. of										
Total	605	100.0	887	100.0	623	100.0	(29.7)	8.9	(29.8)	3.0
Government	374	61.8	606	68.3	309	49.6	(49.0)	(12.7)	(49.1)	(17.4)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	374	61.8	606	68.3	309	49.6	(49.0)	(12.7)	(49.1)	(17.4)
Corporate	231	38.2	281	31.7	314	50.4	11.9	43.7	11.7	36.0
Hong Kong, China										
Total	113	100.0	112	100.0	113	100.0	1.4	0.4	1.4	0.2
Government	104	91.9	104	92.9	106	93.9	2.5	2.6	2.4	2.3
Central Bank	103	91.2	104	92.7	105	92.8	1.6	2.2	1.5	2.0
Treasury and Other Govt.	0.8	0.7	0.2	0.2	1	1.1	427.8	46.2	427.5	45.8
Corporate	9	8.1	8	7.1	7	6.1	(12.3)	(24.0)	(12.4)	(24.2)
Indonesia										
Total	13	100.0	15	100.0	11	100.0	(29.7)	(8.4)	(27.2)	(13.7)
Government	9	70.1	13	85.0	10	91.3	(24.5)	19.2	(21.8)	12.3
Central Bank	0.1	1.1	2	13.9	2	15.4	(21.9)	1,161.4	(19.1)	1,088.2
Treasury and Other Govt.	9	69.0	11	71.1	8	75.9	(25.0)	0.7	(22.4)	(5.2)
Corporate	4	29.9	2	15.0	0.9	8.7	(59.3)	(73.3)	(57.8)	(74.9)
Korea, Rep. of										
Total	171	100.0	170	100.0	182	100.0	7.2	10.9	7.1	6.5
Government	66	38.5	78	46.1	60	33.0	(23.3)	(5.2)	(23.4)	(8.9)
Central Bank	33	19.6	34	20.3	33	17.9	(5.5)	1.3	(5.7)	(2.7)
Treasury and Other Govt.	32	18.9	44	25.7	27	15.1	(37.3)	(11.9)	(37.4)	(15.3)
Corporate	105	61.5	91	53.9	122	67.0	33.3	20.9	33.1	16.2
Malaysia										
Total	23	100.0	22	100.0	25	100.0	11.1	10.1	11.2	7.8
Government	9	38.7	14	61.7	14	57.7	3.9	64.3	4.0	60.8
Central Bank	1	6.5	6	28.8	7	30.0	15.8	411.7	16.0	400.9
Treasury and Other Govt.	7	32.2	7	32.9	7	27.7	(6.6)	(5.4)	(6.5)	(7.4)
Corporate	14	61.3	9	38.3	10	42.3	22.6	(24.1)	22.8	(25.7)
Philippines										
Total	9	100.0	5	100.0	7	100.0	43.4	(19.9)	47.4	(24.0)
Government	9	93.6	4	81.8	5	65.4	14.6	(44.0)	17.8	(46.9)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	9	93.6	4	81.8	5	65.4	14.6	(44.0)	17.8	(46.9)
Corporate	0.6	6.4	0.9	18.2	2	34.6	173.3	332.1	180.9	309.8
Singapore										
Total	90	100.0	106	100.0	100	100.0	(5.9)	13.5	(5.6)	11.3
Government	87	96.7	102	95.5	97	96.9	(4.5)	13.8	(4.2)	11.6
Central Bank	83	91.8	95	89.7	94	93.2	(2.2)	15.3	(1.9)	13.0
Treasury and Other Govt.	4	4.9	6	5.8	4	3.7	(39.3)	(13.6)	(39.1)	(15.3)
Corporate	3	3.3	5	4.5	3	3.1	(35.9)	6.0	(35.7)	3.9
Thailand										
Total	64	100.0	72	100.0	70	100.0	(2.9)	9.1	(2.9)	9.9
Government	50	78.4	58	80.4	59	84.3	1.9	17.3	1.8	18.2
Central Bank	43	67.1	50	69.7	53	75.7	5.4	23.1	5.4	24.0
Treasury and Other Govt.	7	11.3	8	10.7	6	8.6	(21.6)	(16.9)	(21.6)	(16.3)
Corporate	14	21.6	14	19.6	11	15.7	(22.2)	(20.8)	(22.2)	(20.2)

continued on next page

Table 3 *continued*

	Q4 2017		Q3 2018		Q4 2018		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2018 q-o-q	Q4 2018 y-o-y	Q4 2018 q-o-q	Q4 2018 y-o-y
Viet Nam										
Total	15	100.0	7	100.0	3	100.0	(50.1)	(76.3)	(49.8)	(76.8)
Government	14	94.3	6	94.6	3	90.3	(52.3)	(77.3)	(52.0)	(77.8)
Central Bank	13	86.2	5	69.1	0.7	19.1	(86.2)	(94.8)	(86.1)	(94.9)
Treasury and Other Govt.	1	8.0	2	25.4	2	71.2	39.8	109.8	40.7	105.5
Corporate	0.8	5.7	0.4	5.4	0.3	9.7	(10.7)	(59.9)	(10.2)	(60.7)
Emerging East Asia										
Total	1,102	100.0	1,396	100.0	1,135	100.0	(18.7)	7.1	(18.7)	2.9
Government	721	65.4	985	70.5	663	58.5	(32.6)	(4.6)	(32.6)	(8.0)
Central Bank	277	25.1	297	21.3	294	25.9	(1.1)	7.6	(1.0)	6.4
Treasury and Other Govt.	445	40.3	688	49.2	369	32.5	(46.3)	(12.5)	(46.3)	(16.9)
Corporate	381	34.6	412	29.5	471	41.5	14.6	29.4	14.5	23.6
Japan										
Total	406	100.0	397	100.0	411	100.0	0.0	(1.4)	3.7	1.3
Government	378	93.0	359	90.5	372	90.5	0.0	(4.1)	3.7	(1.4)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	378	93.0	359	90.5	372	90.5	0.0	(4.1)	3.7	(1.4)
Corporate	28	7.0	38	9.5	39	9.5	0.0	33.9	3.7	37.5

( ) = negative, – = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Corporate bonds include issues by financial institutions.
2. For Japan , Q4 2018 issuance data are based on *AsianBondsOnline* estimates.
3. Bloomberg LP end-of-period LCY–USD rates are used.
4. For LCY-base, emerging East Asia growth figures are based on 31 December 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).

The declines in the second half of the year were a result of the frontloading of debt sales in the first half of the year. In contrast, corporates in the Republic of Korea increased their issuance activity 33.3% q-o-q to reach USD121.7 billion. The double-digit growth came during a prolonged low-interest-rate environment ahead of an expected policy rate hike from the Bank of Korea, which happened on 30 November. Corporate bond issuance comprised a 67.0% share of the Republic of Korea's total issuance in Q4 2018, the highest in the region, that provided a lift to the region's issuance total during the quarter despite the decline in government issuance.

Hong Kong, China's total LCY debt issuance increased 1.4% q-o-q in Q4 2018 after declining 3.7% q-o-q in Q3 2018, lifted mainly by government issuance. Total issuance amounted to USD113.4 billion, making Hong Kong, China the third-largest source of issuance in emerging East Asia with a market share of 10.0%. Debt sales from the government grew a modest 2.5% q-o-q due to higher issuance of Exchange Fund Bills and Hongkong Special Administrative Region bonds. Corporate bond issuance decreased 12.3% q-o-q to USD6.9 billion in Q4 2018. While still registering a decline, this represented an improvement from the 36.4% q-o-q drop in Q3 2018.

ASEAN member economies issued debt amounting to USD216.8 billion in Q4 2018, which accounted for 19.1% of the total issuance in emerging East Asia. Singapore was the largest issuer among the ASEAN economies during the quarter, while Viet Nam was the smallest. Only Malaysia and the Philippines saw q-o-q increases in total issuance in Q4 2018, supported by both the government and corporate segments. Issuance in the ASEAN region during the quarter primarily comprised government debt with an 86.9% share of the total; corporate debt comprised the remaining 13.1% share.

Indonesia's total LCY bond issuance fell 29.7% q-o-q in Q4 2018 following a surge of 94.6% q-o-q in the preceding quarter. Total issuance during the quarter amounted to only USD10.9 billion on lower debt sales in both the government and corporate segments. Government bond issuance dropped 24.5% q-o-q to USD9.9 billion after more than doubling in Q3 2018. The q-o-q decrease was due to a high base for issuance in Q3 2018 as the government sought to finance the budget deficit and Bank Indonesia continued to issue conventional Sertifikat Bank Indonesia in large volumes. In November, the Ministry of Finance called off the four remaining bond auctions scheduled for 2018, citing attainment of the government's issuance plan and a budget deficit that was smaller than the previous target. Corporate issuance in Q4 2018 fell more rapidly than government issuance, declining 59.3% q-o-q to USD0.9 billion. Issuance in the corporate sector comprised 8.7% of total issuance in the market in Q4 2018.

Malaysia registered an 11.1% q-o-q increase in LCY bond issuance in Q4 2018, bringing the total to USD24.7 billion and accelerating from 1.4% q-o-q in the previous quarter. The tally in Q4 2018 was lifted by higher issuances in both the government and corporate segments. The government issued a total of USD14.3 billion in Q4 2018, reflecting modest growth of 3.9% q-o-q on increased central bank securities issuance, while issuance from the central government, mainly comprising Malaysian Government Securities and Government Investment Issues, declined 6.6% q-o-q. Corporate bond issuance increased more rapidly than for government bonds, gaining 22.6% q-o-q in Q4 2018 after declining 11.4% q-o-q in Q3 2018. While Malaysia's corporate issuance registered a q-o-q increase, there was a declining trend in debt sales between October and December. Issuance in October amounted to MYR18.8 billion, nearly twice as much as December's MYR9.6 billion. This intra-quarterly decline matched forecasts of a slowdown in corporate issuance, particularly infrastructure- and construction-related bonds, as a result of the government's project-rationalization stance.

The Philippines recorded the fastest q-o-q growth in total LCY bond issuance in Q4 2018 among all emerging East Asian economies. Issuance in the bond market increased 43.4% q-o-q, amounting to USD7.2 billion, a turnaround from the 37.8% q-o-q decline in Q3 2018. LCY bond issuance from the government in Q4 2018 increased 14.6% q-o-q, underpinned by higher debt issuance than originally planned with the opening of the Bureau of the Treasury's tap facility to take advantage of strong demand and low yields.[6] In the corporate sector, issuance surged to USD2.5 billion in Q4 2018 from USD0.9 billion in Q3 2018 after the BSP eased bank regulation for issuing corporate bonds. In Q4 2018, banks raised a total of USD1.4 billion, up from USD0.4 billion in the previous quarter. The Philippines comprised 0.6% of total issuance in the region in Q4 2018, the smallest share next to Viet Nam.

In Singapore, LCY bond issuance in Q4 2018 declined 5.9% q-o-q, reversing the 3.7% q-o-q growth in Q3 2018. Issuance during the quarter amounted to USD100.5 billion, largely comprising government bonds. Issuance from the government declined 4.5% q-o-q to USD97.4 billion, following a marginal increase of 0.7% q-o-q in Q3 2018. Monetary Authority of Singapore bills almost entirely made up the government issuance total in Q4 2018, amounting to USD93.6 billion. These bills are primarily used for reference pricing for financial assets. Corporate issuance declined by a larger magnitude than issuance of government bonds, falling 35.9% q-o-q, although the corporate segment only accounted for a minor share of 3.1% of total issuance in Q4 2018.

Thailand's total LCY bond issuance declined 2.9% q-o-q to USD70.2 billion in Q4 2018, reversing the growth of 7.3% q-o-q in Q3 2018. Issuance was weighed down by the decline in corporate debt sales, while the increase in government issuance during the quarter was minimal. Government debt sales went up 1.9% q-o-q to USD59.1 billion, driven almost entirely by issuance of Bank of Thailand securities amounting to USD53.1 billion. In the corporate sector, issuance declined 22.2% q-o-q to USD11.0 billion from an increase of 24.4% q-o-q in the previous quarter. The reversal can be attributed to the high base in Q3 2018 when several merger and acquisition deals were conducted, including Thailand's biggest corporate debt sales yet, from Thai Beverage, amounting to THB77.0 billion.

Viet Nam's total debt sales in Q4 2018 declined 50.1% q-o-q to USD3.4 billion on lower issuance in both the government and corporate segments. It was the third consecutive quarter that Viet Nam recorded negative growth in issuance. Government debt issuance, which made up 90.3% of total issuance in Q4 2018, declined 52.3% q-o-q to USD3.1 billion. Issuance from the central

[6] The Bureau of the Treasury's tap facility allows Government Securities Eligible Dealers to access bonds after the initial primary auction.

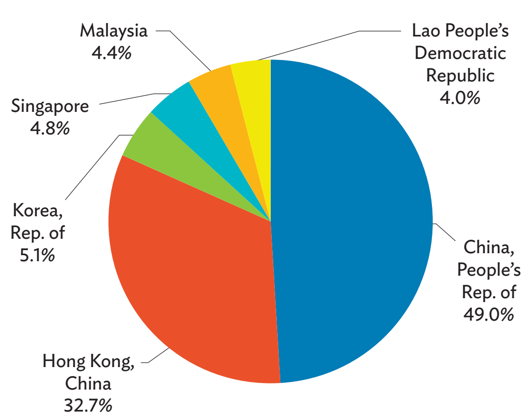
bank declined 86.2% q-o-q to USD0.7 billion, while that from the Treasury and other government entities increased 39.8% q-o-q. This resulted in a larger market share for the latter compared with the former, at 71.2% and 19.1%, respectively, in contrast to Q3 2018 when the opposite was the case. The increased debt sales from Treasury and other government entities were led by government-guaranteed bonds. Issuance from the corporate sector also declined in Q4 2018, falling 10.7% q-o-q to USD0.3 billion.

Cross-border bond issuance in emerging East Asia reached USD5.4 billion in Q4 2018.

Total cross-border issuance in emerging East Asia reached USD5.4 billion in Q4 2018, up 29.1% q-o-q and 1.4% y-o-y, mainly on large issuances of HKD-denominated bonds amounting to USD2.9 billion and accounting for 54.3% of the total cross-border issuance for the quarter (**Figure 5**). The single-largest issuance in the region was an HKD7.8 billion (USD1.0 billion) 5-year special purpose bond carrying a 4.5% coupon, issued in December by Smart Insight, which is wholly owned by Country Garden Holdings. The next two largest issuances were also from the PRC, together amounting to about USD0.9 billion. These three issuances accounted for 55.5% of the region's total cross-border issuance for the quarter.

Korea Land and Housing Corporation issued a bond worth HKD1.3 billion (USD0.2 billion) with a tenor of 3 years and a coupon rate of 2.87%. The Republic of Korea's cross-border issuances accounted for 5.1% of the region's total cross-border issuance for the quarter.

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



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

Issuers from three ASEAN economies— Singapore, Malaysia, and the Lao People's Democratic Republic (Lao PDR)—raised a combined USD0.7 billion worth of issuance in Q4 2018, comprising bonds denominated in various currencies.

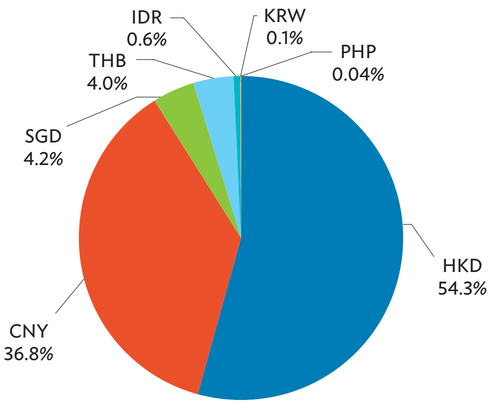
Cross-border issuance from Singapore totaled USD259 million in Q4 2018 and the issuances were denominated in Chinese renminbi, Hong Kong dollar, Korean won, and Philippine peso. The largest issuance was a CNY1.3 billion (USD0.2 billion) 3-year bond carrying a 4.5% coupon from Industrial and Commercial Bank of China's Singapore subsidiary. Cross-border issuance from Singapore accounted for 4.8% of the region's total cross-border issuance for the quarter.

Cross-border issuance from Malaysia accounted for 4.4% of the region's total cross-border issuance in Q4 2018. Cagamas Berhad issued a bond worth SGD160.0 million (USD117.4 million) with a tenor of 2 years and a coupon rate of 2.79%. Malayan Banking issued four bonds worth a total of USD122.2 million, with different tenors and denominated currencies.

One month after the Law on State Debt Management came into effect on 29 October, the Government of the Lao PDR issued four bonds worth a total of THB7.0 billion (USD0.2 billion), the longest tenor of which was 12 years and with a coupon rate of 6.45%. The Lao PDR's cross-border issuances are denominated in Thai baht due to a sovereign rating exemption from Thailand. Cross-border issuances from the Lao PDR accounted for 4.0% of the region's total cross-border issuance for the quarter.

On a regional level, issuances in Q4 2018 were denominated in Hong Kong dollars and Chinese renminbi, accounting for 91.1% of the region's total cross-border issuance for the quarter (**Figure 6**). Issuers of Hong Kong dollar bonds came from the PRC, the Republic of Korea, Singapore, and Malaysia, with the PRC accounting for 90.4% of all HKD-denominated issuance. In fact, all of the PRC's cross-border bond issuance in Q4 2018 was HKD-denominated. Cross-border bond issuance from the PRC, Singapore, and Malaysia in Q4 2018 rose 226.3% q-o-q, 102.2% q-o-q, and 37.8% q-o-q, respectively. In the Republic of Korea, issuance decreased 67.6% q-o-q.

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



CNY = Chinese yuan, HKD = Hong Kong dollar, IDR = Indonesian rupiah, KRW = Korean won, PHP = Philippine peso, SGD = Singapore dollar, THB = Thai baht.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

CNY-denominated bonds issued in Q4 2018 amounted to USD2.0 billion, accounting for 36.8% of the region's total cross-border issuance. Issuance came from the PRC; Hong Kong, China; the Republic of Korea; Malaysia; and Singapore.

Total G3 currency bond issuance in emerging East Asia dropped to USD293.5 billion in 2018.

Total issuance of G3 currency bonds in emerging East Asia fell 14.1% y-o-y in 2018 to USD293.5 billion from USD341.6 billion in 2017 (**Table 4**).[7] The region's bond markets felt the effects of several global factors such as the trade war between the PRC and the US, and increasing interest rates in the US. This was a reversal from the growth experienced annually since 2016.

In 2018, all economies that issued G3 currency bonds sold USD-denominated debt, while some sparingly issued in euros and Japanese yen. Consequently, bonds issued in US dollars dominated with a 90.1% share of all G3 currency bond issuance, distantly followed by euros and Japanese yen with shares of 7.7% and 2.2%, respectively. In 2018, a total of USD264.5 billion worth of USD-denominated bonds were issued in emerging East Asia, representing a 15.6% y-o-y decrease from 2017. The equivalent of USD22.7 billion of EUR-denominated bonds were issued in 2018, down 10.0% y-o-y from 2017. On the other hand, bonds issued in Japanese yen more than doubled to USD6.3 billion as Indonesia and the Philippines issued samurai bonds worth a combined total of USD2.3 billion.

The PRC issued the most G3 currency bonds in emerging East Asia in 2018, amounting to USD183.5 billion or 62.5% of the region's total G3 currency bond issuance. This was, however, down 18.6% y-o-y due to the PRC's slowing economic growth, its ongoing trade war with the US, and increased number of corporate bond defaults. The PRC was followed by the Republic of Korea, whose G3 currency bond issuance in 2018 grew 0.9% y-o-y to USD30.0 billion.

G3 currency bond issuance increased in 2018 in Thailand (164.1% y-o-y), the Philippines (56.1% y-o-y), Singapore (28.8% y-o-y), and the Republic of Korea (0.9% y-o-y). On the other hand, G3 issuance declined in 2018 in Hong Kong, China (40.4% y-o-y), Malaysia (33.3% y-o-y), the PRC (18.6% y-o-y), and Indonesia (2.1% y-o-y). Viet Nam and Cambodia issued G3 currency bonds in 2018, while the Lao PDR issued in 2017 but not in the following year.

The PRC led all economies with 62.5% of all G3 currency bond issuances, issuing USD170.8 billion in US dollars and the equivalent of USD11.9 billion and USD0.7 billion in euros and Japanese yen, respectively. Chinese state-owned chemical company CNAC (HK) Finbridge led all issuers from the PRC with USD6.3 billion across six tranches issued in a mix of both US dollars and euros, the largest of which was a 10-year USD-denominated bond worth USD1.8 billion and with a 5.13% coupon. Multinational investment holding conglomerate Tencent Holdings issued US dollar bonds amounting to USD5.0 billion, the largest of which was a 10-year USD2.5 billion callable bond with a coupon rate of 3.6%.

The Republic of Korea accounted for a 10.2% share of all G3 currency bonds issued in 2018. By denomination, the Republic of Korea issued USD24.5 billion in US dollars, USD3.2 billion in euros, and USD2.4 billion in Japanese yen. The Export–Import Bank of Korea issued a total of USD5.8 billion via a combination of all three G3 currencies, the largest of which was a USD0.9 billion 5-year bond with coupon rate of 0.63% issued in euros, as the state-run bank's upcoming redemptions in 2019 and 2020 called for new euro benchmark bonds.

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

Table 4: G3 Currency Bond Issuance

2017			2018		
Issuer	Amount (USD billion)	Issue Date	Issuer	Amount (USD billion)	Issue Date
Cambodia	**0.0**		**Cambodia**	**0.3**	
China, People's Rep. of	**225.4**		**China, People's Rep. of**	**183.5**	
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 Company 5.125% 2028	1.8	14-Mar-18
Alibaba Group Holding 3.40% 2027	2.6	6-Dec-17	Scenery Journey 11.000% 2020	1.6	6-Nov-18
State Grid Overseas Investment Ltd. 3.50% 2027	2.4	4-May-17	Zhongyuan Bank 5.600% 2099	1.4	21-Nov-18
China Zheshang Bank 5.45% 2050	2.2	29-Mar-17	CNAC (HK) Finbridge Company 1.750% 2022	1.4	14-Mar-18
Kaisa Group Holdings Ltd 9.38% 2024	2.1	30-Jun-17	CNAC (HK) Finbridge Company 4.625% 2023	1.3	14-Mar-18
Others	204.3		Others	173.6	
Hong Kong, China	**36.7**		**Hong Kong, China**	**21.9**	
Radiant Access Limited 4.60% Perpetual	1.5	18-May-17	CHMT Peaceful Development Asia Property 7.5% 2019	3.3	25-Apr-18
China Cinda Finance 3.65% 2022	1.3	9-Mar-17	Bank of China (Hong Kong) 5.9% Perpetual	3.0	14-Sep-18
Others	33.9		Others	15.6	
Indonesia	**26.7**		**Indonesia**	**26.1**	
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	Indonesia Asahan Aluminium (Persero) 5.71% 2023	1.3	15-Nov-18
Perusahaan Listrik Negara 4.13% 2027	1.5	15-May-17	Republic of Indonesia (Sovereign) 4.75% 2029	1.3	11-Dec-18
Indonesia (Sovereign) 3.50% 2028	1.3	11-Dec-17	Perusahaan Penerbit SBSN *Sukuk* 3.75% 2023	1.3	1-Mar-18
Indonesia (Sovereign) 2.15% 2024	1.2	18-Jul-17	Republic of Indonesia (Sovereign) 1.75% 2025	1.1	24-Apr-18
Others	19.0		Others	19.5	
Korea, Rep. of	**29.8**		**Korea, Rep. of**	**30.0**	
Republic of Korea (Sovereign) 2.75% 2027	1.0	19-Jan-17	Hanwha Life Insurance 4.700% 2048	1.0	23-Apr-18
Export–Import Bank of Korea 3.00% 2022	1.0	1-Nov-17	Korea Development Bank 0.625% 2023	0.9	17-Jul-18
Export–Import Bank of Korea 0.50% 2022	0.9	30-May-17	Export–Import Bank of Korea 0.625% 2023	0.9	11-Jul-18
Others	26.9		Others	27.3	
Lao People's Democratic Rep.	**0.03**		**Lao People's Democratic Rep.**	**0.0**	
Malaysia	**4.4**		**Malaysia**	**2.9**	
Genting Overseas Holdings Limited Capital 4.25% 2027	1.0	24-Jan-17	TNB Global Ventures Capital 4.85100% 2028	0.8	1-Nov-18
CIMB Bank 1.93% 2020	0.6	15-Mar-17	Malayan Banking Berhad 3.51813% 2023	0.3	10-Aug-18
CIMB Bank 3.26% 2022	0.5	15-Mar-17	Malayan Banking Berhad 3.63031% 2023	0.2	18-Oct-18
Others	2.3		Others	1.7	
Philippines	**4.0**		**Philippines**	**6.2**	
Republic of the Philippines (Sovereign) 3.7% 2042	2.0	2-Feb-17	Republic of the Philippines (Sovereign) 3.0% 2028	2.0	1-Feb-18
Others	2.0		Others	4.2	
Singapore	**12.5**		**Singapore**	**16.1**	
DBS Bank 0.38% 2024	0.9	23-Jan-17	Temasek Financial (I) 3.625% 2028	1.4	1-Aug-18
DBS Group Holdings 1.71% 2020	0.8	8-Jun-17	DBS Bank 3.300% 2021	1.3	27-Nov-18
Others	10.9		Others	13.5	
Thailand	**2.2**		**Thailand**	**5.9**	
PTTEP Treasury Center Company 4.60% Perpetual	0.5	17-Jul-17	Bangkok Bank of Hong Kong 4.45% 2028	0.6	19-Sep-18
Others	1.7		Others	5.3	
Viet Nam	**0.0**		**Viet Nam**	**0.7**	
Emerging East Asia Total	**341.6**		**Emerging East Asia Total**	**293.5**	
Memo Items:			**Memo Items:**		
India	**15.0**		**India**	**6.4**	
Vedanta Resources 6.375% 2022	1.0	30-Jan-17	Export–Import Bank of India 3.875% 2028	1.0	1-Feb-18
Others	14.0		Others	5.4	
Sri Lanka	**3.7**		**Sri Lanka**	**3.9**	

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.

Indonesia's regional share of G3 currency bonds issued in 2018 was 8.9%. The issuances comprised USD23.4 billion in USD-denominated bonds, USD1.7 billion in euros, and USD1.0 billion in Japanese yen. Sovereign *sukuk* worth a total of USD9.1 billion were issued in all three currencies, the largest of which was a USD-denominated 10-year USD1.8 billion bond with a coupon rate of 4.4%.

Hong Kong, China had a 7.5% share of G3 currency bond issuance in 2018. Broken down into currencies, USD19.2 billion was issued in US dollars, USD2.1 billion in euros, and USD0.6 billion in Japanese yen. CHMT Peaceful Development Asia Property issued USD-denominated bonds worth USD4.1 billion. The largest issuance was a 2-year USD3.3 billion callable bond with a 7.5% coupon rate that will be used to finance the acquisition of a skyscraper in Hong Kong, China.

Singapore's 5.5% regional share of total issuances of G3 currency bonds comprised bonds denominated in US dollars, euros, and Japanese yen amounting to USD12.3 billion, USD3.6 billion, and USD0.2 billion, respectively. United Overseas Bank's USD2.6 billion of issuance was a mix of USD- and EUR-denominated bonds. The biggest was a 3-year USD-denominated bond worth USD0.7 billion and with a coupon rate 3.2%. The Development Bank of Singapore sold USD2.5 billion worth of bonds denominated in US dollars, the largest of which was a 3-year mortgage covered bond worth USD1.3 billion and with a 3.3% coupon as part of its USD10.0 billion global covered bond program.

The Philippines' G3 currency bond issuances represented a 2.1% share, with USD4.8 billion sold in US dollars and USD1.4 billion issued in Japanese yen in 2018. The Philippines issued sovereign bonds in a mix of US dollars and Japanese yen. The largest issuance was a 10-year USD-denominated global bond worth USD2.0 billion with a 3.0% coupon rate, the proceeds of which will be used to finance the government's infrastructure projects.

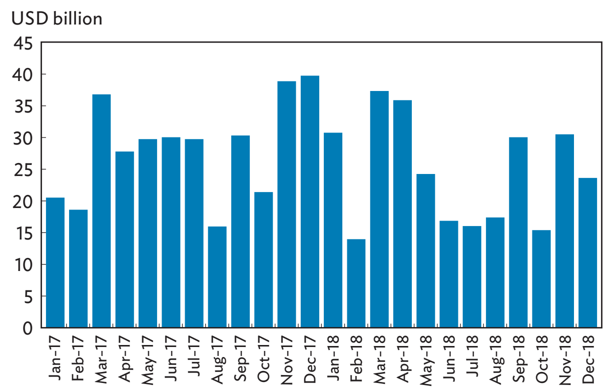
Thailand issued 2.0% of all G3 currency bonds in the region in 2018. Its issuances comprised USD5.8 billion denominated in US dollars and USD0.09 billion in euros. Thaioil Treasury Center sold a total of USD1.6 billion, all of which was issued in US dollars. Its largest issuance was a 30-year USD0.6 billion bond with a coupon rate of 5.38% as part of its global medium-term note program.

Malaysia's 1.0% share of the region's G3 currency bond issuance comprised USD2.9 billion issued in US dollars and USD0.01 billion in Japanese yen. Malayan Banking issued USD1.1 billion worth of USD-denominated bonds, the largest of which was a 5-year USD0.3 billion floating-rate bond.

Viet Nam and Cambodia contributed 0.2% and 0.1%, respectively, to emerging East Asia's total G3 currency bond issuance in 2018, with both economies issuing in US dollars. Viet Nam issued USD0.7 billion, USD0.5 billion of which was Vinpearl's 5-year bond with a 3.5% coupon that will be used to fund hospitality projects and support its subsidiaries and affiliates. In Cambodia, resort and hotel operator NagaCorp sold USD0.3 billion worth of 3-year bonds with a coupon of 9.38% to support the growth of its tourism business and upgrade its facilities.

Monthly trends for 2017–2018 show that November and December 2017 saw the highest level of G3 currency bond issuance in emerging East Asia with USD39.1 billion and USD40.0 billion, respectively, spurred by issuances in the PRC after its National Development and Reform Council eased rules and regulations pertaining to companies' issuances of offshore bonds (**Figure 7**).

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 December 2018 currency exchange rates and do not include currency effects.

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

On the other hand, 2018 saw more volatile issuance volumes. The year started with declines, with continuous up and down movements throughout the year, reflecting the effects of volatile global market conditions on the region.

Government bond yield curves fell for most emerging East Asian economies following dovish remarks from the Federal Reserve and a slowdown in global economic conditions.

While the Federal Reserve raised its policy target range as expected on 19 December by 25 bps to 2.25%–2.50%, other indications suggested that it would slow the pace of tightening in 2019. The Federal Reserve's economic projections for December showed a downgrade of the US' expected GDP growth rate for 2019 from 2.5% y-o-y to 2.3% y-o-y. In addition, the Federal Reserve's dot plot for the federal funds rate showed a decrease in the expected number of rate hikes for 2019 from the projections made in September, from three to two.

While the Federal Reserve acknowledged that the US economy has posted solid economic gains, it also noted increased financial volatility toward the end of 2018 and slower economic growth in some foreign markets. This led to the Federal Reserve keeping its policy rate target unchanged on 30 January. The Federal Reserve also said that it would be patient in assessing future changes to its policy rate. US GDP growth in Q4 2018 decelerated to an annualized rate of 2.6% y-o-y from 3.4% y-o-y in the previous quarter.

Similarly, the European Central Bank ended its asset purchase program in December but also noted headwinds in the euro area economy. During its 24 January meeting, the central bank left monetary policy unchanged while noting that incoming data were weaker than expected. The euro area's GDP growth rate fell to 1.1% y-o-y in Q4 2018.

Japan's GDP grew at an annual rate of 1.9% y-o-y in Q4 2018 after contracting 2.4% y-o-y in the previous quarter. In January, the Bank of Japan forecast for 2019 GDP growth was also slightly higher at 0.9% y-o-y, up from 0.8% y-o-y in October. The forecasted inflation rate for 2019 fell to 1.1% from 1.6%. The Bank of Japan noted some uncertainties with regard to the impact of the consumption tax to be implemented in October 2019.

Overall, global economic growth is largely expected to slow down.

Yields in most emerging East Asian economies have largely trended downward as a result, giving LCY bond markets some respite after previous tightening measures by the Federal Reserve.

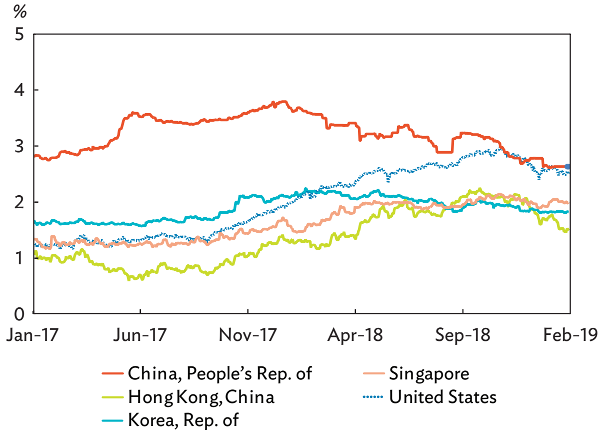
The markets that tracked US yields the closest were naturally Singapore and Hong Kong, China, with their 2-year yields closely following US 2-year yield movements (**Figure 8a**), including the spike at the start of January when US yields temporarily rose following the better-than-expected December nonfarm payrolls report. All other emerging East Asian economies showed declines in their 2-year yields, with the exception of Thailand, where the 2-year yield was roughly steady (**Figure 8b**).

The 10-year yield movements were roughly similar, with the 10-year yields of Singapore and Hong Kong, China also following the January spike in US yields (**Figure 9a**). The 10-year yield in the Republic of Korea was roughly steady during the review period. The 10-year yield in Indonesia trended downward in November 2018 on expectations that the Federal Reserve would become more dovish. It soon became relatively stable as market concerns over Indonesia's current account deficit counteracted the downward pressure on yields resulting from the Federal Reserve outlook (**Figure 9b**).

Similarly, most government bond yield curves in emerging East Asia shifted downward between 28 December and 15 February for almost all tenors (**Figure 10**). One exception was Indonesia, where yields rose in the belly of the curve while falling for most other tenors. Also, in both the Republic of Korea and Thailand, yields rose for most tenors after an improved economic performance in Q4 2018; in Thailand, a policy rate hike by the central bank in December also drove yields higher.

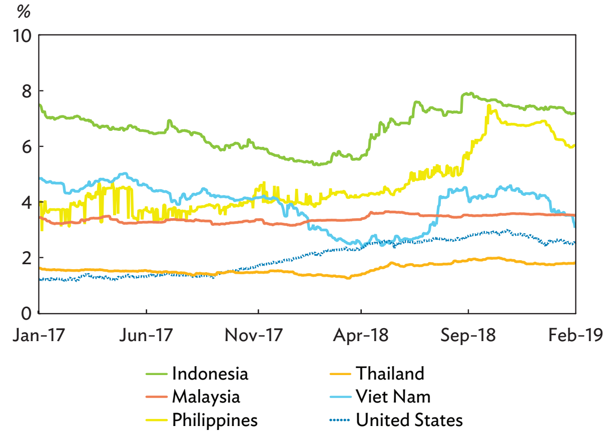
Most emerging East Asian economies posted either stable or lower economic growth in Q4 2018 than in Q3 2018, with the exception of the Republic of Korea, Malaysia, Thailand, and Viet Nam. In the Republic of Korea, GDP growth accelerated to 3.1% y-o-y in Q4 2018 from 2.0% in Q3 2018, while in Malaysia, GDP growth quickened to 4.7% y-o-y in Q4 2018 from 4.4% y-o-y in the previous quarter. In Thailand, GDP grew 3.7% y-o-y in Q4 2018, up from 3.2% y-o-y in the previous quarter.

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



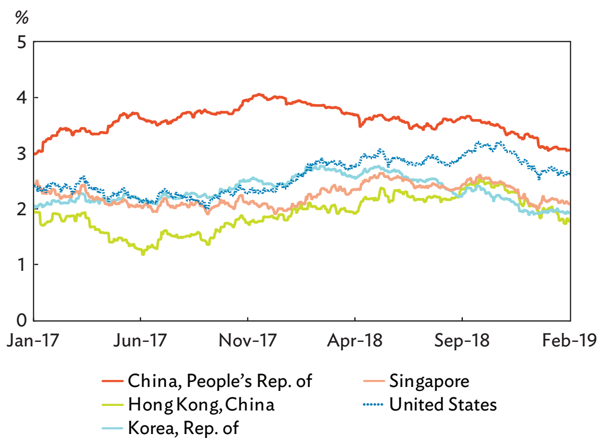
Note: Data as of 15 February 2019.
Source: Based on data from Bloomberg LP.

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



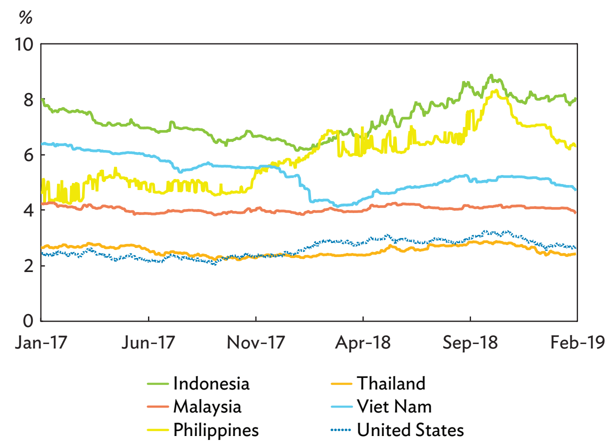
Note: Data as of 15 February 2019.
Source: Based on data from Bloomberg LP.

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



Note: Data as of 15 February 2019.
Source: Based on data from Bloomberg LP.

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

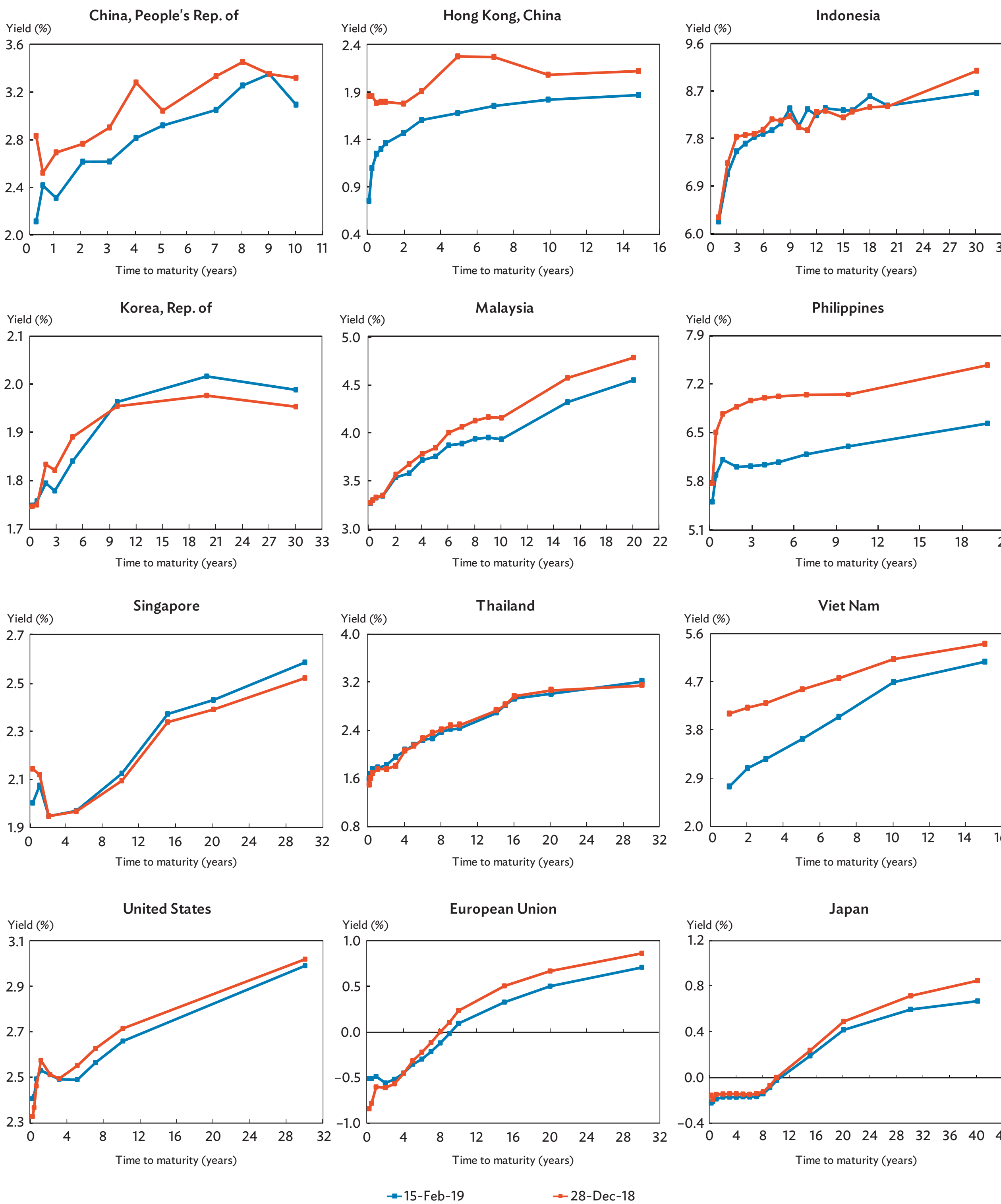


Note: Data as of 15 February 2019.
Source: Based on data from Bloomberg LP.

Viet Nam reported full-year 2018 GDP growth of 7.1%, up from 7.0% in the first 3 quarters of 2018. The PRC, Indonesia, and the Philippines exhibited roughly stable growth in Q4 2018. In the PRC, GDP growth slowed to 6.4% y-o-y from 6.5% y-o-y during the review period. In Indonesia, GDP growth was nearly unchanged in Q4 2018 at 5.18% y-o-y versus 5.17% y-o-y in the previous quarter. In the Philippines, GDP growth rose slightly to 6.1% y-o-y in Q4 2018 from 6.0% y-o-y in Q3 2018. The only market to post significantly slower growth was Hong Kong, China, where GDP growth slowed to 1.3% y-o-y in Q4 2018 from 2.8% y-o-y in Q3 2018.

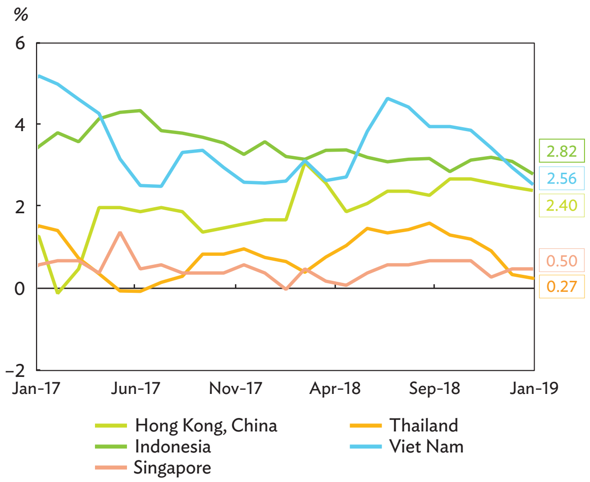
Consistent with expectations of slower economic growth, inflation in emerging East Asia has largely trended downward, with the exception of Singapore (**Figure 11a**). The biggest decline in inflation was observed in the Philippines (**Figure 11b**), where inflation expectations have fallen and the impacts of past tax measures have largely abated.

Figure 10: Benchmark Yield Curves—Local Currency Government Bonds



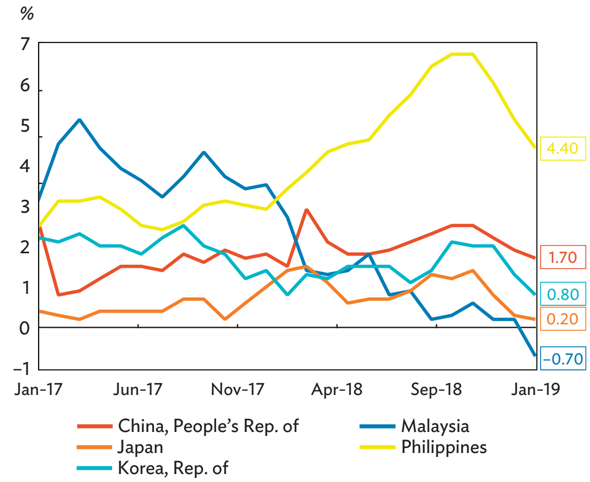
Sources: Based on data from Bloomberg LP and Thai Bond Market Association.

Figure 11a: Headline Inflation Rates



Note: Data as of January 2019.
Source: Based on data from Bloomberg LP.

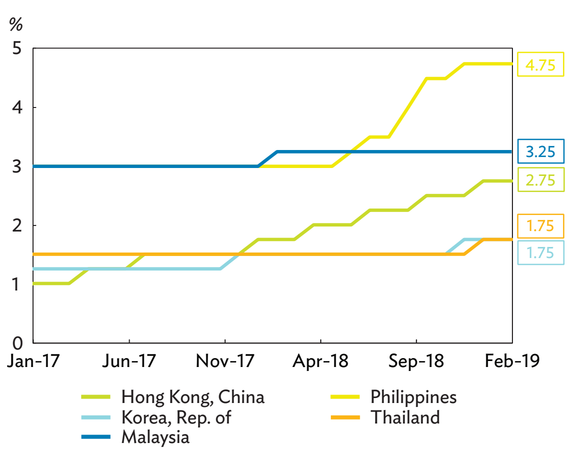
Figure 11b: Headline Inflation Rates



Note: Data as of January 2019.
Source: Based on data from Bloomberg LP.

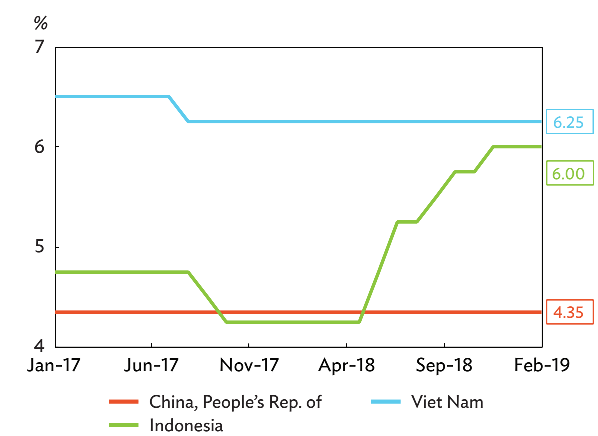
The decline in inflation as well as the dovishness of the Federal Reserve allowed nearly all emerging East Asian central banks to keep their monetary policy rates unchanged during the review period. The exceptions were Hong Kong, China, whose policy rate passively tracks US policy rate movements; the Republic of Korea, where the Bank of Korea raised the policy rate 25 bps on 30 November; and Thailand, where the central bank raised the policy rate 25 bps on 19 December to 1.75% amid strong domestic economic growth (**Figure 12a**). While the Bank of Thailand left policy rates unchanged on 6 February, two members voted to raise the policy rate again. With the Federal Reserve's softening monetary policy stance (and lower inflation expectations in the Philippines), Indonesia and the Philippines left their respective policy rates unchanged during the review period after previous series of monetary tightening (**Figure 12b**).

Figure 12a: Policy Rates



Notes:
1. Data as of 15 February 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



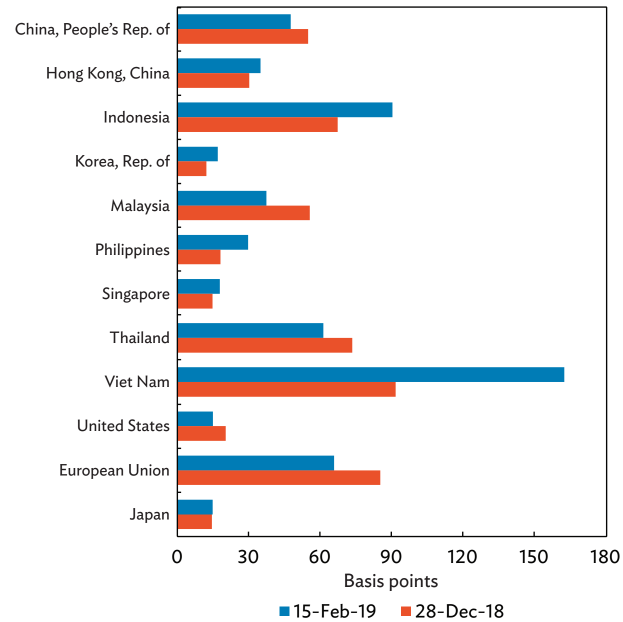
Notes:
1. Data as of 15 February 2018.
2. Bank Indonesia shifted its policy rate to the 7-day reverse repurchase rate effective 19 August 2016.
Source: Based on data from Bloomberg LP.

The 2-year versus 10-year yield spread rose in most emerging East Asia economies, with the exception of the PRC, Malaysia, and Thailand (**Figure 13**).

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

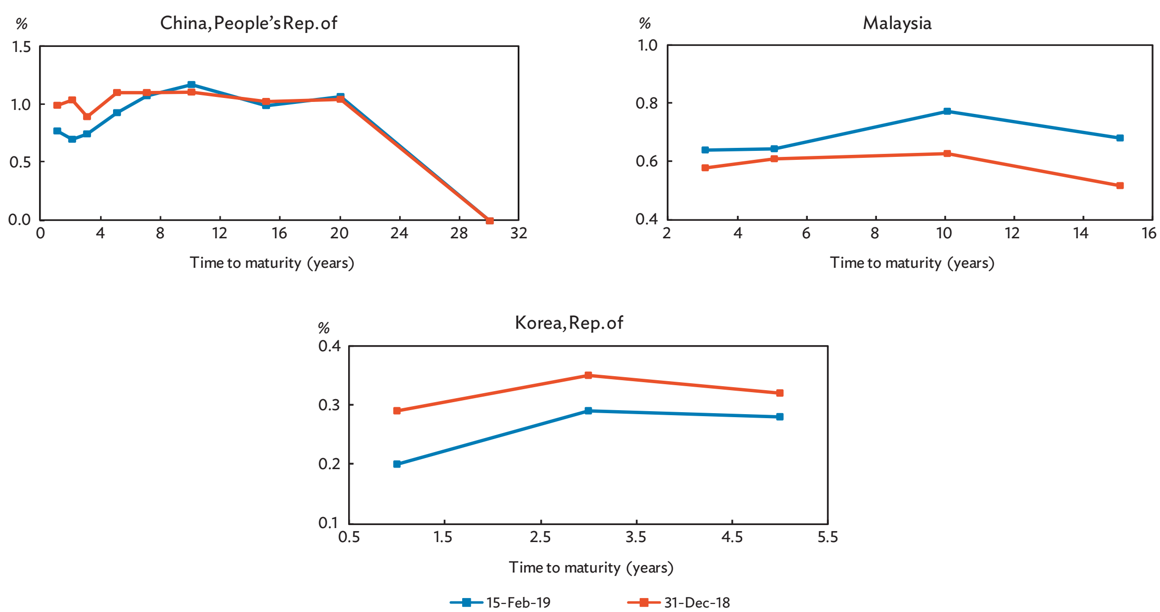
Expectations of a slowdown in the Federal Reserve's monetary tightening improved investor sentiment across the region. However, the risks of a slowdown in global growth also weighed on investors. In the PRC, credit spreads fell for AAA-rated corporates versus government yields at the shorter-end of the curve as the Federal Reserve's dovishness helped improve investor sentiment and the market expects the government to provide additional stimulus (**Figure 14a**). Improved sentiment also led to a fall in credit spreads for the Republic of Korea, while spreads rose in Malaysia over concerns that the slowdown in global economic growth could dampen oil prices.

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



Source: Based on data from Bloomberg LP.

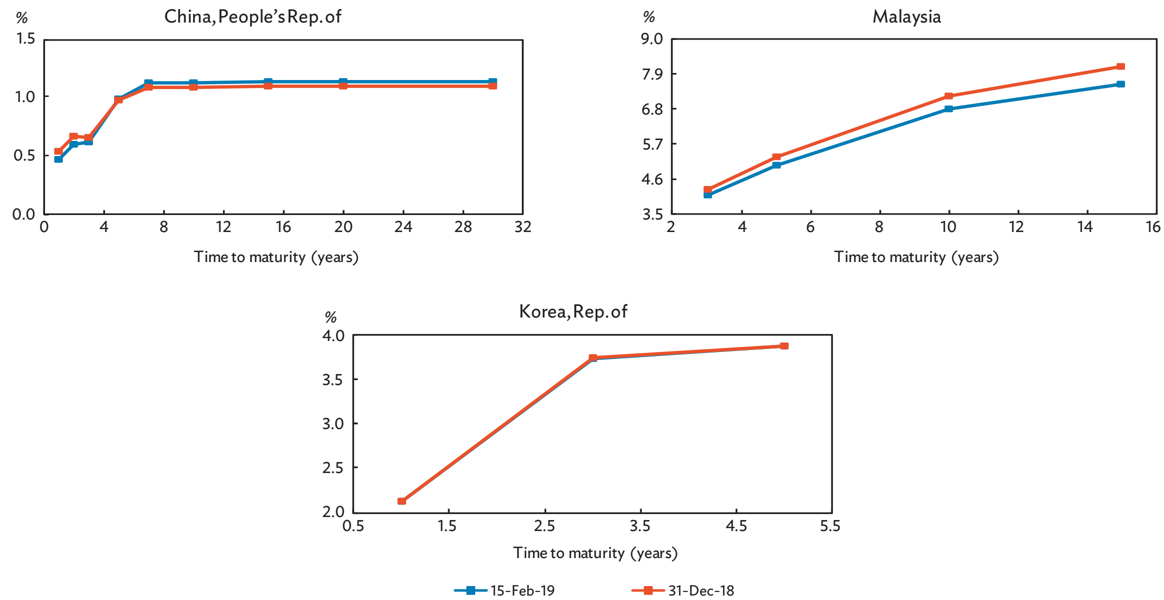
Figure 14a: Credit Spreads—Local Currency Corporates Rated AAA vs. Government Bonds



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 December 2018 and 14 February 2019.
Sources: People's Republic of China (*Wind Information*), Republic of Korea (*EDAILY BondWeb*), and Malaysia (Bank Negara Malaysia).

In contrast, the spread rose between AAA-rated corporate bonds and lower-rated bonds in the PRC, highlighting lingering concerns over corporate defaults among the most vulnerable firms (**Figure 14b**). Spreads were unchanged in the Republic of Korea and fell in 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, data on corporate bonds yields are as of 31 December 2018 and 14 February 2019.

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

National Development and Reform Commission Issues New Rule to Speed Up Bond Issuance by Creditworthy Corporations

The National Development and Reform Commission (NDRC) of the People's Republic of China (PRC) announced on 5 December a program streamlining bond issuance requirements for highly rated companies. Companies in the PRC that meet the following criteria are eligible: (i) a credit rating of AAA, (ii) attainment of financial ratios and performance indicators set by the NDRC according to industry, (iii) industry is aligned with national policy, (iv) no default in the past 3 years, (v) no major regulatory or legal violations, and (vi) no negative opinion issued by the certified public accountant on the company's financials. The NDRC also imposed additional restrictions such as allowing no more than 50% of the bond proceeds to be used for working capital.

People's Bank of China Unveils Measures to Support Perpetual Bank Bonds

On 24 January, the People's Bank of China (PBOC) announced new measures to help promote banks' issuance of perpetual bonds. One is a new facility called Central Bank Bills Swap that will allow purchases of banks' perpetual bonds to exchange them with the PBOC for central bank bills. The PBOC also said that it would allow perpetual bonds issued by banks with a credit rating of AA and higher to be used as collateral for the PBOC's Medium-Term Lending Facility and Standing Lending Facility.

Hong Kong, China

Bond Connect Now on Bloomberg Terminals

In January, Bond Connect Company Limited introduced Bloomberg as a second trading platform for Bond Connect, allowing eligible overseas investors to access the China Interbank Bond Market via the Bloomberg terminal. The move seeks to boost international participation and support the sustainable development of Bond Connect, which is a mutual market access scheme that allows investors from the PRC and overseas to trade in each other's bond markets through market infrastructure linkages in Hong Kong, China. Since its launch in July 2017, market participation in Bond Connect has been growing steadily, with 450 approved international institutional investors by the end of October 2018. Currently, Bond Connect allows northbound trading; southbound trading will commence at a later date.

Green Finance Study Tour in Hong Kong, China

In January, the Hong Kong Monetary Authority (HKMA), the Research Bureau of PBOC, and the Hong Kong Green Finance Association co-organized a 3-day visit for representatives of potential green bond issuers from the PRC. The study tour aimed to encourage green bond issuance in Hong Kong, China in order to take advantage of the city's advanced financial platform, international investor network, and supportive government initiatives. This scheme not only allows enterprises and institutions to secure international financing, but it also promotes development and compliance of the green securities market of the PRC as well as Hong Kong, China's status as an international financial center. The PBOC and the HKMA commit to strengthen their cooperation to further enhance the process of PRC green bond issuances in Hong Kong, China and will continue to encourage cooperation and interconnection between green markets in the PRC and Hong Kong, China.

Hong Kong Monetary Authority Holds Fintech Roundtable

In January, the HKMA held a high-level fintech roundtable, from Mutual Understanding to Global Collaboration, which aimed to facilitate an exchange of ideas and discussions on current fintech topics. Attended by senior representatives from international organizations and central banks and regulatory authorities, the roundtable included presentations and panel discussions on case studies of cross-border collaborations, open banking, and the use of emerging technologies in providing financial services. With the view that cross-border issues are likely to gain importance as fintech continues to develop, the roundtable also aimed to strengthen cross-border collaboration among jurisdictions to promote innovation and technology adoption.

Hong Kong Exchanges and Clearing Launches New Primary Market Information Platform

In February, Hong Kong Exchanges and Clearing (HKEX) launched a new primary market information platform, in line with announcements made by the PRC regarding its plan for the creation of a new economic region known as the Greater Bay Area. The HKEX said that the platform "will work like a bond issuance connect, which will make it easier for overseas investors to trade the newly issued bonds." The portal will provide Bond Connect investors with information about newly issued bonds in the PRC.

Indonesia

Bank Indonesia and Monetary Authority of Singapore Establish Bilateral Financial Arrangement

In November, a bilateral financial arrangement was established between Bank Indonesia and the Monetary Authority of Singapore (MAS), allowing the swap of currencies equivalent to USD10 billion between the two parties. The arrangement, which is available for a period of 1 year, comprises two agreements: (i) a new local currency bilateral swap of up to SGD9.5 billion or IDR100 trillion, and (ii) an enhanced bilateral repurchase agreement of up to USD3.0 billion in repo transactions involving US dollars with the government bonds of major markets as collateral.

Bank Indonesia Issues Short-Term *Sukuk*

In December, Bank Indonesia issued short-term *sukuk* (Islamic bonds) for the first time. These short-term instruments, known as Sukuk Bank Indonesia (SukBI), are one of Bank Indonesia's monetary policy instruments for managing liquidity in the financial system. Bank Indonesia will issue SukBI in maturities of 1 week, 2 weeks, 1 month, and 3 months. On 21 December, Bank Indonesia raised IDR3,053 billion from the sale of 1-week and 2-week SukBI.

Republic of Korea

The Government of the Republic of Korea Releases Bond Issuance Plan for 2019

In December, the Ministry of Economy and Finance (MOEF) released its bond issuance plan for 2019 amounting to KRW99.6 trillion. Under the plan, a higher share of Korea Treasury Bonds (KTBs) with longer maturities will be issued, including the issuance of 50-year KTBs, amid rising interest from investors. Of the total planned volume, 35%–45% of the issuance comprises KTBs with maturities of 3–5 years, 20%–30% are KTBs with maturities of 10 years, and 30%–40% are KTBs with maturities of 20 years or longer.

The Ministry of Economy and Finance Announces Economic Policies for 2019

In December, the MOEF announced its economic policies for 2019, which include its economic outlook. The government expects, among others: (i) full-year 2019 gross domestic product growth of 2.6%–2.7%, (ii) annual inflation of 1.6%, and (iii) the current account surplus declining to USD64 billion. In order to address domestic risks such as mounting household debt, a weakening job markets, and shrinking private sector investment, the MOEF said that "the government will focus on income-led growth, innovative growth (growth led by industrial innovation), and a fair economy (an economy that works for all)". The MOEF also stated that "the government will work to prepare for changes in the future, such as those the Fourth Industrial Revolution and the low birth [rate] and [an] ageing society will bring, as well as to prepare for economic cooperation with North Korea."

Malaysia

Securities Commission Malaysia to Regulate the Offering and Trading of Digital Assets

The Securities Commission Malaysia (SC) will regulate the offering and trading of digital assets in Malaysia in accordance with Capital Markets and Services (Prescription of Securities) (Digital Currency and Digital Token) Order 2019, which came into force in January. Digital assets will be prescribed as securities, and as such the SC will put in place relevant regulatory requirements for the issuance and trading of digital assets at digital asset exchanges in the country. Functions of digital assets relating to payment and currency matters should comply with Bank Negara Malaysia's regulation. Digital assets are also subject to the SC's Guidelines on Prevention of Money Laundering and Terrorism Financing. According to the SC and the central bank's joint statement, guidelines are currently being put in place to bring digital assets within the remit of securities laws to promote fair and orderly trading, and to ensure investor protection.

Malaysia to Issue Samurai Bonds to Retire Costly Debt

As part of the Malaysia's fiscal consolidation under Prime Minister Mahathir Mohamad, the government announced in November it would issue samurai bonds amounting to JPY200 billion before March 2019. The proceeds of the bond sale will be used to reduce the burden of costly loans taken by the previous administration as part of government effort to address Malaysia's debt woes. The JPY-denominated debt will have a tenure of 10 years and a coupon rate of 0.63%. The Government of Japan will guarantee the issuance via Japan Bank for International Cooperation.

Philippines

The Philippines Adopts Basel III Provisions on Countercyclical Capital Buffers

In November, the Monetary Board of the Bangko Sentral ng Pilipinas (BSP) released Circular 1024 amending the Manual of Regulations for Banks and Non-Bank Financial Institutions in order to incorporate the provisions of Basel III regarding countercyclical capital buffers. On top of the minimum 6% common equity tier 1 ratio, banks will also be subject to a countercyclical capital buffer of 0%, which will be adjusted upward (not exceeding 2.5%) subject to a monetary board assessment of systemic events. If the buffer needs to be increased, a bank has 12 months from the announcement to comply. However, decreases to the buffer are effective immediately. Furthermore, the determined level of countercyclical capital buffer must be met before capital can be distributed to shareholders.

Singapore

Monetary Authority of Singapore Loosens Restrictions on Investment in Singapore Savings Bonds, Raises Individual Limits

Due to the public's request, starting 1 February 2019, Singaporean investors will be able to buy Singapore Savings Bonds (SSBs) through their Supplementary Retirement Scheme funds. Furthermore, the limit for purchases of SSBs was set at SGD200,000, up from SGD100,000. Supplementary Retirement Scheme funds encourage investors to plan and save for their retirement. In order to monitor SSB holdings, the My Savings Bonds portal will be available to investors starting in March.

Thailand

Bank of Thailand Revises its Issuance Program for 2019

The Bank of Thailand (BOT) made some adjustments to its bond issuance program in 2019. There will no longer be reopenings for 1-year BOT bills; instead there will be monthly auctions for new issues effective in March. The BOT assessed that the change will help avoid heightened volatility in short-term bond yields at the time of their maturities. In addition, the number of reopenings for 3-year BOT floating rate bonds every month will be reduced to five from eleven. Finally, the maximum issue size for 3-year BOT bonds was reduced to THB45 billion from THB60 billion, while the maximum issue size for 3-year BOT floating rate bond was increased to THB25 billion.

Viet Nam

Decree 163 on Issuance of Corporate Bonds Comes Into Effect

Decree 163 came into effect on 1 February allowing companies with just 1 year of operations to issue corporate bonds. The new regulation also requires firms to provide an issuance plan, including the use of proceeds and full disclosure of relevant information for bond investors. In addition, disbursement of proceeds from the issuance of green bonds will be monitored and supervised to ensure that it will be used for green projects.

Market Summaries

People's Republic of China

Local currency (LCY) bonds outstanding in the People's Republic of China (PRC) grew 2.9% quarter-on-quarter (q-o-q) and 14.3% year-on-year (y-o-y) to reach CNY65.0 trillion (USD9.5 trillion) at the end of December. The gains in the fourth quarter (Q4) of 2018 mostly came from a rise in corporate bonds, which grew 5.3% q-o-q and 14.6% y-o-y. Government bond growth in Q4 2018 slowed to 2.1% q-o-q from 6.3% q-o-q in the previous quarter as local governments had already met 80% of their issuance target for special bonds by the end of September.

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

	Outstanding Amount (billion)						Growth Rates (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	CNY	USD	CNY	USD	CNY	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**56,866**	**8,739**	**63,160**	**9,195**	**65,019**	**9,453**	**4.0**	**14.9**	**2.9**	**14.3**
Government	41,167	6,327	46,072	6,707	47,029	6,837	4.4	19.2	2.1	14.2
Treasury Bonds	27,712	4,259	31,888	4,642	32,512	4,727	5.2	25.2	1.96	17.3
Central Bank Bonds	0	0	0	0	0	0	–	(100.0)	–	–
Policy Bank Bonds	13,454	2,068	14,184	2,065	14,517	2,110	2.7	8.5	2.3	7.9
Corporate	15,700	2,413	17,088	2,488	17,990	2,615	2.9	4.9	5.3	14.6
Policy Bank Bonds										
China Development Bank	7,540	1,159	7,979	1,162	8,147	1,184	2.9	6.5	2.1	8.0
Export–Import Bank of China	2,296	353	2,299	335	2,397	348	0.7	7.7	4.3	4.4
Agricultural Devt. Bank of China	3,617	556	3,907	569	3,973	578	3.7	13.6	1.7	9.8

( ) = negative, – = not applicable, CNY = Chinese yuan, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Treasury bonds include savings bonds and local government bonds.
3. Bloomberg LP end-of-period LCY–USD rate is used.
4. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Bloomberg LP, *ChinaBond,* and *Wind Information*.

Total corporate bond issuance in Q4 2018 reached CNY2.2 trillion, up 11.9% q-o-q as market sentiment improved amid a possible slowdown in the Federal Reserve's monetary policy tightening.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (CNY billion)
Industrial and Commercial Bank		
3-year bond	3.89	30
3-year bond	3.99	30
China Minsheng Banking Corporation		
3-year bond	3.83	40
3-year bond	3.76	20
Bank of China		
10-year bond	4.84	40
China Construction Bank		
10-year bond	4.7	40
Ping An Bank		
3-year bond	3.79	35

CNY = Chinese yuan.
Source: Bloomberg LP.

LCY corporate bonds outstanding among the top 30 corporate bond issuers in the PRC reached CNY7.3 trillion at the end of December, accounting for 40.8% of the total LCY corporate bond market. The largest issuer remained China Railway, with CNY1.8 trillion of bonds outstanding.

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	1,770.5	257.4	Yes	No	Transportation
2.	Bank of China	399.3	58.0	Yes	Yes	Banking
3.	Agricultural Bank of China	358.1	52.1	Yes	Yes	Banking
4.	Industrial and Commercial Bank of China	356.8	51.9	Yes	Yes	Banking
5.	China Construction Bank	355.1	51.6	Yes	Yes	Banking
6.	State Grid Corporation of China	310.7	45.2	Yes	No	Public Utilities
7.	China National Petroleum	310.0	45.1	Yes	No	Energy
8.	Central Huijin Investment	288.0	41.9	Yes	No	Asset Management
9.	Bank of Communications	265.8	38.6	No	Yes	Banking
10.	China Minsheng Banking	245.1	35.6	No	Yes	Banking
11.	Shanghai Pudong Development Bank	230.7	33.5	No	Yes	Banking
12.	China CITIC Bank	227.6	33.1	No	Yes	Banking
13.	Industrial Bank	215.2	31.3	No	Yes	Banking
14.	China Everbright Bank	176.3	25.6	Yes	Yes	Banking
15.	State Power Investment	157.2	22.9	Yes	No	Energy
16.	Tianjin Infrastructure Construction and Investment	150.8	21.9	Yes	No	Industrial
17.	Huaxia Bank	148.4	21.6	Yes	No	Banking
18.	China Merchants Bank	143.9	20.9	Yes	Yes	Banking
19.	CITIC Securities	134.3	19.5	Yes	Yes	Brokerage
20.	Bank of Beijing	113.0	16.4	Yes	Yes	Banking
21.	China Datang	108.5	15.8	Yes	No	Energy
22.	Datong Coal Mine	100.8	14.7	Yes	No	Coal
23.	Ping An Bank	100.7	14.6	No	Yes	Banking
24.	China Southern Power Grid	100.0	14.5	Yes	No	Energy
25.	China Cinda Asset Management	100.0	14.5	Yes	Yes	Asset Management
26.	China Merchants Securities	96.6	14.0	Yes	Yes	Brokerage
27.	PetroChina	95.0	13.8	Yes	Yes	Energy
28.	Dalian Wanda Commercial Properties	93.0	13.5	No	Yes	Real Estate
29.	China Three Gorges	92.0	13.4	Yes	No	Public Utilities
30.	Shaanxi Coal and Chemical Industry	90.5	13.2	Yes	Yes	Coal
Total Top 30 LCY Corporate Issuers		**7,333.7**	**1,066.2**			
Total LCY Corporate Bonds		**17,990.2**	**2,615.4**			
Top 30 as % of Total LCY Corporate Bonds		**40.8%**	**40.8%**			

CNY = Chinese yuan, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-December 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.

Hong Kong, China

Local currency (LCY) bonds outstanding in Hong Kong, China amounted to HKD1,950 billion (USD249 billion) at the end of the fourth quarter (Q4) of 2018, growing 1.8% quarter-on-quarter (q-o-q) and 2.3% year-on-year, driven by growth in both corporate and government bond segments. Corporate bonds grew 2.7% q-o-q and 3.7% y-o-y. Government bonds marginally grew 1.2% q-o-q and 1.3% y-o-y, mainly due to a decline of 5.3% q-o-q and 14.8% y-o-y in Exchange Fund Notes which more than offset growth in Hong Kong Special Administrative Region Bonds and Exchange Fund Bills.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	HKD	USD	HKD	USD	HKD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,907**	**244**	**1,915**	**245**	**1,950**	**249**	**1.1**	**4.1**	**1.8**	**2.3**
Government	1,153	148	1,154	147	1,169	149	3.3	8.4	1.2	1.3
Exchange Fund Bills	1,011	129	1,024	131	1,031	132	3.8	10.5	0.6	2.0
Exchange Fund Notes	38	5	34	4	32	4	(7.4)	(21.6)	(5.3)	(14.8)
HKSAR Bonds	105	13	96	12	106	14	3.4	3.5	9.8	1.0
Corporate	754	96	761	97	782	100	(2.2)	(1.8)	2.7	3.7

( ) = negative, HKD = Hong Kong dollar, HKSAR = Hong Kong Special Administrative Region, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. 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.
Source: Hong Kong Monetary Authority.

Among the top nonbank corporate issuers in Q4 2018, state-owned Hong Kong Mortgage Corporation remained the leader with aggregate issuance of HKD3.1 billion from 10 issuances, the largest of which was a zero-coupon, 3-month bond worth HKD800 million. Hong Kong Land, a real estate company, was next with three issuances, the largest of which was a 15-year bond worth HKD700 million and carrying a 4.12% coupon. Other top issuers were South Sea Petroleum Holdings (energy), Sun Hung Kai & Co. (finance), and Hysan Development (real estate), each with one long-term bond issuance during the quarter.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (HKD billion)
Hong Kong Mortgage Corporation		
3-month bond	1.90	0.80
3-month bond	0.00	0.66
6-month bond	0.00	0.35
6-month bond	0.00	0.30
Hong Kong Land		
10-year bond	3.75	0.36
10-year bond	3.83	0.45
15-year bond	4.12	0.70
South Sea Petroleum Holdings		
9.4-year bond	0.00	0.60
Sun Hung Kai & Co.		
10-year bond	3.88	0.51
Hysan Development		
7-year bond	3.66	0.30

HKD = Hong Kong dollar.
Source: Bloomberg LP.

The amount of LCY bonds outstanding of the top 30 nonbank corporations reached HKD203.3 billion at the end of December, accounting for 26% of the total corporate bond market. State-owned Hong Kong Mortgage Corporation, the leading issuer since the beginning of the year, remained in the top spot with outstanding bonds of HKD28.8 billion. Sun Hung Kai & Co. was a distant second with outstanding bonds of HKD14.3 billion, followed by MTR Corporation, another government-owned company, at HKD12.2 billion. Real estate and financing firms dominated the top 30 list in Q4 2018. Two-thirds of the firms on top 30 are listed on the Hong Kong Stock Exchange and four are state-owned corporations.

Table 3: Top 30 Nonbank 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.	Hong Kong Mortgage Corporation	28.8	3.7	Yes	No	Finance
2.	Sun Hung Kai & Co.	14.3	1.8	No	Yes	Finance
3.	MTR Corporation	12.2	1.6	Yes	Yes	Transportation
4.	The Hong Kong and China Gas	11.6	1.5	No	Yes	Utilities
5.	Hong Kong Land	11.2	1.4	No	No	Real Estate
6.	Haitong International Securities	9.9	1.3	No	Yes	Finance
7.	New World Development	9.4	1.2	No	Yes	Diversified
8.	CLP Power Hong Kong Financing	8.8	1.1	No	No	Finance
9.	The Wharf (Holdings)	8.6	1.1	No	Yes	Finance
10.	Swire Pacific	7.6	1.0	No	Yes	Diversified
11.	Henderson Land Development	7.5	1.0	No	No	Real Estate
12.	Link Holdings	7.4	1.0	No	No	Finance
13.	CK Asset Holdings	6.2	0.8	No	Yes	Real Estate
14.	Swire Properties	5.9	0.8	No	Yes	Real Estate
15.	Hongkong Electric	5.8	0.7	No	No	Utilities
16.	China Merchants Port Holdings	5.7	0.7	No	Yes	Transportation
17.	Hang Lung Properties	4.6	0.6	No	Yes	Real Estate
18.	AIA Group	3.9	0.5	No	Yes	Insurance
19.	IFC Development Corporation	3.5	0.4	No	No	Finance
20.	Kowloon-Canton Railway	3.4	0.4	Yes	No	Transportation
21.	LT Commercial Real Estate	3.0	0.4	No	Yes	Real Estate
22.	Urban Renewal Authority	2.8	0.4	Yes	No	Real Estate
23.	Emperor International Holdings	2.6	0.3	No	Yes	Real Estate
24.	Wharf Real Estate Investment	2.6	0.3	No	Yes	Real Estate
25.	Champion REIT	2.5	0.3	No	Yes	Real Estate
26.	Hysan Development	2.5	0.3	No	Yes	Real Estate
27.	China Dynamics (Holdings)	2.4	0.3	No	Yes	Diversified
28.	ASM Pacific Technology	2.3	0.3	No	Yes	Technology
29.	The 13 Holdings	2.2	0.3	No	Yes	Industrial
30.	CK Hutchison Holdings	2.0	0.3	No	Yes	Diversified
30.	Gluon Xima International	2.0	0.3	No	No	Real Estate
Total Top 30 Nonbank LCY Corporate Issuers		**203.3**	**26.0**			
Total LCY Corporate Bonds		**781.8**	**99.8**			
Top 30 as % of Total LCY Corporate Bonds		**26.0%**	**26.0%**			

HKD = Hong Kong dollar, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-December 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.

Indonesia

The local currency (LCY) bond market in Indonesia reached a size of IDR2,838 trillion (USD197 billion) at the end of December, up 2.7% quarter-on-quarter (q-o-q) and 13.7% year-on-year (y-o-y). Growth, however, eased from the 5.9% q-o-q and 13.9% y-o-y expansions posted in the third quarter of 2018. Central government bonds drove much of the growth, despite four auctions being canceled in the fourth quarter (Q4) of 2018 as the government had fulfilled its borrowing requirements and there was a smaller-than-expected budget deficit.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	IDR	USD	IDR	USD	IDR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**2,497,112**	**184**	**2,764,341**	**185**	**2,838,177**	**197**	**2.9**	**14.0**	**2.7**	**13.7**
Government	2,109,783	156	2,345,354	157	2,426,320	169	2.1	12.3	3.5	15.0
Central Govt. Bonds	2,099,766	155	2,306,641	155	2,368,451	165	2.6	18.4	2.7	12.8
of which: *Sukuk*	342,989	25	378,115	25	392,985	27	4.2	39.6	3.9	14.6
Central Bank Bills	10,017	0.7	38,713	3	57,869	4	(48.3)	(90.5)	49.5	477.7
of which: *Sukuk*	10,017	0.7	10,642	0.7	10,043	0.7	(20.7)	(7.1)	(5.6)	0.3
Corporate	387,330	29	418,987	28	411,857	29	7.7	24.3	(1.7)	6.3
of which: *Sukuk*	15,387	1	16,382	1	21,298	1	10.2	32.9	30.0	38.4

( ) = negative, IDR = Indonesian rupiah, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. 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-December stood at IDR234.0 trillion.
Sources: Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; Indonesia Stock Exchange; Otoritas Jasa Keuangan; and Bloomberg LP.

The volume of new corporate debt issuance in Q4 2018 declined to IDR13.6 trillion, down 59.3% q-o-q and 73.3% y-o-y. A total of 14 firms tapped the debt market for funding in Q4 2018, issuing a total of 56 new bond series during the quarter. Of which, 17 series were structured as *sukuk* (Islamic bonds).

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (IDR billion)
Lontar Papyrus		
3-year *sukuk mudharabah*	10.00	500
5-year *sukuk mudharabah*	11.00	2,000
XL Axiata		
370-day bond	8.25	328
370-day *sukuk ijarah*	8.25	358
3-year bond	9.10	450
3-year *sukuk ijarah*	9.10	399
5-year bond	9.60	131
5-year *sukuk ijarah*	9.60	149
7-year bond	10.10	19
7-year *sukuk ijarah*	10.10	34
10-year bond	10.30	72
10-year *sukuk ijarah*	10.30	60

Corporate Issuers	Coupon Rate (%)	Issued Amount (IDR billion)
Indonesia Eximbank		
370-day bond	8.25	515
370-day *sukuk mudharabah*	8.25	212
3-year bond	8.75	81
3-year *sukuk mudharabah*	8.75	250
5-year bond	9.25	28
5-year *sukuk mudharabah*	9.25	14
7-year bond	9.75	380
7-year *sukuk mudharabah*	9.75	155

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

The aggregate outstanding bonds of the 30 largest corporate debt issuers in Indonesia totaled IDR303.2 trillion, accounting for a 73.6% share of the corporate bond stock at the end of December. The three largest corporate bond issuers each maintained their respective ranking from the previous quarter.

Table 3: 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	35,151.9	2.4	Yes	No	Banking
2.	Bank Rakyat Indonesia	24,445.0	1.7	Yes	Yes	Banking
3.	Perusahaan Listrik Negara	19,527.0	1.4	Yes	No	Energy
4.	Bank Tabungan Negara	17,050.0	1.2	Yes	Yes	Banking
5.	Indosat	16,081.0	1.1	No	Yes	Telecommunications
6.	Bank Pan Indonesia	15,427.0	1.1	No	Yes	Banking
7.	Sarana Multi Infrastruktur	14,245.3	1.0	Yes	No	Finance
8.	Bank Mandiri	14,000.0	1.0	Yes	Yes	Banking
9.	Waskita Karya	13,861.3	1.0	Yes	Yes	Building Construction
10.	Federal International Finance	11,111.4	0.8	No	No	Finance
11.	Adira Dinamika Multifinance	10,207.0	0.7	No	Yes	Finance
12.	Sarana Multigriya Finansial	9,735.5	0.7	Yes	No	Finance
13.	Pupuk Indonesia	9,076.0	0.6	Yes	No	Chemical Manufacturing
14.	Telekomunikasi Indonesia	8,995.0	0.6	Yes	Yes	Telecommunications
15.	Perum Pegadaian	8,599.0	0.6	Yes	No	Finance
16.	Bank CIMB Niaga	7,037.0	0.5	No	Yes	Banking
17.	Hutama Karya	6,825.0	0.5	Yes	No	Nonbuilding Construction
18.	Medco-Energi Internasional	6,454.2	0.4	No	Yes	Petroleum and Natural Gas
19.	Bank Maybank Indonesia	6,125.5	0.4	No	Yes	Banking
20.	Astra Sedaya Finance	6,025.0	0.4	No	No	Finance
21.	Permodalan Nasional Madani	5,746.0	0.4	Yes	No	Finance
22.	BFI Finance Indonesia	5,206.0	0.4	No	Yes	Finance
23.	Bank OCBC NISP	4,381.0	0.3	No	Yes	Banking
24.	Bank Pembangunan Daerah Jawa Barat Dan Banten	4,252.0	0.3	Yes	Yes	Banking
25.	Maybank Indonesia Finance	4,100.0	0.3	No	No	Finance
26.	Bank Permata	4,060.0	0.3	No	Yes	Banking
27.	Indofood Sukses Makmur	4,000.0	0.3	No	Yes	Food and Beverages
28.	XL Axiata	3,888.0	0.3	No	Yes	Telecommunications
29.	Bank UOB Buana	3,800.0	0.3	No	No	Banking
30.	Indomobil Finance Indonesia	3,777.5	0.3	No	No	Finance
Total Top 30 LCY Corporate Issuers		**303,189.4**	**21.1**			
Total LCY Corporate Bonds		**411,857.4**	**28.6**			
Top 30 as % of Total LCY Corporate Bonds		**73.6%**	**73.6%**			

IDR = Indonesian rupiah, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-December 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.

Republic of Korea

The Republic of Korea's local currency (LCY) bonds outstanding inched up 0.6% quarter-on-quarter (q-o-q) in the fourth quarter (Q4) of 2018 to reach KRW2,237 trillion (USD2,014 billion). Government bonds outstanding declined 1.5% q-o-q in Q4 2018 to KRW914 trillion as the stocks of central government bonds and central bank bonds contracted on a q-o-q basis. On the other hand, corporate bonds outstanding rose 2.1% q-o-q in Q4 2018 to reach KRW1,323 trillion. On a year-on-year basis, the Republic of Korea's LCY bond market expanded 3.8%.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	KRW	USD	KRW	USD	KRW	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**2,155,898**	**2,020**	**2,223,799**	**2,005**	**2,237,400**	**2,014**	**0.5**	**4.3**	**0.6**	**3.8**
Government	882,781	827	928,209	837	913,966	823	0.3	4.2	(1.5)	3.5
Central Government Bonds	546,715	512	579,104	522	567,044	510	(0.5)	5.8	(2.1)	3.7
Central Bank Bonds	170,860	160	174,600	157	171,640	154	2.9	1.5	(1.7)	0.5
Others	165,205	155	174,505	157	175,282	158	0.1	1.8	0.4	6.1
Corporate	1,273,117	1,193	1,295,590	1,168	1,323,434	1,191	0.6	4.4	2.1	4.0

( ) = negative, KRW = Korean won, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. 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. "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*.

Corporate bond issuance in the Republic of Korea rose to KRW135 trillion in Q4 2018 from KRW101 trillion in the previous quarter. Table 2 lists the notable LCY corporate bond issuances in the Republic of Korea during the quarter.

Table 2: Notable LCY Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (KRW billion)
Kookmin Bank		
1-year bond	2.01	400
2-year bond	2.14	200
10-year bond	2.96	300
Shihan Bank		
2-year bond	2.14	400
3-year bond	2.01	210
20-year bond	2.92	80
KEB Hana Bank		
1-year bond	2.95	200
2-year bond	2.15	200
2-year bond	2.15	200
HongHyup Bank		
1.5-year bond	2.09	300
3-year bond	2.13	60

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

LCY bonds outstanding among the top 30 corporate bond issuers in the Republic of Korea reached a total of KRW829 trillion at the end of Q4 2018, accounting for 62.6% of total LCY corporate bonds outstanding.

Table 3: 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	117,937.3	106.2	Yes	No	No	Housing Finance
2.	Mirae Asset Daewoo	69,985.7	63.0	No	Yes	No	Securities
3.	Korea Investment & Securities	57,593.5	51.8	No	No	No	Securities
4.	Nh Investment & Securities	57,574.4	51.8	Yes	Yes	No	Securities
5.	Industrial Bank of Korea	49,690.3	44.7	Yes	Yes	No	Banking
6.	Kb Securities	41,394.5	37.3	No	No	No	Securities
7.	Hana Financial Investment	38,580.6	34.7	No	No	No	Securities
8.	Korea Land & Housing Corporation	33,276.1	30.0	Yes	No	No	Real Estate
9.	Samsung Securities	27,006.0	24.3	No	Yes	No	Securities
10.	Shinhan Bank	26,552.5	23.9	No	No	No	Banking
11.	Korea Electric Power Corporation	25,280.0	22.8	Yes	Yes	No	Electricity, Energy, and Power
12.	Kookmin Bank	22,898.7	20.6	No	No	No	Banking
13.	Korea Expressway Corporation	21,800.0	19.6	Yes	No	No	Transport Infrastructure
14.	Keb Hana Bank	20,050.0	18.0	No	No	No	Banking
15.	Woori Bank	19,990.0	18.0	Yes	Yes	No	Banking
16.	Korea Rail Network Authority	18,860.0	17.0	Yes	No	No	Transport Infrastructure
17.	Korea Deposit Insurance Corporation	17,390.0	15.7	Yes	No	No	Insurance
18.	The Export–Import Bank of Korea	15,345.0	13.8	Yes	No	No	Banking
19.	Nonghyup Bank	14,930.0	13.4	Yes	No	No	Banking
20.	Shinyoung Securities	14,243.4	12.8	No	Yes	No	Securities
21.	Shinhan Card	14,000.0	12.6	No	No	No	Credit Card
22.	Hyundai Capital Services	13,391.0	12.1	No	No	No	Consumer Finance
23.	Small & Medium Business Coporation	12,953.1	11.7	Yes	No	No	SME Development
24.	Korea Gas Corporation	12,278.6	11.1	Yes	Yes	No	Gas Utility
25.	Kb Kookmin Card	12,090.0	10.9	No	No	No	Consumer Finance
26.	Korea Student Aid Foundation	11,160.0	10.0	Yes	No	No	Student Loan
27.	Standard Chartered Bank Korea	11,130.0	10.0	No	No	No	Banking
28.	Nonghyup Bank	10,910.0	9.8	Yes	No	No	Banking
29.	Samsung Card	10,498.0	9.4	No	Yes	No	Consumer Finance
30.	Daishin Securities	10,205.4	9.2	No	Yes	No	Securities
Total Top 30 LCY Corporate Issuers		**828,993.9**	**746.2**				
Total LCY Corporate Bonds		**1,323,434.0**	**1,191.3**				
Top 30 as % of Total LCY Corporate Bonds		**62.6%**	**62.6%**				

KOSDAQ = Korean Securities Dealer Automated Quotations, KOSPI = Korea Composite Stock Price Index, KRW = Korean won, LCY = local currency, SME = small and medium-sized enterprises, USD = United States dollar.
Notes:
1. Data as of end-December 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 *EDAILY BondWeb* data.

Malaysia

Total local currency (LCY) bonds outstanding in Malaysia reached MYR1,401 billion (USD339 billion) at the end of the fourth quarter (Q4) of 2018, registering increases of 1.6% quarter-on-quarter (q-o-q) and 8.9% year-on-year (y-o-y). Issuance in both the government and corporate sectors remained vibrant in Q4 2018, driving the increase in bond market size. Government bonds comprised 52.7% of total bonds outstanding at the end of December and corporate bonds comprised 47.3%. Total *sukuk* (Islamic bonds) amounted to MYR843 billion at the end of December, or the equivalent of 60.2% of LCY bonds outstanding, on growth of 2.1% q-o-q and 11.3% y-o-y.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	MYR	USD	MYR	USD	MYR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,286**	**318**	**1,379**	**333**	**1,401**	**339**	**1.8**	**10.2**	**1.6**	**8.9**
Government	673	166	725	175	739	179	0.3	6.2	1.9	9.8
Central Government Bonds	637	157	681	165	691	167	0.1	6.8	1.4	8.5
of which: *sukuk*	270	67	301	73	306	74	1.3	14.2	1.8	13.7
Central Bank Bills	7	2	16	4	19	5	37.4	(16.0)	23.9	161.2
of which: *sukuk*	0	0	3	1	4	0.9	–	–	23.3	–
Sukuk Perumahan Kerajaan	28	7	28	7	28	7	0.0	0.0	0.0	0.0
Corporate	613	152	653	158	662	160	3.5	14.9	1.3	8.0
of which: *sukuk*	460	114	493	119	505	122	4.7	16.5	2.3	9.8

( ) = negative, – = not applicable, LCY = local currency, MYR = Malaysian ringgit, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rate is used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
4. *Sukuk Perumahan Kerajaan* are Islamic bonds issued by the government 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 and Bloomberg LP.

Corporates were active in the LCY bond market in Q4 2018, with issuances amounting to MYR43 billion on growth of 22.6% q-o-q. Table 2 presents the notable issuances during the quarter.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (MYR million)
Cagamas		
3-year Islamic MTN	4.08	750
3-year Islamic MTN	4.12	500
3-year Islamic MTN	4.10	800
Danainfra Nasional		
7-year Islamic MTN	4.32	955
10-year Islamic MTN	4.47	740
15-year Islamic MTN	4.80	270
20-year Islamic MTN	5.00	520
30-year Islamic MTN	5.17	755
Lembaga Pembiayaan Perumahan Sektor Awam		
5-year Islamic MTN	4.05	550
7-year Islamic MTN	4.20	500
10-year Islamic MTN	4.39	550
20-year Islamic MTN	4.85	900
30-year Islamic MTN	5.10	500

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

The aggregate LCY bonds outstanding of the top 30 corporate issuers amounted to MYR381 billion at the end of December. This comprised 57.6% of the LCY corporate bond market, up from a share of 56.6% at the end of September. The most heavily represented sector in the top 30 list was finance. Firms from this sector accounted for outstanding bonds totaling MYR189 billion.

Table 3: 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	52.7	12.8	Yes	No	Finance
2.	Cagamas	35.8	8.7	Yes	No	Finance
3.	Project Lebuhraya Usahasama	30.2	7.3	No	No	Transport, Storage, and Communications
4.	Prasarana	29.5	7.1	Yes	No	Transport, Storage, and Communications
5.	Perbadanan Tabung Pendidikan Tinggi Nasional	19.0	4.6	Yes	No	Finance
6.	Lembaga Pembiayaan Perumahan Sektor Awam	17.8	4.3	Yes	No	Property and Real Estate
7.	Khazanah	15.0	3.6	Yes	No	Finance
8.	Pengurusan Air	14.6	3.5	Yes	No	Energy, Gas, and Water
9.	CIMB Bank	13.3	3.2	Yes	No	Finance
10.	Maybank	11.7	2.8	No	Yes	Banking
11.	Sarawak Energy	11.3	2.7	Yes	No	Energy, Gas, and Water
12.	CIMB Group Holdings	10.1	2.5	Yes	No	Finance
13.	Danga Capital	10.0	2.4	Yes	No	Finance
14.	Jimah East Power	9.0	2.2	Yes	No	Energy, Gas, and Water
15.	Maybank Islamic	8.3	2.0	No	Yes	Banking
16.	GENM Capital	7.6	1.8	No	No	Finance
17.	GOVCO Holdings	7.3	1.8	Yes	No	Finance
18.	Bank Pembangunan Malaysia	7.3	1.8	Yes	No	Banking
19.	Rantau Abang Capital	7.0	1.7	Yes	No	Finance
20.	Tenaga Nasional	7.0	1.7	No	Yes	Energy, Gas, and Water
21.	Public Bank	6.9	1.7	No	No	Banking
22.	Sarawak Hidro	6.5	1.6	Yes	No	Energy, Gas, and Water
23.	YTL Power International	6.1	1.5	No	Yes	Energy, Gas, and Water
24.	ValueCap	6.0	1.5	Yes	No	Finance
25.	Telekom Malaysia	5.8	1.4	No	Yes	Telecommunications
26.	Turus Pesawat	5.3	1.3	Yes	No	Transport, Storage, and Communications
27.	EDRA Energy	5.1	1.2	No	Yes	Energy, Gas, and Water
28.	1Malaysia Development	5.0	1.2	Yes	No	Finance
29.	Celcom Networks	5.0	1.2	No	No	Transport, Storage, and Communications
30.	Aman Sukuk	5.0	1.2	Yes	No	Construction
Total Top 30 LCY Corporate Issuers		**381.1**	**92.2**			
Total LCY Corporate Bonds		**662.2**	**160.3**			
Top 30 as % of Total LCY Corporate Bonds		**57.6%**	**57.6%**			

Notes:
1. Data as of end-December 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 data.

Philippines

The local currency (LCY) bond market of the Philippines expanded 5.3% quarter-on-quarter (q-o-q) and 11.4% year-on-year (y-o-y) in the fourth quarter (Q4) of 2018. Outstanding bonds amounted to PHP6,098 billion (USD116 billion), up from PHP5,792 billion in the previous quarter. Outstanding LCY government bonds grew 4.1% q-o-q, spurred by growth in Treasury bills and bonds. LCY corporate bonds outstanding increased 9.7% q-o-q in Q4 2018, led by the banking industry.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	PHP	USD	PHP	USD	PHP	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**5,475**	**110**	**5,792**	**107**	**6,098**	**116**	**5.1**	**12.5**	**5.3**	**11.4**
Government	4,456	89	4,593	85	4,783	91	5.8	12.0	4.1	7.4
Treasury Bills	314	6	439	8	494	9	(7.5)	9.2	12.6	57.2
Treasury Bonds	4,101	82	4,121	76	4,255	81	7.3	13.3	3.3	3.8
Others	40	0.8	34	0.6	34	0.6	(20.0)	(41.9)	(0.02)	(16.2)
Corporate	1,020	20	1,198	22	1,315	25	2.2	14.4	9.7	28.9

( ) = negative, LCY = local currency, PHP = Philippine peso, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period 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.

Sources: Bloomberg LP and Bureau of the Treasury.

Issuances of LCY corporate bonds in Q4 2018 totaled PHP130.9 billion, increasing more than 150% from the previous quarter. Metrobank and BPI provided the largest issuances during Q4 2018. Banks increased their issuance of bonds as an alternative funding source after the Bangko Sentral ng Pilipinas relaxed its rules to allow banks to tap the domestic capital market without prior approval from the central bank.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (PHP billion)
Metrobank		
2-year bond	7.15	28.00
6-year bond	5.38	8.68
BPI		
1-year bond	6.80	25.00
Petron		
6-year bond	7.82	13.20
7-year bond	8.06	6.80
Vista Land		
5-year bond	8.00	6.50
7-year bond	8.25	3.50
Aboitiz Power		
10-year bond	8.51	2.50

PHP = Philippine peso.
Source: Bloomberg LP.

The outstanding LCY corporate bonds of the top 30 issuers amounted to PHP1,142.6 billion at the end of December, comprising 86.9% of the entire LCY corporate bond market. Property companies Ayala Land and SM Prime Holdings led all issuers with LCY bonds outstanding of PHP112.7 billion and PHP93.8 billion, respectively. The banking industry led all sectors with a 33.7% share of the outstanding LCY corporate bonds of the top 30 issuers, followed by the property sector (26.3%) and holding firms (20.6%).

Table 3: 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	112.7	2.1	No	Yes	Property
2.	SM Prime Holdings	93.8	1.8	No	Yes	Property
3.	Metropolitan Bank	90.3	1.7	No	Yes	Banking
4.	San Miguel	60.0	1.1	No	Yes	Holding Firms
5.	BDO Unibank	58.6	1.1	No	Yes	Banking
6.	SM Investments	51.4	1.0	No	Yes	Holding Firms
7.	Philippine National Bank	41.5	0.8	No	Yes	Banking
8.	Ayala Corporation	40.0	0.8	No	Yes	Holding Firms
9.	Vista Land	38.0	0.7	No	Yes	Property
10.	Petron	37.9	0.7	No	Yes	Electricity, Energy, and Power
11.	Bank of the Philippine Islands	37.2	0.7	No	Yes	Banking
12.	San Miguel Brewery	34.8	0.7	No	No	Brewery
13.	Security Bank	34.4	0.7	No	Yes	Banking
14.	Maynilad	33.6	0.6	No	No	Water
15.	Aboitiz Equity Ventures	32.0	0.6	No	Yes	Holding Firms
16.	JG Summit	30.0	0.6	No	Yes	Holding Firms
17.	SMC Global Power	30.0	0.6	No	No	Electricity, Energy, and Power
18.	Filinvest Land	29.0	0.6	No	Yes	Property
19.	Manila Electric Company	28.8	0.5	No	Yes	Electricity, Energy, and Power
20.	Union Bank of the Philippines	28.0	0.5	No	Yes	Banking
21.	East West Banking	27.7	0.5	No	Yes	Banking
22.	Rizal Commercial Banking Corporation	27.2	0.5	No	Yes	Banking
23.	China Bank	26.2	0.5	No	Yes	Banking
24.	Aboitiz Power	23.2	0.4	No	Yes	Electricity, Energy, and Power
25.	GT Capital	22.0	0.4	No	Yes	Holding Firms
26.	PLDT	20.4	0.4	No	Yes	Telecommunications
27.	DoubleDragon Properties	15.0	0.3	No	Yes	Property
28.	Philippine Savings Bank	14.5	0.3	No	Yes	Banking
29.	Globe Telecom	12.5	0.2	No	Yes	Telecommunications
30.	Megaworld	12.0	0.2	No	Yes	Property
Total Top 30 LCY Corporate Issuers		**1,142.6**	**21.7**			
Total LCY Corporate Bonds		**1,314.6**	**25.0**			
Top 30 as % of Total LCY Corporate Bonds		**86.9%**	**86.9%**			

LCY = local currency, PHP = Philippine peso, USD = United States dollar.
Notes:
1. Data as of end-December 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.

Singapore

The local currency (LCY) bond market of Singapore expanded 1.2% quarter-on-quarter (q-o-q) and 11.0% year-on-year (y-o-y) in the fourth quarter (Q4) of 2018, reaching SGD403 billion (USD295 billion) on the back of both increased LCY government and corporate bonds. There was a total of SGD244 billion in LCY government bonds outstanding, corresponding to a 1.5% q-o-q increase, due mainly to a rise in Singapore Government Securities (SGS) bonds as none of these instruments matured in Q4 2018. LCY corporate bonds outstanding amounted to SGD158 billion at the end of December on growth of 0.7% q-o-q.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	SGD	USD	SGD	USD	SGD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**363**	**272**	**398**	**291**	**403**	**295**	**0.1**	**7.9**	**1.2**	**11.0**
Government	222	166	241	176	244	179	0.6	14.9	1.5	10.2
SGS Bills and Bonds	116	87	122	89	125	92	(0.9)	5.5	2.1	7.7
MAS Bills	106	79	119	87	120	88	2.4	27.3	0.8	12.9
Corporate	141	106	157	115	158	116	(0.8)	(1.4)	0.7	12.3

( ) = negative, LCY = local currency, MAS = Monetary Authority of Singapore, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth 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.

LCY corporate bond issuances dropped 35.9% q-o-q, following a rebound in issuances in the previous quarter when long-term Singapore interest rates declined. The largest corporate bond issuance during the quarter came from the Land Transport Authority, followed by Shangri-La Hotel and Singapore Airlines.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (SGD million)
Land Transport Authority		
35-year bond	3.43	1,000
Shangri-La Hotel		
7-year bond	4.50	825
Singapore Airlines		
5-year bond	3.16	600
Hong Kong Land Treasury Services		
20-year bond	3.95	150
Aspial Treasury		
3-year bond	6.25	50

SGD = Singapore dollar.
Source: Bloomberg LP.

Outstanding LCY corporate bonds of the top 30 issuers amounted to SGD72.7 billion at the end of December, or 45.9% of total LCY corporate bonds outstanding. The government's Housing & Development Board topped all issuers in 2018 with total outstanding LCY corporate bonds of SGD21.9 billion, or 13.8% of the total in Q4 2018. This was followed by another government institution, the Land Transport Authority, with outstanding LCY corporate bonds totaling SGD7.5 billion in Q4 2018. Led by the Housing & Development Board, the real estate sector topped all sectors with SGD33.2 billion of outstanding bonds, or 45.7% of the aggregate LCY corporate bonds of the top 30 issuers. This was followed by the transportation sector with SGD11.9 billion (16.4%).

Table 3: 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	21.9	16.1	Yes	No	Real Estate
2.	Land Transport Authority	7.5	5.5	Yes	No	Transportation
3.	Singapore Airlines	3.6	2.7	Yes	Yes	Transportation
4.	Temasek Financial	3.6	2.6	Yes	No	Finance
5.	Frasers Property	3.4	2.5	No	Yes	Real Estate
6.	DBS Group Holdings	2.5	1.9	No	Yes	Banking
7.	United Overseas Bank	2.5	1.8	No	Yes	Banking
8.	Mapletree Treasury Services	2.3	1.7	No	No	Finance
9.	Capitaland	2.2	1.6	Yes	Yes	Real Estate
10.	Keppel Corporation	1.7	1.2	No	Yes	Diversified
11.	Capitaland Treasury	1.6	1.2	No	No	Finance
12.	Oversea-Chinese Banking Corporation	1.5	1.1	No	Yes	Banking
13.	SP Powerassets	1.4	1.0	No	No	Utilities
14.	Public Utilities Board	1.3	1.0	Yes	No	Utilities
15.	CMT MTN	1.3	0.9	No	No	Finance
16.	GLL IHT	1.3	0.9	No	No	Real Estate
17.	Olam International	1.2	0.9	No	Yes	Consumer Goods
18.	Singtel Group Treasury	1.2	0.8	No	No	Finance
19.	City Developments Limited	1.1	0.8	No	Yes	Real Estate
20.	Hyflux	1.1	0.8	No	Yes	Utilities
21.	National University of Singapore	1.0	0.7	No	No	Education
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.	Suntec REIT	0.8	0.6	No	Yes	Real Estate
26.	Shangri-La Hotel	0.8	0.6	No	Yes	Real Estate
27.	DBS Bank	0.8	0.6	No	Yes	Banking
28.	Overseas Union Enterprise	0.8	0.6	No	Yes	Real Estate
29.	Sembcorp Industries	0.8	0.6	No	Yes	Shipbuilding
30.	SMRT Capital	0.8	0.6	No	No	Transportation
Total Top 30 LCY Corporate Issuers		**72.7**	**53.3**			
Total LCY Corporate Bonds		**158.3**	**116.2**			
Top 30 as % of Total LCY Corporate Bonds		**45.9%**	**45.9%**			

LCY = local currency, SGD = Singapore dollar, USD = United States dollar.
Notes:
1. Data as of end-December 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 *EDAILY BondWeb* data.

Thailand

Total local currency (LCY) bonds outstanding in Thailand increased 2.5% quarter-on-quarter (q-o-q) and 10.3% year-on-year (y-o-y), reaching THB12,445 billion (USD385 billion) at the end of the fourth quarter (Q4) of 2018. The government and corporate sectors both posted quarterly increases, with the former expanding a more rapid 3.3% q-o-q compared with the latter's marginal increase of 0.5% q-o-q. On an annual basis, the government sector posted 9.6% growth and the corporate sector posted 12.2% growth. Government bonds comprised 72.2% of total LCY bonds outstanding at the end of December and corporate bonds comprised 27.8%.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2076		Q4 2018	
	THB	USD	THB	USD	THB	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**11,279**	**346**	**12,141**	**376**	**12,445**	**385**	2.2	3.9	2.5	10.3
Government	8,196	252	8,699	269	8,986	278	2.7	3.3	3.3	9.6
Government Bonds and Treasury Bills	4,334	133	4,614	143	4,738	147	0.9	7.4	2.7	9.3
Central Bank Bonds	3,042	93	3,322	103	3,477	108	5.3	(3.0)	4.6	14.3
State-Owned Enterprise and Other Bonds	820	25	762	24	771	24	2.6	7.1	1.2	(5.9)
Corporate	3,083	95	3,442	106	3,459	107	1.0	5.6	0.5	12.2

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, THB = Thai baht, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
Sources: Bank of Thailand and Bloomberg LP.

Corporate debt sales in the LCY bond market in Q4 2018 amounted to THB356 billion, reflecting a decline of 22.2% from the third quarter. The financial sector had the largest share of newly issued bonds in Q4 2018. Table 2 presents the notable issuances during the quarter.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuers	Coupon Rate (%)	Issued Amount (THB billion)
Charoen Pokphand Foods		
2-year bond	2.74	6,700
4-year bond	3.20	7,600
6-year bond	3.79	2,200
10-year bond	4.41	3,200
12-year bond	4.66	5,300
Toyota Leasing Thailand		
2-year bond	2.08	3,000
2-year bond	2.44	2,800
3-year bond	2.31	1,100
3-year bond	2.64	1,400
3-year bond	2.51	1,900
Siam Cement		
4-year bond	3.10	10,000

THB = Thai baht.
Source: Bloomberg LP.

The aggregate LCY bonds outstanding of the top 30 corporate issuers in Thailand amounted to THB1,869 billion at the end of December, comprising 54.0% of the LCY corporate bond market. Food and beverage firms had the largest share of outstanding corporate bonds with an aggregate amount of THB478 billion.

Table 3: 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	5.6	Yes	Yes	Construction Materials
2.	CP All	160.9	5.0	No	Yes	Commerce
3.	Thai Beverage	127.0	3.9	No	No	Food and Beverage
4.	Berli Jucker	122.0	3.8	No	Yes	Food and Beverage
5.	Bank of Ayudhya	116.0	3.6	No	Yes	Banking
6.	PTT	110.7	3.4	Yes	Yes	Energy and Utilities
7.	Charoen Pokphand Foods	109.5	3.4	No	Yes	Food and Beverage
8.	Toyota Leasing Thailand	76.7	2.4	No	No	Finance and Securities
9.	Indorama Ventures	66.2	2.0	No	Yes	Petrochemicals and Chemicals
10.	Thai Airways International	64.9	2.0	Yes	Yes	Transportation and Logistics
11.	True Move H Universal Communication	56.0	1.7	No	No	Communications
12.	Tisco Bank	49.7	1.5	No	No	Banking
13.	Krungthai Card	45.3	1.4	Yes	Yes	Banking
14.	CPF Thailand	44.0	1.4	No	Yes	Food and Beverage
15.	Mitr Phol Sugar	42.2	1.3	No	No	Food and Beverage
16.	Banpu	41.8	1.3	No	Yes	Energy and Utilities
17.	Land & Houses	40.5	1.3	No	Yes	Property and Construction
18.	Advanced Wireless	40.2	1.2	No	Yes	Communications
19.	Bangkok Expressway and Metro	38.2	1.2	No	Yes	Transportation and Logistics
20.	Minor International	37.5	1.2	No	Yes	Hospitality and Leisure
21.	TPI Polene	36.0	1.1	No	Yes	Property and Construction
22.	Thai Union Group	33.8	1.0	No	Yes	Food and Beverage
23.	Bangkok Commercial Asset Management	32.2	1.0	No	No	Finance and Securities
24.	PTT Exploration and Production Company	29.6	0.9	Yes	Yes	Energy and Utilities
25.	CH. Karnchang	29.6	0.9	No	Yes	Property and Construction
26.	DTAC Trinet	29.5	0.9	No	Yes	Communications
27.	Krungsriayudhya Card	28.7	0.9	No	Yes	Banking
28.	Kasikorn Bank	28.0	0.9	No	Yes	Banking
29.	True Corp	25.8	0.8	No	Yes	Communications
30.	Bangchak Corporation	25.0	0.8	No	Yes	Energy and Utilities
Total Top 30 LCY Corporate Issuers		1,868.6	57.8			
Total LCY Corporate Bonds		3,459.1	107.0			
Top 30 as % of Total LCY Corporate Bonds		54.0%	54.0%			

LCY = local currency, THB = Thai baht, USD = United States dollar.
Notes:
1. Data as of end-December 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.

Viet Nam

Viet Nam's local currency (LCY) bonds outstanding stood at VND1,180.5 trillion (USD51 billion) at the end of December, down 5.3% quarter-on-quarter (q-o-q), but up 9.3% year-on-year (y-o-y). The decline was due to the maturing of all outstanding central bank bills, which more than offset the marginal increase in both Treasury bonds and corporate bonds.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2017		Q3 2018		Q4 2018		Q4 2017		Q4 2018	
	VND	USD	VND	USD	VND	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,079,823**	**48**	**1,246,354**	**53**	**1,180,519**	**51**	**1.4**	**7.9**	**(5.3)**	**9.3**
Government	1,003,064	44	1,152,839	49	1,081,190	47	(0.2)	6.6	(6.2)	7.8
Treasury Bonds	796,551	35	896,681	38	898,393	39	(0.1)	7.2	0.2	12.8
Central Bank Bonds	16,400	0.7	75,010	3	0	0	(21.9)	105.0	(100.0)	(100.0)
State-Owned Enterprise Bonds	190,113	8	181,148	8	182,798	8	1.8	0.1	0.9	(3.8)
Corporate	76,759	3	93,515	4	99,328	4	27.0	29.3	6.2	29.4

( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth 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.

In Q4 2018, corporate bond issuance reached VND7.7 trillion, declining 10.7% q-o-q and 59.9% y-o-y. Five firms tapped the debt market for their capital requirements, issuing a total of six new bond series during the quarter. The largest issuance came from Hoan My Medical, which issued VND2.3 trillion via a dual-tranche bond that carried a guarantee from the Credit Guarantee and Investment Facility.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2018

Corporate Issuer	Coupon Rate (%)	Issued Amount (VND billion)
Hoan My Medical		
5-year bond	6.64	930
7-year bond	6.74	1,400
Asia Commercial Joint Stock Bank		
10-year bond	7.35	2,200
Vietnam International Commercial Bank		
3-year bond	6.30	2,200

VND = Vietnamese dong.
Source: Bloomberg LP.

At the end of December, the aggregate outstanding bonds of Viet Nam's 30 largest corporate LCY bond issuers amounted to VND95.6 trillion, representing 96.3% of the total LCY corporate bond stock. Taking the top spot was Vinhomes, a firm that provides real estate services, which bumped Masan Consumer Holdings down to the second spot.

Table 3: Top 30 Corporate Issuers of Local Currency Corporate Bonds in Viet Nam

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (VND billion)	LCY Bonds (USD billion)			
1.	Vinhomes	12,500.0	0.54	No	Yes	Real Estate
2.	Masan Consumer Holdings	11,100.0	0.48	No	No	Diversified Operations
3.	Vingroup	9,600.0	0.41	No	Yes	Real Estate
4.	Vietnam Joint Stock Commercial Bank for Industry and Trade	8,200.0	0.35	Yes	Yes	Banking
5.	Asia Commercial Joint Stock Bank	6,800.0	0.29	No	No	Banking
6.	Hoang Anh Gia Lai	4,000.0	0.17	No	Yes	Real Estate
7.	No Va Land Investment Group	3,300.0	0.14	No	Yes	Real Estate
8.	Masan Group	3,000.0	0.13	No	Yes	Finance
9.	Vietnam Technological and Commercial Joint Stock Bank	3,000.0	0.13	No	No	Banking
10.	Vietnam Prosperity Joint Stock Commercial Bank	3,000.0	0.13	No	Yes	Banking
11.	Bank for Investment and Development of Vietnam	2,700.0	0.12	Yes	Yes	Banking
12.	Sai Dong Urban Investment and Development	2,600.0	0.11	No	No	Real Estate
13.	Ho Chi Minh City Infrastructure Investment	2,410.4	0.10	No	Yes	Infrastructure
14.	Hoan My Medical	2,330.0	0.10	No	No	Healthcare Services
15.	Hoang Anh Gia Lai International Agriculture	2,217.1	0.10	No	Yes	Agriculture
16.	Vietnam International Commercial Bank	2,202.8	0.10	No	Yes	Agriculture
17.	Agro Nutrition International	2,000.0	0.09	No	No	Agriculture
18.	Joint Stock Commercial Bank for Foreign Trade of Vietnam	2,000.0	0.09	Yes	Yes	Banking
19.	Vietnam Electrical Equipment	1,800.0	0.08	No	Yes	Manufacturing
20.	Nui Phao Mining	1,500.0	0.06	No	No	Mining
21.	Saigon Securities	1,450.0	0.06	No	Yes	Finance
22.	Saigon-Hanoi Securities	1,150.0	0.05	No	Yes	Finance
23.	Mobile World Investment	1,135.0	0.05	No	Yes	Manufacturing
24.	Pan Group	1,135.0	0.05	No	Yes	Consumer Services
25.	DIC Corporation	1,000.0	0.04	Yes	No	Chemicals
26.	TTC Education Joint Stock Company	951.0	0.04	No	No	Education Services
27.	Vietnam Bank for Agriculture and Rural Development	760.0	0.03	Yes	No	Banking
28.	Nam Long Investment	660.0	0.03	No	Yes	Real Estate
29.	KinhBac City Development Holding	600.0	0.03	No	Yes	Real Estate
30.	Khang Dien House Trading and Investment	534.0	0.02	No	Yes	Building and Construction
Total Top 30 LCY Corporate Issuers		**95,635.3**	**4.13**			
Total LCY Corporate Bonds		**99,328.3**	**4.29**			
Top 30 as % of Total LCY Corporate Bonds		**96.3%**	**96.3%**			

LCY = local currency, USD = United States dollar, VND = Vietnamese dong.
Notes:
1. Data as of end-December 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.

Asia Bond Monitor

March 2019

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 68 members—49 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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