ASIA BOND MONITOR
MARCH 2018

ASIAN DEVELOPMENT BANK

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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

Emerging East Asia's Local Currency Government Bond Yield Curves Steepen

Local currency (LCY) government bond yield curves in emerging East Asia steepened between 29 December 2017 and 15 February 2018.[1] Yields on 10-year LCY bonds in emerging East Asia were largely up, while yields on 2-year LCY bonds declined in most markets. The steeper yield curves reflect the region's positive economic outlook and expectations of rising inflation.

Major advanced economies also saw steeper government bond yield curves, with 10-year yields climbing faster than 2-year yields, signifying positive global economic momentum. The eurozone, Japan, and the United States (US) all raised their economic growth forecasts for 2018.

In the US, economic growth remained firmly on track and the labor market continued to improve. Against this backdrop, the Federal Reserve raised its key policy rate target range by 25 basis points to between 1.25% and 1.50% in its Federal Open Market Committee meeting in December.

The likelihood of global monetary policy normalization has increased. In January, while the European Central Bank maintained its policy rate unchanged in its monetary policy meeting, it began reducing its bond purchases. While the Bank of Japan decided to maintain its monetary policy measures in its most recent monetary policy meeting, a remark by the central bank governor in March signaled the possibility of monetary policy normalization starting in fiscal year 2019.

The continued recovery in the global economy has contributed to a rally in financial markets that lasted through January. Financial risk and volatility indicators—such as the CBOE Volatility Index, credit default swap spreads, and emerging market bond spreads—narrowed in January. However, a price correction in equity markets and an uptick in risk indicators were observed in the first week of February due to uncertainties in US macroeconomic policies and expectations of accelerated rate hikes by the Federal Reserve. Financial markets and volatility indicators subsequently stabilized, beginning in the middle of February.

This issue of the *Asia Bond Monitor* includes two special discussion boxes. Box 1 discusses the short-term and long-term effects of global monetary policy normalization and the resultant tighter global liquidity in financial markets in the region.

Box 2 discusses the effects of tighter global liquidity on financial stability in the region. It highlights the implications of rising interest rates on the region's private debt that accumulated during the low global interest rate environment, and the impacts on the region's aggregate demand and economic growth.

While the global economic outlook remains positive, risks to the region's economic growth and stability remain. These include (i) faster-than-expected rate hikes in the US, and monetary policy normalization in other advanced economies; and (ii) growing threats of protectionism.

Local Currency Bond Markets in Emerging East Asia Expand in Q4 2017

Emerging East Asia's markets continued to grow in the fourth quarter (Q4) of 2017, reaching a size of USD12.3 trillion at the end of December. Growth was broad-based across the region, with all markets expanding. However, growth was slower in Q4 2017 than in the previous quarter, moderating to 3.1% quarter-on-quarter (q-o-q) from 4.0% q-o-q, as bond issuance declined. The slowdown was not evident in all markets, with four out of the nine markets showing accelerated growth.

Much of emerging East Asia's bond market gains were dominated by the People's Republic of China (PRC), the largest bond market in the region. The PRC's bond market growth slowed to 4.0% q-o-q in Q4 2017 from 5.3% q-o-q in the previous quarter due to ongoing deleveraging as the government seeks to reduce risks in the market.

[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.

The government bond segment reached a size of USD8.2 trillion at the end of December, comprising 66.6% of total bonds outstanding, roughly the same share as at the end of September. The corporate bond segment accounted for the remainder, with USD4.1 trillion of bonds outstanding at the end of December.

The size of emerging East Asia's bond market relative to the region's gross domestic product inched up to 71.3% at the end of December from 70.1% at the end of September. During the same period, government bonds outstanding as a share of gross domestic product rose to 47.5% from 46.5%, while corporate bonds increased to 23.8% from 23.5%.

Total bond issuance fell to USD1,103 billion in Q4 2017, mostly due to contractions in the amount of bonds issued by the PRC in both its government and corporate bond segments. The PRC accounted for 54.8% of all bond issuance in emerging East Asia in Q4 2017.

Net Foreign Investment Outflows in October, Inflows in November and December

Despite rising interest rates in the US and in domestic bond markets, foreign investor interest in emerging East Asian bonds remained strong, with foreign investors adding to their holdings in Q4 2017 on the back of improving economic fundamentals. Among the markets for which data are available, Malaysia showed the largest increase in its ratio of foreign investor holdings to total government bonds outstanding in Q4 2017, while gains were also noted in the PRC. Indonesia's foreign investor share remained steady during the quarter.

While bond outflows from the region were noted in October, inflows in November and December led to overall net flows into emerging East Asian bond markets in Q4 2017, with the exception of the Republic of Korea, which recorded net outflows for the quarter.

Local Currency Bond Yields Rise at the Long-End of the Curve

Government bond yields rose at the long-end of the curve for nearly all emerging East Asian markets between 29 December and 15 February on the back of continued economic expansion and policy normalization in the US. The only exception was Viet Nam, whose yield curve shifted downward during the review period.

Introduction: Yield Curves Steepen in Emerging East Asia

Yields on 10-year local currency (LCY) government bonds in emerging East Asia were largely up between 29 December 2017 and 15 February 2018 as global economic growth maintained its momentum and inflation continued to rise. Meanwhile, yields on 2-year LCY government bonds declined in most emerging East Asian markets. In line with advanced economies, emerging East Asia also saw steeper yield curves, reflecting brighter economic prospects and rising inflation (**Table A**).[2]

Between 29 December and 15 February, major advanced economies witnessed an increase in their 2-year and 10-year government bond yields, with 10-year government bond yields climbing faster than 2-year government bond yields. The steeper yield curves confirm the continued expansion of the global economy and increased prospects of higher inflation (**Figure A1**).

Despite a somewhat weaker economic performance in the fourth quarter (Q4) of 2017, the outlook for major economies remains decidedly positive. While gross domestic product (GDP) growth fell slightly in the United States (US) in Q4 2017 to 2.5% year-on-year (y-o-y) from 3.2% y-o-y in the third quarter (Q3) of 2017, growth remains firmly on track, with consumption growth increasing from 2.2% y-o-y in Q3 2017 to 3.8% y-o-y in Q4 2017. The labor market continues to strengthen as nonfarm payrolls posted strong gains in January, adding 200,000 jobs versus a gain of 160,000 in December.

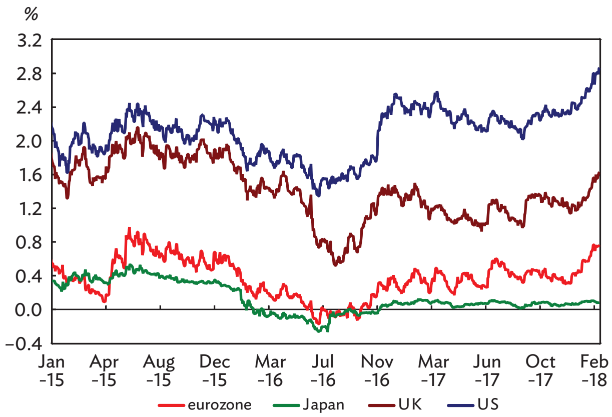
Table A: Changes in Global Financial Conditions

	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	30	50	–	2.2	–
United Kingdom	26	46	(3)	(5.9)	4.3
Japan	(2)	2	(9)	(5.2)	6.2
Germany	7	34	0.3	(4.4)	4.2
Emerging East Asia					
China, People's Rep. of	(24)	7	8	(3.3)	2.6
Hong Kong, China	(16)	20	–	4.0	(0.1)
Indonesia	(19)	11	3	3.7	(0.04)
Korea, Rep. of	6	29	(2)	(1.9)	(0.5)
Malaysia	18	10	3	2.3	3.9
Philippines	12	101	4	0.6	(4.4)
Singapore	(8)	29	–	1.2	2.1
Thailand	(13)	8	(4)	2.7	4.1
Viet Nam	(93)	(84)	(2)	7.7	(0.03)
Select European Markets					
Greece	(7)	6	(45)	5.1	4.2
Ireland	10	24	(3)	(3.7)	4.2
Italy	(1)	8	(21)	2.9	4.2
Portugal	1	(0.1)	(22)	1.4	4.2
Spain	5	(3)	(8)	(3.3)	4.2

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.
Notes:
1. Data reflect changes between 29 December 2017 and 15 February 2018.
2. A positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Sources: Bloomberg LP and Institute of International Finance.

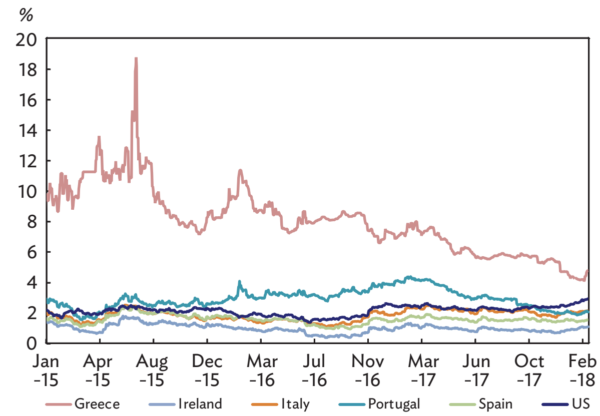
[2] Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

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



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

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



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

Amid continuing economic growth momentum and a robust labor market, the United States (US) Federal Reserve raised its key policy rate target range by 25 basis points (bps) to between 1.25% and 1.50% at its Federal Open Market Committee meeting in December. It also upgraded its projections for US GDP growth in 2018, 2019, and 2020 from 2.4% to 2.5%, from 2.0% to 2.1%, and from 1.8% to 2.0%, respectively.

The economic outlooks for the eurozone and Japan also remain positive. The flash estimate of the eurozone's annual GDP growth in Q4 2017 was 2.7%, down slightly from 2.8% in Q3 2017. In January, the European Central Bank's (ECB) Survey of Professional Forecasters upgraded its previous GDP growth projections for 2018 and 2019, made in September, from 1.9% and 1.7% to 2.3% and 1.9%, respectively. While the ECB kept its monetary policy unchanged at its January meeting, the reduction in ECB bond purchases starting in January partly contributed to bond yields rising in many eurozone markets (**Figure A2**). In Japan, despite annual GDP growth slowing to 0.5% in Q4 2017 from 2.2% in Q3 2017, the Bank of Japan held monetary policy steady at its January meeting and raised its 2018 GDP growth forecast range from 1.2%–1.4% to 1.3%–1.5%. In March, the Bank of Japan also indicated that it would begin thinking and debating about monetary policy normalization in April 2019.

While inflation has been muted globally, it is projected to gradually rise as economic growth strengthens. In the US, inflation has shown steady signs of picking up. In January, the monthly gain in the Consumer Price Index (CPI) and core CPI rose to 0.5% month-on-month (m-o-m) and 0.3% m-o-m, respectively, from 0.2% m-o-m and 0.2% m-o-m in December. The annual inflation rate in the US has been running below the Federal Reserve's 2.0% target but is projected to reach this target in the medium term. In the eurozone, annual inflation fell marginally to 1.2% in February from 1.3% in January, but the ECB projects inflation to pick up by 2019. In Japan, annual inflation rose to 1.4% in January from 1.0% in December and is expected to reach the Bank of Japan's 2.0% target by 2019.

In line with the bright global economic outlook, emerging East Asian countries are enjoying robust economic growth. According to the latest forecasts of the Asian Development Bank (ADB), published in December in the *Asian Development Outlook Supplement*, developing Asia as a whole is estimated to have grown by 6.0% in 2017 and is projected to grow by 5.8% in 2018. Growth in East Asian and Southeast Asian economies is estimated to have exceeded ADB's September 2017 forecast that was published in the *Asian Development Outlook Update*. ADB's December growth estimate for the PRC in 2017 was 6.8%, compared with the September growth forecast of 6.7%. Similarly, ADB's December growth estimates for Hong Kong, China and the Republic of Korea both exceeded September's forecasts. The PRC is projected to grow by a moderately slower but still healthy 6.4% in

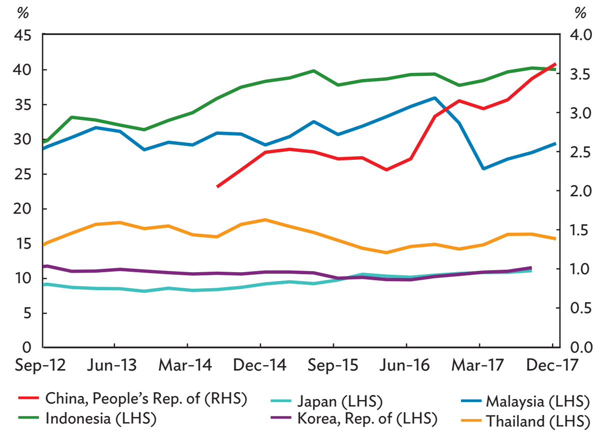
2018. Southeast Asia surprised on the upside too, with the December GDP growth estimate of 5.2% surpassing the September forecast of 5.0%. Southeast Asia's growth forecast for 2018 was also upgraded, from 5.1% to 5.2%.

As a result of strengthening growth momentum and other factors, such as recovering global commodity prices, developing Asia's inflation is gradually (if unevenly) picking up. According to ADB's December projections, the region's CPI inflation will rise from 2.4% in 2017 to 2.9% in 2018. The PRC's CPI inflation is projected to rise from 1.7% to 2.4% over the same period. Inflation is also projected to pick up modestly in Hong Kong, China. In Southeast Asia, inflation is expected to rise in the Philippines, Singapore, Thailand, and Viet Nam. For the subregion as a whole, inflation is projected to rise from 3.0% in 2017 to 3.1% in 2018. Overall, the inflationary environment in emerging East Asia remains stable, although inflationary pressures are beginning to emerge.

With benign global and regional economic outlooks and nascent inflation in major advanced economies as well as in the region, 10-year LCY government bond yields in emerging East Asia continue to rise. The largest increase in the 10-year yield was seen in the Philippines, where a 101-bps increase between 29 December and 15 February was driven by the passage of a new tax bill that was expected to push up inflation. The Republic of Korea posted the second-largest increase as the Bank of Korea raised its policy rate by 25 bps to 1.5% on 30 November. Singapore and Hong Kong, China saw increases of 29 bps and 20 bps, respectively, during the review period as both markets closely track the US market. The only exception to this rising trend was Viet Nam, which cut its policy rate in the second half of 2017. Furthermore, foreign participation in Viet Nam's bond market is still limited.

On the other hand, 2-year government bond yields fell in most emerging East Asia markets between 29 December and 15 February. In Singapore, the decline was largely due to investors rebalancing their portfolios, creating greater demand for short-term government bonds. In Hong Kong, China, the decline was due to ample liquidity. Several markets witnessed increases in 2-year government bond yields, with Malaysia's rising the most, largely due to its policy rate hike on 25 January of 25 bps to 3.25%. In line with advanced economies, yield curves in emerging East Asian markets steepened during the review period, echoing the globally synchronized improvement of economic fundamentals.

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

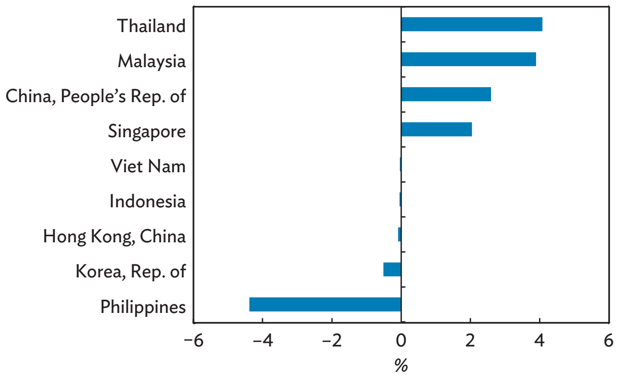


LHS = left-hand side, RHS = right-hand side.
Note: Data as of 31 December 2017 except for Japan and the Republic of Korea (30 September 2017).
Source: *AsianBondsOnline*.

The worldwide recovery has fostered positive investor sentiment. Foreign demand for LCY government bonds in emerging East Asia was strong through the end of 2017 (**Figure B**). For example, the foreign holdings share in Malaysia rose from 27.9% at the end of September to 29.2% at the end of December. The ringgit strengthened, bond yields rose on the back of a rate hike by the central bank in January, and the economic outlook improved. Most emerging East Asian currencies also appreciated during the review period except for the Philippine peso, which felt the effects of a widening trade deficit and strong US dollar demand from corporates (**Figure C**).

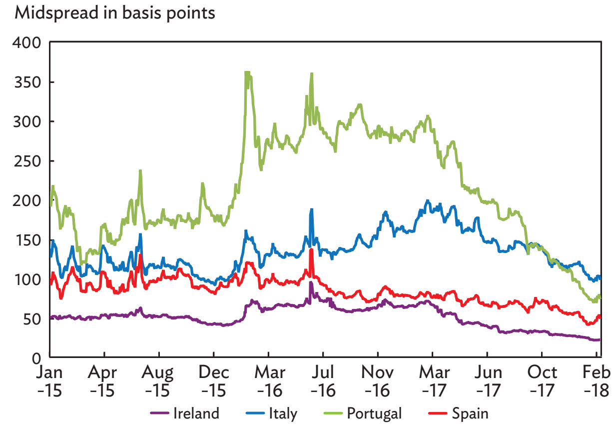
Against the backdrop of a firm global recovery, financial markets worldwide continued to rally through January. Measures of financial risk and volatility implied positive investor sentiment. The CBOE Volatility Index fell and credit default swap spreads and emerging markets bond spreads continued to narrow in January (**Figures D, E, F, and G**). However, uncertainty over macroeconomic policies in the US, along with the fear of accelerated rate hikes by the US Federal Reserve in response to a tightening labor market and rising inflation, triggered a price correction in the US stock market amid sharp sell-offs in the first week of February. The rapid decline in the US equity market in early February quickly spread to global equity markets and affected global investor sentiment. The withdrawal of foreign funds was noted in some Asian markets. For example, foreign holdings

Figure C: Changes in the United States Dollar Value per Unit of Local Currency



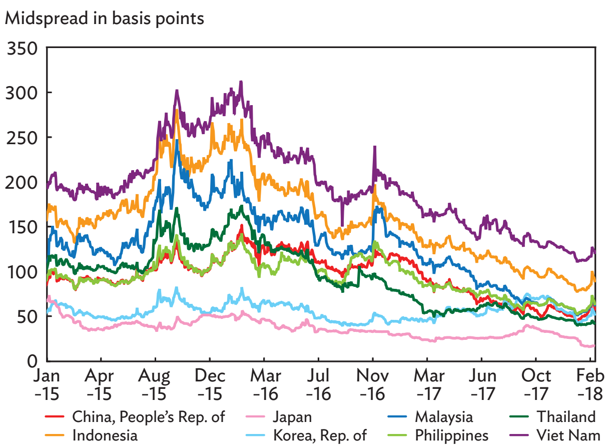
Notes:
1. Changes between 29 December 2017 and 15 February 2018.
2. A positive (negative) value for the foreign exchange rate indicates the appreciation (depreciation) of the local currency against the United States dollar.
Source: Bloomberg LP.

Figure E: Credit Default Swap Spreads in Select European Markets (senior 5-year)



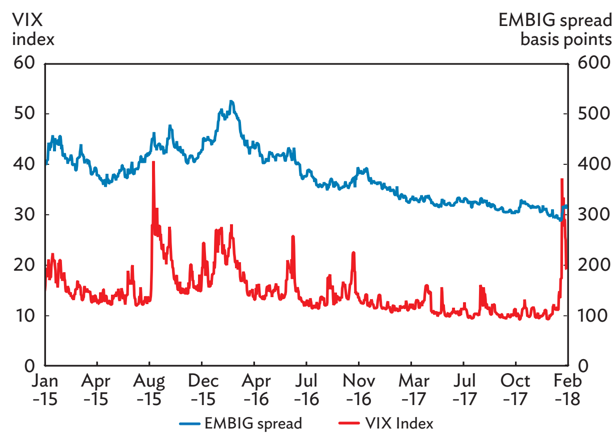
Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2018.
Source: Bloomberg LP.

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



Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2018.
Source: Bloomberg LP.

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



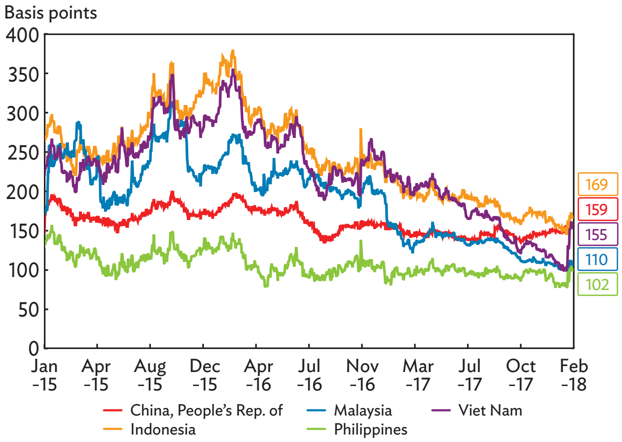
EMBIG = Emerging Markets Bond Index Global, VIX = Chicago Board Options Exchange Volatility Index.
Note: Data as of 15 February 2018.
Source: Bloomberg LP.

in Thailand slightly fell due to a relatively lower level of foreign net inflows.

Despite upticks being observed in all major risk indicators, given the solid economic fundamentals and strong corporate earnings, the price correction had stabilized by the middle of February as most markets slowly recovered except for the PRC and the Republic of Korea (due to market closure during the Lunar New Year) (**Figure H**). Credit default swap spreads and EMBIG spreads also recovered.

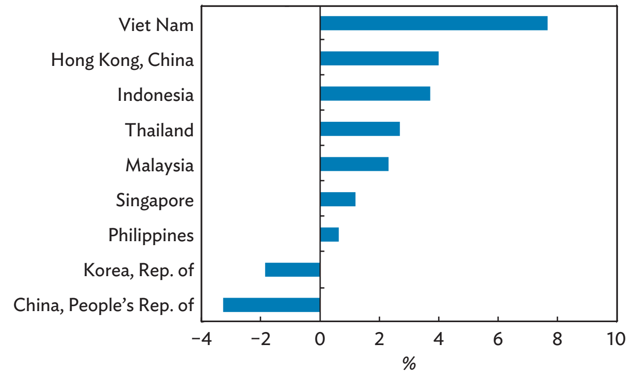
The global equity slide highlighted lingering uncertainty over the pace of global monetary policy normalization in response to the gradual pickup in inflation. Tightening global liquidity may have both short- and long-term impacts on the region's equity markets. In the short-term, rising interest rates could lead to temporary price

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



Notes:
1. Based on USD-denominated sovereign bonds.
2. Data as of 15 February 2018.
Source: Bloomberg LP.

Figure H: Changes in Equity Indexes in Emerging East Asia



Note: Changes between 29 December 2017 and 15 February 2018.
Source: Bloomberg LP.

corrections in the stock market that not only help bring market valuations back in line with corporate earnings and fundamentals, but also allow some markets to further deleverage. In the long-term, however, rising interest rates may weigh on the valuations of equities and other types of assets. In order to protect financial stability, emerging East Asian markets may need to closely monitor capital flows, as well as leverage levels and exposure to foreign exchange rate risk (**Box 1**).

The rapid buildup of private sector debt, especially bank loans, during the recent global low interest rate era could influence future real economic activity by jeopardizing financial stability as the global monetary policy stance and global liquidity conditions tighten (**Box 2**). Corporates could cut back on investment and households could cut back on consumption to rebuild their balance sheets, crimping aggregate demand and economic growth.

Overall, emerging East Asia enjoys a benign mix of strong growth and relatively stable financial markets. The risks to the region's economic growth and financial stability are primarily external and seemingly manageable for now. Nevertheless, as always, there are some risks lurking in the background. Faster-than-expected interest rate hikes in the US and other major advanced economies pose perhaps the biggest risk to the region. The adverse effects of such interest rate hikes would be magnified if the region's central banks were forced to follow suit. Another external risk that has become more concrete in recent months is the growing threat of protectionism. If protectionism escalates further and significantly dents the momentum of global trade expansion, which has been the main driver of the improving global economic outlook, then the region's growth momentum will be adversely affected.

Box 1: United States Interest Rate Hikes and Possible Impacts on Global Equity Markets

Since December 2015, the United States (US) Federal Reserve has raised the federal funds rate five times to 1.25%–1.50%, with another three possible rate hikes in 2018 according to the discussions at the December 2017 Federal Open Market Committee meeting.[a] As part of monetary policy normalization, this round of federal funds rate hikes features a gradual path and clear communication with financial markets, which have reacted calmly so far to the tightening monetary stance. As the global economy recovered in 2017, equity markets surged worldwide; further evidence of investor confidence includes the low and stable Chicago Board Options Exchange Volatility Index (**Figures B1.1a, B1.1b**). Nevertheless, potential risks loom on the horizon as interest rates gradually normalize.

Over the short-term, rising interest rates are reflected in stock price corrections, but the gradual nature of the current round of monetary policy normalization is likely to have only limited impact on equity markets if the global economy continues to expand.

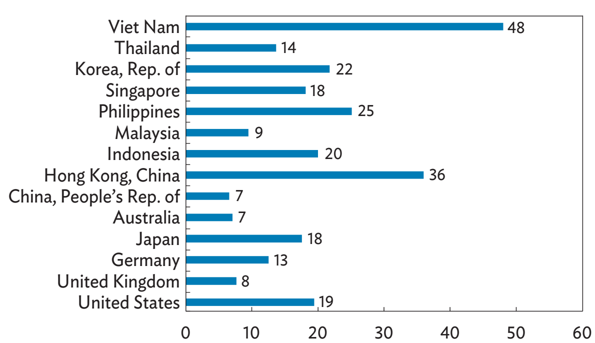
Despite the clearly communicated and widely expected normalization of US monetary policy, uncertainties may still arise if the pace of interest rate normalization quickens due to inflationary pressure. Since valuations in equity markets are simultaneously affected by both corporate fundamentals and interest rate levels, equity markets could be sensitive to changes in the interest rate path. When interest rates are expected to increase faster than originally believed, valuations will correct in response.

The recent stock market slide in early February revealed such a risk. Supported by robust gross domestic product growth and low unemployment, US equity markets had benefited from improved corporate earnings and investment sentiments despite rising interest rates (**Figures B1.2, B1.3**). The sharp drop in equity prices in early February was partly triggered by better-than-expected US nonfarm payroll and average hourly earnings data, which catalyzed concerns about rapidly rising inflation and thus faster-than-expected interest rate increases by the Federal Reserve. This fear fueled downward pressure in the US equity market and led to a fast, sharp price correction. (**Figure B1.4**).

However, in the short-term, such a price correction is not expected to evolve into another financial crisis and economic recession. This correction is less related to real economic activities and is more of a market correction after a long bull market, similar to Black Monday in September 1987. At that time, the US equity market was also in the midst of a phase of rising interest rates (**Figure B1.5**). The program trading strategy called "portfolio insurance" was believed to have contributed to the market slump by enabling huge selloffs by large investors.

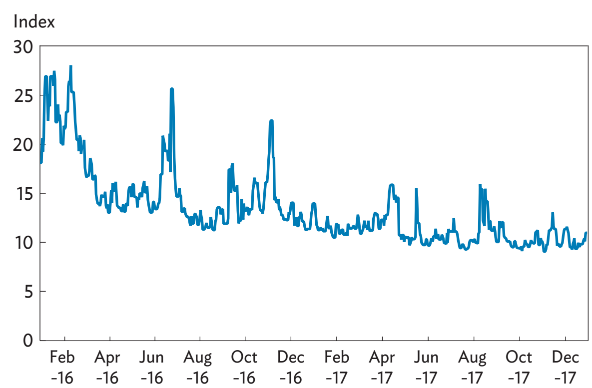
A closer examination of the current situation in the US equity market shows a similar picture with rising bond yields and the popularity of program trading exchange-traded funds.

Figure B1.1a: Price Changes in Global Stock Indexes, 31 December 2016 to 31 December 2017 (%)



Source: Bloomberg LP.

Figure B1.1b: Decreasing Volatility—Chicago Board Options Exchange Volatility Index



Note: Data as of 31 December 2017.
Source: Bloomberg LP.

[a] Shown in a dot plot at the Federal Open Market Committee meeting in December 2017. Available at https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20171213.pdf.

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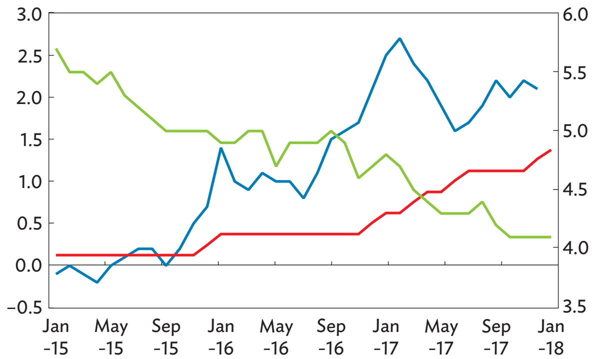
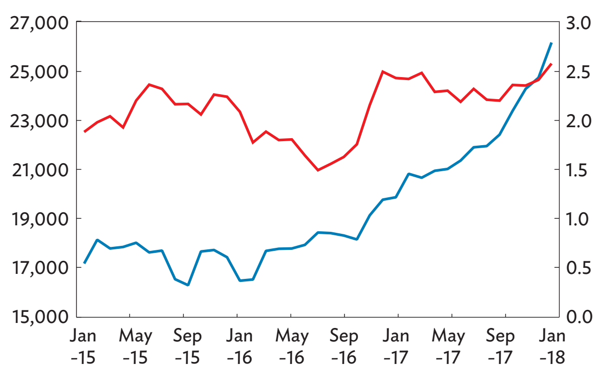
Box 1: United States Interest Rate Hikes and Possible Impacts on Global Equity Markets
continued

Figure B1.2: Economic Indicators in the United States



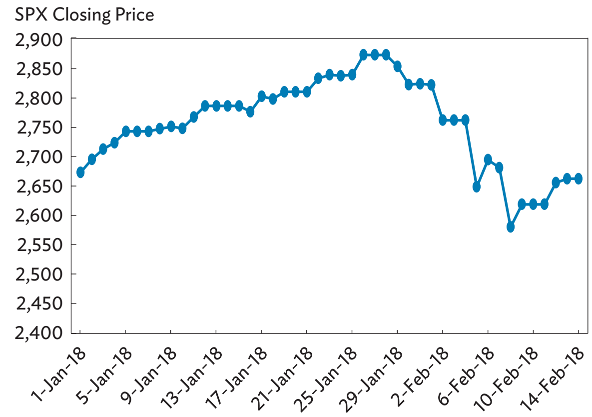
CPI-U = Consumer Price Index for all Urban Consumers, FRB = Federal Reserve Bank, LHS = left-hand side, RHS = right-hand side, SA = seasonally adjusted, yr = year, y-o-y = year-on-year.
Source: Haver Analytics.

Figure B1.3: United States Equity Index and 10-Year Bond Yield



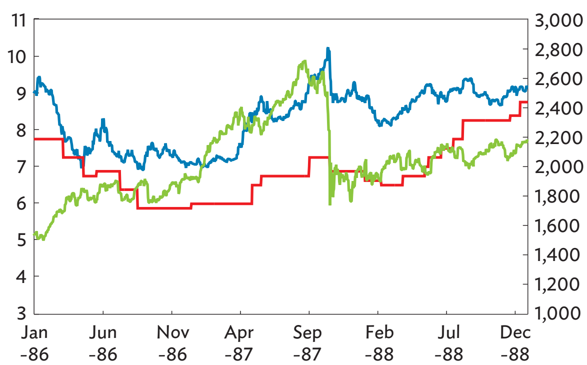
EOP = end of period, LHS = left-hand side, RHS = right-hand side.
Source: Haver Analytics.

Figure B1.4: Stock Market Correction in the United States, February 2018



SPX = S&P 500 Index.
Source: Bloomberg LP.

Figure B1.5: Stock Market Correction in the United States, September 1987



LHS = left-hand side, RHS = right-hand side.
Source: Bloomberg LP.

In contrast to human judgment, computers simply follow the preset trading rules. Once trading rules are triggered, stock prices may overreact due to a negative feedback loop. However, while the US economy still enjoys robust economic growth, such a price correction helps prevent stock valuations from deviating too much from the fundamentals. Nevertheless, contagion risk is worth noting. The contagion of a US equity market correction could spread to global equity markets, causing worldwide market turbulence, especially in markets that are undergoing deleveraging. In the short-term, this market correction might be beneficial since it

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Box 1: United States Interest Rate Hikes and Possible Impacts on Global Equity Markets *continued*

could catalyze better communication between monetary authorities and financial markets regarding the pace of policy normalization, thereby preventing major volatility in financial markets.

Over the medium-term, however, as inflation gradually picks up, interest rates continue to rise, and central banks gradually unwind their balance sheets, the ongoing tightening global monetary stance will pose two types of challenges to emerging markets.

First, emerging financial markets may face downward pressure from a reversal in capital flows. As returns increase in advanced economies, the attractiveness of emerging market assets decline, which may result in fewer capital inflows or even net capital outflows. The reversal of capital flows puts pressure on currencies and assets in emerging Asia, especially in markets with high levels of leverage and/or a floating exchange rate regime.[b] Despite sound fundamentals, emerging Asian economies should monitor changes in liquidity situations, with special attention paid to sectors and industries with relatively high leverage and exchange rate risks.

Second, rising interest rates in advanced economies may spill over into emerging Asia, putting downward pressure on financial markets via higher interest rates and/or subdued economic activity. The spillover of tightening monetary stances in advanced economies would limit the scope of emerging Asian monetary policies to foster economic growth, which has thus far only been affected by interest rate hikes in advanced economies to a limited extent. While most emerging Asian central banks broadly maintained their monetary policy stance in 2017, the Reserve Bank of India, Bank Indonesia, and State Bank of Vietnam all lowered policy rates.[c] However, as inflation continues to pick up, the scope for monetary policy to support growth becomes more limited. It is thus an opportune time for emerging Asia to strengthen its financial sector stability through deleveraging and by further strengthening macroeconomic fundamentals to lay the foundation for medium-term growth.

Overall, the gradual and well-communicated nature of US monetary policy normalization, emerging Asia's solid economic fundamentals, and the general absence of monetary tightening in the region have limited the short-term impacts of the Federal Reserve's rate hikes on emerging Asian equity markets. Nevertheless, unlike the eurozone, which has undergone deleveraging in recent years and made good progress in reducing financial imbalances, many emerging Asian economies still have growing debt levels, which will pose a challenge when global liquidity starts to tighten. Emerging Asian economies should enhance financial sector resilience to prepare for higher interest rates in the future.

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

[c] Some monetary authorities did increase their policy rates, including the Hong Kong Monetary Authority, Bank of Korea, and Bank Negara Malaysia, albeit in a very limited and gradual way.

Box 2: Does Private Debt Buildup Jeopardize Emerging East Asia's Economic Stability?

Rapid accumulation of private debt is widely viewed as a major risk to financial and economic stability. The unsustainable buildup of public debt due to unsound fiscal policies has also led to many crises. The eurozone sovereign debt crisis was a recent fiscal crisis in advanced economies and there have been many past episodes of fiscal crisis in emerging market economies as well. While public debt often has a devastating impact on the financial system and real economy, the impact of private debt can be equally pronounced. The global financial crisis of 2008–2009, which was preceded by a rapid buildup of household debt in the United States (US), almost brought the global financial system and world economy to its knees. Prior to the 1997/98 Asian financial crisis, East Asian banks and companies borrowed US dollars in the short-term to finance investment projects that generated local currency revenues in the long-term. Recently, the private sectors of many emerging economies borrowed heavily during the low global interest rate environment that followed the global financial crisis. In emerging East Asia, large and rising household debt is a growing concern in the Republic of Korea, Malaysia, and Thailand, as is fast-expanding corporate debt in the People's Republic of China.[a]

The growth of private debt is not necessarily a cause for concern in and of itself, especially in emerging market economies with relatively underdeveloped financial sectors. Private debt expansion can simply reflect the development of the financial system from a low base. Nevertheless, the unsustainably rapid expansion of private debt can trigger financial instability and eventually harm economic growth. For example, excessive leverage by firms and households can inflate asset prices. When the bubble bursts, banks and other financial institutions will suffer a surge of bad loans and lend less, hurting investment and consumption. Since it generally takes some time for banks to repair their balance sheets, the disruption of credit to firms and households will persist for a while. Furthermore, firms and households will subsequently cut back on investment and consumption to repair their own damaged balance sheets. This is why recessions stemming from financial stress tend to be deeper and more persistent than other types of recessions, exacerbating the volatility of the business cycle.

Figure B2.1 illustrates the dynamics of private debt, household debt, and corporate debt as shares of gross domestic product for advanced economies and emerging market economies from 1990 to 2016. The figure in the upper left panel shows that advanced economies' private debt increased quite rapidly before the global financial crisis and then stabilized. While both household and corporate debt increased before the global financial crisis in advanced economies, the dynamics of household debt are more dramatic. It increased more rapidly in the leadup to the crisis and, in the post-crisis period, while corporate debt stabilized, household debt decreased. The dynamics of private debt in the US presented in the lower left panel show even more dramatic changes. Private debt increased rapidly before the global financial crisis and then decreased afterward. Such dynamics were mostly driven by household debt, which is consistent with the widely held view that a rapid increase in household debt in the US was one of the key causes of the global financial crisis.

Figure B2.1 presents the dynamics of private debt in emerging market economies in the upper right panel. Unlike advanced economies, emerging markets continued to accumulate private debt even after the global financial crisis. While corporate debt has increased, household debt has grown even more rapidly since the global financial crisis. Looking only at the four emerging East Asian economies hit hardest by the 1997/98 Asian financial crisis in the lower right panel—Indonesia, the Republic of Korea, Malaysia, and Thailand—private debt was most pronounced before the 1997/98 Asian financial crisis, largely driven by corporate debt. Significantly, the ratio of private debt to gross domestic product continued to expand in major emerging East Asian economies after the global financial crisis even though deleveraging reduced this ratio in the US and other major advanced economies (**Figure B2.2**). This is understandable since the global financial crisis originated in advanced economies and almost paralyzed their financial systems. The global low interest rate environment that prevailed after the global financial crisis lowered borrowing costs and contributed to the accumulation of private debt in the region.

In a recent study, Park, Shin, and Tian (2017) systematically and comprehensively assess the effect of private debt buildup on economic growth. They contribute to the existing empirical literature on the private debt–growth nexus in four important ways. First, they extend the data set to cover emerging market economies as well as advanced economies, and compare the effects of both household and corporate debt on output, consumption, investment, and asset-price growth. Second,

[a] 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.

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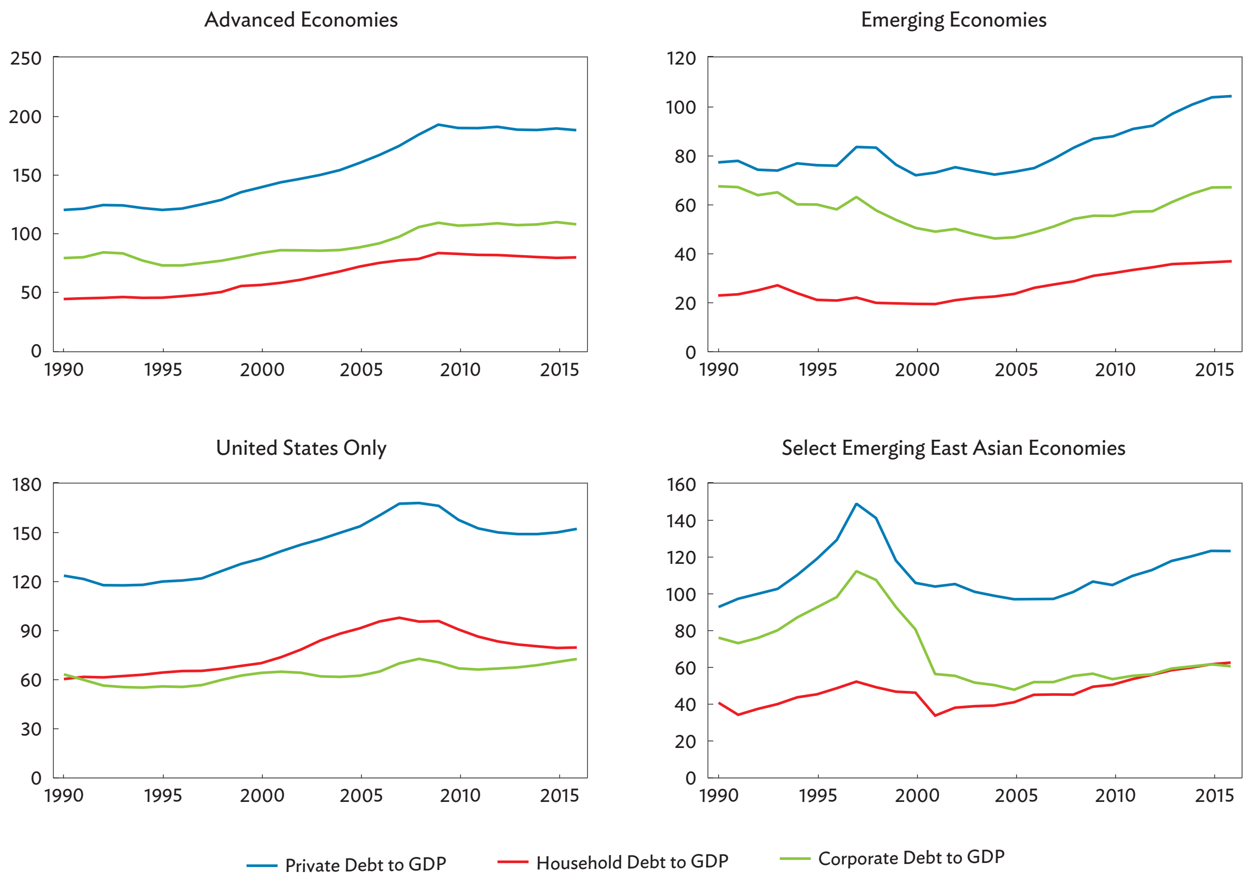
Box 2: Does Private Debt Buildup Jeopardize Emerging East Asia's Economic Stability?
continued

Figure B2.1: The Dynamics of Private Debt, Household Debt, and Corporate Debt in Advanced Economies and Emerging Market Economies



GD P = gross national product.
Notes: Debts are measured as shares of gross domestic product. The list of advanced economies and emerging market economies is in Appendix Table 1. The four emerging East Asian economies include Indonesia, the Republic of Korea, Malaysia, and Thailand.
Sources: Authors' calculations based on the Bank for International Settlements Debt Securities database.

to cover emerging market economies, they use the Hodrick–Prescott filter rather than the Bry and Boschan (1971) algorithm to date business cycle peaks and troughs. This is necessary because there are a number of business cycles in emerging economies that are not captured by the Bry and Boschan algorithm. Third, they define financial peaks, which are distinct from normal peaks, solely in terms of the speed of private debt accumulation rather than actual banking or currency crisis dates. In contrast, most studies define financial peaks as peaks that precede financial crises. Finally, they analyze financial peaks driven by either household or corporate debt to see whether there are any differences in recession dynamics.

Their empirical analysis yields a number of interesting findings. The level of household debt is smaller than corporate debt in both advanced economies and emerging market economies, but it increases slightly faster and is less volatile. They find that household debt accumulation is associated with higher output growth in the very short-term but lower output growth after 3 years. Corporate debt buildup, on the other hand, is not associated with higher output growth even in the short-term and is associated with lower output growth over 1–3 years. Around half of the negative growth effect of private debt buildup can be explained by asset-price inflation in advanced economies; much more than half can be explained by asset-price inflation in emerging market

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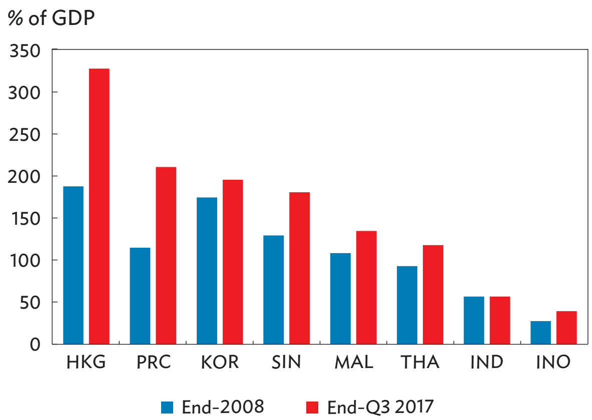
Box 2: Does Private Debt Buildup Jeopardize Emerging East Asia's Economic Stability?
continued

Figure B2.2: Ratio of Private Debt to Gross Domestic Product in Select Emerging Asian Economies



GDP = gross domestic product; HKG = Hong Kong, China; IND = India; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PRC = People's Republic of China; Q3 = third quarter; SIN = Singapore; THA = Thailand.
Note: Private debt refers to the sum of household debt and nonfinancial corporate debt.
Source: Institute of International Finance.

economies. Interestingly, they find that more financial peaks are driven by corporate debt rather than household debt in both advanced economies and emerging market economies. Furthermore, the damage from corporate-debt-induced financial recessions is similar to the damage from household-debt-induced financial recessions in advanced economies and larger in emerging market economies. Finally, their evidence indicates that a larger amount of excess credit to both households and corporations during expansions entails more painful recessions after financial peaks.

Such evidence has important policy implications. Above all, it points to a need for policy makers to closely monitor the growth of private debt, which can have significant negative effects on the real economy in addition to its potential for destabilizing financial systems. The evidence also suggests that policy makers should monitor both corporate and household debt, and further strengthens the case for monitoring asset-price inflation.

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D. Park, K. Shin, and S. Tian. 2017. Household and Corporate Debts and the Real Economy. Research paper presented at the Asian Development Bank Institute Annual Conference on Managing Private and Local Government Debt. Tokyo. 30 November–1 December.

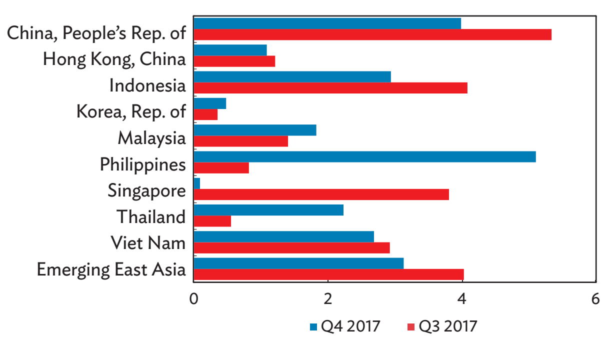
Bond Market Developments in the Fourth Quarter of 2017

Size and Composition

Emerging East Asia's local currency bond markets posted positive q-o-q growth in Q4 2017 as total bonds outstanding reached USD12.3 trillion at the end of December.

The total outstanding amount of local currency (LCY) bonds in emerging East Asia rose to USD12.3 trillion at the end of December 2017 as all markets in the region posted quarter-on-quarter (q-o-q) growth in the fourth quarter (Q4) of 2017 (**Figure 1a**).[3] Overall growth in the region's bond market moderated to 3.1% q-o-q in Q4 2017 from 4.0% q-o-q in the previous quarter due to a lower aggregate volume of issuance. Five emerging East Asian markets posted slower q-o-q growth rates, while the remaining four posted faster q-o-q growth rates.

Figure 1a: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2017 (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 2017 currency exchange rates and do not include currency effects.
4. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.

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

The People's Republic of China (PRC), which is home to the largest LCY bond market in the region with a share of 71.2% of the region's aggregate bond stock, posted LCY bond market growth of 4.0% q-o-q in Q4 2017 to reach USD8.8 trillion of bonds outstanding. Growth moderated from 5.3% q-o-q in the third quarter (Q3) of 2017 due to declining issuance. As part of the government's program to manage and restructure local government debt, it imposed a ceiling on the outstanding amount of local government bonds and a quota on issuance volume. Compared with the large volume of bonds sold in each of the previous 2 quarters, Q4 2017 saw a slowdown in issuance. Moreover, the large amount of government bond issuance in Q3 2017 was due to the auction of special Treasury bonds to refinance maturing debt. Despite these factors, the PRC's government bond market posted growth of 4.4% q-o-q in Q4 2017. Local government bonds and Treasury bonds posted growth of 4.5% q-o-q and 5.9% q-o-q, respectively. The growth in the PRC's corporate bond market slowed to 2.9% q-o-q in Q4 2017 from 3.3% q-o-q in the previous quarter. Corporates issued fewer bonds in Q4 2017, discouraged by the high interest rate environment, which is also a result of the government's effort to control credit growth in the PRC.

The Republic of Korea's LCY bond market posted minimal growth of 0.5% q-o-q in Q4 2017, almost at par with the 0.3% q-o-q increase in the previous quarter, to reach a size of USD2.0 trillion at the end of December. The minimal growth was driven by the 0.5% q-o-q decline in the stock of Korea Treasury Bonds as the volume of maturing bonds was greater than new issuance during the quarter. The Republic of Korea pursued a frontloading policy in the first half of 2017, resulting in fewer issuances in the second half of the year, particularly in Q4 2017. Meanwhile, the stock of central bank bonds rose 2.9% q-o-q. Corporate bonds rose 0.6% q-o-q in Q4 2017 as companies issued more bonds in anticipation of rising

[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.

interest rates, particularly after the Bank of Korea raised its policy rate in November.

In Hong Kong, China, total LCY bonds outstanding reached USD244 billion at the end of December. Growth was down slightly to 1.1% q-o-q in Q4 2017 from 1.2% q-o-q in the previous quarter as the rise in government bonds was capped by the decline in the stock of corporate bonds. Government bonds rose 3.3% q-o-q in Q4 2017, led by the growth in the stock of Exchange Fund Bills. The Hong Kong Monetary Authority has been issuing additional Exchange Fund Bills to help mop up excess liquidity in the market. Meanwhile, the stock of corporate bonds fell 2.2% q-o-q in Q4 2017 as the volume of maturing bonds was higher than the volume of newly issued bonds during the quarter.

The LCY bond market of Thailand remained the largest bond market among Association of Southeast Asian Nations (ASEAN) economies, with outstanding bonds worth USD346 billion at the end of December, and it expanded at a faster pace of 2.2% q-o-q in Q4 2017 versus 0.5% q-o-q in Q3 2017. The expansion was driven by the rise in issuance of central bank bonds from the Bank of Thailand, resulting in 5.3% q-o-q growth in central bank bonds outstanding. The outstanding amount of government bonds and state-owned bonds increased 0.9% q-o-q and 2.6% q-o-q, respectively. Meanwhile, Thailand's corporate bonds posted minimal growth of 1.0% q-o-q.

In Malaysia, LCY bonds outstanding reached USD318 billion at the end of December on growth of 1.8% q-o-q, slightly higher than the 1.4% q-o-q increase posted in Q3 2017. Corporate bonds were the primary driver of growth in Malaysia's LCY bond market, expanding 3.5% q-o-q due to a surge in issuance. Companies in Malaysia took advantage of relatively low rates in anticipation of a rate hike by Bank Negara Malaysia in January 2018. Moreover, government-guaranteed companies, whose bonds comprise part of Malaysia's corporate bond market, issued bonds to fund planned infrastructure projects. Meanwhile, Malaysia's government bond market posted minimal growth of 0.3% q-o-q as only the stock of Government Investment Issues and central bank bills increased.

Malaysia continues to be home to the largest *sukuk* (Islamic bond) market in emerging East Asia. *Sukuk* comprised 59% of Malaysia's total LCY bond market at the end of December with an aggregate size of USD187 billion on 3.3% q-o-q growth. Nearly three-fourths of Malaysia's corporate bond market comprises *sukuk* and 44.3% of its government bond market.

Singapore's LCY bond market was barely changed at USD272 billion at the end of December, registering growth of 0.1% q-o-q in Q4 2017 following a 3.8% q-o-q increase in Q3 2017, based on *AsianBondsOnline* estimates. The low growth was primarily due to declines in the corporate segment and in the outstanding stock of Singapore Government Securities as redemptions of bills exceeded new issuance of bonds. Only the stock of central bank bills rose in Q4 2017, indicating the continued efforts by the Monetary Authority of Singapore to mop up excess liquidity in the market.

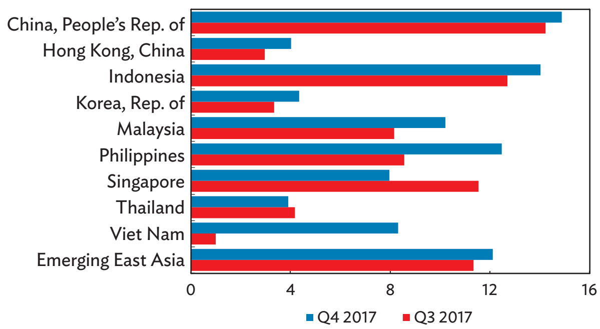
The Philippines posted the fastest growth rate in the region of 5.1% q-o-q in Q4 2017, following minimal growth of 0.8% q-o-q in Q3 2017. Total outstanding LCY bonds at the end of December amounted to USD110 billion as both the government and corporate segments posted q-o-q growth. The main driver of growth was the issuance of PHP255.4 billion of Retail Treasury Bonds by the Government of the Philippines in November. This allowed the Bureau of Treasury to reject all bids in its remaining auctions of Treasury bonds and bills as market participants sought higher yields.

Viet Nam remained the smallest market in the region with outstanding bonds of USD48 billion, posting growth of 2.7% q-o-q in Q4 2017, slightly lower than the 2.9% q-o-q increase registered in the previous quarter. Growth in the government segment stemmed from increased bond issuance by state-owned entities. Corporate bonds registered rapid growth of 22.9% q-o-q in Q4 2017 as a result of a surge in issuance.

On a year-on-year (y-o-y) basis, emerging East Asia's LCY bonds rose 12.1% at the end of December, slightly higher than the 11.3% y-o-y growth posted in Q3 2017 (**Figure 1b**). Excluding Singapore and Thailand, all markets in the region posted a higher annual growth rate in Q4 2017 than in the previous quarter. The PRC and Indonesia posted the two fastest growth rates at 14.9% y-o-y and 14.0% y-o-y, respectively.

LCY government bonds in emerging East Asia amounted to USD8.2 trillion at the end of December and continued to dominate the region's bond market. Debt securities

Figure 1b: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2017 (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 2017 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).

issued by governments, central banks, and state-owned entities comprised 66.6% of total bonds, almost at par with the 66.4% share at the end of September (**Table 1**). The total outstanding amount of the region's government bonds rose 3.7% q-o-q, slower than the 4.8% q-o-q growth posted in Q3 2017.

The PRC continued to dominate emerging East Asia's government bond market, accounting for a 77% of the regional total. The Republic of Korea remained the second-largest government bond market with a share of 10%. The Philippines (USD89 billion) and Viet Nam (USD45 billion) remained the smallest LCY government bond markets in the region. At the same time, the Philippine government bond market registered the fastest growth rate in Q3 2017 at 5.8% q-o-q, followed by the PRC, which posted growth of 4.4% q-o-q. Meanwhile, government bond markets in the Republic of Korea and Malaysia posted minimal q-o-q growth in Q4 2017.

The region's LCY corporate bonds reached an outstanding size of USD4.1 trillion at the end of December, comprising 33.4% of the region's total bond market. The stock of bonds issued by corporates in the region rose 2.0% q-o-q, easing from growth of 2.5% q-o-q in Q3 2017. The PRC remained the largest corporate bond market in the region with a share of 59.0% and outstanding bonds of USD2.4 trillion at the end of December, followed by the Republic of Korea with 29.0% of the regional total and a bond market size of USD1.2 trillion. The corporate bond markets in Viet Nam (USD3 billion), the Philippines (USD20 billion), and Indonesia (USD29 billion) remained the smallest in the region. Most corporate bond markets in the region registered increases in Q4 2017, except for Hong Kong, China (–2.2% q-o-q) and Singapore (–0.8% q-o-q). Viet Nam's corporate bond market registered the highest growth rate of 22.9% q-o-q, followed by Indonesia at 7.7% q-o-q.

The size of emerging East Asia's bond market relative to the region's gross domestic product (GDP) inched up to 71.3% at the end of December from 70.1% at the end of September (**Table 2**). During the same period, government bonds outstanding as a share of GDP rose to 47.5% from 46.5%, while corporate bonds inched up to 23.8% from 23.5%. For markets with available GDP data for Q4 2017, the bond markets of the PRC, Indonesia, the Philippines, and Thailand saw increases in their ratios of outstanding bonds to GDP. The Republic of Korea and Malaysia continued to have the highest bonds-to-GDP ratios in the region in Q4 2017.

Foreign investor holdings in emerging East Asia's LCY government bond market were stable in Q4 2017.

Foreign investors continued to find emerging East Asia's LCY government bond markets attractive in Q4 2014 despite rising local interest rates as well as policy normalization in the United States as economic fundamentals continue to improve in emerging East Asia.

Malaysia experienced the largest gain, with the share of foreign investor holdings rising 1.3 percentage points in Q4 2017 to reach 29.2% at the end of December due to positive economic fundamentals (**Figure 2**).

In Indonesia, the foreign investor share of government bonds outstanding remained stable at 39.8% in Q4 2017. Foreigner investors continue to be attracted to Indonesia's improving economy, especially given Fitch Ratings' upgrade of Indonesia sovereign debt to BBB on

Table 1: Size and Composition of Local Currency Bond Markets

	Q4 2016		Q3 2017		Q4 2017		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2016		Q4 2017		Q4 2016		Q4 2017	
							q-o-q	y-o-y	q-o-q	y-o-y	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of														
Total	7,129	100.0	8,221	100.0	8,739	100.0	3.4	22.0	4.0	14.9	(0.7)	14.1	6.3	22.6
Government	4,974	69.8	5,928	72.1	6,327	72.4	4.2	30.8	4.4	19.2	0.1	22.3	6.7	27.2
Corporate	2,155	30.2	2,293	27.9	2,413	27.6	1.6	5.6	2.9	4.9	(2.4)	(1.2)	5.2	12.0
Hong Kong, China														
Total	236	100.0	241	100.0	244	100.0	0.1	13.4	1.1	4.0	0.1	13.3	1.0	3.2
Government	137	58.1	143	59.2	148	60.5	(0.3)	14.8	3.3	8.4	(0.3)	14.7	3.3	7.5
Corporate	99	41.9	98	40.8	96	39.5	0.5	11.5	(2.2)	(2.0)	0.5	11.4	(2.2)	(2.8)
Indonesia														
Total	163	100.0	180	100.0	184	100.0	1.7	25.1	2.9	14.0	(1.5)	28.1	2.3	13.3
Government	139	85.8	153	85.2	156	84.5	0.7	25.2	2.1	12.3	(2.6)	28.1	1.5	11.6
Corporate	23	14.2	27	14.8	29	15.5	8.7	24.7	7.7	24.3	5.2	27.6	7.0	23.5
Korea, Rep. of														
Total	1,714	100.0	1,873	100.0	2,020	100.0	(0.5)	2.3	0.5	4.3	(9.1)	(0.3)	7.8	17.9
Government	703	41.0	769	41.0	827	40.9	(1.0)	3.1	0.3	4.2	(9.6)	0.5	7.6	17.7
Corporate	1,011	59.0	1,105	59.0	1,193	59.1	(0.2)	1.7	0.6	4.4	(8.8)	(0.9)	8.0	18.0
Malaysia														
Total	260	100.0	299	100.0	318	100.0	(0.1)	4.3	1.8	10.2	(7.8)	(0.1)	6.2	22.2
Government	141	54.3	159	53.1	166	52.3	0.3	3.6	0.3	6.2	(7.5)	(0.8)	4.7	17.8
Corporate	119	45.7	140	46.9	152	47.7	(0.5)	5.2	3.5	14.9	(8.3)	0.7	7.9	27.4
Philippines														
Total	98	100.0	102	100.0	110	100.0	1.4	2.3	5.1	12.5	(0.9)	(3.3)	7.2	11.9
Government	80	81.7	83	80.8	89	81.4	0.6	0.8	5.8	12.0	(1.7)	(4.7)	7.9	11.4
Corporate	18	18.3	20	19.2	20	18.6	5.5	9.5	2.2	14.4	3.1	3.6	4.3	13.8
Singapore														
Total	232	100.0	267	100.0	272	100.0	3.4	4.0	0.1	7.9	(2.6)	2.0	1.7	16.9
Government	133	57.5	162	60.8	166	61.1	5.6	5.4	0.6	14.9	(0.5)	3.3	2.3	24.4
Corporate	99	42.5	105	39.2	106	38.9	0.5	2.1	(0.8)	(1.4)	(5.3)	0.1	0.8	6.8
Thailand														
Total	303	100.0	331	100.0	346	100.0	2.5	8.4	2.2	3.9	(1.1)	9.0	4.5	14.3
Government	222	73.1	240	72.3	252	72.7	1.5	5.9	2.7	3.3	(2.0)	6.5	5.0	13.6
Corporate	81	26.9	92	27.7	95	27.3	5.2	16.0	1.0	5.6	1.5	16.6	3.3	16.2
Viet Nam														
Total	44	100.0	46	100.0	48	100.0	(4.3)	6.4	2.7	8.3	(6.2)	5.1	2.8	8.6
Government	42	95.2	44	95.2	45	94.2	(5.0)	5.0	1.7	7.2	(6.9)	3.7	1.8	7.5
Corporate	2	4.8	2	4.8	3	5.8	13.2	43.1	22.9	31.0	10.9	41.4	23.1	31.3
Emerging East Asia														
Total	10,179	100.0	11,562	100.0	12,280	100.0	2.4	16.2	3.1	12.1	(2.5)	10.5	6.2	20.6
Government	6,572	64.6	7,681	66.4	8,175	66.6	3.2	23.7	3.7	16.1	(1.4)	17.4	6.4	24.4
Corporate	3,607	35.4	3,881	33.6	4,105	33.4	1.1	4.8	2.0	5.0	(4.4)	(0.2)	5.8	13.8
Japan														
Total	9,632	100.0	10,171	100.0	10,215	100.0	0.1	5.0	0.6	2.2	(13.2)	7.9	0.4	6.1
Government	8,961	93.0	9,475	93.2	9,523	93.2	0.2	5.4	0.7	2.4	(13.1)	8.3	0.5	6.3
Corporate	671	7.0	695	6.8	692	6.8	(1.1)	(0.5)	(0.3)	(0.6)	(14.3)	2.2	(0.4)	3.2
Memo Item: India														
Total	1,286	100.0	1,372	100.0	1,416	100.0	11.1	17.5	1.0	3.6	8.9	14.4	3.2	10.1
Government	951	73.9	976	71.1	1,002	70.7	13.9	16.9	0.4	(0.9)	11.7	13.9	2.6	5.4
Corporate	335	26.1	396	28.9	414	29.3	3.8	19.1	2.3	16.3	1.7	16.0	4.6	23.6

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

Notes:

1. For Singapore, corporate bonds outstanding data 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 2017 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).

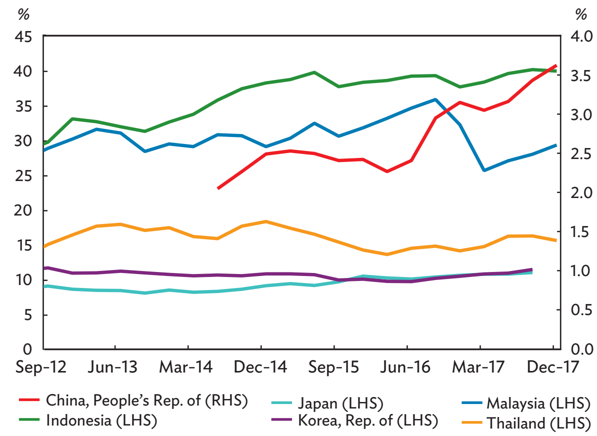
Table 2: Size and Composition of Local Currency Bond Markets (% of GDP)

	Q4 2016	Q3 2017	Q4 2017
China, People's Rep. of			
Total	66.6	68.1	68.8
Government	46.5	49.1	49.8
Corporate	20.1	19.0	19.0
Hong Kong, China			
Total	73.5	71.9	71.6
Government	42.7	42.6	43.3
Corporate	30.8	29.3	28.2
Indonesia			
Total	17.7	18.2	18.4
Government	15.1	15.5	15.5
Corporate	2.5	2.7	2.9
Korea, Rep. of			
Total	126.2	125.6	135.5
Government	51.8	51.6	55.5
Corporate	74.4	74.1	80.0
Malaysia			
Total	94.9	95.3	95.1
Government	51.5	50.6	49.8
Corporate	43.4	44.7	45.3
Philippines			
Total	33.6	33.7	34.7
Government	27.5	27.3	28.2
Corporate	6.2	6.5	6.5
Singapore			
Total	78.5	81.9	81.1
Government	45.1	49.8	49.6
Corporate	33.4	32.1	31.5
Thailand			
Total	74.7	72.6	73.0
Government	54.6	52.5	53.0
Corporate	20.1	20.1	20.0
Viet Nam			
Total	22.2	21.9	21.6
Government	21.1	20.9	20.3
Corporate	1.1	1.1	1.2
Emerging East Asia			
Total	68.9	70.1	71.3
Government	44.5	46.5	47.5
Corporate	24.4	23.5	23.8
Japan			
Total	209.2	210.5	210.6
Government	194.6	196.1	196.4
Corporate	14.6	14.4	14.3

GDP = gross domestic product, Q3 = third quarter, Q4 = fourth quarter.
Notes:
1. Data for GDP is from CEIC. For the Republic of Korea, Q4 2017 GDP figure carried over from Q3 2017.
2. For Singapore, corporate bonds outstanding 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).

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



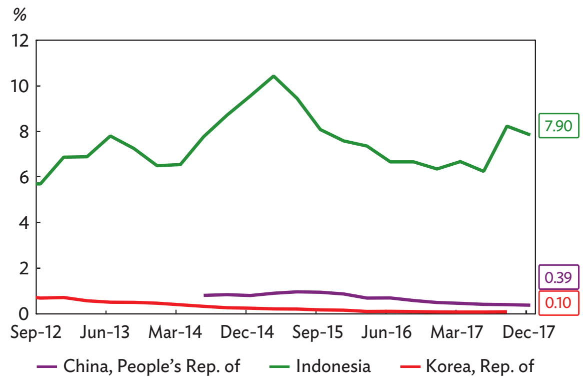
LHS = left-hand side, RHS = right-hand side.
Note: Data as of 31 December 2017 except for Japan and the Republic of Korea (30 September 2017).
Source: *AsianBondsOnline*.

21 December. However, strong investor interest did not result in an increased share of foreign investor holdings, given the increase in government bonds outstanding. The Indonesian bond market's y-o-y growth rate of 14.0% in Q4 2017 was the second-fastest in the region.

The share of foreign investors in the PRC bond market, while small, continued to rise in Q4 2017 to 3.6% at the end of December from 3.4% at the end of September. In the Republic of Korea, the foreign investor share of government bonds outstanding rose to 11.4% at the end of September from 10.9% at the end of June.

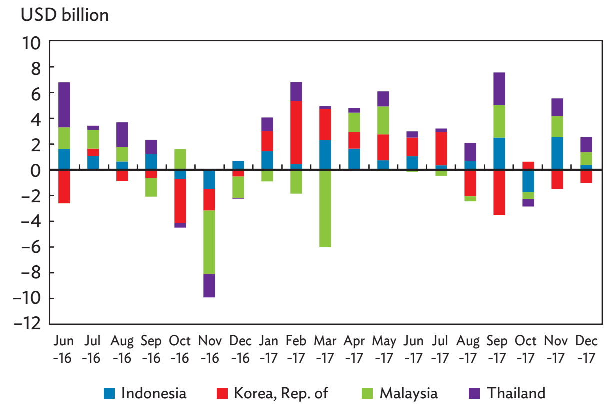
The foreign holdings share in emerging East Asia's LCY corporate bond market remained low relative to government bonds due to the illiquidity of corporate bonds and the need for additional due diligence on the part of investors. Only Indonesia has a somewhat substantial share of foreign investors to corporate bonds outstanding among all markets in the region for which such data are available. However, this share fell in Indonesia to 7.9% at the end of December from 8.3% at the end of September (**Figure 3**). Both the PRC and the Republic of Korea have foreign investor shares in their respective corporate bond markets of less than 0.5%.

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



Note: Data as of end-December 2017 except for the Republic of Korea (end-September 2017).
Sources: Based on data from *Wind*, Otoritas Jasa Keuangan, and the Bank of Korea.

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



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

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

Emerging East Asia's LCY bond markets continued to attract foreign funds in Q4 2017.

Emerging East Asia's LCY bond markets posted net positive inflows in Q4 2017 amid attractive economic fundamentals and an improving growth outlook. The sole exception was the Republic of Korea, which posted net outflows for the quarter. While net inflows were recorded for most markets in Q4 2017, most markets also recorded net outflows in October that were largely offset by strong inflows in November and December (**Figure 4**).

For Q4 2017, Indonesia recorded the third-highest net inflows among markets for which data are available. However, for full-year 2017, Indonesia attracted the highest net inflows, largely due to a number of rating upgrades in 2017, with the most recent coming from Fitch Ratings in December. Indonesia also has some of the highest bond yields in the region. Furthermore, Indonesia is also one of the few markets that reduced its policy rates in 2017, helping push up bond prices.

Malaysia recorded positive bond inflows in Q4 2017 due to the economy's stable fundamentals. However, net outflows were recorded for full-year 2017, largely due to large outflows in the first quarter of 2017.

Thailand had the second-highest net inflows in Q4 2017 and the second-highest net inflows in full-year 2017, largely on the back of strong economic fundamentals. News sources cited Thailand's strong current account-to-GDP ratio as one factor for its bond market's relative attractiveness.

The Republic of Korea recorded a net outflow in Q4 2017. In November, foreign investors exited after better economic figures led to speculation that the Bank of Korea would tighten monetary policy. In December, net outflows were recorded partly due to maturities and partly due to a large foreign institutional fund selling its short-term holdings as part of its portfolio adjustment.

LCY bond issuance in emerging East Asia fell in Q4 2017 on declines in large markets.

Emerging East Asia's total LCY issuance declined 19.7% q-o-q in Q4 2017 to USD1,103 billion, following positive growth in Q3 2017 (**Table 3**). The negative q-o-q growth was attributed to the huge drop in debt issuance during the last quarter of the year in the PRC, the largest debt issuer in the region with a market share of 54.8% at the end of December. Indonesia and the Republic of Korea experienced q-o-q declines in bond issuance, while the rest of the emerging East Asian markets showed positive q-o-q growth. On an annual basis, the region's issuance in Q4 2017 increased 8.9%, lifted by higher issuance in all markets except Thailand.

Total LCY government issuance in emerging East Asia in Q4 2017 fell 26.9% q-o-q to USD722 billion, largely dragged down by the PRC's reduced issuance of local bonds due to measures imposed by the government to control the economy's spiraling debt. Alongside the PRC, lower issuance volumes were observed in Indonesia and the Republic of Korea, which met most of their funding needs in previous quarters. These markets comprised more than half of the region's government issuance in Q4 2017, muting the issuance increases in the remaining markets.

The region's LCY corporate bond issuance in Q4 2017 was little changed from Q3 2017 at USD381 billion as all markets saw q-o-q increases during the quarter except the PRC, the Philippines, and Singapore. Compared to a year earlier, corporates raised 4.2% more through issuance, which can be attributed to firms taking advantage of relatively low interest rates ahead of likely monetary policy tightening in 2018 from most central banks in emerging East Asia as well as in advanced economies. Corporate issuance accounted for 34.5% of total issuance in the region in Q4 2017.

The PRC's total LCY bond issuance in Q4 2017 amounted to USD605 billion, reflecting a drop of 32.1% from the previous quarter but an increase of 6.4% from Q4 2016. Both the government and corporate segments exhibited a q-o-q decline in bond sales, with much of the overall decline accounted for by government bonds. Issuance of government bonds in Q4 2017 was nearly halved to USD374 billion from USD624 billion in Q3 2017. Corporate issuance was also lower, declining 8.6% to USD231 billion as a result of the PRC government's continued campaign to limit credit and leverage. Against this backdrop, debt instruments carried higher yields, making it costlier to borrow and translating into fewer bond issuances. Moreover, lower bond sales from local governments in Q4 2017 also contributed to the decline in issuance as they had already nearly met annual debt issuance limits set by authorities in the preceding quarters. The PRC's Ministry of Finance has set annual quotas for local government debt swap and bond issuance programs to control their debt sales.

Total LCY bond issuance in the Republic of Korea reached USD171 billion in Q4 2017, making it the second-largest issuer next to the PRC. The market registered a 2.4% decline in Q4 2017 from the preceding quarter and an 8.9% increase on an annual basis. The q-o-q decline can be traced to lower issuance from the government during the quarter even as issuance from the corporate sector increased. Issuances of Korea Treasury Bonds was down on a q-o-q basis due to frontloading measures taken in the first half of the year. On the other hand, corporate issuance picked up 8.6% q-o-q.

Total LCY issuance in Hong Kong, China in Q4 2017 amounted to USD113 billion, 5.7% higher than in Q3 2017, led by the government whose issuance accelerated 6.0% q-o-q and comprised about 92% of total issuance. The Hong Kong Monetary Authority upped its issuance of Exchange Fund Bills to meet increased demand among banks on the back of increased liquidity in the banking system. In the corporate sector, issuance rose only 2.4% q-o-q to USD9 billion. Compared to a year earlier, total bond issuance in Hong Kong, China grew 10.0%, while issuance in the corporate sector dropped 16.4%.

In Indonesia, total LCY bond issuance fell 16.1% q-o-q to USD13 billion in Q4 2017, with the decline in government bond issuance offsetting the increase in corporate bond issuance. Bond issuances from Bank Indonesia and the central government were subdued during Q4 2017, resulting in q-o-q declines of 71.7% and 23.2%, respectively, as the government had met most of its annual financing needs through bond sales in the previous quarters. Meanwhile, Bank Indonesia only issued Sertifikat Bank Indonesia in Q4 2017 (sharia-compliant central bank certificates). In contrast to government issuance, bond sales from the corporate segment registered growth of 17.6% q-o-q in Q4 2017, amounting to USD4 billion. On an annual basis, both the government and corporate segments saw increased issuances in 2017.

Malaysia's LCY bond issuance was up 21.1% q-o-q and 86.6% y-o-y to USD23 billion in Q4 2017 on the back of higher bond sales in both the government and corporate segments. Issuance from the government registered a gain of 7.2% q-o-q, with the increases in Malaysian Government Securities and Bank Negara Malaysia bills countering the decreases in Government Investment Issues and Treasury bills. Malaysian Government Securities recorded their highest monthly issuance in 2017 at MYR8.9 billion in December. Meanwhile, growth of debt issuance from the corporate sector surged to 31.9% q-o-q in Q4 2017 from 6.3% q-o-q in Q3 2017. During the quarter, corporate bond issuance reached USD14 billion as firms placed their debt sales ahead of expected interest rate increases after Bank Negara Malaysia signaled it would raise its overnight policy rate in early 2018.

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

	Q4 2016		Q3 2017		Q4 2017		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2017		Q4 2017	
							q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of										
Total	532	100.0	871	100.0	605	100.0	(32.1)	6.4	(30.6)	13.6
Government	314	59.0	624	71.6	374	61.8	(41.4)	11.4	(40.1)	18.9
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	314	59.0	624	71.6	374	61.8	(41.4)	11.4	(40.1)	18.9
Corporate	218	41.0	247	28.4	231	38.2	(8.6)	(0.7)	(6.6)	6.0
Hong Kong, China										
Total	104	100.0	107	100.0	113	100.0	5.7	10.0	5.7	9.1
Government	93	89.4	98	91.7	104	91.9	6.0	13.1	6.0	12.2
Central Bank	92	88.6	98	91.6	103	91.2	5.2	13.2	5.2	12.4
Treasury and Other Govt.	1	0.8	0.1	0.1	0.8	0.7	983.3	0.0	982.9	(0.7)
Corporate	11	10.6	9	8.3	9	8.1	2.4	(16.4)	2.39	(17.0)
Indonesia										
Total	9	100.0	15	100.0	13	100.0	(16.1)	37.9	(16.6)	37.0
Government	6	68.6	12	78.7	9	70.1	(25.2)	41.0	(25.7)	40.1
Central Bank	1	15.1	0.5	3.3	0.1	1.1	(71.7)	(89.7)	(71.9)	(89.8)
Treasury and Other Govt.	5	53.5	11	75.3	9	69.0	(23.2)	77.8	(23.7)	76.7
Corporate	3	31.4	3	21.3	4	29.9	17.6	31.1	16.8	30.3
Korea, Rep. of										
Total	139	100.0	163	100.0	171	100.0	(2.4)	8.9	4.8	23.0
Government	56	40.6	73	44.8	66	38.5	(15.9)	3.4	(9.8)	16.8
Central Bank	27	19.1	35	21.6	33	19.6	(11.5)	11.6	(5.0)	26.1
Treasury and Other Govt.	30	21.5	38	23.1	32	18.9	(20.1)	(4.0)	(14.2)	8.5
Corporate	82	59.4	90	55.2	105	61.5	8.6	12.6	16.6	27.2
Malaysia										
Total	11	100.0	18	100.0	23	100.0	21.1	86.6	26.3	106.8
Government	4	39.2	8	43.7	9	38.7	7.2	84.2	11.8	104.2
Central Bank	1	6.0	0.2	1.3	1	6.5	500.0	100.0	525.8	121.7
Treasury and Other Govt.	4	33.1	8	42.4	7	32.2	(8.0)	81.3	(4.0)	101.0
Corporate	7	60.8	10	56.3	14	61.3	31.9	88.1	37.6	108.6
Philippines										
Total	4	100.0	6	100.0	9	100.0	47.4	130.1	50.4	128.9
Government	3	64.9	5	84.4	9	93.6	63.4	231.6	66.7	229.9
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	3	64.9	5	84.4	9	93.6	63.4	231.6	66.7	229.9
Corporate	1	35.1	1	15.6	1	6.4	(39.1)	(57.9)	(37.9)	(58.1)
Singapore										
Total	62	100.0	88	100.0	90	100.0	0.7	33.9	2.3	45.0
Government	61	98.4	85	96.5	87	96.7	1.0	31.6	2.6	42.5
Central Bank	56	90.2	81	92.4	83	91.8	0.1	36.2	1.7	47.5
Treasury and Other Govt.	5	8.1	4	4.1	4	4.9	20.4	(19.2)	22.4	(12.5)
Corporate	1	1.6	3	3.5	3	3.3	(5.9)	168.4	(4.4)	190.7
Thailand										
Total	70	100.0	57	100.0	64	100.0	8.7	(17.5)	11.2	(9.3)
Government	56	80.1	47	82.1	50	78.4	3.8	(19.2)	6.2	(11.1)
Central Bank	51	72.2	40	68.9	43	67.1	5.9	(23.3)	8.3	(15.6)
Treasury and Other Govt.	6	7.9	8	13.2	7	11.3	(7.1)	18.1	(5.0)	29.9
Corporate	14	19.9	10	17.9	14	21.6	31.3	(10.7)	34.2	(1.8)

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Table 3 *continued*

	Q4 2016		Q3 2017		Q4 2017		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q4 2017		Q4 2017	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y
Viet Nam										
Total	14	100.0	13	100.0	15	100.0	19.4	8.0	19.5	8.3
Government	14	98.3	13	99.9	15	96.4	15.2	6.0	15.3	6.3
Central Bank	13	89.9	12	93.4	13	83.6	100.0	0.5	–	0.8
Treasury and Other Govt.	1	8.4	1	6.6	2	12.8	132.5	64.5	132.9	64.9
Corporate	0.2	1.7	0.01	0.1	1	3.6	100.0	122.2	–	122.8
Emerging East Asia										
Total	946	100.0	1,339	100.0	1,103	100.0	(19.7)	8.9	(17.6)	16.6
Government	608	64.3	965	72.1	722	65.5	(26.9)	11.6	(25.2)	18.8
Central Bank	240	25.4	267	19.9	277	25.1	1.8	9.5	3.6	15.3
Treasury and Other Govt.	368	38.9	698	52.1	445	40.4	(37.8)	12.9	(36.2)	21.0
Corporate	338	35.7	374	27.9	381	34.5	(1.6)	4.2	1.8	12.7
Japan										
Total	413	100.0	419	100.0	406	100.0	(2.9)	(5.4)	(3.1)	(1.8)
Government	389	94.1	387	92.5	378	93.0	(2.4)	(6.5)	(2.6)	(3.0)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	389	94.1	387	92.5	378	93.0	(2.4)	(6.5)	(2.6)	(3.0)
Corporate	24	5.9	31	7.5	28	7.0	(9.4)	12.8	(9.5)	17.1

( ) = negative, – = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Corporate bonds include issues by financial institutions.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. For LCY-base, emerging East Asia growth figures are based on 31 December 2017 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).

Corporate bond issuance was also spurred by ongoing large infrastructure projects. Optimism in Malaysia's economic outlook further bolstered buying interest in its LCY bond market.

The Philippines total LCY bond issuance in Q4 2017 reached USD9 billion, up 47.4% q-o-q and more than doubling on a y-o-y basis predominantly due to huge bond sales from the government. The Government of the Philippines issued total debt of USD9 billion in Q4 2017, with USD5 billion from the sales of Retail Treasury Bonds, the government's second tranche of such bonds in 2017. On the other hand, corporate bond issuance fell 39.1% q-o-q and 57.9% y-o-y in Q4 2017, the largest drop in the region. However, the share of corporate issuance was small at 6.4% of the Philippine market in Q4 2017, and 0.2% of the total emerging East Asian market, suggesting that the drop was not sizable in real terms and the impacts were muted.

Issuance of LCY bonds in Singapore was marginally up in Q4 2017 to USD90 billion from USD88 billion in Q3 2017. The slight increase was mainly driven by government issuance, which saw an uptick of 1.0% q-o-q to USD87 billion, representing 96.7% of total issuance. Issuance of corporate bonds continued to contract in Q4 2017, though at a slower pace of 5.9% q-o-q versus a decline of 9.6% q-o-q in the previous quarter. On an annual basis, both government and corporate bond issuance recorded positive growth rates.

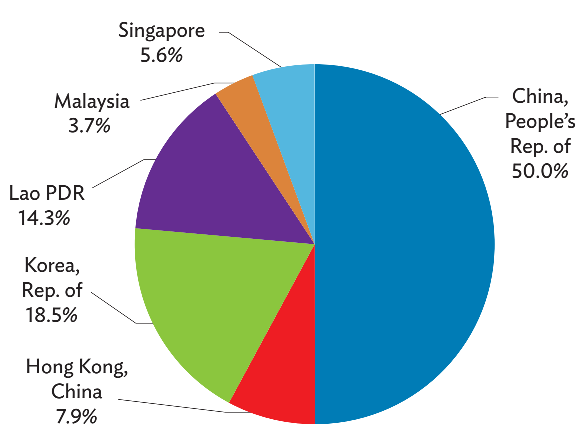
In Thailand, total LCY debt issuance increased 8.7% q-o-q in Q4 2017 following 2 consecutive quarters of q-o-q contractions. The reversal was driven by higher issuances from the government and corporate segments. On the government side, bond issuance was up 3.8% q-o-q, with the increase in Bank of Thailand securities offsetting the decrease in central government bonds. While Bank of Thailand securities exhibited an increase in Q4 2017, the amount remained low compared with last year's level as a result of the central bank's tapering of short-term bonds starting in April 2016 to rein in the Thai baht's appreciation. On an annual basis, Thailand's total LCY bond issuance continued to contract, dropping 17.5% in Q4 2017, albeit at a slower pace than in Q3 2017.

Viet Nam's LCY bond issuance continued to expand in Q4 2017 on both a q-o-q and y-o-y basis, totaling USD15 billion, supported by growth in bond sales in both the government and corporate sector. The government issued USD15 billion of bonds during the quarter, comprising almost all of Viet Nam's total issuance, driven by debt sales from state-owned firms. Issuance in the corporate sector in Q4 2017 rose to USD500 million from USD10 million in Q3 2017 as more firms tapped the bond market for their financing needs toward the end of 2017, likely due to the relatively low interest rates.

Cross-border bond issuance in emerging East Asia reached USD4.3 billion in Q4 2017.

Total cross-border issuance in emerging East Asia reached USD4.3 billion in Q4 2017, up 37.5% q-o-q and 94.6% y-o-y, mainly due to large issuances of HKD-denominated bonds from the PRC amounting to USD2.1 billion and accounting for 50% of the total cross-border issuance for the quarter (**Figure 5**). The largest single issuance in the region was an HKD8.0 billion (USD1.0 billion) 5-year zero-coupon exchangeable bond issued by Qingdao Haier in November through Harvest International. The next three largest issuances were also from the PRC, which together amounted to HKD8.6 billion and accounted for 26% of the region's total cross-border issuance for the quarter.

Figure 5: Origin Economy of Intra-Emerging East Asian Bond Issuance in the Fourth Quarter of 2017



Lao PDR = Lao People's Democratic Republic.
Note: Data as of 31 December 2017.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

Issuers from Hong Kong, China raised CNY2.2 billion (USD339 million) worth of bonds denominated in Chinese renminbi and issued in various tenors. Iowa China Offshore Holdings was the largest cross-border issuer issuing a CNY1.0 billion 5-year bond carrying a 4.99% coupon.

Issuers from the Republic of Korea sold a total of USD795 million of bonds of various tenors denominated in Chinese renminbi, Hong Kong dollars, Indonesian rupiah, and Singaporean dollars. The Korea Development Bank was the largest cross-border issuer, selling USD350 billion worth of bonds denominated in various currencies. Its single largest issuance was a 3-year bond carrying a 4.5% coupon and worth CNY1.4 billion. Cross-border issuances from the Republic of Korea accounted for 18.5% of the total amount of cross-border issuance for the quarter.

Issuers from three ASEAN economies—the Lao People's Democratic Republic (Lao PDR), Malaysia, and Singapore—raised a combined USD1.0 billion worth of issuance in Q4 2017, comprising bonds denominated in various currencies.

The Government of the Lao PDR issued a multitranche bond worth THB14.0 billion (USD430 million), the longest tenor of which was 15 years with a coupon rate of 6.05%. This was the sixth THB-denominated issuance by the Lao PDR since May 2013. Nam Ngum 2 Power, a hydroelectric power company, also issued THB6.0 billion worth of THB-denominated bonds of various tenors. Cross-border issuances from the Lao PDR accounted for 14.3% of the region's total cross-border issuance for the quarter.

Cross-border issuance from Singapore totaled USD241 million in Q4 2017 and was denominated in various currencies. The largest issuance was by BOC Aviation, which issued a CNY1.0 billion 3-year bond carrying a 4.5% coupon.

Malayan Banking Berhad (Maybank) sold USD157 million worth of bonds denominated in Chinese renminbi and Hong Kong dollars.

On a regional level, issuances in Q4 2017 were denominated in Chinese renminbi, Hong Kong dollars, Indonesian rupiah, Philippine pesos, Singapore dollars, and Thai baht.

HKD-denominated bonds comprised the majority of cross-border issuance in Q4 2017, amounting to USD2.4 billion and accounting for 55% of the total (**Figure 6**). Issuers of Hong Kong dollar bonds came from the PRC, the Republic of Korea, and Malaysia.

CNY-denominated bonds issued in Q4 2017 amounted to USD804 million, accounting for 19% of the region's total amount of cross-border issuance for the quarter. Issuers came from Hong Kong, China; the Republic of Korea; Malaysia; and Singapore.

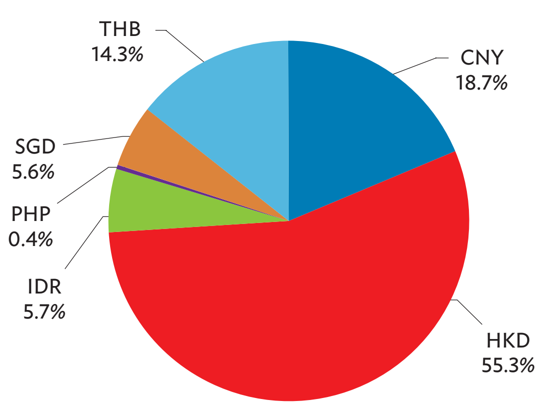
Issuances denominated in Thai baht, all of which came from the Lao PDR, amounted to USD614 million in Q4 2017, accounting for 14% of the total amount of cross-border issuance for the quarter.

A total of USD244 million worth of bonds denominated in Indonesian rupiah were issued in Q4 2017, originating from the Republic of Korea and Singapore.

SGD-denominated issuances worth USD240 million were sold by two issuers from the Republic of Korea.

Issuances denominated in Philippine pesos, amounting to USD16 million, originated from Singapore.

Figure 6: Currency Share of Intra-Emerging East Asian Bond Issuance in the Fourth Quarter of 2017



CNY = Chinese renminbi, HKD = Hong Kong dollar, IDR = Indonesian rupiah, PHP = Philippine peso, SGD = Singapore dollar, THB = Thai baht.
Note: Data as of 31 December 2017.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

Total G3 currency bond issuance in emerging East Asia rose to USD341.6 billion in 2017.

Emerging East Asia's G3 currency bond issuance totaled USD342 billion in 2017, a hefty 56.7% increase over the USD218 billion recorded in 2016 (**Table 4**).[4] It was the second year in a row that G3 currency bond sales reached a record high as emerging East Asian economies became more active in the bond market, particularly in the last quarter of year, in anticipation of tighter US monetary policy in 2018.

By currency of issuance, US dollar bonds remained the most preferred denomination among emerging East Asian issuers, with a share of 91.7% of the total issuance in 2017, owing to the US dollar's status as a global currency. Bond sales in US dollars increased 61.2% y-o-y to USD313.3 billion from USD194.3 billion in 2016. EUR- and JPY-denominated bond issuance also rose in 2017, with total bond sales volume of USD25.2 billion and USD3.1 billion, respectively, despite the slight fall in the shares of both currencies relative to last year's G3 currency bond basket.

The PRC remained the region's largest issuer of G3 currency bond sales in 2017 at USD225 billion, as well as the fastest-growing issuer with an 86.1% increase over 2016. In 2017, the PRC's stable economic growth and attempts by the government to curb outflows contributed to the renminbi's appreciation, making issuance in foreign currency more attractive.

Hong Kong, China; Indonesia; the Philippines; Singapore; and Thailand all posted positive growth in their issuances compared to a year earlier, while G3 currency bond issuances declined in the Lao PDR and Malaysia. There was no G3 currency bond issuance in Viet Nam or in Cambodia in 2017.

The continuing economic structural adjustments in the PRC did not weaken Chinese companies' dominance in the issuances of G3 currency bonds. The PRC accounted for about 66% of the total G3 currency bond issuance, primarily denominated in US dollars and the rest in euros, with no issuance made in Japanese yen. Aside from a stronger renminbi, companies in the PRC continued to borrow from offshore markets where funding costs remained cheaper than local sources, as the government implemented measures to curb credit growth. Most

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

Table 4: G3 Currency Bond Issuance

2016			2017		
Issuer	Amount (USD billion)	Issue Date	Issuer	Amount (USD billion)	Issue Date
China, People's Rep. of	**121.1**		**China, People's Rep. of**	**225.4**	
China Cinda Asset Management 4.45% Perpetual	3.2	30-Sep-16	Postal Savings Bank of China 4.50% Perpetual	7.3	27-Sep-17
Proven Honour Capital 4.125% 2026	2.0	6-May-16	China Evergrande Group 8.75% 2025	4.7	28-Jun-17
China Minsheng Banking 4.95% Perpetual	1.4	14-Dec-16	Alibaba Group Holding	2.6	06-Dec-17
Huarong Finance 3.625% 2021	1.4	22-Nov-16	State Grid Overseas Investment Ltd 3.50% 2027	2.4	04-May-17
Sinopec 2% 2021	1.3	29-Sep-16	China Zheshang Bank 5.45% 2050	2.2	29-Mar-17
Export–Import Bank of China 2% 2021	1.3	26-Apr-16	Kaisa Group Holdings Ltd 9.38% 2024	2.1	30-Jun-17
China Development Bank 0.875%	1.2	3-Feb-16	CNAC (HK) Synbridge Company Ltd 5.00% 2020	2.0	05-May-17
Sinopec 1.75% 2019	1.1	29-Sep-16	CNAC (HK) Finbridge Company Ltd 3.85% 2020	2.0	22-Dec-17
Others	108.3		Others	200.3	
Hong Kong, China	**29.7**		**Hong Kong, China**	**36.7**	
CK Hutchison 1.25% 2023	1.6	8-Apr-16	Radiant Access Limited 4.60% Perpetual	1.5	18-May-17
China Overseas Finance 0% 2023	1.5	5-Jan-16	China Cinda Finance 3.65% 2022	1.3	9-Mar-17
Others	26.6		Others	33.9	
Indonesia	**18.3**		**Indonesia**	**26.7**	
Indonesia (Sovereign) 3.75% 2028	1.8	14-Jun-16	Perusahaan Penerbit SBSN *Sukuk* 4.15% 2027	2.0	29-Mar-17
Indonesia (Sovereign) 2.625% 2023	1.8	14-Jun-16	Indonesia (Sovereign) 4.35% 2048	1.8	11-Dec-17
Perusahaan Penerbit SBSN *Sukuk* 4.55% 2026	1.8	29-Mar-16	Perusahaan Listrik Negara 4.13% 2027	1.5	15-May-17
Indonesia (Sovereign) 5.25% 2047	1.5	8-Dec-16	Indonesia (Sovereign) 3.5% 2028	1.3	11-Dec-17
Indonesia (Sovereign) 4.35 2027	1.3	8-Dec-16	Indonesia (Sovereign) 2.15% 2024	1.2	18-Jul-17
Others	10.2		Others	19.0	
Korea, Rep. of	**28.8**		**Korea, Rep. of**	**29.8**	
Korea Development Bank 3% 2026	1.0	13-Jan-16	Republic of Korea (Sovereign) 2.75% 2027	1.0	19-Jan-17
Korea Eximbank 1.75% 2019	1.0	26-May-16	Export-Import Bank of Korea 3.00% 2022	1.0	1-Nov-17
Korea Eximbank 2.625% 2026	1.0	26-May-16	Export–Import Bank of Korea 0.50% 2022	0.9	30-May-17
Others	25.8		Others	26.9	
Lao People's Democratic Rep.	**0.3**		**Lao People's Democratic Rep.**	**0.03**	
Malaysia	**6.0**		**Malaysia**	**4.4**	
Malaysia (Sovereign) *Sukuk* 3.179% 2026	1.0	27-Apr-16	Genting Overseas Holdings Limited Capital 4.25% 2027	1.0	24-Jan-17
Danga Capital 3.035% 2021	0.8	1-Mar-16	CIMB Bank 1.93% 2020	0.6	15-Mar-17
TNB Global Ventures Capital 3.244% 2026	0.8	19-Oct-16	CIMB Bank 3.26% 2022	0.5	15-Mar-17
Others	3.5		Others	2.3	
Philippines	**2.7**		**Philippines**	**4.0**	
Philippines (Sovereign) 3.7% 2041	2.0	1-Mar-16	Republic of the Philippines (Sovereign) 3.7% 2042	2.0	2-Feb-17
Others	0.7		Others	2.0	
Singapore	**9.8**		**Singapore**	**12.5**	
BOC Aviation 3.875% 2026	0.8	27-Apr-16	DBS Bank 0.38% 2024	0.9	23-Jan-17
DBS Group 3.6% Perpetual	0.8	7-Sep-16	DBS Group Holdings Ltd 1.71% 2020	0.8	8-Jun-17
Others	8.3		Others	10.9	
Thailand	**1.2**		**Thailand**	**2.2**	
Kasikorn Bank PLC 2.375% 2022	0.4	6-Oct-16	PTTEP Treasury Center Company Ltd 4.60% Perpetual	0.5	17-Jul-17
Others	0.8		Others	1.7	
Emerging East Asia Total	**218.0**		**Emerging East Asia Total**	**341.6**	
Memo Items:			**Memo Items:**		
India	**8.4**		**India**	**15.1**	
Export–Import Bank of India 3.375% 2026	1.0	5-Aug-16	Vedanta Resources PLC 6.375% 2022	**1.0**	**30-Jan-17**
Others	7.4		Others	14.1	
Sri Lanka	**2.9**		**Sri Lanka**	**3.7**	

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. Figures were computed based on 31 December 2017 currency exchange rates and do not include currency effects.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

of the firms faced mounting pressures to find cheaper source of refinancing their maturing debts in 2017. China Evergrande Group was the PRC's largest issue of G3 currency bonds in 2017, raising a total of USD9.1 billion in USD-denominated bonds in the first half of the year. The two other top issuers in the PRC were Huarong Finance and the Postal Savings Bank with USD8.7 billion and USD7.3 billion of G3 currency bond issuance, respectively. Other notable issuances include the PRC's first sovereign issuance since 2004, which comprised USD2.0 billion worth of 5-year and 10-year bonds issued in November. The issuance is also notable for being a sovereign USD-denominated bond with no credit rating.

Hong Kong, China remained the second-largest G3 currency bond issuer in 2017 with aggregate issuance of USD37 billion, a 23.6% jump from total G3 bonds sold in 2016. China Cinda Finance was the largest bond issuer with total bond issuance worth USD3.6 billion.

The Republic of Korea was the third-largest G3 currency bond issuer with a total of USD29.8 billion issued in 2017, in all three currencies, roughly the same as in 2016. The top three issuers this year were Export–Import Bank and Korea Development Bank, both government-owned, and Hyundai Capital Services, which together comprised 40.8% of total G3 currency bonds sales in the Republic of Korea. Quarterly bond sales in Q4 2017 were the lowest of the year at USD5.7 billion.

G3 currency bond issuance by members of ASEAN grew 29.5% in 2017 to USD49.7 billion from USD38.4 billion in 2016. The combined sales from Indonesia and Singapore comprised 79% of the total issuance from ASEAN.

Indonesia's new G3 issuance grew strongly at 45.6% y-o-y in 2017, reaching a total value of USD26.7 billion. The Government of Indonesia was the top issuer in the market during the year, selling USD8 billion. The government intends to use the proceeds of G3 currency bond issuance to finance the state budget, while continuing its debt instrument diversification plans. In 2017, Q4 2017 bond sales were the highest among all quarters at USD8.1 billion.

Singapore issued USD12.5 billion of G3 currency bonds in 2017 on an increase of 27.0% y-o-y. Similar to Hong Kong, China, issuers in Singapore were from the financial sector. Total issuance in Q4 2017 of USD3.3 was almost at par with the previous quarter.

Thailand's G3 currency bond issuance almost doubled in 2017 to USD2.2 billion. Despite the surge, only a small number of firms issue G3 currency bonds in Thailand, with the bulk of the issuance conducted in the second half of the year.

G3 currency bond sales in the Philippines registered an increase of 47.7% to USD4.0 billion in 2017, all of which was denominated in US dollars. The largest chunk was issued by the government, which sold USD2.0 billion worth of bonds in the first quarter of the year. The Philippines G3 currency bond issuance in Q4 2017 totaled USD850 million.

For the second year in a row, G3 currency bond issuance in Malaysia declined, dropping 27.7% y-o-y to USD4.4 billion. The issuances comprised USD- and JPY-denominated bonds. The seemingly anemic performance of G3 currency bond issuance can be attributed to lingering negative investor sentiment from Bank Negara Malaysia clamping down on the offshore trading of the Malaysian ringgit, which caused episodes of large capital outflows during 2017. About USD960 million worth of G3 currency bonds were sold in Q4 2017.

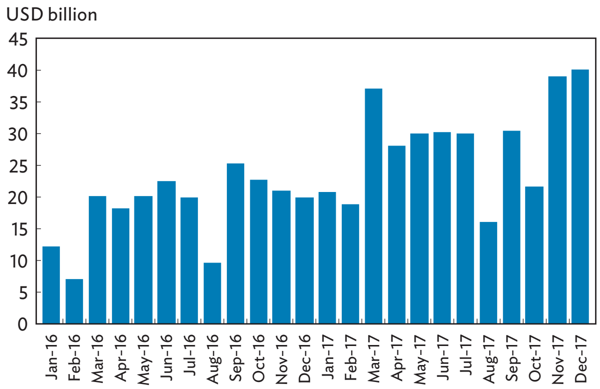
The sole G3 bond issuance in the Lao PDR in 2017 was a USD25.7 million bond from Kolao Holding in Q3 2017.

Examining the monthly trends in 2017, G3 currency bond issuance volumes in emerging East Asian economies were highest in March, November, and December at USD37 billion, USD39 billion, and USD40 billion, respectively (**Figure 7**). The high issuance volumes in these months were driven by surges in G3 currency bond issuance in the PRC. The large spate of issuances in November and December came after the completion of the National Congress of the Communist Party of China in October when the National Development and Reform Council began allowing more companies to issue offshore bonds.

Emerging East Asia's government bond yield curves fell for most markets at the longer-end as the US continued its monetary policy normalization and the positive global growth outlook remained unchanged.

Despite a slowdown in GDP growth in the US to 2.5% y-o-y in Q4 2017 from 3.2% y-o-y in the previous quarter, the US continued to maintain its current

Figure 7: G3 Currency Bond Issuance in Emerging East Asia



USD = United States dollar.
Notes:
1. Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
3. Figures were computed based on 31 December 2017 currency exchange rates and do not include currency effects.

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

trajectory of gradual monetary policy normalization. On 12 December, the Federal Reserve raised its key policy rate target range by 25 basis points (bps) to between 1.25% and 1.50%. The Federal Reserve noted that its forecast for growth is largely on track and in December upgraded its forecast for 2018 to 2.5% from 2.4%. The Federal Reserve kept its policy rate target unchanged in its 30 January meeting but noted that both the economy and labor markets continue to strengthen. While US GDP growth slowed in Q4 2017, consumption was strong and the decline was mostly due to a rise in imports.

In the eurozone, flash estimates of GDP growth for Q4 2017 also slowed to 2.7% y-o-y from 2.8% y-o-y in the prior quarter. The European Central Bank (ECB) kept monetary policy unchanged on 25 January but noted that surveys indicate that growth continues to be strong and broad-based. The ECB's survey of professional forecasters released on 25 January also confirms this with participants upgrading their growth forecasts for 2018 to 2.3% y-o-y from 1.9% y-o-y. While the ECB lags the US Federal Reserve in terms of policy normalization, in January the ECB reduced its asset purchases from EUR60 billion to EUR30 billion a month and announced plans to end such purchases entirely in September 2018.

GDP growth in Japan slowed much more, falling to an annual rate of 1.6% in Q4 2017 from 2.4% in the prior quarter. Like other advanced economy central banks, on 23 January the Bank of Japan announced it would keep monetary policy unchanged. It also affirmed that it expects 2018 growth to exceed potential. In March, the BOJ, announced that it would be thinking about normalizing monetary policy in April 2019.

In summary, while global economic growth showed signs of slowing in Q4 2017, expectations are that economic gains will continue to be made that will allow central banks in advanced markets to begin normalizing monetary policy.

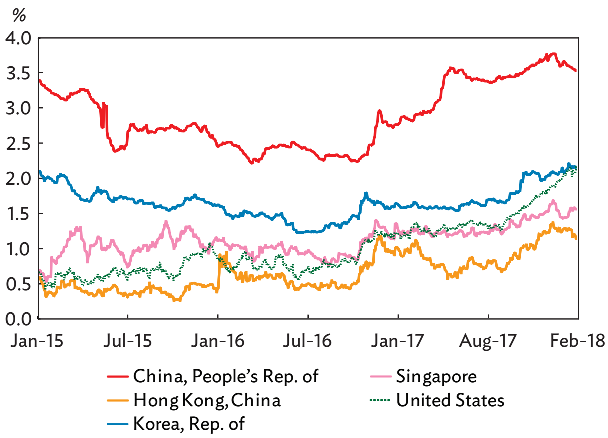
Confidence in the continuation of global economic gains as well as the current trajectory of US monetary policy has led to upward pressure on interest rates in emerging East Asia, particularly at the longer-end of the curve. However, 2-year yields in a number of emerging East Asian economies have trended downward. Hong Kong, China's 2-year yield fell between 29 December and 15 February, largely on ample domestic liquidity, prompting the Hong Kong Monetary Authority to issue additional Exchange Fund Bills (**Figure 8a**). In Singapore, the fall in the 2-year yield was led by investors shortening the duration of their portfolios. Indonesia experienced a decline in its 2-year yield following adjustments in the reserve requirement ratios in January (**Figure 8b**). Viet Nam's 2-year yield also fell following a reduction in its open market operation rates.

On the other hand, 10-year yields trended strongly upward across the region, reflecting a rise in US interest rates and growth expectations. The PRC's 10-year yield was also affected by the government's ongoing deleveraging efforts (**Figure 9a**). Viet Nam was the exception to this trend, with its 10-year rate falling along with the 2-year yield (**Figure 9b**).

Between 29 December and 15 February, most emerging East Asian economies saw their government bond yield curves rise for longer tenors. The PRC; Hong Kong, China; the Republic of Korea; the Philippines; and Singapore all saw yields at the longer-end of the curve rise, while yields rose for all tenors in Malaysia. Viet Nam was the sole exception, with yields falling for all tenors (**Figure 10**).

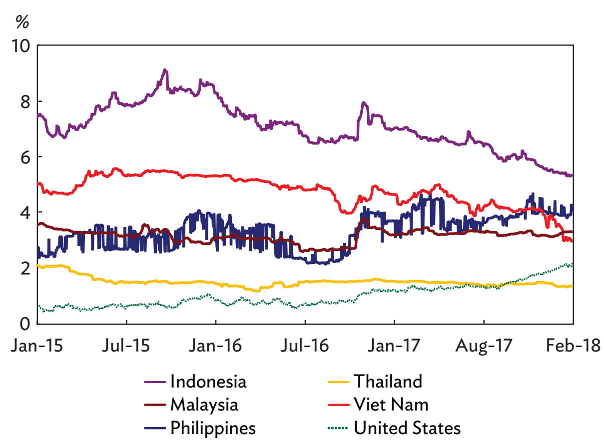
Similar to advanced economies, emerging East Asian economies largely experienced slower growth in Q4 2017. The PRC's quarterly growth rate was unchanged at

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



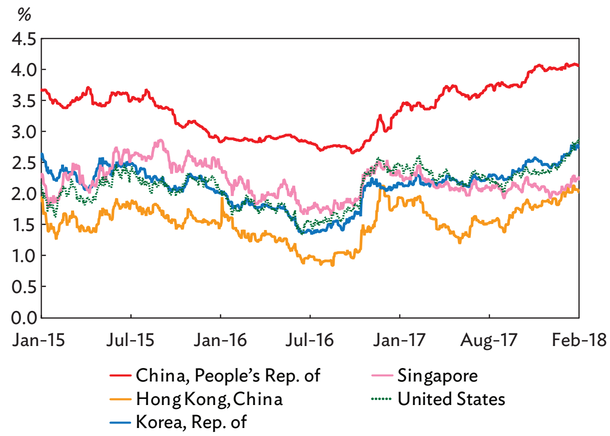
Note: Data as of 15 February 2018.
Source: Based on data from Bloomberg LP.

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



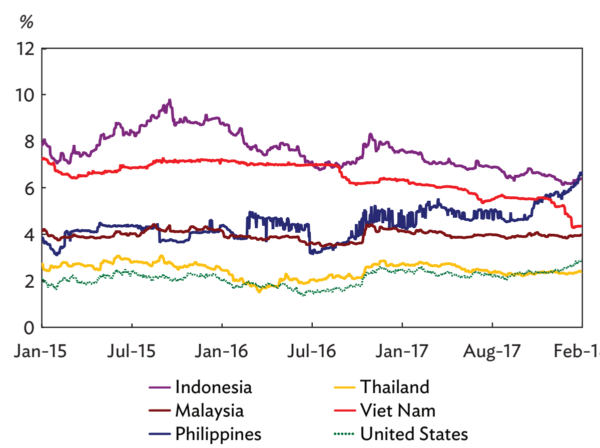
Note: Data as of 15 February 2018.
Source: Based on data from Bloomberg LP.

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



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

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

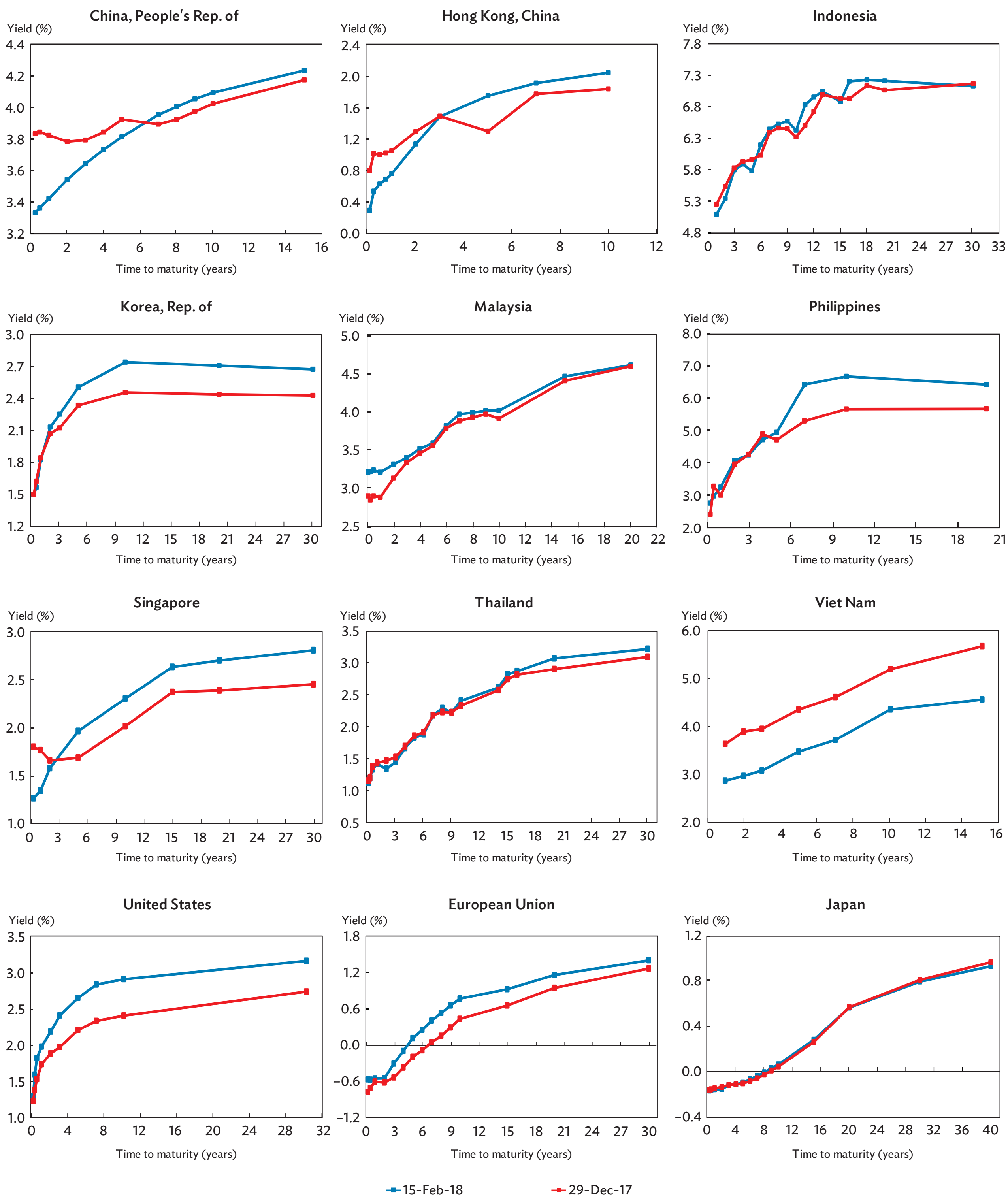


Note: Data as of 15 February 2018.
Source: Based on data from Bloomberg LP.

6.8% y-o-y while Malaysia's slowed to 5.9% y-o-y from 6.2% y-o-y in the same period. The Philippine economy's growth rate fell to 6.6% y-o-y from 7.0% y-o-y, while Singapore's fell steeply to 3.6% y-o-y from 5.5% y-o-y. Thailand's economic growth slowed to 4.0% y-o-y in Q4 2017 from 4.3% y-o-y in the previous quarter. The Republic of Korea's economy contracted 0.2% q-o-q in Q4 2017, but grew, albeit at a slower pace of 3.0% y-o-y. The q-o-q contraction was largely attributed to a high base effect in Q3 2017. Only Indonesia and Viet Nam showed an acceleration in GDP growth in Q4 2017, with Indonesia's GDP growth rate quickening to 5.2% y-o-y from 5.1%y-o-y, while Viet Nam's economy expanded 6.8% in full-year 2017, up from 6.4% in the first 3 quarters. Overall, emerging East Asia is largely expected to benefit from improving economic growth in 2018.

Other than economic growth, inflation in emerging East Asian markets also largely tracked weakness in advanced economies. While advanced economy forecasts have largely shown growth picking up in 2018, inflation has continued to be below target. However, projections show that inflation in advanced economies will pick up as early as 2019.

Figure 10: Benchmark Yield Curves—Local Currency Government Bonds

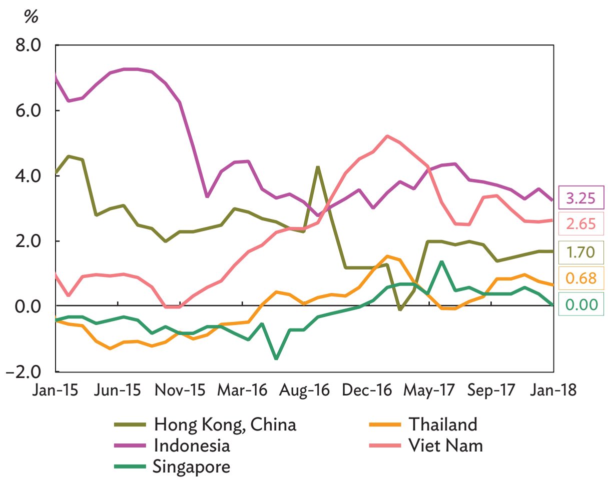


Source: Based on data from Bloomberg LP.

Singapore saw its annual inflation rate fall to zero in January (**Figure 11a**). The sole exception to this inflationary trend in the region was the Philippines, whose inflation accelerated to 4.0% y-o-y in January from 3.3% y-o-y in December, largely on the back of a tax reform program that pushed up prices of goods (**Figure 11b**).

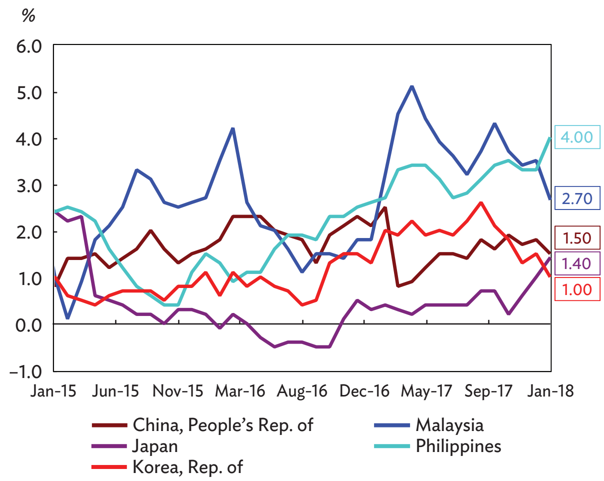
The low-inflation environment, coupled with expectations of improved growth, largely allowed central banks in emerging East Asia to leave monetary policy unchanged in Q4 2017. The Republic of Korea even raised its policy rate by 25 bps on 30 November and Malaysia increased its policy rate by 25 bps on 24 January (**Figure 12a**). The central banks of Indonesia and Viet Nam, both having the distinction of cutting policy rates in Q3 2017, largely kept policy rates unchanged in Q4 2017 (**Figure 12b**). These are also the only two economies in the region that had accelerating GDP growth rates in Q4 2017. However, while Indonesia left its policy rate unchanged

Figure 11a: Headline Inflation Rates



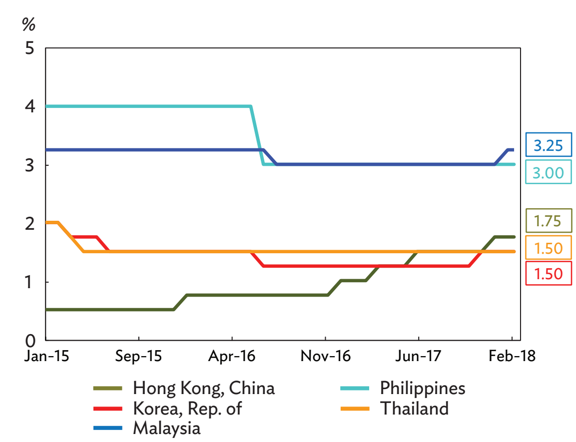
Note: Data as of January 2018.
Source: Based on data from Bloomberg LP.

Figure 11b: Headline Inflation Rates



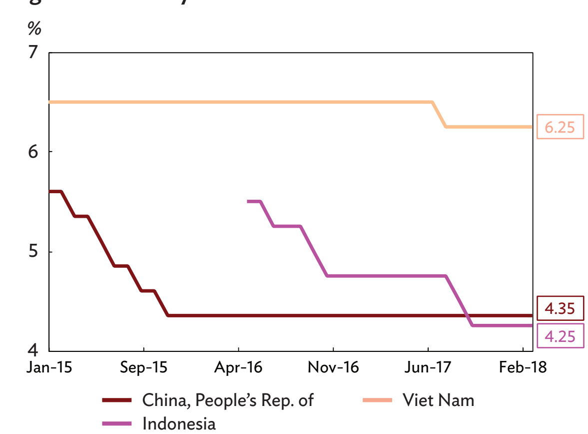
Note: Data as of January 2018.
Source: Based on data from Bloomberg LP.

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.

on 18 January, it reduced banks' day-to-day reserve requirement ratio by 50 bps to 4.5%. The 2-week average reserve requirement ratio was left unchanged at 6.5%. On 17 January, Viet Nam reduced its open market operation rate by 25 bps to 4.75%. The Philippines also reduced its reserve requirement ratio on 15 February by 100 bps to 19.0%.

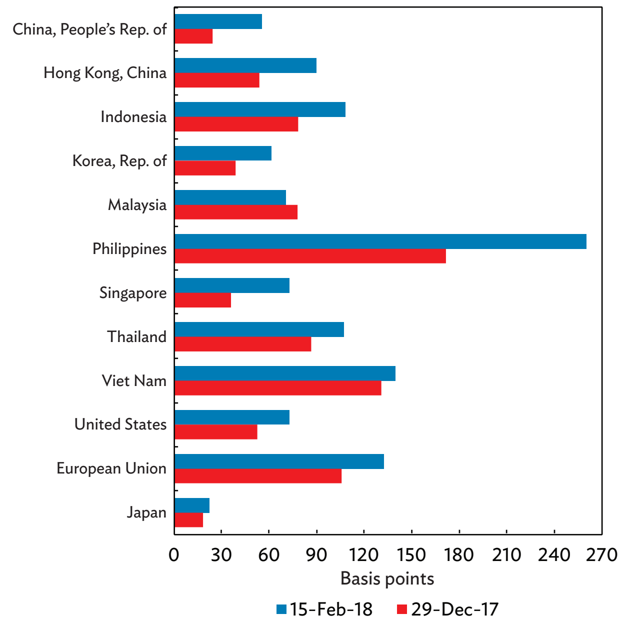
Expectations of improved economic gains also led to a rise in the 2-year versus 10-year yield spread in all markets in the region except Malaysia (**Figure 13**).

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

The improved economic outlook led to an improvement in the credit spreads at the longer-end of the curve in the Republic of Korea and Malaysia. In contrast, however, the AAA-rated credit spread versus government yields in the PRC rose as the government continued its deleveraging process (**Figure 14a**).

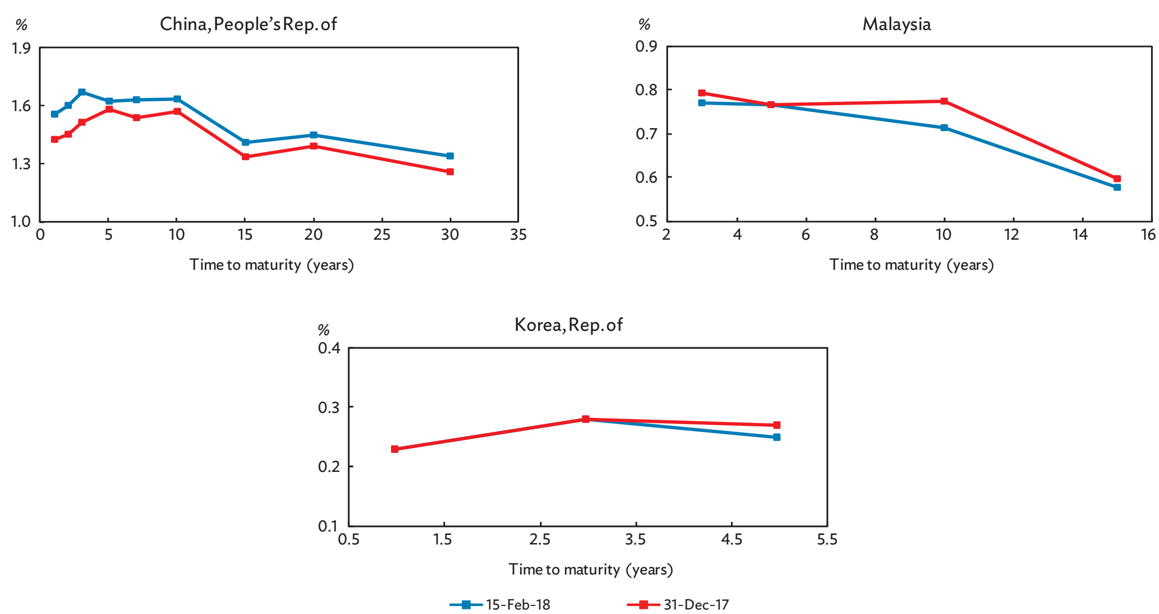
The spread between AAA-rated corporates and lower-rated corporates were roughly unchanged for all markets (**Figure 14b**).

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



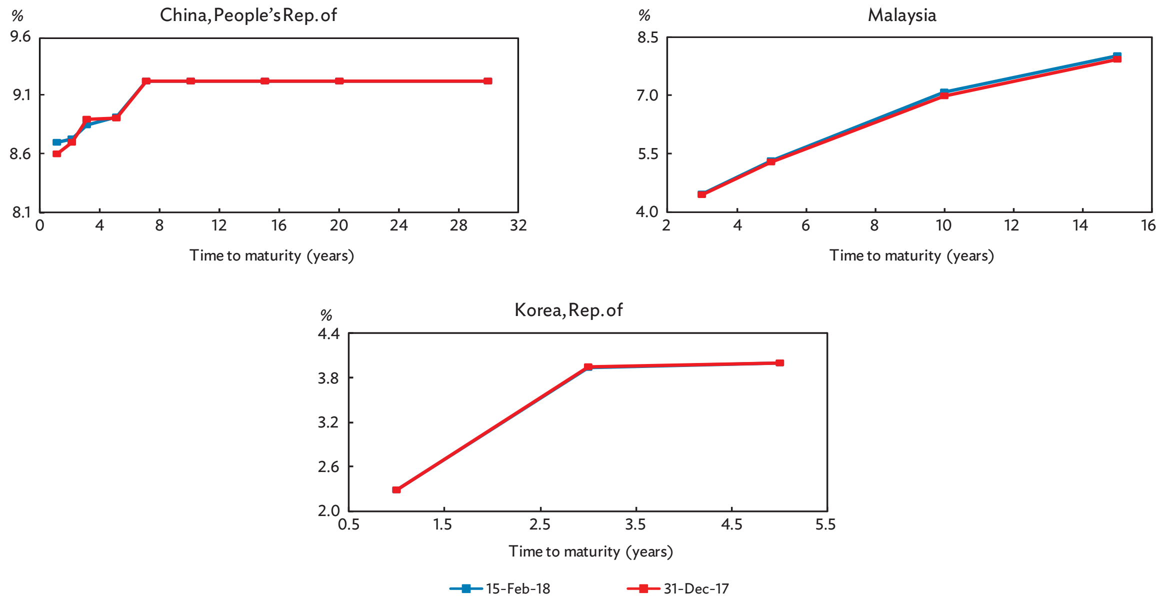
Source: Based on data from Bloomberg LP.

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

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



Notes:

1. For the People's Republic of China and the Republic of Korea, credit spreads are obtained by subtracting corporate indicative yields rated AAA from corporate indicative yields rated BBB+.
2. For Malaysia, credit spreads are obtained by subtracting corporate indicative yields rated AAA from corporate indicative yields rated BBB.
3. For Malaysia, data on corporate bond yields are as of 14 February 2018.

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

Policy and Regulatory Developments

People's Republic of China

The People's Republic of China Places New Requirements on Repurchase Transactions

The People's Republic of China on 29 December placed restrictions on the use of repurchase transactions in order to better manage leverage risk and provide greater oversight of the financial system. Under the new rules, financial institutions are required to document all repurchase transactions and are not allowed to use verbal agreements to enter into such transactions. In addition, financial institutions must report their transactions to the People's Bank of China should the total outstanding amount of repurchase transactions exceed a certain percentage of their net assets. The percentages vary based on the type of institution as follows: 80% for banks; 20% for securities firms, fund managers, and futures brokerages; and 20% for insurance companies.

Hong Kong, China

Hong Kong, China Releases Tentative Issuance Schedule for Exchange Fund Bills and Notes

On 15 February, the Hong Kong Monetary Authority released a tentative issuance schedule for Exchange Fund Bills and Notes for the second quarter of 2018. A total of HKD800.2 billion worth of bills of various tenors will be issued within the quarter and a 2-year note worth HKD1.2 billion will be issued in May. Of the total amount of Exchange Fund Bills to be issued, 76% are 91-day bills and 19% are 182-day bills. For 91-day bills, the amounts are rollover amounts that take into account planned adjustments to the maturity spectrum of the Exchange Fund Bills and Notes portfolio. Details of new issues of bills will be confirmed and announced at least 4 business days prior to the respective tender dates, and 7 business days for notes.

Indonesia

Fitch Ratings Upgrades Indonesia's Sovereign Credit Rating to BBB

On 20 December, Fitch Ratings raised Indonesia's sovereign credit rating one notch from BBB– to BBB with a stable outlook, the second-lowest investment grade. According to the rating agency, the upgrade was largely due to Indonesia's resilience to external shocks as a result of macroeconomic policies that focus on stability, a more flexible exchange-rate policy that has helped the economy build its foreign reserves buffer, a monetary policy that limits episodes of volatile capital outflows, and macroprudential measures that have helped curb a sharp rise in corporate external debt. This was Indonesia's second upgrade in 2017 after S&P Global Ratings raised Indonesia's sovereign rating from junk status.

Republic of Korea

The Republic of Korea Announces Plans to Develop the Korea Treasury Bond Market

In November, the Government of the Republic of Korea announced plans to develop its sovereign bond market. These include, among others, revisions to regulations involving primary dealers to encourage more active market participation. The government will also continue to issue inflation-linked Korea Treasury Bonds (KTBs)—at a volume of less than 15% of the total amount of 10-year KTB issuance—to provide market guidance on bond supply; and promote repurchase agreements to facilitate short-term financing in the market. To meet the market's demand for long-term debt, the government will issue additional long-tenored KTBs.

Government to Issue KRW106.4 Trillion of Korea Treasury Bonds in 2018

In December, the Government of the Republic of Korea announced it would issue KRW106.4 trillion of KTBs in 2018. Of this total volume, 35%–45% of the KTBs will have maturities of 3–5 years, 20%–30% will have maturities of 10 years, and 30%–40% will have maturities of 20 years or longer.

Ministry of Strategy and Finance Announces Economic Policies for 2018

In December, the Ministry of Strategy and Finance (MOSF) announced its economic policies for 2018. The MOSF stated that the Republic of Korea's economic recovery is expected to continue in 2018, supported by strong global economic growth and improvements in domestic consumption. However, uncertainties remain, including rising interest rates, increased protectionism, and tighter competition among manufacturers due to a narrowing technology gap. To address these risks, the government will formulate policies intended to create more jobs and improve incomes, particularly in new industries, small and medium-sized enterprises, and the public sector. The government will also prioritize projects that promote "growth through innovation" across all industries such as building infrastructure to develop fintech. The MOSF forecasts full-year 2018 gross domestic product growth of 3.0% and inflation of 1.7%. The government will also frontload 34.5% of its budgetary allocation in the first quarter of 2018.

Malaysia

Bank Negara Malaysia Signs Local Currency Settlement Frameworks with Bank Indonesia and Bank of Thailand

Bank Negara Malaysia and Bank Indonesia signed the Local Currency Settlement Framework, which is a bilateral arrangement between Malaysia and Indonesia to promote the use of local currencies (Malaysian ringgit and Indonesian rupiah) for the settlement of the trade of goods and services between the two economies. The central banks will appoint banks in Malaysia and Indonesia with foreign exchange flexibilities to facilitate access for exporters and importers to Malaysian ringgit and Indonesia rupiah for the settlement of bilateral trade. In addition, Bank Negara Malaysia signed an expanded Local Currency Settlement Framework with the Bank of Thailand to include the settlement of bilateral direct investment using Malaysia ringgit and Thai baht. This coverage is on top of the existing framework between Malaysia and Thailand. The frameworks were both signed on 23 December and became effective on 2 January.

Philippines

The Philippines Reduces Reserve Requirement Ratios

The Monetary Board of the Bangko Sentral ng Pilipinas on 15 February announced that it would reduce reserve requirement ratios by 1 percentage point as part of its operational fine-tuning. The move reflects the central bank's shift to more market-based measures and instruments in managing monetary policy, and will reduce the reserve requirement ratio of universal and commercial banks to 19%.

Singapore

The Monetary Authority of Singapore and the China Securities Regulatory Commission to Enhance Supervisory Cooperation

In November, the Monetary Authority of Singapore and the China Securities Regulatory Commission agreed to bolster supervisory cooperation, particularly on sharing information about derivative products. The two regulators also discussed initiatives to develop their capital markets, including the listing of qualifying Chinese firms in Singapore and the possibility of mutual recognition of collective investment schemes.

The Monetary Authority of Singapore and Securities Commission Malaysia to Establish Stock Market Trading Link

In February, the Monetary Authority of Singapore and Securities Commission Malaysia announced plans to establish a stock market trading link between Bursa Malaysia and Singapore Exchange by the end of 2018. This will facilitate efficiency in the cross-border listing of shares for issuers, as well as improved trading and settlement for investors from both markets. The initiative is part of efforts under the Association of Southeast Asian Nations Capital Markets Forum to develop financial connectivity and integration in the region.

Thailand

Thailand's Securities and Exchange Commission Tightens Bondholder Protections

Thailand's Securities and Exchange Commission is setting up new rules to reduce the risks individual investors face in buying both short- and long-dated bonds. Efforts to tighten investor protections emanated from the increased appetite of Thai high-net-worth investors for higher-yielding bonds despite defaults in short-term bills of exchange.[5] The revised framework includes a proposal for all long-term corporate bonds that are offered to high-net-worth investors to be appointed a representative, equivalent to a trustee, who will take care of the investors' requirements in the event of a default, covenant breach, or litigation. Another proposal under consideration is the appointment of a financial adviser who will perform due diligence on any public offering of bonds rated below investment grade. Public offerings are to be tightened and more transparency and additional disclosures are to be required of companies. The new rules are set to be implemented in two stages on 1 April and 1 July.

Viet Nam

Viet Nam Releases Government Bond Issuance Plan for 2018

On 26 February, Viet Nam's State Treasury released the government's bond issuance plan for 2018. Under the plan, Viet Nam will borrow a total of VND200,000 billion in 2018. In terms of maturity, Viet Nam plans to issue VND20,000 billion worth of securities with tenors of less than 5 years, VND30,000 billion worth of 5-year bonds, VND36,000 billion worth of 7-year bonds, VND37,000 billion worth of 10-year bonds, VND32,000 billion worth of 15-year bonds, VND20,000 billion worth of 20-year bonds, and VND25,000 billion worth of 25-year bonds.

[5] High-net-worth investors are defined as investors with at least THB70 million in net asset value or an annual income of THB10 million.

Market Summaries

People's Republic of China

Local currency (LCY) bonds outstanding in the People's Republic of China (PRC) grew 4.0% quarter-on-quarter (q-o-q) and 14.9% year-on-year (y-o-y) to reach CNY56.9 trillion (USD8.7 trillion) at the end of December. The increase mostly came from a rise in Treasury and other government bonds, which together grew 5.2% q-o-q and 25.2% y-o-y. The expansion of Treasury and other government bonds was mostly due to a rise in local government bonds, which grew 5.9% q-o-q and 38.7% y-o-y.

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

	Outstanding Amount (billion)						Growth Rates (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	CNY	USD	CNY	USD	CNY	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**49,510**	**7,129**	**54,693**	**8,221**	**56,866**	**8,739**	**3.4**	**22.0**	**4.0**	**14.9**
Government	34,545	4,974	39,438	5,928	41,167	6,327	4.2	30.8	4.4	19.2
Treasury Bonds	22,142	3,188	26,340	3,959	27,712	4,259	5.9	47.8	5.2	25.2
Central Bank Bonds	6	1	0	0	0	0	(78.2)	(98.6)	–	(100.0)
Policy Bank Bonds	12,397	1,785	13,098	1,969	13,454	2,068	1.5	12.7	2.7	8.5
Corporate	14,965	2,155	15,255	2,293	15,700	2,413	1.6	5.6	2.9	4.9
Policy Bank Bonds										
China Development Bank	7,081	1,020	7,331	1,102	7,540	1,159	0.4	7.3	2.9	6.5
Export–Import Bank of China	2,133	307	2,280	343	2,296	353	5.2	15.2	0.7	7.7
Agricultural Devt. Bank of China	3,184	458	3,488	524	3,617	556	1.5	25.2	3.7	13.6

( ) = 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 for the fourth quarter (Q4) of 2017 reached CNY1.5 trillion, which was lower than the previous quarter's CNY1.6 trillion due to a rise in borrowing costs.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (CNY billion)
Industrial and Commercial Bank		
10-year	4.45	44
10-year	4.45	44
China Railway		
6-months	4.30	20
5-year	4.85	15
5-year	4.94	10
5-year	4.90	15
10-year	4.85	5

Corporate Issuers	Coupon Rate (%)	Issued Amount (CNY billion)
10-year	4.93	5
10-year	4.96	10
Agrilcultural Bank of China		
10-year	4.45	40
Bank of China		
10-year	4.45	30
China Bohai Bank		
2-year	5.40	10

CNY = Chinese yuan.
Source: Bloomberg LP.

LCY corporate bonds outstanding among the top 30 corporate bond issuers in the PRC reached CNY6.3 trillion at the end of December, accounting for 40.4% of the total LCY corporate bond market. The largest issuer remained China Railways, with CNY1.5 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	1,495.5	229.84	Yes	No	Transportation
2.	State Grid Corporation of China	361.8	55.60	Yes	No	Public Utilities
3.	Industrial and Commercial Bank of China	356.0	54.71	Yes	Yes	Banking
4.	China National Petroleum	325.0	49.95	Yes	No	Energy
5.	Bank of China	318.9	49.01	Yes	Yes	Banking
6.	Agricultural Bank of China	318.0	48.87	Yes	Yes	Banking
7.	Bank of Communications	265.0	40.73	No	Yes	Banking
8.	China Construction Bank	212.0	32.58	Yes	Yes	Banking
9.	Shanghai Pudong Development Bank	198.6	30.52	No	Yes	Banking
10.	China Everbright Bank	188.9	29.03	Yes	Yes	Banking
11.	China Minsheng Banking	185.1	28.45	No	Yes	Banking
12.	Industrial Bank	185.0	28.43	No	Yes	Banking
13.	China CITIC Bank	157.5	24.21	No	Yes	Banking
14.	Bank of Beijing	152.9	23.50	Yes	Yes	Banking
15.	State Power Investment	140.1	21.54	Yes	No	Energy
16.	Huaxia Bank	130.4	20.04	Yes	No	Banking
17.	Central Huijin Investment	124.0	19.06	Yes	No	Asset Management
18.	PetroChina	121.0	18.60	Yes	Yes	Energy
19.	Tianjin Infrastructure Construction and Investment Group	110.3	16.95	Yes	No	Industrial
20.	CITIC Securities	106.8	16.41	Yes	Yes	Brokerage
21.	China Three Gorges	98.8	15.18	Yes	No	Public Utilities
22.	China Huarong Asset Management	96.0	14.75	Yes	Yes	Asset Management
23.	Dalian Wanda Commercial Properties	93.0	14.29	No	Yes	Real Estate
24.	China Merchants Bank	89.0	13.68	Yes	Yes	Banking
25.	Haitong Securities	87.6	13.46	Yes	Yes	Brokerage
26.	China Guangfa Bank	86.5	13.29	No	Yes	Banking
27.	China Cinda Asset Management	86.0	13.22	Yes	Yes	Asset Management
28.	Guotai Junan Securities	85.0	13.06	Yes	Yes	Brokerage
29.	Huatai Securities	84.9	13.05	Yes	Yes	Brokerage
30.	Shenhua Group Corp Ltd	83.2	12.79	Yes	No	Energy
Total Top 30 LCY Corporate Issuers		**6,342.80**	**974.80**			
Total LCY Corporate Bonds		**15,699.64**	**2,412.81**			
Top 30 as % of Total LCY Corporate Bonds		**40.4%**	**40.4%**			

CNY = Chinese yuan, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-December 2017.
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 grew 1.1% quarter-on-quarter (q-o-q) in the fourth quarter (Q4) of 2017, reaching HKD1,905 billion (USD244 billion) at the end of December. The minimal growth was the result of a decline in corporate bonds. On a year-on-year (y-o-y) basis, LCY bonds grew only 4.0% in Q4 2017, which was slowed by a relatively large decline in Exchange Fund Notes of 21.6% y-o-y.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	HKD	USD	HKD	USD	HKD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,832**	**236**	**1,885**	**241**	**1,905**	**244**	**0.1**	**13.4**	**1.1**	**4.0**
Government	1,064	137	1,116	143	1,153	148	(0.3)	14.8	3.3	8.4
Exchange Fund Bills	915	118	974	125	1,011	129	0.4	18.8	3.8	10.5
Exchange Fund Notes	48	6	41	5	38	5	(5.9)	(17.7)	(7.4)	(21.6)
HKSAR Bonds	101	13	101	13	105	13	(3.8)	2.4	3.4	3.5
Corporate	767	99	769	98	752	96	0.5	11.5	(2.2)	(2.0)

( ) = 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.
Sources: Hong Kong Monetary Authority and Bloomberg LP.

Corporate bond issuance totaled HKD71.5 billion in Q4 2017, up from HKD69.8 billion in the previous quarter. The top new corporate issuer for the quarter was HKCG Finance, which issued HKD0.6 billion worth of 10-year bonds in November.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (HKD billion)
Dah Sing Bank		
3-year bond	2.20	0.39
3-year bond	1.98	0.10
2-year bond	1.62	0.20
HKCG (Finance)		
10-year bond	2.84	0.60
Fubon Bank Hong Kong		
2-year bond	1.95	0.20
Industrial and Commercial Bank of China (Asia)		
1-year bond	1.80	0.20
China Strategic Holdings		
1-year bond	10.00	0.18

HKD = Hong Kong dollar.
Source: Bloomberg LP.

LCY corporate bonds outstanding among the top 30 nonbank corporate bond issuers in Hong Kong, China reached HKD158.9 billion at the end of December, accounting for 21.1% of the total LCY corporate bond stock. The top 30 mostly comprised issuers from the financial services industry, led by Hong Kong Mortgage Corporation with HKD19.3 billion of bonds outstanding.

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.	The Hong Kong Mortgage Corporation	19.33	2.47	Yes	No	Finance
2.	Sun Hung Kai Properties (Capital Market)	12.40	1.59	No	No	Real Estate
3.	MTR Corporation (C.I.)	11.16	1.43	Yes	Yes	Transportation
4.	HKCG (Finance)	11.04	1.41	No	No	Finance
5.	Swire Pacific	8.92	1.14	No	Yes	Diversified
6.	NWD (MTN)	8.57	1.10	No	Yes	Finance
7.	The Link Finance (Cayman) 2009	8.53	1.09	No	No	Finance
8.	Hong Kong Land	7.79	1.00	No	Yes	Real Estate
9.	CLP Power Hong Kong Financing	7.46	0.95	No	No	Finance
10.	Wharf Finance	6.46	0.83	No	No	Finance
11.	Urban Renewal Authority	6.05	0.77	Yes	No	Real Estate
12.	Swire Properties MTN Financing	5.93	0.76	No	No	Finance
13.	Hongkong Electric Finance	5.84	0.75	No	No	Finance
14.	CK Property Finance (MTN)	4.20	0.54	No	No	Finance
15.	Green Leader Holdings	3.55	0.45	No	No	Finance
16.	Sinocop Resources	2.91	0.37	No	Yes	Industrial
17.	Active Way Development	2.55	0.33	No	Yes	Finance
18.	FDG Electric Vehicles	2.49	0.32	No	Yes	Energy
19.	Leading Affluence	2.40	0.31	No	No	Real Estate
20.	The 13	2.26	0.29	No	Yes	Industrial
21.	Cosway (HK)	2.19	0.28	No	Yes	Consumer
22.	Bohai International Capital	2.10	0.27	No	No	Iron and Steel
23.	China Energy Reserve and Chemicals Group Overseas	2.00	0.26	No	No	Oil
24.	Cathay Pacific MTN Financing	1.98	0.25	No	Yes	Finance
25.	Hysan (MTN)	1.97	0.25	No	Yes	Real Estate
26.	Rexlot Holdings	1.90	0.24	No	Yes	Consumer - Casino
27.	Wheelock Finance	1.90	0.24	No	No	Finance
28.	Good Resources Holdings	1.84	0.24	No	Yes	Finance
29.	Panda Green	1.65	0.21	No	Yes	Energy
30.	Wharf Finance (No. 1)	1.57	0.20	No	No	Finance
Total Top 30 Nonbank LCY Corporate Issuers		**158.92**	**20.34**			
Total LCY Corporate Bonds		**751.90**	**96.23**			
Top 30 as % of Total LCY Corporate Bonds		**21.14%**	**21.14%**			

HKD = Hong Kong dollar, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-December 2017.
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

Total local currency (LCY) bond outstanding in Indonesia amounted to IDR2,497.1 trillion (USD184 billion) at the end of the fourth quarter (Q4) of 2017, an increase of 2.9% quarter-on-quarter (q-o-q) and 14.0% year-on-year (y-o-y). Central government and corporate bonds registered growth of 2.6% q-o-q and 7.7% q-o-q, respectively. *Sukuk* (Islamic bonds) comprised 16.7% of total LCY government bonds outstanding and 4.0% of total LCY corporate bonds outstanding at the end of Q4 2017.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	IDR	USD	IDR	USD	IDR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**2,190,326**	**163**	**2,426,060**	**180**	**2,497,112**	**184**	**1.7**	**25.1**	**2.9**	**14.0**
Government	1,878,648	139	2,066,296	153	2,109,783	156	0.7	25.2	2.1	12.3
Central Govt. Bonds	1,773,279	132	2,046,933	152	2,099,766	155	1.4	21.3	2.6	18.4
of which: *Sukuk*	245,708	18	329,039	24	342,989	25	2.4	54.3	4.2	39.6
Central Bank Bills	105,369	8	19,363	1	10,017	1	(9.9)	173.1	(48.3)	(90.5)
of which: *Sukuk*	10,788	1	12,626	1	10,017	1	14.3	71.8	(20.7)	(7.1)
Corporate	311,679	23	359,763	27	387,330	29	8.7	24.7	7.7	24.3
of which: *Sukuk*	11,578	1	13,958	1	15,387	1	7.8	18.1	10.2	32.9

( ) = 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 IDR241.3 trillion.
Sources: Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; Indonesia Stock Exchange; Otoritas Jasa Keuangan; and Bloomberg LP.

LCY corporate bond issuance in Q4 2017 amounted to IDR51.0 trillion, up from IDR43.4 trillion in Q3 2017. Sarana Multi Infrastruktur was the largest debt issuer during the quarter with sales of IDR7.0 trillion from multiple issuances.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (IDR billion)
Sarana Multi Infrastruktur		
3-year bond	7.40	4,455
5-year bond	7.60	1,345
Pupuk Indonesia		
3-year bond	7.50	2,602
5-year bond	7.90	1,774
Indosat		
3-year bond	7.45	673
5-year bond	7.65	498
10-year bond	8.65	511

Corporate Issuers	Coupon Rate (%)	Issued Amount (IDR billion)
PLN		
15-year bond	8.70	1,093
Waskita Karya		
3-year bond	8.00	1,369
5-year bond	8.50	1,631
Federal International Finance		
3-year bond	7.50	971
Pegadaian		
3-year bond	7.40	500
5-year bond	7.70	1,000

IDR = Indonesian rupiah.
Source: Indonesia Stock Exchange.

The top 30 corporate bond issuers had aggregate bonds outstanding of IDR274.9 trillion at the end of Q4 2017, representing 71.0% of the total LCY corporate bond stock. The top industries include banking (IDR130.1 trillion), finance (IDR70.9 trillion), and telecommunications (IDR25.6 trillion).

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	31,381	2.32	Yes	No	Banking
2.	Bank Rakyat Indonesia	23,559	1.74	Yes	Yes	Banking
3.	Bank Tabungan Negara	17,950	1.32	Yes	Yes	Banking
4.	Indosat	16,519	1.22	No	Yes	Telecommunications
5.	PLN	14,123	1.04	No	Yes	Banking
6.	Sarana Multi Infrastruktur	12,900	0.95	Yes	Yes	Banking
7.	Federal International Finance	12,562	0.93	Yes	No	Energy
8.	Bank Mandiri	11,000	0.81	No	No	Finance
9.	Pupuk Indonesia	9,076	0.67	No	Yes	Finance
10.	Waskita Karya	9,057	0.67	Yes	Yes	Telecommunications
11.	Telekomunikasi Indonesia	8,995	0.66	No	No	Finance
12.	Adira Dinamika Multifinance	8,980	0.66	No	Yes	Banking
13.	Bank Pan Indonesia	8,625	0.64	Yes	No	Nonbuilding Construction
14.	Astra Sedaya Finance	7,280	0.54	No	Yes	Petroleum and Natural Gas
15.	Hutama Karya	7,115	0.52	No	Yes	Banking
16.	Bank Maybank Indonesia	7,101	0.52	Yes	No	Finance
17.	Bank CIMB Niaga	7,018	0.52	Yes	Yes	Building Construction
18.	Sarana Multigriya Finansial	6,706	0.49	Yes	No	Finance
19.	Medco-Energi International	6,500	0.48	No	Yes	Banking
20.	Bank OCBC NISP	6,159	0.45	Yes	No	Finance
21.	Bank Permata	5,810	0.43	Yes	No	Finance
22.	Perum Pegadaian	5,140	0.38	No	No	Finance
23.	Toyota Astra Financial Services	4,864	0.36	Yes	No	Chemical Manufacturing
24.	Permodalan Nasional Madani	4,246	0.31	No	Yes	Banking
25.	Indofood Sukses Makmur	4,000	0.30	No	Yes	Food and Beverages
26.	Adhi Karya	3,997	0.29	Yes	Yes	Building Construction
27.	BFI Finance indonesia	3,868	0.29	No	No	Finance
28.	Mandiri Tunas Finance	3,675	0.27	No	No	Finance
29.	United Overseas Bank Indonesia	3,400	0.25	No	Yes	Finance
30.	Bank Bukopin	3,305	0.24	No	Yes	Banking
Total Top 30 LCY Corporate Issuers		**274,911**	**20.28**			
Total LCY Corporate Bonds		**387,330**	**28.57**			
Top 30 as % of Total LCY Corporate Bonds		**71.0%**	**71.0%**			

IDR = Indonesian rupiah, LCY = local currency, USD = United States dollar.
Notes:
1. Data as of end-December 2017.
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) bond market expanded a marginal 0.5% quarter-on-quarter (q-o-q) in the fourth quarter (Q4) of 2017 to reach KRW2,156 trillion (USD2,020 billion) at the end of December as both the government and corporate sectors posted minimal growth rates. Outstanding government bonds were up 0.3% q-o-q to KRW883 trillion as growth in central bank bonds was capped by the decline in the size of central government bonds. Corporate bonds posted growth of 0.6% q-o-q to reach KRW1,273 trillion. On a year-on-year (y-o-y) basis, the Republic of Korea's LCY bond market expanded 4.3% in Q4 2017.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	KRW	USD	KRW	USD	KRW	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**2,066,453**	**1,714**	**2,145,667**	**1,873**	**2,155,898**	**2,020**	**(0.5)**	**2.3**	**0.5**	**4.3**
Government	847,537	703	880,399	769	882,781	827	(1.0)	3.1	0.3	4.2
Central Government Bonds	516,908	429	549,308	480	546,715	512	(0.1)	6.6	(0.5)	5.8
Central Bank Bonds	168,390	140	166,060	145	170,860	160	(6.3)	(6.9)	2.9	1.5
Others	162,239	135	165,030	144	165,205	155	2.2	4.0	0.1	1.8
Corporate	1,218,916	1,011	1,265,268	1,105	1,273,117	1,193	(0.2)	1.7	0.6	4.4
of which: ELS and DLS	312,540	259	276,853	242	282,147	264	0.0	(14.4)	1.9	(9.7)

( ) = negative, DLS = derivative-linked securities, ELS = equity-linked securities, 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 KRW112 trillion in Q4 2017 from KRW103 trillion in the previous quarter.

Table 2: Notable LCY Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (KRW billion)
Woori Bank		
10-year bond	3.47	200
3-year bond	2.44	310
3-year bond	2.35	200
3-year bond	2.20	200
Industrial Bank of Korea		
3-year bond	2.42	470
3-year bond	2.11	310
Hana Financial		
10-year bond	2.84	250
5-year bond	2.59	150
3-year bond	2.38	100
Samsung Securities		
3-year bond	2.51	200

KRW = Korean won, Q4 = fourth quarter.
Source: Based on data from Bloomberg LP.

LCY bonds outstanding among the top 30 corporate bonds issuers in the Republic of Korea reached KRW822 trillion at the end of Q4 2017, accounting for 64.6% of total 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	116,734	109.4	Yes	No	No	Housing Finance
2.	NH Investment & Securities	68,541	64.2	Yes	Yes	No	Securities
3.	Mirae Asset Daewoo Co.	65,602	61.5	No	Yes	No	Securities
4.	Korea Investment and Securities	53,759	50.4	No	No	No	Securities
5.	Korea Land & Housing Corporation	40,968	38.4	Yes	No	No	Real Estate
6.	Industrial Bank of Korea	37,584	35.2	Yes	Yes	No	Banking
7.	Hana Financial Investment	37,038	34.7	No	No	No	Securities
8.	KB Securities	35,215	33.0	No	No	No	Securities
9.	Samsung Securities	26,009	24.4	No	Yes	No	Securities
10.	Korea Electric Power Corporation	23,500	22.0	Yes	Yes	No	Electricity, Energy, and Power
11.	Shinhan Bank	22,832	21.4	No	No	No	Banking
12.	Korea Deposit Insurance Corporation	22,420	21.0	Yes	No	No	Insurance
13.	Korea Expressway	21,910	20.5	Yes	No	No	Transport Infrastructure
14.	Kookmin Bank	21,566	20.2	No	No	No	Banking
15.	Mirae Asset Securities	20,979	19.7	No	Yes	No	Securities
16.	Woori Bank	20,425	19.1	Yes	Yes	No	Banking
17.	Korea Rail Network Authority	18,670	17.5	Yes	No	No	Transport Infrastructure
18.	NongHyup Bank	17,750	16.6	Yes	No	No	Banking
19.	KEB Hana Bank	15,870	14.9	No	No	No	Banking
20.	The Export-Import Bank of Korea	15,430	14.5	Yes	No	No	Banking
21.	Daishin Securities	15,033	14.1	No	Yes	No	Securities
22.	Korea Gas Corporation	13,279	12.4	Yes	Yes	No	Gas Utility
23.	Small & Medium Business Corporation	12,093	11.3	Yes	No	No	SME Development
24.	Shinhan Card	11,957	11.2	No	No	No	Credit Card
25.	Hyundai Capital Services	11,606	10.9	No	No	No	Consumer Finance
26.	Korea Student Aid Foundation	11,500	10.8	Yes	No	No	Student Loan
27.	Shinyoung Securities	11,303	10.6	No	Yes	No	Securities
28.	Standard Charted Bank Korea	10,920	10.2	No	No	No	Banking
29.	KB Kookmin Bank Card	10,765	10.1	No	No	NO	Consumer Finance
30.	Korea Railroad Corporation	10,540	9.9	Yes	No	No	Transport Infrastructure
Total Top 30 LCY Corporate Issuers		**821,799**	**770**				
Total LCY Corporate Bonds		**1,273,117**	**1,193**				
Top 30 as % of Total LCY Corporate Bonds		**64.6%**	**64.6%**				

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 2017.
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 and *EDAILY BondWeb* data.

Malaysia

Malaysia's total local currency (LCY) bonds outstanding registered an increase of 1.8% quarter-on-quarter (q-o-q) and 10.2% year-on-year (y-o-y) in the fourth quarter (Q4) of 2017, reaching MYR1,286 billion (USD318 billion). Both the government and corporate bond segments propelled the increase in the bond stock, with much of the growth coming from corporate bonds, which expanded 3.5% q-o-q and 14.9% y-o-y. LCY government bonds and corporate bonds outstanding totaled MYR673 billion and MYR613 billion, respectively, at the end of Q4 2017. Total *sukuk* (Islamic bonds) amounted to MYR757.7 billion, increasing 3.3% q-o-q and 15.0% y-o-y, and comprising 58.9% of total LCY bonds outstanding at the end of Q4 2017.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	MYR	USD	MYR	USD	MYR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**1,167**	**260**	**1,263**	**299**	**1,286**	**318**	**(0.1)**	**4.3**	**1.8**	**10.2**
Government	634	141	671	159	673	166	0.3	3.6	0.3	6.2
Central Government Bonds	596	133	637	151	637	157	0.7	6.7	0.1	6.8
of which: *sukuk*	236	53	266	63	270	67	0.0	9.4	1.3	14.2
Central Bank Bills	9	2	5	1	7	2	(18.6)	(64.3)	37.4	(16.0)
of which: *sukuk*	0	0	0	0	0	0	–	(100.0)	–	–
Sukuk Perumahan Kerajaan	28	6	28	7	28	7	0.0	0.0	0.0	0.0
Corporate	534	119	593	140	613	152	(0.5)	5.2	3.5	14.9
of which: *sukuk*	395	88	439	104	460	114	0.3	9.3	4.7	16.5

( ) = 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.

Total LCY corporate bond issuance in Malaysia increased 31.9% q-o-q to MYR57 billion in Q4 2017 and mainly comprised of medium-term notes. Maybank Islamic is the largest issuer in Q4 2017 totaling MYR6,000 million from multiple bonds sales.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (MYR million)
Maybank Islamic		
5-year Islamic MTNs	4.20	2,000
Perpetual Islamic MTNs	4.95	1,000
Cagamas		
2-year MTNs	4.00	1,000
5-year MTNs	4.25	1,500
Danainfra Nasional		
7-year Islamic MTNs	4.33	700
10-year Islamic MTNs	4.50	300
15-year Islamic MTNs	4.90	500
25-year Islamic MTNs	5.22	600
30-year Islamic MTNs	5.35	900

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

The LCY outstanding bonds of the top 30 corporate issuers in Malaysia reached MYR347.3 billion at the end of Q4 2017, comprising 56.6% of the total LCY corporate bond stock. The finance industry continued to dominate the list with aggregate LCY bonds worth MYR165.9 billion, led by state-owned Danainfra Nasional with MYR41.6 billion of bonds outstanding.

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	41.6	10.3	Yes	No	Finance
2.	Cagamas	30.8	7.6	Yes	No	Finance
3.	Project Lebuhraya Usahasama	30.4	7.5	No	No	Transport, Storage, and Communications
4.	Prasarana	24.7	6.1	Yes	No	Transport, Storage, and Communications
5.	Perbadanan Tabung Pendidikan Tinggi Nasional	18.5	4.6	Yes	No	Finance
6.	Khazanah	17.0	4.2	Yes	No	Finance
7.	Maybank	15.8	3.9	No	Yes	Banking
8.	Pengurusan Air	14.4	3.6	Yes	No	Energy, Gas, and Water
9.	CIMB Bank	12.5	3.1	Yes	No	Finance
10.	Lembaga Pembiayaan Perumahan Sektor Awam	10.8	2.7	Yes	No	Property and Real Estate
11.	Sarawak Energy	10.5	2.6	Yes	No	Energy, Gas, and Water
12.	Jimah East Power	9.0	2.2	Yes	No	Energy, Gas, and Water
13.	GOVCO Holdings	8.8	2.2	Yes	No	Finance
14.	Maybank Islamic	8.5	2.1	No	Yes	Banking
15.	Bank Pembangunan Malaysia	7.3	1.8	Yes	No	Banking
16.	YTL Power International	7.3	1.8	No	Yes	Energy, Gas, and Water
17.	CIMB Group Holdings	7.2	1.8	Yes	No	Finance
18.	Rantau Abang Capital	7.0	1.7	Yes	No	Finance
19.	Sarawak Hidro	6.5	1.6	Yes	No	Energy, Gas, and Water
20.	Danga Capital	6.5	1.6	Yes	No	Finance
21.	Public Bank	6.4	1.6	No	No	Banking
22.	ValueCap	6.0	1.5	Yes	No	Finance
23.	Aman Sukuk	5.5	1.4	Yes	No	Construction
24.	Turus Pesawat	5.3	1.3	Yes	No	Transport, Storage, and Communications
25.	1Malaysia Development	5.0	1.2	Yes	No	Finance
26.	Celcom Networks	5.0	1.2	No	No	Transport, Storage, and Communications
27.	GENM Capital	5.0	1.2	No	No	Finance
28.	Putrajaya Holdings	5.0	1.2	Yes	No	Property and Real Estate
29.	Jambatan Kedua	4.6	1.1	Yes	No	Transport, Storage, and Communications
30.	Telekom Malaysia	4.5	1.1	No	Yes	Telecommunications
Total Top 30 LCY Corporate Issuers		**347.3**	**85.8**			
Total LCY Corporate Bonds		**613.3**	**151.6**			
Top 30 as % of Total LCY Corporate Bonds		**56.6%**	**56.6%**			

Notes:
1. Data as of end-December 2017.
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 Philippine local currency (LCY) bond market grew 5.1% quarter-on-quarter (q-o-q) and 12.5% year-on-year (y-o-y) in the fourth quarter (Q4) of 2017 to reach PHP5,475 billion (USD110 billion) at the end of December 2017. Government bonds outstanding totaled PHP4,456 billion, rising 5.8% q-o-q and 12.0% y-o-y, primarily driven by a PHP255 billion issuance of 5-year Retail Treasury Bonds. Outstanding corporate bonds grew 2.2% q-o-q and 14.4% y-o-y in Q4 2017.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	PHP	USD	PHP	USD	PHP	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**4,869**	**98**	**5,210**	**102**	**5,475**	**110**	**1.4**	**2.3**	**5.1**	**12.5**
Government	3,978	80	4,212	83	4,456	89	0.6	0.8	5.8	12.0
Treasury Bills	288	6	340	7	314	6	(1.7)	8.9	(7.5)	9.2
Treasury Bonds	3,621	73	3,822	75	4,101	82	1.0	0.7	7.3	13.3
Others	69	1	50	1	40	1	(8.4)	(19.5)	(20.0)	(41.9)
Corporate	891	18	998	20	1,020	20	5.5	9.5	2.2	14.4

( ) = 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.

LCY corporate bond issuance totaled PHP30 billion in Q4 2017, a decline of 39.1% q-o-q and 57.9% y-o-y as rising interest rates made borrowers more reluctant to take on additional debt.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (PHP billion)
Bank of the Philippine Islands		
5.5-year bond	3.750	12.24
Security Bank		
5.5-year bond	3.875	8.60
Ayala Land		
1.3-year bond	3.250	3.10

PHP = Philippine peso.
Source: Bloomberg LP.

The outstanding LCY bonds of the top 30 corporate issuers at the end of December 2017 reached PHP1,019.7 billion, which comprised 94% of the total LCY corporate bond market. The bulk of the LCY bond stock emanates from the banking industry, followed by property and holding firms. Ayala Land remained the largest corporate bond issuer in the Philippines in 2017.

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	94.7	1.9	No	Yes	Property
2.	BDO Unibank	77.3	1.6	No	Yes	Banking
3.	SM Prime	73.8	1.5	No	Yes	Property
4.	Metrobank	59.2	1.2	No	Yes	Banking
5.	SM Investments	52.3	1.1	No	Yes	Holding Firms
6.	Ayala Corporation	50.0	1.0	No	Yes	Holding Firms
7.	Philippine National Bank	47.5	1.0	No	Yes	Banking
8.	San Miguel Brewery	34.8	0.7	No	No	Brewery
9.	Aboitiz Equity Ventures	32.0	0.6	No	Yes	Holding Firms
10.	Security Bank	31.6	0.6	No	Yes	Banking
11.	Rizal Commercial Banking Corporation	30.6	0.6	No	Yes	Banking
12.	San Miguel Corporation	30.0	0.6	No	No	Holding Firms
13.	JG Summit	30.0	0.6	No	Yes	Holding Firms
14.	Meralco	29.3	0.6	No	Yes	Electricity, Energy, and Power
15.	Filinvest Land	29.0	0.6	No	Yes	Property
16.	East West Bank	26.8	0.5	No	Yes	Banking
17.	GT Capital	22.0	0.4	No	Yes	Holding Firms
18.	Philippines Long Distance Telephone Company	21.3	0.4	No	Yes	Telecommunications
19.	Vista Land and Lifescapes	20.0	0.4	No	Yes	Property
20.	Petron	18.6	0.4	No	Yes	Electricity, Energy, and Power
21.	Maynilad Water Service	18.0	0.4	No	No	Water
22.	Bank of the Philippine Islands	17.2	0.3	No	Yes	Banking
23.	China Banking Corporation	15.9	0.3	No	Yes	Banking
24.	SMC Global Power	15.0	0.3	No	No	Electricity, Energy, and Power
25.	MCE Leisure (Philippines)	15.0	0.3	No	No	Casinos & Gaming
26.	Double Dragon Properties	15.0	0.3	No	Yes	Property
27.	Union Bank of the Philippines	14.0	0.3	No	Yes	Banking
28.	Aboitiz Power	13.0	0.3	No	Yes	Electricity, Energy, and Power
29.	Globe Telecom	12.5	0.3	No	Yes	Telecommunications
30.	NLEX Corporation	12.2	0.2	No	No	Transport
Total Top 30 LCY Corporate Issuers		**958.6**	**19.3**			
Total LCY Corporate Bonds		**1,019.7**	**20.6**			
Top 30 as % of Total LCY Corporate Bonds		**94.0%**	**94.0%**			

LCY = local currency, PHP = Philippine peso, USD = United States dollar.
Notes:
1. Data as of end-December 2017.
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

Singapore's local currency (LCY) bond market barely moved in the fourth quarter (Q4) of 2017, expanding only 0.1% quarter-on-quarter (q-o-q) to SGD363 billion (USD272 billion). Outstanding government bonds were slightly up 0.6% q-o-q to SGD222 billion in Q4 2017, while corporate bonds outstanding fell 0.8% q-o-q to SGD141 billion. On a year-on-year (y-o-y) basis, Singapore's LCY bond market rose 7.9% in Q4 2017.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	SGD	USD	SGD	USD	SGD	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**336**	**232**	**362**	**267**	**363**	**272**	**3.4**	**4.0**	**0.1**	**7.9**
Government	193	133	220	162	222	166	5.6	5.4	0.6	14.9
SGS Bills and Bonds	110	76	117	86	116	87	2.8	4.1	(0.9)	5.5
MAS Bills	83	57	103	76	106	79	9.6	7.2	2.4	27.3
Corporate	143	99	142	105	141	106	0.5	2.1	(0.8)	(1.4)

( ) = 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.

Issuance of corporate bonds in Singapore fell to SGD4.0 billion in Q4 2017 from SGD4.2 billion in the previous quarter.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (SGD million)
Housing & Development Board		
7-year bond	2.25	680
12-year bond	2.60	640
Capitaland Treasury		
10-year bond	3.08	500
SMRT Capital		
3-year bond	1.60	300
OUE Treasury		
5.5-year bond	3.55	200
Prime Asset Holdings		
7-year bond	2.90	170
Singapore Management University		
5-year bond	1.95	150

SGD = Singapore dollar.
Source: Bloomberg LP.

The top 31 corporate bond issuers in Singapore accounted for almost half of the total LCY corporate bonds outstanding at the end of Q4 2017, with aggregate bonds outstanding reaching SGD69 billion.

Table 3: Top 31 Issuers of Local Currency Corporate Bonds in Singapore

	Issuers	Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (SGD billion)	LCY Bonds (USD billion)			
1.	Housing & Development Board	22.46	16.81	Yes	No	Real Estate
2.	Temasek Financial I	3.60	2.69	Yes	No	Finance
3.	Land Transport Authority	3.48	2.60	Yes	No	Transportation
4.	United Overseas Bank	3.35	2.51	No	Yes	Banking
5.	FCL Treasury	3.13	2.34	No	No	Finance
6.	Singapore Airlines	3.03	2.27	No	Yes	Transportation
7.	Capitaland	2.79	2.09	No	Yes	Real Estate
8.	Mapletree Treasury Services	2.17	1.62	No	No	Finance
9.	SP Powerassets	1.88	1.41	No	No	Utilities
10.	Keppel Corporation	1.70	1.27	No	Yes	Diversified
11.	Capitaland Treasury	1.60	1.20	No	No	Finance
12.	DBS Group Holdings	1.54	1.15	No	Yes	Banking
13.	Olam International	1.44	1.07	No	Yes	Consumer Goods
14.	Public Utilities Board	1.40	1.05	Yes	No	Utilities
15.	National University of Singapore	1.25	0.94	No	No	Education
16.	City Developments Limited	1.22	0.91	No	Yes	Real Estate
17.	Hyflux	1.17	0.87	No	Yes	Utilities
18.	Singtel Group Treasury	1.15	0.86	No	No	Finance
19.	CMT MTN	1.00	0.75	No	No	Finance
20.	Sembcorp Industries	1.00	0.75	No	Yes	Shipbuilding
21.	Ascendas REIT	0.98	0.73	No	Yes	Finance
22.	GLL IHT	0.96	0.71	No	No	Real Estate
23.	Sembcorp Industries	0.85	0.64	No	Yes	Shipbuilding
24.	DBS Bank	0.80	0.60	No	Yes	Banking
25.	Mapletree Treasury Services	0.74	0.55	No	No	Finance
26.	Starhub	0.72	0.54	Yes	Yes	Telecommunications
27.	PSA Corporation	0.70	0.52	Yes	No	Marine Services
28.	Ezion Holdings	0.70	0.52	No	Yes	Marine Services
29.	Suntec REIT	0.62	0.46	No	No	Finance
30.	Jurong Shipyard	0.60	0.45	No	No	Shipbuilding
31.	NTUC Income	0.60	0.45	No	No	Finance
Total Top 31 LCY Corporate Issuers		**68.57**	**51.33**			
Total LCY Corporate Bonds		**141.01**	**105.55**			
Top 31 as % of Total LCY Corporate Bonds		**48.6%**	**48.6%**			

LCY = local currency, SGD = Singapore dollar, USD = United States dollar.
Notes:
1. Data as of end-December 2017.
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

Thailand's local currency (LCY) bonds grew 2.2% quarter-on-quarter (q-o-q) in the fourth quarter (Q4) of 2017, reaching THB11,279 billion (USD346 billion) at the end of December, mainly driven by growth in government bonds. Outstanding government bonds grew 2.7% q-o-q, with central bank bonds posting the highest growth rate at 5.3% q-o-q. On a year-on-year basis, Thailand's LCY bond market grew 3.9% in Q4 2017.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	THB	USD	THB	USD	THB	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**10,856**	**303**	**11,034**	**331**	**11,279**	**346**	**2.5**	**8.4**	**2.2**	**3.9**
Government	7,938	222	7,981	240	8,196	252	1.5	5.9	2.7	3.3
Government Bonds and Treasury Bills	4,036	113	4,295	129	4,334	133	0.0	3.8	0.9	7.4
Central Bank Bonds	3,136	88	2,887	87	3,042	93	5.9	11.1	5.3	(3.0)
State-Owned Enterprise and Other Bonds	765	21	798	24	820	25	(6.9)	(2.2)	2.6	7.1
Corporate	2,919	81	3,053	92	3,083	95	5.2	16.0	1.0	5.6

( ) = 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.

Newly issued LCY corporate bonds amounted to THB449 billion in Q4 2017, up from THB342 billion in the previous quarter. Except for Siam Cement, all other new issuers were mostly banks and financial institutions.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuers	Coupon Rate (%)	Issued Amount (THB billion)
Siam Cement		
4-year bond	3.05	25,000
Bank Ayudhya		
3-year bond	1.85	10,000
10-year bond	3.40	14,978
Krung Thai Bank		
10-year bond	3.40	20,000
CP All		
5-year bond	3.10	9,000
10-year bond	3.50	9,000
Toyota Leasing Thailand		
3-year bond	1.96	1,300
4-year bond	2.02	3,000
5-year bond	2.37	3,000
5-year bond	2.20	3,000
7-year bond	2.61	3,500

THB = Thai baht.
Source: Bloomberg LP.

LCY bonds outstanding for the top 30 corporate bond issuers in Thailand amounted to THB1,724.4 billion at the end of December, constituting 55.9% of the total LCY corporate bond stock. CP All remained the top issuer with THB181.8 billion of bonds outstanding at the end of December. The top 30 issuers mostly came from the banking industry, energy and utilities, and property and construction.

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.	CP All	181.8	5.6	No	Yes	Commerce
2.	Siam Cement	181.5	5.6	Yes	Yes	Construction Materials
3.	PTT	129.3	4.0	Yes	Yes	Energy and Utilities
4.	Berli Jucker	122.0	3.7	No	Yes	Food and Beverage
5.	Bank of Ayudhya	112.0	3.4	No	Yes	Banking
6.	Charoen Pokphand Foods	88.0	2.7	No	Yes	Food and Beverage
7.	True Move H Universal Communication	68.2	2.1	No	No	Communications
8.	Thai Airways International	62.1	1.9	Yes	Yes	Transportation and Logistics
9.	Toyota Leasing Thailand	59.3	1.8	No	No	Finance and Securities
10.	Tisco Bank	51.9	1.6	No	No	Banking
11.	Indorama Ventures	51.4	1.6	No	Yes	Petrochemicals and Chemicals
12.	Banpu	47.3	1.5	No	Yes	Energy and Utilities
13.	Krungthai Card	43.4	1.3	Yes	Yes	Banking
14.	Land and Houses	41.3	1.3	No	Yes	Property and Construction
15.	Advanced Wireless	40.2	1.2	No	Yes	Communications
16.	Mitr Phol Sugar	34.9	1.1	No	No	Food and Beverage
17.	Thai Union Group	33.8	1.0	No	Yes	Food and Beverage
18.	TPI Polene	33.0	1.0	No	Yes	Property and Construction
19.	PTT Exploration and Production Company	32.1	1.0	Yes	Yes	Energy and Utilities
20.	True Corporation	31.6	1.0	No	Yes	Communications
21.	DTAC Trinet	31.5	1.0	No	Yes	Communications
22.	Bangkok Commercial Asset Management	30.8	0.9	No	No	Finance and Securities
23.	CPF Thailand	29.0	0.9	No	Yes	Food and Beverage
24.	CH. Karnchang	28.5	0.9	No	Yes	Property and Construction
25.	Thanachart Bank	28.5	0.9	No	No	Banking
26.	Bangkok Expressway and Metro	28.2	0.9	No	Yes	Transportation and Logistics
27.	Bangkok Dusit Medical Services	28.0	0.9	No	Yes	Medical
28.	Kasikorn Bank	28.0	0.9	No	Yes	Banking
29.	Minor International	23.5	0.7	No	Yes	Food and Beverage
30.	Quality Houses	23.5	0.7	No	Yes	Property and Construction
Total Top 30 LCY Corporate Issuers		1,724.4	52.9			
Total LCY Corporate Bonds		3,083.1	94.6			
Top 30 as % of Total LCY Corporate Bonds		55.9%	55.9%			

LCY = local currency, THB = Thai baht, USD = United States dollar.
Notes:
1. Data as of end-December 2017.
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) bond market reached a size of VND1,080.0 trillion (USD48 billion) at the end of December 2017. On a quarter-on-quarter basis, outstanding bonds grew 2.7% in the fourth quarter (Q4) of 2017, due largely to a number of corporates issuing bonds in the last quarter of the year.

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

	Outstanding Amount (billion)						Growth Rate (%)			
	Q4 2016		Q3 2017		Q4 2017		Q4 2016		Q4 2017	
	VND	USD	VND	USD	VND	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	**997,370**	**44**	**1,051,929**	**46**	**1,080,093**	**48**	**(4.3)**	**6.4**	**2.7**	**8.3**
Government	949,725	42	1,001,162	44	1,017,691	45	(5.0)	5.0	1.7	7.2
Treasury Bonds	736,932	32	786,957	35	788,918	35	2.4	23.0	0.2	7.1
Central Bank Bonds	8,000	0	21,000	1	16,400	1	(88.6)	(91.9)	(21.9)	105.0
State-Owned Enterprise Bonds	204,792	9	193,205	9	212,373	9	(2.4)	(1.0)	9.9	3.7
Corporate	47,646	2	50,767	2	62,402	3	13.2	43.1	22.9	31.0

( ) = 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 2017, new corporate bond issues reached VND12.3 trillion, higher than the prior quarter's VND220 billion. Leading the list of new corporate debt issuers was Vientinbank, which issued bonds worth VND4.2 trillion in Q4 2017.

Table 2: Notable Local Currency Corporate Bond Issuance in the Fourth Quarter of 2017

Corporate Issuer	Coupon Rate (%)	Issued Amount (VND billion)
Vietinbank		
10-year bond	8.00	2,200
10-year bond	7.90	2,000
Vietnam Propsperi		
2-year bond	6.70	3,000
Masan Group Corporation		
2-year bond	9.00	3,000
Mobile World		
5-year bond	6.55	1,135
Vingroup JSC		
2-year bond	10.00	1,000

VND = Viertnamese dong.
Sources: Bloomberg LP and Vietnam Bond Market Association.

Viet Nam's corporate bond market comprises 30 firms with aggregate bonds outstanding valued at VND62.4 trillion at the end of December. The largest corporate issuer was Masan Consumer Holdings with outstanding bonds of VND11.1 trillion, representing 17.7% of the aggregate stock of corporate bonds.

Table 3: Top 31 Corporate Issuers of Local Currency Corporate Bonds in Viet Nam

Issuers		Outstanding Amount		State-Owned	Listed Company	Type of Industry
		LCY Bonds (VND billion)	LCY Bonds (USD billion)			
1.	Masan Consumer Holdings	11,100	0.49	No	No	Diversified Operations
2.	Vingroup JSC	9,600	0.42	No	Yes	Real Estate
3.	Asia Commercial Joint Stock	4,600	0.20	No	No	Finance
4.	Masan Group Corporation	4,500	0.20	No	Yes	Holding Company
5.	No Va Land Investment Group	4,250	0.19	No	Yes	Real Estate
6.	Vietnam Joint Stock Commercial Bank for Industry and Trade	4,200	0.18	Yes	Yes	Banking
7.	Hoang Anh Gia Lai	4,000	0.18	No	Yes	Real Estate
8.	Vietnam Prosperity Joint Stock Commercial Bank	3,000	0.13	No	Yes	Banking
9.	Techcom Bank	3,000	0.13	No	No	Banking
10.	Vietcombank	2,000	0.09	Yes	Yes	Banking
11.	Vietnam Electrical Equipment	1,800	0.08	No	Yes	Manufacturing
12.	Ho Chi Minh City Infrastructure	1,533	0.07	No	Yes	Infrastructure
13.	Agro Nutrition International	1,300	0.06	No	No	Agriculture
14.	MobileWorld Investment Corporation	1,135	0.05	No	Yes	Telecommunications
15.	DIC Corporation	1,000	0.04	Yes	No	Chemicals
16.	Kinh Bac City Development Holding Corporation	700	0.03	No	Yes	Building and Construction
17.	Sai Gon Thuong Tin Real Estate	600	0.03	No	Yes	Real Estate
18.	Khang Dien House Trading and Investment	534	0.02	No	Yes	Building and Construction
19.	Saigon Securities Inc.	500	0.02	No	Yes	Finance
20.	Tasco Corporation	500	0.02	No	Yes	Engineering and Construction
21.	An Phat Plastic & Green Environment	450	0.02	No	Yes	Industrial
22.	Sotrans Corporation	400	0.02	No	No	Logistics
23.	Vietnam Investment Construction and Trading	350	0.02	No	Yes	Building and Construction
24.	Hung Vuong Corp.	300	0.013	No	Yes	Food
25.	Saigon–Hanoi Securities Corporation	300	0.013	No	Yes	Finance
26.	Loc Troi Group	220	0.010	No	Yes	Manufacturing
27.	Ha Do Corporation	200	0.009	No	Yes	Construction
28.	Son Ha International	110	0.005	No	Yes	Building and Construction
29.	Dongnai Plastic	100	0.004	No	Yes	Industrial
30.	Fecon	70	0.003	No	Yes	Engineering and Construction
31.	Construction Joint Stock Company No. 3	50	0.002	No	Yes	Real Estate
Total Top 31 LCY Corporate Issuers		**62,402**	**2.74**			

LCY = local currency, USD = United States dollar, VND = Vietnamese dollar.
Notes:
1. Data as of end-December 2017.
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
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This publication reviews recent developments in East Asian local currency bond markets along with the outlook, risks, and policy options. It covers the 10 members of the Association of Southeast Asian Nations and the People's Republic of China; Hong Kong, China; and the Republic of Korea.

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