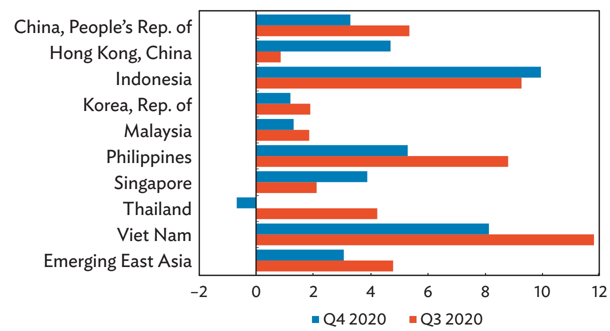
Bond Market Developments in the Fourth Quarter of 2020

Size and Composition

The size of emerging East Asia's local currency bond market reached USD20.1 trillion at the end of December.

The outstanding amount of local currency (LCY) bonds in emerging East Asia reached USD20.1 trillion at the end of December.[3] Overall growth eased to 3.1% quarter-on-quarter (q-o-q) in the fourth quarter (Q4) of 2020 from 4.8% q-o-q in the third (Q3) quarter (**Figure 1a**). The slowdown in growth stemmed primarily from a contraction in issuance of government bonds in Q4 2020, as most governments had already met their financing needs to combat the impacts of the coronavirus disease (COVID-19) with large debt issuances in the previous quarters. Slower growth in the region's corporate bond market, driven mostly by a contraction in issuance amid lingering uncertainties over the trajectory of economic recovery, also curbed overall bond market growth during the review period. The q-o-q growth of bonds outstanding moderated in six of the region's nine markets between Q3 2020 and Q4 2020.

Figure 1a: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2020 (q-o-q, %)



q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter.
Notes:
1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
2. Calculated using data from national sources.
3. Growth rates are calculated from local currency base and do not include currency effects.
4. Emerging East Asia growth figures are based on 31 December 2020 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (CEIC); 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 (The Bank of Korea and KG Zeroin Corporation); 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).

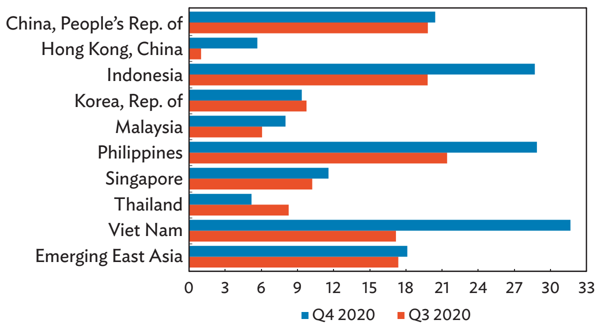
All markets except for Thailand posted positive q-o-q growth rates in Q4 2020. Among those that posted expansion, the region's smaller bond markets—Indonesia, Viet Nam, and the Philippines—recorded the fastest q-o-q expansion in Q4 2020, while the Republic of Korea, Malaysia, and the People's Republic of China (PRC) posted the weakest growth.

On a year-on-year (y-o-y) basis, emerging East Asia's LCY bond market growth quickened to 18.1% in Q4 2020 from 17.4% in the previous quarter (**Figure 1b**). All emerging East Asian bond markets except Thailand and the Republic of Korea saw a faster y-o-y expansion in Q4 2020 than in the preceding quarter. All nine markets in the region posted positive y-o-y growth in Q4 2020, with Viet Nam, the Philippines, Indonesia, and the PRC recording the fastest expansions.

The PRC remained the region's leader in terms of market size with its outstanding bond stock reaching USD15.5 trillion at the end of December. The PRC's share of emerging East Asia's total bond market inched up to 77.4% at the end of December from 77.2% at the end of September. Growth in the PRC's LCY bond market moderated to 3.3% q-o-q in Q4 2020 from 5.4% in Q3 2020. Both the government and corporate bond segments saw slower q-o-q growth in Q4 2020 than in the previous quarter. Growth in government bonds outstanding dropped to 3.8% q-o-q in Q4 2020 from 6.6% q-o-q in Q3 2020. A contraction in issuance of local government and policy bank bonds drove much of the growth slowdown in outstanding government bonds. Local governments completed most of their debt issuance in the previous quarters, resulting in a smaller issuance

[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.

Figure 1b: Growth of Local Currency Bond Markets in the Third and Fourth Quarters of 2020 (y-o-y, %)



Q3 = third quarter, Q4 = fourth quarter, y-o-y = year-on-year.
Notes:
1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
2. Calculated using data from national sources.
3. Growth rates are calculated from local currency base and do not include currency effects.
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Sources: People's Republic of China (CEIC); 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 (The Bank of Korea and KG Zeroin Corporation); 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).

volume in Q4 2020. Meanwhile, growth in the corporate bond segment eased from 3.2% q-o-q in Q3 2020 to 2.4% q-o-q in Q4 2020, driven largely by a drop in issuance amid several high-profile bond defaults during the review period. On an annual basis, growth in the PRC's LCY bond market rose to 20.5% y-o-y in Q4 2020 from 19.9% y-o-y in Q3 2020.

The Republic of Korea is home to the second-largest LCY bond market in emerging East Asia, with an outstanding bond stock of USD2.4 trillion at the end of December. Its share of the region's aggregate bond stock stood at 12.1% at the end of December. Growth in the Republic of Korea's total bond stock slipped to 1.2% q-o-q in Q4 2020 from 1.9% q-o-q in Q3 2020. The expansion in the aggregate LCY bond market was capped by weaker growth in the government segment, which outpaced the stronger growth in the corporate segment. Growth in outstanding government bonds dropped to 0.9% q-o-q in Q4 2020 from 3.0% q-o-q in Q3 2020, due mainly to a contraction in issuance. Meanwhile, growth in corporate bonds outstanding picked up, rising to 1.4% q-o-q in Q4 2020 from 1.1% q-o-q in the previous quarter. On a y-o-y basis, the Republic of Korea's LCY bond market growth eased to 9.4% in Q4 2020 from 9.8% in Q3 2020.

Hong Kong, China's LCY bond market reached a size of USD308.8 billion at the end of December, with growth jumping to 4.7% q-o-q in Q4 2020 from 0.9% q-o-q in Q3 2020. Hong Kong, China's bond market was one of the three bond markets in the region that posted faster q-o-q growth in Q4 2020 than in the preceding quarter. The faster growth stemmed from an accelerated expansion in both the government and corporate bond segments. Growth in the government bond segment soared to 2.3% q-o-q in Q4 2020 from 0.1% q-o-q in Q3 2020, driven primarily by a 30.1% q-o-q jump in the outstanding stock of Hong Kong Special Administrative Region (HKSAR) bonds. The expansion in HKSAR bonds was due to an unprecedented rise in issuance of HKSAR retail bonds, including HKD15.0 billion worth of 3-year inflation-linked bonds and HKD15.0 billion worth of 3-year Silver Bonds—a bond targeted at senior residents aged 65 and older. On the other hand, the stock of Exchange Fund Bills barely grew, while the stock of Exchange Fund Notes continued to contract due to limited issuance. Growth in corporate bonds accelerated to 7.1% q-o-q in Q4 2020 from 1.6% q-o-q in Q3 2020. On an annual basis, growth in Hong Kong, China's LCY bond market also quickened to 5.7% y-o-y in Q4 2020 from 1.0% y-o-y in the previous quarter.

At the end of December, the total amount of LCY bonds outstanding among member economies of the Association of Southeast Asian Nations (ASEAN) reached USD1,815.2 billion, up from USD1,755.5 billion (based on current exchange rates) at the end of September.[4] Overall growth moderated to 3.4% q-o-q in Q4 2020 from 4.7% q-o-q in Q3 2020. On a y-o-y basis, growth of aggregate ASEAN bonds outstanding accelerated to 13.9% in Q4 2020 from 11.4% in Q3 2020. The ASEAN member economies' share of the region's total bond stock was broadly steady at 9.0% between Q3 2020 and Q4 2020. The stock of government bonds amounted to USD1,297.7 billion at the end of December, accounting for a 71.5% share of the ASEAN total. Corporate bonds outstanding totaled USD517.5 billion and accounted for 28.5% of the aggregate ASEAN bond market. The LCY bond markets of Thailand, Malaysia, and Singapore remained the three largest in ASEAN at the end of December.

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

The outstanding amount of LCY bonds in Thailand amounted to USD464.8 billion at the end of December. Thailand was the only bond market in the region that posted negative q-o-q growth in Q4 2020, due to contractions in both the government and corporate bond segments. The 0.3% q-o-q decline in government bonds outstanding in Q4 2020 was in contrast to the 5.4% expansion posted in Q3 2020. Similarly, the 1.8% q-o-q drop in corporate bonds in Q4 2020 reversed the 1.1% q-o-q growth recorded in the previous quarter. A high volume of maturities during the quarter brought about much of the decline in the outstanding stock of both government and corporate bonds. On a y-o-y basis, Thai LCY bond market growth slipped to 5.2% in Q4 2020 from 8.3% in Q3 2020.

In Malaysia, total LCY bonds outstanding reached USD399.1 billion at the end of December. Growth moderated to 1.3% q-o-q in Q4 2020 from 1.9% q-o-q in Q3 2020. The slowdown in growth stemmed largely from weaker growth in the government bond segment, where expansion eased to 0.5% q-o-q in Q4 2020 from 2.3% q-o-q in the previous quarter. Contractions in issuance of treasury and other government bonds, combined with a lack of new issuance and a relatively higher volume of maturities in central bank bills, brought about the slowdown in growth of government bonds outstanding. On the other hand, growth in corporate bonds rose to 2.2% q-o-q in Q4 2020 from 1.3% q-o-q in Q3 2020, buoyed by strong issuance. On an annual basis, growth in Malaysia's LCY bond market accelerated to 8.0% y-o-y in Q4 2020 from 6.1% y-o-y in Q3 2020.

Malaysia remained home to the largest *sukuk* (Islamic bond) market in emerging East Asia, with a total of USD252.8 billion in *sukuk* outstanding at the end of December. *Sukuk* accounted for 63.3% of the Malaysian LCY bond market. At the end of December, the outstanding stock of government *sukuk* totaled USD101.4 billion, or 47.8% of Malaysia's government bonds, while outstanding corporate *sukuk* reached USD151.4 billion, or 80.9% of the Malaysian corporate bond market.

Singapore's LCY bonds outstanding totaled USD380.4 billion at the end of December. Growth in total outstanding bonds rose to 3.9% q-o-q in Q4 2020 from 2.1% q-o-q in Q3 2020. Singapore was one of the three markets that recorded faster LCY bond market growth in Q4 2020 than in Q3 2020. The faster growth was driven primarily by the accelerated expansion of government bonds, with growth more than doubling to 5.3% q-o-q in Q4 2020 from 2.4% q-o-q in the previous quarter. Both Singapore Government Securities (SGS) bills and bonds and Monetary Authority of Singapore (MAS) bills contributed to the growth. On the other hand, growth in corporate bonds outstanding slowed to 1.3% q-o-q in Q4 2020 from 1.6% q-o-q in Q3 2020. On a y-o-y basis, Singapore's LCY bond market growth inched up to 11.6% in Q4 2020 from 10.2% in Q3 2020.

In Indonesia, the LCY bond market reached a size of USD321.5 billion at the end of December. Growth of total bonds outstanding quickened to 10.0% q-o-q in Q4 2020 from 9.3% q-o-q in Q3 2020. Indonesia posted the fastest q-o-q bond market growth in emerging East Asia in Q4 2020. The government bond segment drove the faster growth, as expansion of government bonds outstanding quickened to 11.6% q-o-q in Q4 2020 from 10.1% q-o-q in the previous quarter. The corporate bond segment recorded a 3.4% q-o-q decline in Q4 2020, reversing the 2.6% q-o-q rise in Q4 2020. A decline in issuance coupled with increased maturities resulted in a smaller outstanding stock of corporate bonds at the end of December. On a y-o-y basis, growth in Indonesia's LCY bond market soared to 28.7% in Q4 2020 from 19.8% in Q3 2020.

The Philippines' LCY bond market amounted to USD178.4 billion at the end of December. Overall growth slowed to 5.3% q-o-q in Q4 2020 from 8.8% q-o-q in Q3 2020. The slower growth was driven by a slowdown in the government bond segment combined with a contraction in the corporate bond segment. Growth in the outstanding stock of government bonds dropped to 7.0% q-o-q in Q4 2020 from 10.1% q-o-q in Q3 2020, primarily due to a contraction in issuance of treasury and government bonds; the government issued a fairly large amount of Retail Treasury Bonds in Q3 2020, which met most of its financing requirements to sustain the economy amid the pandemic. Due mainly to a high volume of maturities and lower issuances, the outstanding stock of corporate bonds contracted 1.3% q-o-q in Q4 2020. On a y-o-y basis, the Philippines' LCY bond market expanded 28.9% in Q4 2020, up from 21.5% in Q3 2020.

Viet Nam's LCY bond market remained the smallest in emerging East Asia with an outstanding bond stock of USD71.0 billion at the end of December. Overall bond market growth slowed to 8.1% q-o-q in Q4 2020 from

11.8% q-o-q in Q3 2020. Growth of government bonds outstanding eased to 7.1% q-o-q in Q4 2020 from 9.1% q-o-q in Q3 2020 due to weaker growth in the issuance of treasury and other government bonds. The expansion of the corporate bond market also slowed to 13.6% q-o-q in Q4 2020 from 28.0% q-o-q in Q3 2020 due to a deeper contraction in debt sales following a government decree that restricted corporate bond issuance. On a y-o-y basis, Viet Nam's bond market expanded 31.7% in Q4 2020, up from 17.2% in the previous quarter.

Government bonds continued to dominate emerging East Asia's LCY bond market in Q4 2020. The region's government bond stock reached USD12.4 trillion in nominal terms, representing a 61.8% share of the total LCY bond market at the end of December (**Table 1**). Except for Thailand, all government bond markets in the region posted positive q-o-q growth in Q4 2020. Nonetheless, growth in the region's government bond stock slowed to 3.6% q-o-q in Q4 2020 from 6.1% q-o-q in Q3 2020, amid weaker growth in most of the region's government bond markets. The q-o-q growth rate moderated in six out of the nine markets in the region in Q4 2020 versus Q3 2020, as most governments eased debt issuance after aggressively raising funds to combat the impacts of COVID-19 during the previous quarters. On a y-o-y basis, emerging East Asia's government bond stock expanded 19.5% in Q4 2020, up from 17.3% in Q3 2020.

The PRC and the Republic of Korea maintained their positions as the two largest government bond markets in the region with a combined share of 88.3% of the region's government bond stock at the end of December. ASEAN economies held 10.4% of the region's government bond total. Among ASEAN economies, the largest government bond markets were those of Thailand, Indonesia, and Singapore.

LCY corporate bonds outstanding in emerging East Asia stood at USD7.7 trillion at the end of December, accounting for a 38.2% share of the region's total LCY bond market. Growth in the region's aggregate corporate bonds outstanding slipped to 2.2% q-o-q in Q4 2020 from 2.7% q-o-q in Q3 2020. The slower growth was due mainly to a growth slowdown in six of the nine markets, including the region's two biggest markets, the PRC and the Republic of Korea. Nonetheless, all markets except for Indonesia, the Philippines, and Thailand saw positive q-o-q growth in corporate bonds outstanding in Q4 2020. On a y-o-y basis, growth in the region's LCY corporate bond stock dipped to 16.1% in Q4 2020 from 17.6% in the prior quarter. Meanwhile, a **Box** on page 13 compares the expansion of the corporate bond markets in East Asia and Latin America and its implications on financial resilience.

At the end of December, the corporate bond markets of the PRC and the Republic of Korea accounted for a combined 91.2% share of emerging East Asia's corporate bond stock, while the corporate bond markets of ASEAN member economies had a 6.8% share of the region's corporate bond total. Among ASEAN members, the largest corporate bond markets were in Malaysia, Singapore, and Thailand.

Emerging East Asia's total LCY bond market as a share of the region's gross domestic product (GDP) expanded to 97.7% at the end of December from 95.9% at the end of September and 83.5% at the end of December 2019 (**Table 2**). The GDP shares of both government and corporate bonds rose in Q4 2020 from the previous quarter.

The government bonds-to-GDP share climbed to 60.4% from 59.1% during the review period, while the corporate bonds-to-GDP share increased to 37.3% from 36.8%. The higher shares resulted from the still modest economic growth in the region while LCY bonds outstanding increased as governments continued to raise funds for fiscal stimulus and firms issued bonds to finance their operations amid the reopening of regional economies. Taking advantage of low interest rates also remained a factor for increased debt issuance in the market.

All emerging East Asian economies saw increases in their share of bonds-to-GDP between Q3 2020 and Q4 2020. The bond markets of the Republic of Korea, Malaysia, and Singapore exceeded a 100% share of their respective economy's GDP at the end of Q4 2020. The PRC nearly breached this level with a share of 99.8%. Meanwhile, Viet Nam had the region's smallest bonds-to-GDP share at the end of December at 26.1%.

By segment, Singapore had the largest government bonds-to-GDP share in the region at the end of December at 70.2%, while Viet Nam had the smallest at 21.6%. The Republic of Korea continued to have the largest corporate bonds-to-GDP share at 84.9%, while Indonesia had the smallest at 2.8%.

Table 1: Size and Composition of Local Currency Bond Markets

	Q4 2019		Q3 2020		Q4 2020		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
							Q4 2019		Q4 2020		Q4 2019		Q4 2020	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of														
Total	12,090	100.0	14,457	100.0	15,537	100.0	2.8	14.1	3.3	20.5	5.5	12.7	7.5	28.5
Government	7,753	64.1	9,240	63.9	9,978	64.2	2.0	12.7	3.8	20.6	4.7	11.4	8.0	28.7
Corporate	4,337	35.9	5,217	36.1	5,559	35.8	4.1	16.7	2.4	20.1	6.9	15.2	6.5	28.2
Hong Kong, China														
Total	291	100.0	295	100.0	309	100.0	0.1	1.8	4.7	5.7	0.7	2.4	4.7	6.2
Government	152	52.2	149	50.6	153	49.5	1.0	1.2	2.3	0.2	1.6	1.7	2.3	0.7
Corporate	139	47.8	146	49.4	156	50.5	(0.9)	2.6	7.1	11.6	(0.3)	3.1	7.1	12.2
Indonesia														
Total	253	100.0	276	100.0	322	100.0	2.3	14.2	10.0	28.7	4.8	18.6	16.5	27.1
Government	221	87.3	246	89.3	291	90.6	2.4	15.2	11.6	33.6	4.9	19.5	18.2	31.8
Corporate	32	12.7	30	10.7	30	9.4	1.7	8.1	(3.4)	(4.4)	4.1	12.2	2.3	(5.6)
Korea, Rep. of														
Total	2,083	100.0	2,224	100.0	2,424	100.0	1.6	7.6	1.2	9.4	5.1	3.4	9.0	16.3
Government	824	39.5	914	41.1	993	41.0	(0.2)	4.2	0.9	13.3	3.3	0.1	8.7	20.6
Corporate	1,259	60.5	1,310	58.9	1,430	59.0	2.7	9.9	1.4	6.8	6.3	5.6	9.2	13.6
Malaysia														
Total	363	100.0	381	100.0	399	100.0	(0.5)	6.0	1.3	8.0	1.8	7.1	4.7	9.9
Government	189	52.1	204	53.6	212	53.1	(1.6)	4.7	0.5	10.3	0.7	5.8	3.9	12.2
Corporate	174	47.9	177	46.4	187	46.9	0.7	7.6	2.2	5.6	3.1	8.7	5.7	7.4
Philippines														
Total	131	100.0	168	100.0	178	100.0	(0.8)	9.0	5.3	28.9	1.5	13.1	6.3	36.0
Government	101	77.4	134	79.9	145	81.2	(2.1)	7.5	7.0	35.3	0.2	11.5	8.0	42.7
Corporate	30	22.6	34	20.1	34	18.8	4.0	14.5	(1.3)	7.1	6.5	18.8	(0.4)	13.0
Singapore														
Total	335	100.0	355	100.0	380	100.0	2.6	13.1	3.9	11.6	5.4	14.6	7.3	13.6
Government	212	63.4	229	64.7	249	65.5	3.1	16.9	5.3	15.3	5.9	18.4	8.7	17.4
Corporate	123	36.6	125	35.3	131	34.5	1.7	7.1	1.3	5.1	4.5	8.5	4.7	7.0
Thailand														
Total	446	100.0	444	100.0	465	100.0	2.2	6.4	(0.7)	5.2	45.5	60.4	4.8	4.3
Government	318	71.4	325	73.2	342	73.5	2.5	5.2	(0.3)	8.3	40.8	53.0	5.2	7.3
Corporate	127	28.6	119	26.8	123	26.5	1.6	9.4	(1.8)	(2.5)	58.9	82.4	3.6	(3.3)
Viet Nam														
Total	54	100.0	65	100.0	71	100.0	(3.8)	4.4	8.1	31.7	(3.6)	4.4	8.5	32.1
Government	49	91.6	55	83.6	59	82.8	(3.9)	5.4	7.1	19.0	(3.7)	5.4	7.5	19.4
Corporate	5	8.4	11	16.4	12	17.2	(2.8)	(5.5)	13.6	169.5	(2.7)	(5.5)	14.0	170.4
Emerging East Asia														
Total	16,045	100.0	18,664	100.0	20,085	100.0	2.4	12.5	3.1	18.1	6.0	12.1	7.6	25.2
Government	9,819	61.2	11,496	61.6	12,422	61.8	1.7	11.4	3.6	19.5	5.3	11.3	8.1	26.5
Corporate	6,226	38.8	7,168	38.4	7,663	38.2	3.5	14.2	2.2	16.1	7.1	13.4	6.9	23.1
Japan														
Total	10,966	100.0	11,492	100.0	12,115	100.0	0.5	1.6	3.2	5.0	0.02	2.6	5.4	10.5
Government	10,180	92.8	10,664	92.8	11,250	92.9	0.4	1.2	3.3	5.1	(0.1)	2.2	5.5	10.5
Corporate	786	7.2	828	7.2	865	7.1	1.8	7.7	2.3	4.6	1.3	8.7	4.5	10.1

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

Notes:

1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
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 2020 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.
6. For Indonesia, data for government bonds include nontradable bonds.

Sources: People's Republic of China (CEIC); 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 (The Bank of Korea and KG Zeroin Corporation); 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).

Box: A Comparison of the Expansion of Corporate Bond Markets in East Asia and Latin America

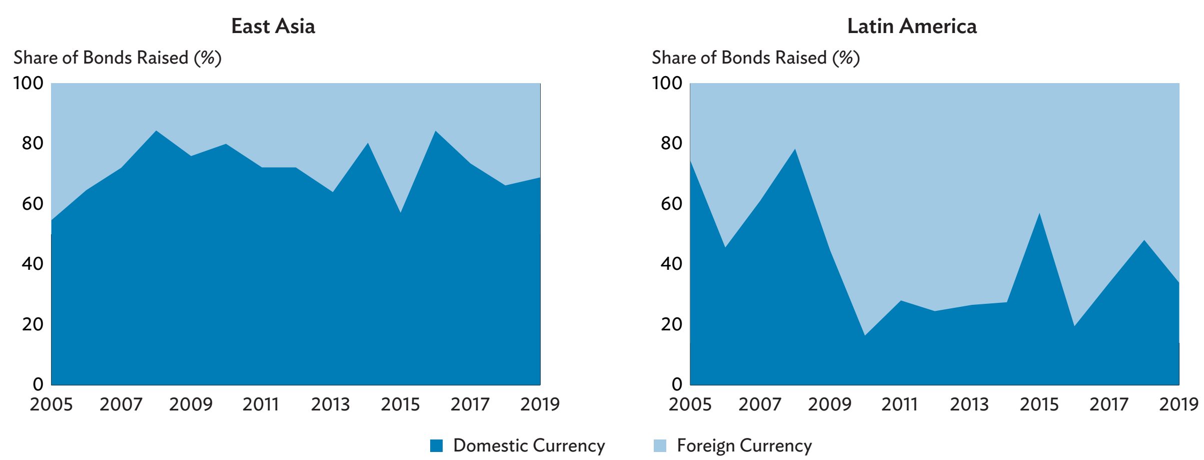
Following the global financial crisis, corporate debt steadily increased in East Asian and Latin American economies.[a, b] Between 2010 and 2019, the ratio of corporate debt to gross domestic product in the median economy increased from 119% to 144% in East Asia and from 34% to 42% in Latin America. An increase in bond issuances by firms accompanied this growth in corporate debt. In a new study, we show stylized facts on the boom in corporate debt in East Asia and Latin America, and discuss some of the main risks associated with this development (Abraham, Cortina, and Schmukler 2021).

Although firms in both East Asia and Latin America increased their bond issuances during the 2010–2019 period, there are important differences between the two regions. Bond financing in East Asia was conducted through domestic markets and in local currency. In turn, bond financing in Latin America was conducted through international markets and in foreign currency. In the median East Asian economy, 72% of the total amount of bonds raised per year—which includes both local and foreign currency issuances—was issued in local currency from 2010 to 2019. This represented an increase of 7 percentage points relative to the annual share of local currency bond issuance from 2000 to 2007. In contrast, the share of local currency bonds over the total bonds raised per year in the median Latin American economy was 33% in the 2010–2019 period. From 2000 to 2007, local currency bond issuances captured about 57% of the total capital raised in bond markets per year (**Figure B1**).

Firms borrowing in international markets are typically larger than those borrowing in domestic markets. Thus, the growth in bond market activity in East Asia comprised the participation of smaller issuing firms than in Latin America. In fact, the size of the median firm issuing bonds declined (increased) in East Asia (Latin America) as the use of domestic (international) markets expanded after the global financial crisis. In 2016, the median issuer firm in Latin America was about 10 times larger than in East Asia.

The cost of issuing bonds declined after the global financial crisis in both Latin America and East Asia, which is consistent with the notion that an expansion in the supply of bond financing by investors drove the rise in bond issuance by firms. From 2010 to 2019, East Asian and Latin American firms issued bonds at yields that were about 25% lower than in the 2000–2007 period. In East Asia, yields of local currency bonds declined more than yields of foreign currency bonds (26% vs. 22 %, respectively). In contrast, in Latin America,

Figure B1: Domestic and Foreign Currency Corporate Bond Issuance



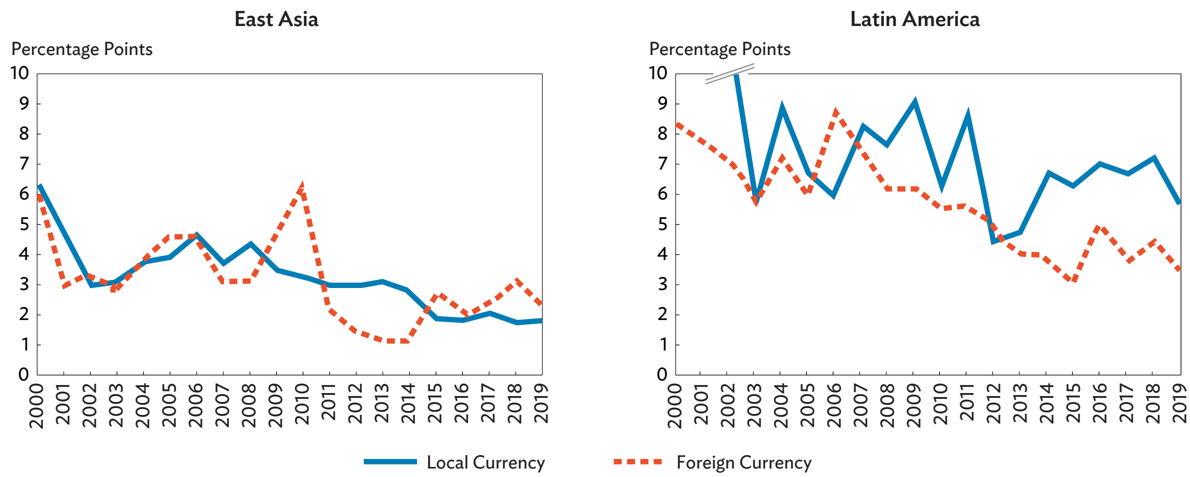
Note: This figure shows, for each region, the share of corporate bond financing raised in local and foreign currency for the median economy each year.
Source: Refinitiv's SDC.

[a] This discussion box was written by Facundo Abraham, Juan J. Cortina, and Sergio L. Schmukler of the Development Research Group of the World Bank. The box is based on F. Abraham, J. Cortina, and S. Schmukler. 2021. The Boom in Corporate Borrowing after the Global Financial Crisis: Different Tales from East Asia and Latin America. *World Bank Research and Policy Brief*. No. 42. World Bank Research and Development Center (Chile) and Malaysia Hub.
[b] East Asia includes the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Taipei,China; Thailand; and Viet Nam.Latin America includes Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Panama, Peru, and Venezuela.

continued on next page

Box: A Comparison of the Expansion of Corporate Bond Markets in East Asia and Latin America *continued*

Figure B2: Cost of Issuing Corporate Bonds



Note: This figure shows the median yield to maturity of local and foreign currency corporate bonds issued by firms in East Asia and Latin America each year.
Source: Refinitiv's SDC.

yields of foreign currency bonds fell more than those of local currency bonds (30% vs. 23%, respectively) (**Figure B2**). As firms issued more bonds, their leverage positions rose and their financial performance worsened.

In the context of high debt accumulation, the economic and financial crisis triggered by the coronavirus disease (COVID-19) pandemic has heightened solvency risks in both regions. In East Asia, risks are related to the faster expansion in overall debt and to the fact that smaller firms, issuing bonds at shorter maturities, were behind the increase in bond issuance. In Latin America, firms are more vulnerable to changes in global market conditions than East Asian firms because they have relied more on foreign debt issued in foreign currency. Moreover, they have experienced larger currency depreciations than East Asian firms since the pandemic started.

Reference

Abraham, F., J.J. Cortina, and S.L. Schmukler. Forthcoming. The Expansion of Corporate Bond Markets in East Asia and Latin America. *Revue D' Economie Financiere, Debt and Developing Countries*.

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

	Q4 2019	Q3 2020	Q4 2020
China, People's Rep. of			
Total	85.3	98.5	99.8
Government	54.7	63.0	64.1
Corporate	30.6	35.6	35.7
Hong Kong, China			
Total	79.1	83.4	88.3
Government	41.3	42.2	43.7
Corporate	37.8	41.2	44.6
Indonesia			
Total	22.2	26.5	29.3
Government	19.4	23.6	26.5
Corporate	2.8	2.8	2.8
Korea, Rep. of			
Total	130.2	141.6	143.8
Government	51.5	58.2	58.9
Corporate	78.7	83.4	84.9
Malaysia			
Total	104.5	116.9	119.6
Government	54.4	62.6	63.5
Corporate	50.1	54.3	56.0
Philippines			
Total	34.1	44.4	47.7
Government	26.3	35.5	38.7
Corporate	7.7	8.9	9.0
Singapore			
Total	88.2	101.5	107.2
Government	55.9	65.6	70.2
Corporate	32.3	35.9	37.0
Thailand			
Total	78.3	88.2	88.7
Government	55.9	64.5	65.2
Corporate	22.4	23.6	23.5
Viet Nam			
Total	20.6	24.5	26.1
Government	18.9	20.5	21.6
Corporate	1.7	4.0	4.5
Emerging East Asia			
Total	83.5	95.9	97.7
Government	51.1	59.1	60.4
Corporate	32.4	36.8	37.3
Japan			
Total	212.2	224.2	232.0
Government	197.0	208.0	215.5
Corporate	15.2	16.1	16.6

GDP = gross domestic product, Q3 = third quarter, Q4 = fourth quarter.
Notes:
1. Data for GDP are from CEIC.
2. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.

Sources: People's Republic of China (CEIC); 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 (The Bank of Korea and KG Zeroin Corporation); 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).

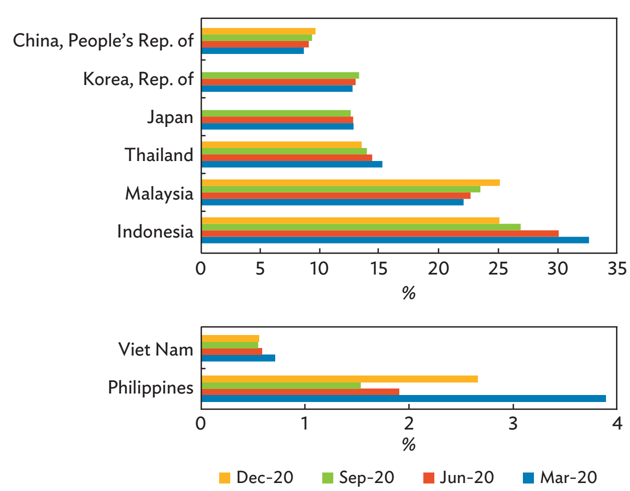
Foreign Investor Holdings

Optimism prompted foreign investors to increase their holdings of LCY government bonds in Q4 2020 in most emerging East Asian markets.

Foreign holdings of LCY government bonds in emerging East Asia posted quarterly increases in Q4 2020 in all economies except for Indonesia and Thailand (**Figure 2**). The foreign investor shares are nearing, if not surpassing, the levels reached before the COVID-19 outbreak in the first quarter of 2020, which led to a massive sell-off in the region. Optimism over vaccines and a favorable economic recovery likely encouraged risk-on sentiment among foreign investors, leading them to scale up their participation in the region's debt market.

In the PRC, foreign holdings of government bonds climbed to 9.7% at the end of December, the highest level since data have been available. The growth in foreign ownership is a result of the rapid expansion of the LCY bond market accompanied by the continued integration of the PRC into global financial markets, which has made it easier to facilitate foreign fund entry. The PRC's sovereign debt also provides attractive returns on investments underpinned by the strong Chinese yuan and higher yields. A robust economic recovery from

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



Note: Data for Japan and the Republic of Korea as of 30 September 2020.
Source: *AsianBondsOnline*.

the impact of COVID-19 and the announcement by FTSE Russell that the PRC's government bonds would be included in the FTSE World Government Bond Index in October 2021 further piqued foreign investor interest.

Malaysia and the Philippines both experienced an increase in foreign holdings in Q4 2020. In Malaysia, foreign ownership of government bonds recovered to 25.2% at the end of December, up from 23.6% at the end of September and nearly reaching its pre-pandemic level of 25.3% in December 2019. Steady foreign appetite amid improving sentiment and higher yields lifted the foreign holdings share to match that of Indonesia, which once had the region's highest rate of foreign participation in the government bond market. In the Philippines, foreign investors' share of sovereign debt nearly doubled to 2.7% the end of December from 1.5% at the end of September, although this was still below its level before the COVID-19 outbreak.

In Viet Nam, the share of foreign holdings was barely changed at the end of December from the previous quarter at 0.6%. While Viet Nam has been one of the most successful countries in managing the COVID-19 pandemic and has experienced a solid economic recovery, foreign participation in its local government bond market is still far from pre-pandemic levels. One reason for the slow return of foreign interest is the small size of Viet Nam's bond market, which makes it an unappealing investment option for offshore investors.

The foreign ownership share of government bonds fell in both Indonesia and Thailand. In Indonesia, the share declined 1.8 percentage points in Q4 2020 from the previous quarter to 25.2% at the end of December and was down 13.4 percentage points from a year earlier. Although offshore investors seemed to have regained confidence in the Indonesian market as evidenced by the positive fund inflows in Q4 2020, foreign participation remained well below the pre-pandemic level of 39.0%. A large amount of the government debt issued is being absorbed by local investors including the central bank. In Thailand, subdued foreign fund inflows in Q4 2020 on the back of low investment returns translated into a decrease in the foreign holdings share to 13.6% at the end of December from 14.0% at the end of September.

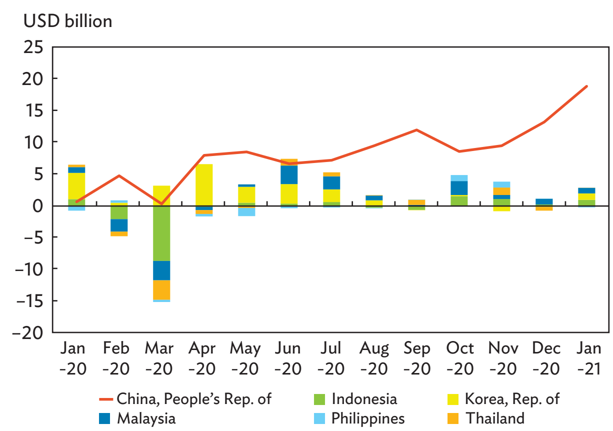
In the Republic of Korea, the foreign holdings share increased to 13.3% at the end of September from 13.0% at the end of June. Like the PRC, foreign participation has increased even amid the pandemic, aided by prompt action to contain COVID-19 that hastened economic recovery, and sustained by higher returns and sound macro fundamentals.

Foreign Bond Flows

Foreign funds continued to flow into emerging East Asian markets in Q4 2020 on optimism over the economic recovery and progress in COVID-19 vaccine procurement.

All economies in the region recorded net inflows into their government bond markets in Q4 2020 except for the Republic of Korea (**Figure 3**). The region received total net inflows of USD39.5 billion, which was slightly reduced by net outflows of USD0.8 billion from the Republic of Korea's bond market. The amount of foreign funds that entered the region in Q4 2020 showed a strong recovery from what the region experienced in the first quarter of 2020 when investors panicked in the wake of the COVID-19 outbreak and sold off USD4.3 billion of emerging East Asian government debt.

Figure 3: Foreign Bond Flows in Select Emerging East Asian Economies



USD = United States dollar.
Notes:
1. The Republic of Korea and Thailand provided data on bond flows. For the People's Republic of China, Indonesia, Malaysia, and the Philippines, month-on-month changes in foreign holdings of local currency government bonds were used as a proxy for bond flows.
2. Data as of 31 January 2021.
3. Figures were computed based on 31 January 2021 exchange rates to avoid currency effects.

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

The region's government bond market had a strong start in 2021, as it drew in USD21.5 billion of offshore funds in January, almost doubling the average monthly net inflows since its recovery began in April 2020. The sustained strong inflows were also a result of governments continuing to issue a considerable amount of debt to provide stimulus to the economy, while returns remained relatively higher in most markets in the region compared to advanced economies like the United States (US), making emerging East Asian assets attractive.

The PRC registered net inflows of USD31.3 billion in Q4 2020, the largest quarterly foreign buying in any quarter in 2020. In September, FTSE Russell announced it would include the PRC in its World Government Bond Index in October 2021. The PRC's entry into another major global bond index is expected to increase foreign participation in the LCY bond market. In January 2021, foreign investors purchased a net USD18.8 billion of PRC government debt, the highest monthly inflows since data are available, which indicates foreign investors are building their positions in the PRC's government bond market in the run-up to its inclusion in the FTSE Russell World Government Bond Index.

Malaysia and Indonesia were the largest recipients of foreign funds in the region after the PRC in Q4 2020. The inflows were underpinned by attractive yields and further boosted by low inflation, strong currencies, and improving sentiment over the economic recovery amid vaccination program rollouts.

In Malaysia, foreign investors bought a net USD3.7 billion of LCY government debt in Q4 2020. The impact of the sovereign ratings downgrade by Fitch Ratings in December was relatively muted, with inflows accelerating to USD0.9 billion in December from USD0.6 billion in November. The appetite for Malaysian government bonds remained sturdy through January, even with a spike of COVID-19 cases during the month, with net foreign buying amounting to USD0.9 billion. In Indonesia, inflows were at USD2.9 billion in Q4 2020, reversing net outflows of USD0.3 billion in the preceding quarter. In January, net foreign fund inflows registered USD1.0 billion.

The Philippines had net foreign fund inflows of USD1.9 billion in Q4 2020, reversing the USD0.3 billion outflow in Q3 2020 and marking the first quarterly net inflows since December 2018. The improvement is traced to the gradual reopening of the economy. While the Philippines registered inward fund flows of about USD1.0 billion each in October and November, net inflows dwindled in December to only USD36.9 million. In January 2021, foreign funds amounting to USD0.2 billion fled the government bond market amid uncertainty over the economic recovery given the detection of new COVID-19 variants and concerns over the arrival of vaccines.

Thailand had the smallest foreign fund inflows among the region's LCY government bonds markets in Q4 2020. Inflows amounted to only USD0.6 billion, down by more than half from USD1.5 billion in Q3 2020. Inflows in November were partly offset by outflows in October and December. In January 2021, Thailand registered very modest net inflows of USD3.9 million. Low returns on Thai government bonds, characterized by the small spread against US Treasuries, made them unattractive to foreign investors.

In contrast to other economies in the region, the Republic of Korea saw foreign funds retreat from its government bond market in Q4 2020, with outflows amounting to USD0.8 billion. Outflows were seen in November and December totaling USD1.0 billion, which offset the inflows in October. Most of the outflow was associated with the repatriation of funds from matured short-term securities as well as profit-taking toward the end of the year. In January 2021, the Republic of Korea's government debt market saw the reentry of foreign fund inflows of USD1.0 billion, which may be indicative of the reinvestment of proceeds.

LCY Bond Issuance

LCY bond issuance in Emerging East Asia reached USD2.0 trillion in Q4 2020.

LCY bond sales in emerging East Asia moderated to USD2.0 trillion in Q4 2020. On a q-o-q basis, bond issuance contracted 14.7% q-o-q following a 6.4% q-o-q expansion in Q3 2020 (**Table 3**). Due to a high base effect in the previous two quarters, issuance in Q4 2020 declined across all bond types except for central bank issuance, which recorded a slight uptick. Despite growth slowing down, gross issuance volume for the region was still higher than pre-COVID-19 levels, as the pandemic led to increased borrowing by governments and corporates. This highlights the importance of bond financing in capital raising for the needs of the public and private sectors.

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

	Q4 2019		Q3 2020		Q4 2020		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q4 2020		Q4 2020	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	q-o-q	y-o-y	q-o-q	y-o-y
China, People's Rep. of										
Total	834	100.0	1,574	100.0	1,294	100.0	(21.0)	45.5	(17.8)	55.2
Government	297	35.7	866	55.1	590	45.6	(34.5)	86.2	(31.8)	98.6
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	297	35.7	866	55.1	590	45.6	(34.5)	86.2	(31.8)	98.6
Corporate	536	64.3	707	44.9	703	54.4	(4.4)	22.9	(0.6)	31.1
Hong Kong, China										
Total	128	100.0	145	100.0	145	100.0	0.4	12.5	0.4	13.0
Government	109	85.2	117	80.8	112	76.9	(4.4)	1.6	(4.4)	2.1
Central Bank	109	84.6	117	80.7	107	73.7	(8.3)	(2.0)	(8.3)	(1.5)
Treasury and Other Govt.	1	0.6	0.1	0.1	5	3.2	3,550.0	461.5	3,548.5	464.3
Corporate	19	14.8	28	19.2	33	23.1	20.6	75.4	20.6	76.2
Indonesia										
Total	21	100.0	41	100.0	47	100.0	7.6	126.3	13.9	123.3
Government	19	88.3	39	93.9	46	96.8	10.8	147.9	17.3	144.7
Central Bank	8	39.2	9	21.6	14	29.7	47.7	71.5	56.4	69.3
Treasury and Other Govt.	10	49.2	30	72.3	32	67.1	(0.2)	208.7	5.7	204.7
Corporate	3	11.7	3	6.1	2	3.2	(42.5)	(37.1)	(39.1)	(37.9)
Korea, Rep. of										
Total	196	100.0	189	100.0	210	100.0	3.2	0.7	11.1	7.2
Government	60	30.5	85	44.8	78	37.2	(14.3)	23.0	(7.7)	30.8
Central Bank	29	14.6	31	16.2	29	13.8	(12.0)	(4.6)	(5.2)	1.5
Treasury and Other Govt.	31	15.9	54	28.6	49	23.4	(15.5)	48.3	(9.0)	57.8
Corporate	136	69.5	104	55.2	132	62.8	17.3	(9.0)	26.3	(3.2)
Malaysia										
Total	20	100.0	22	100.0	22	100.0	(0.3)	7.2	3.1	9.1
Government	9	43.5	12	57.4	8	35.1	(39.0)	(13.5)	(36.9)	(11.9)
Central Bank	3	14.6	0	0.0	0	0.0	–	(100.0)	–	(100.0)
Treasury and Other Govt.	6	28.9	12	57.4	8	35.1	(39.0)	30.2	(36.9)	32.5
Corporate	12	56.5	9	42.6	14	64.9	51.8	23.2	56.9	25.3
Philippines										
Total	7	100.0	25	100.0	29	100.0	13.2	268.5	14.3	288.7
Government	5	71.9	23	89.8	28	95.8	20.8	390.9	22.0	417.8
Central Bank	0	0.0	1	4.1	17	60.2	1,580.0	–	1,596.1	–
Treasury and Other Govt.	5	71.9	22	85.7	10	35.6	(53.0)	82.3	(52.5)	92.3
Corporate	2	28.1	3	10.2	1	4.2	(53.3)	(44.6)	(52.8)	(41.5)
Singapore										
Total	130	100.0	149	100.0	164	100.0	6.7	23.3	10.2	25.6
Government	128	98.4	145	97.5	160	97.9	7.2	22.7	10.7	25.0
Central Bank	103	79.3	119	80.2	135	82.5	9.8	28.2	13.4	30.5
Treasury and Other Govt.	25	19.1	26	17.3	25	15.5	(4.8)	0.0	(1.7)	1.8
Corporate	2	1.6	4	2.5	3	2.1	(12.0)	61.3	(9.1)	64.2
Thailand										
Total	79	100.0	93	100.0	74	100.0	(24.4)	(4.8)	(20.3)	(5.6)
Government	66	83.7	83	89.0	65	87.6	(25.6)	(0.4)	(21.5)	(1.2)
Central Bank	59	74.8	65	69.1	49	66.4	(27.4)	(15.4)	(23.4)	(16.1)
Treasury and Other Govt.	7	8.9	19	19.9	16	21.2	(19.4)	125.6	(15.0)	123.7
Corporate	13	16.3	10	11.0	9	12.4	(14.6)	(27.3)	(9.9)	(27.9)

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Table 3 *continued*

	Q4 2019		Q3 2020		Q4 2020		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
	Amount (USD billion)	% share	Amount (USD billion)	% share	Amount (USD billion)	% share	Q4 2020 q-o-q	Q4 2020 y-o-y	Q4 2020 q-o-q	Q4 2020 y-o-y
Viet Nam										
Total	22	100.0	8	100.0	7	100.0	(6.8)	(66.5)	(6.4)	(66.4)
Government	22	99.2	5	63.7	5	73.3	7.3	(75.3)	7.7	(75.2)
Central Bank	20	88.5	0	0.0	0	0.0	–	(100.0)	–	(100.0)
Treasury and Other Govt.	2	10.8	5	63.7	5	73.3	7.3	128.2	7.7	129.0
Corporate	0.2	0.8	3	36.3	2	26.7	(31.6)	1,080.5	(31.3)	1,084.3
Emerging East Asia										
Total	1,439	100.0	2,246	100.0	1,993	100.0	(14.7)	32.0	(11.2)	38.6
Government	716	49.8	1,375	61.2	1,093	54.8	(23.5)	47.3	(20.5)	52.7
Central Bank	330	23.0	341	15.2	352	17.7	0.2	5.3	3.2	6.5
Treasury and Other Govt.	385	26.8	1,034	46.0	741	37.2	(31.3)	81.7	(28.4)	92.3
Corporate	723	50.2	871	38.8	901	45.2	(0.9)	17.3	3.4	24.6
Japan										
Total	418	100.0	533	100.0	771	100.0	41.6	75.2	44.6	84.3
Government	376	89.9	484	90.8	718	93.2	45.2	81.6	48.4	91.0
Central Bank	20	4.8	0	0.0	0	0.0	–	(100.0)	–	(100.0)
Treasury and Other Govt.	356	85.0	484	90.8	718	93.2	45.2	91.9	48.4	101.9
Corporate	42	10.1	49	9.2	53	6.8	5.4	18.0	7.7	24.1

( ) = 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 2020 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (CEIC); 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 (The Bank of Korea and KG Zeroin Corporation); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and 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).

Lower bond sales from the PRC dragged down the overall regional issuance volume during the quarter. Other regional markets that posted lower issuance activities in Q4 2020 versus Q3 2020 were Malaysia, Thailand, and Viet Nam. In contrast, quarterly issuance volumes rose in Hong Kong China; Indonesia; the Republic of Korea; the Philippines; and Singapore.

On a y-o-y basis, issuance volume climbed at a slower pace of 32.0% in Q4 2020 compared with a 39.9% expansion in Q3 2020. Nearly all emerging East Asian bond markets recorded positive y-o-y growth in bond issuance, with Thailand and Viet Nam as the exceptions. Both markets recorded y-o-y contractions during the review period. Growth on a y-o-y basis quickened in Hong Kong, China; Indonesia; Malaysia; the Philippines; and Singapore; while it moderated in the PRC and the Republic of Korea.

Government bonds accounted for 54.8% of the aggregate issuance volume during the quarter, declining from a 61.1% share in Q3 2020, largely due to the PRC's decline. Total LCY government bond issuance reached USD1,092.8 billion, with growth contracting 23.5% q-o-q but rising 47.3% y-o-y. Treasury instruments and other government bonds form the bulk of government bonds, representing a 67.8% share of the aggregate government bond issuance volume during the quarter in review. Growth declined 31.3% q-o-q in Q4 2020 but was up 81.7% y-o-y, as governments borrowed more in 2020 to fund pandemic stimulus programs. As in previous years, issuance volume slowed in the last quarter of the year as a majority of borrowing requirements have already been fulfilled earlier. On a y-o-y basis, all regional bond markets posted higher issuance growth for Treasury and other government bonds in Q4 2020 versus Q3 2020 except for the Republic of Korea, Malaysia, the Philippines, and Thailand. For Singapore, there was no change in the volume of issuance from the prior year.

On the other hand, issuance of central bank instruments inched up 0.2% q-o-q in Q4 2020, which was down from an 8.4% q-o-q uptick in the preceding quarter. Growth was fueled by increased issuance by Bank Indonesia, Bangko Sentral ng Pilipinas, and MAS. All other regional central banks tapered their issuance during the quarter versus that of Q3 2020, while Bank Negara Malaysia and the State Bank of Vietnam ceased issuance of central bank instruments.

Corporate bond issuance in regional markets contracted 0.9% q-o-q in Q4 2020, following a 0.6% q-o-q drop in Q3 2020. More active issuance from corporates in Hong Kong, China; the Republic of Korea; and Malaysia was observed during Q4 2020 versus Q3 2020. On the other hand, corporates from the PRC, Indonesia, the Philippines, Singapore, Thailand, and Viet Nam issued less. On a y-o-y basis, corporate bond issuance grew 17.3% in Q4 2020, slowing from a 24.2% rise in the earlier quarter.

The PRC was still the largest source of LCY bond issuance in emerging East Asia, albeit its share of the total fell to 64.9% in Q4 2020 from 70.0% in the prior quarter. Bond issuance volume in the PRC reached USD1,293.7 billion in Q4 2020 on a decline of 21.0% q-o-q after rising 6.9% q-o-q in Q3 2020. Both the q-o-q growth for government and corporate bonds contracted during the review period. The decline in government bonds was due largely to reduced issuance by local governments and policy banks. The quota for local government bond issuance had been mostly tapped by the end of Q3 2020, leading to less issuance for such bonds in Q4 2020. In addition, local governments were only given until October by the government to utilize the quota for the issuance of bonds under this program. On the other hand, issuance of Treasury instruments inched up 2.4% q-o-q during the review period. Issuance of corporate bonds fell 4.4% q-o-q after a marginal increase of 0.2% q-o-q in Q3 2020, amid cautious demand over corporate default rates and the possibility of increased oversight by government. Compared with the same period a year earlier, the PRC's issuance volume grew 45.5% y-oy in Q4 2020, down from 52.5% y-o-y in Q3 2020.

In the Republic of Korea, issuance activities were actively buoyed by the corporate bond segment. Total LCY bond issuance rose to USD210.2 billion in Q4 2020, with growth rebounding 3.2% q-o-q from a decline of 11.5% q-o-q in the prior quarter. Corporate bonds drove growth as issuance climbed 17.3% q-o-q, after posting declines in the previous 3 quarters. Growth in corporate bond issuance was buoyed by an improving economic outlook and corporates locking in low funding costs ahead of a projected rise in interest rates in 2021. In contrast, issuance of government bonds weakened by 14.3% q-o-q in Q4 2020. In terms of volume, however, issuance of government bonds remained higher than pre-COVID-19 levels and y-o-y growth in Q4 2020 remained at double-digit levels (23.0%). The government approved four supplementary budgets in 2020, necessitating the need for much higher issuance volume to support COVID-19 stimulus measures. On an annual basis, LCY bond issuance in the Republic of Korea grew 0.7% y-o-y in Q4 2020, down from 12.6% y-o-y in Q3 2020.

LCY bond sales in Hong Kong, China tallied USD145.2 billion in Q4 2020, with growth tapering to 0.4% q-o-q from 5.2% q-o-q in Q3 2020. Issuance of government bonds contracted 4.4% q-o-q, dragged down by a decline in the issuance of Exchange Fund Bills and Exchange Fund Notes. Issuance of Hong Kong Special Administrative Region bonds on the other hand surged in Q4 2020, buoyed by the issuance of 3-year iBonds and Silver Bonds in November and December. Corporate bond issuance was also more active, rising 20.6% q-o-q following an 8.2% q-o-q decline in Q3 2020. On a y-o-y basis, bond issuance growth quickened to 12.5% in Q4 2020 from 9.8% in the preceding quarter.

On an aggregate basis, LCY bond issuance by ASEAN economies reached USD344.2 billion in Q4 2020, representing a 17.3% share of emerging East Asia's issuance total during the quarter. Aggregate bond issuance in ASEAN markets slipped 2.2% q-o-q but rose 21.8% y-o-y in Q4 2020, compared with expansions of 17.8% q-o-q and 24.0% y-o-y in the preceding quarter. The markets of Indonesia, the Philippines, and Singapore posted increases in bond issuance volumes in Q4 2020, while Malaysia, Thailand, and Viet Nam pared their issuance volumes. The largest sources of LCY bond issuance among ASEAN members in Q4 2020 were Singapore, Thailand, and Indonesia.

Total LCY bonds sales from Singapore stood at USD163.8 billion during the quarter, with growth slipping to 6.7% q-o-q in Q4 2020 from 7.5% q-o-q in Q3 2020. Growth was driven solely by government bonds, particularly MAS instruments. On the other hand, issuance of SGS bills and bonds slowed during the quarter. Similarly, issuance of corporate bonds declined, falling

12.0% q-o-q in Q4 2020 on the back of a 16.1% q-o-q contraction in the earlier quarter. On a y-o-y basis, issuance volume increased 23.3% in Q4 2020 from 18.9% in Q3 2020.

In Thailand, LCY bond issuance summed to USD74.4 billion, with all bond types posting double-digit contractions in issuance during Q4 2020. Bond issuance declined 24.4% q-o-q in Q4 2020 after a 20.9% q-o-q hike in Q3 2020. The largest decline was seen in the issuance of central bank instruments, which slumped 27.4% q-o-q in Q4 2020 as the central bank boosted liquidity. Issuance of Treasury and other government bonds fell 19.4% q-o-q, while corporate bonds issuance declined 14.6% q-o-q. Some corporates held off their issuance plans, opting to borrow from banks due to lower borrowing costs. On an annual basis, bond issuance fell 4.8% y-o-y in Q4 2020 following growth of 23.4% y-o-y in Q3 2020.

LCY bond sales in Indonesia remained active through the fourth quarter, as the government continued to issue bonds to support its economy amid the COVID-19 outbreak. In past years, Indonesia normally cancels Treasury auctions by the middle of November, but its last auction for 2020 went into December. Total issuance in Q4 2020 tallied USD47.2 billion on growth of 7.6% q-o-q, down from a 44.0% q-o-q hike in Q3 2020. The volumes of issuance for Treasury bills and bonds were broadly at par with the issuance recorded in Q3 2020. In addition, Bank Indonesia issued more shari'ah-compliant central bank instruments during the quarter, as it implemented a number of changes to strengthen shari'ah monetary operations. In contrast, corporate bond issuance dropped 42.5% q-o-q in Q4 2020. On a y-o-y basis, bond issuance more than doubled in Q4 2020, with growth accelerating to 126.3% from 78.4% in Q3 2020.

In Malaysia, bond issuance in Q4 2020 stood at USD22.3 billion, broadly unchanged from its level in Q3 2020. Overall, growth was marginally down 0.3% q-o-q in Q4 2020 after declining 4.5% q-o-q in the preceding quarter. Similar with the Republic of Korea, the source of growth came from the corporate bond segment. During the quarter, issuance of government bonds dropped due to a decline in the issuance of Treasury instruments and the absence of issuance from Bank Negara Malaysia. On an annual basis, bond issuance inched up 7.2% y-o-y in Q4 2020 from 6.3% y-o-y in Q3 2020.

In the Philippines, total bond sales grew 13.2% q-o-q to USD29.1 billion in Q4 2020. Treasury and other government bond issuances declined 53.0% q-o-q as the government did most of its borrowing in earlier quarters. Corporate bond issuance also declined 53.3% q-o-q in Q4 2020 after soaring 358.3% q-o-q in the previous quarter. Q-o-q bond issuance growth was driven solely by central bank bonds, which rose more than 1,000% as the central bank sterilized foreign capital inflows. Q4 2020 bond issuance was still higher compared to pre-pandemic levels due to the need to fund stimulus measures. Bond issuance was higher by 268.5% y-o-y, driven mostly by a 390.9% y-o-y rise in government bonds.

In Viet Nam, total bond issuance declined 6.8% q-o-q in Q4 2020 to USD7.4 billion after rising 34.3% q-o-q in the prior quarter. While government bond issuance grew 7.3% q-o-q, overall issuance was dragged down by a 31.6% q-o-q decline in corporate bond issuance. Viet Nam's corporate bond issuance continued to be weak, as the government tightened corporate bond issuance standards in Q4 2020. On an annual basis, Viet Nam's bond issuance declined 66.5% y-o-y in Q4 2020 following a decline of 63.7% y-o-y in Q3 2020.

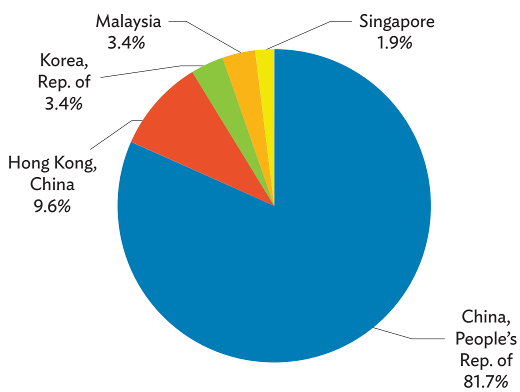
Cross-Border Bond Issuance

Emerging East Asia's cross-border bond issuance reached USD2.9 billion in Q4 2020.

Emerging East Asia's total intra-regional bond issuance reached USD2.9 billion in Q4 2020, a 53.9% q-o-q increase from the USD1.9 billion raised in the previous quarter. Institutions from five economies issued cross-border bonds in Q4 2020, led by firms from the PRC. Other economies that registered cross-border bond issuance in Q4 2020 include Hong Kong, China; the Republic of Korea; Malaysia; and Singapore. The first 2 months of the quarter saw a surge in issuance with total volumes of USD1.1 billion and USD1.4 billion in October and November, respectively. However, issuance dropped to USD394.8 million in December. From the same period in 2019, total intra-regional bond issuance increased 28.4%.

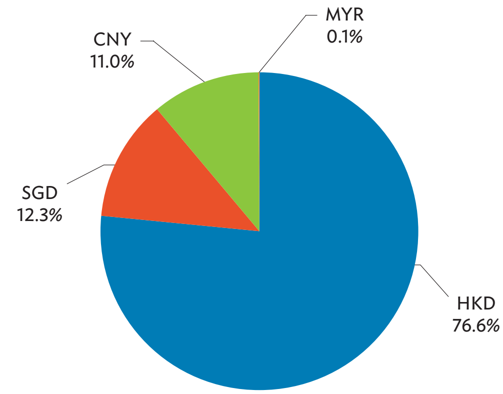
The PRC registered the highest aggregate issuance volume of USD2.4 billion in Q4 2020, dominating the market with a share of 81.7% (**Figure 4**). This was almost six times the USD400.8 million of issuance in Q3 2020 and a 70.2% y-o-y rise from Q4 2019. Banks and financial

Figure 4: Origin Economies of Intra-Emerging East Asian Bond Issuance in the Fourth Quarter of 2020



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

Figure 5: Currency Shares of Intra-Emerging East Asian Bond Issuance in the Fourth Quarter of 2020



CNY = Chinese yuan, HKD = Hong Kong dollar, MYR = Malaysian ringgit, SGD = Singapore dollar.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

institutions accounted for over half of the total issuance in the PRC. A rise in the number of institutions that participated in cross-border bond issuance was also observed during the quarter, from only two in Q3 2020 to 14 in Q4 2020. Intra-regional bonds issued in the PRC were denominated in Hong Kong dollars, Malaysian ringgit, and Singapore dollars.

Institutions from Hong Kong, China issued a total of USD276.1 million, and all were denominated in Chinese yuan. This was a drop from the USD744.6 million raised in the previous quarter and almost at par with the issuance volume in the same period in 2019. State-owned Hong Kong Mortgage Corporation led all issuers with USD82.7 million worth of 1-year and 2-year bonds. Other notable cross-border issuances from Hong Kong, China include the USD82.0 million worth of 3-year bonds issued by HKCG Finance and the USD70.5 million multitranche bonds issued by KGI International Finance. State-owned railway company, MTR Corporation, also issued 3-year bonds worth USD30.6 million.

Cagamas Global, a state-owned mortgage corporation, was the sole issuer of intra-regional bonds in Malaysia, raising USD98.3 million worth of 1-year bonds denominated in Singapore dollars.

In the Republic of Korea, only two institutions issued intra-regional bonds in Q4 2020, with a total of USD98.1 million. Daewoo Engineering and Constructions issued USD56.7 million 3-year bonds issued in Singapore dollars, and the Export–Import Bank of Korea issued USD41.4 million worth of CNY-denominated 5-year bonds.

Among the five economies mentioned above, Singapore had the lowest cross-border issuance volume in Q4 2020 at USD56.2 million, led by CapitalLand Mall Trust MTN, which raised USD54.9 million worth of 10-year bonds denominated in Hong Kong dollars. Other institutions in Singapore that issued cross-border bonds in Q4 2020 include Nomura International Fund (USD0.8 million) and DBS Bank (USD0.5 million). Intra-regional bonds issued in Singapore were denominated in Chinese yuan and Hong Kong dollars.

The top 10 issuers of cross-borders bonds in Q4 2020 had an aggregate volume of USD2.4 billion and comprised 84.8% of the regional total; most issuances were denominated in Hong Kong dollars. Institutions from the PRC dominated the list, along with one firm each from Malaysia and Hong Kong, China.

The Hong Kong dollar continued to be the most widely used currency of intra-regional bonds in Q4 2020 with total volume of USD2.2 billion, comprising 76.6% of the regional total (**Figure 5**). Only firms from the PRC and Singapore had issuances in this currency during the quarter. The Singapore dollar followed with a share of 12.3% and a total of USD356.3 million issued by firms from the PRC, the Republic of Korea, and Malaysia. Other issuance currencies were the Chinese yuan (11.0%, USD318.3 million) and the Malaysian ringgit (0.1%, USD2.6 million).

G3 Currency Issuance

Total G3 currency bond issuance in emerging East Asia amounted to USD378.1 billion in 2020.

The value of G3 currency bonds issued in emerging East Asia in 2020 totaled USD378.1 billion, expanding 9.1% y-o-y from USD346.6 billion in 2019 (**Table 4**).[5, 6] The growth occurred despite a slight drop in the number of issuances in 2020 compared with 2019. The expansion was due to higher G3 issuance volumes in most of the region's economies compared with a year earlier. The COVID-19 pandemic and a low-interest-rate environment drove governments and companies to raise funds through G3 currency bonds.

Of all G3 currency bonds issued during the review period, a total of 91.9% was denominated in US dollars, 7.4% in euros, and 0.6% in Japanese yen. In 2020, a total of USD347.6 billion worth of bonds denominated in US dollars was issued in emerging East Asia, representing a jump of 9.8% y-o-y. The equivalent of USD28.2 billion of EUR-denominated bonds was issued during the review period, representing an increase of 26.6% y-o-y. Bonds issued in Japanese yen totaled USD2.4 billion, a decline of 69.5% y-o-y from a high base that was largely driven by Malaysia's samurai bond issuance in March 2019. In addition, most of the region's economies opted not to issue in Japanese yen during the review period.

The PRC continued to dominate the region's issuance of G3 currency bonds, totaling USD232.3 billion in 2020. This was followed by Hong Kong, China with USD34.8 billion and the Republic of Korea with USD30.0 billion. All three economies issued mainly in US dollars.

In 2020, G3 currency bond issuance increased on a y-o-y basis in the Philippines (129.6%); Singapore (52.1%); Malaysia (25.5%); Indonesia (24.5%); Hong Kong, China (9.1%); the PRC (3.1%); and the Republic of Korea (2.2%). Economies with decreased G3 currency bond issuance include Thailand (–18.4%) and Viet Nam (–91.8%). The Lao People's Democratic Republic had no issuance in 2020 while Cambodia issued G3 currency bonds during the review period after not issuing any in 2019.

The PRC accounted for 61.4% of all G3 currency issuance in emerging East Asia in 2020, issuing USD215.8 billion in US dollars and the equivalent of USD16.5 billion in euros. In Q4 2020, the PRC issued four tranches of USD-denominated bonds totaling USD6.0 billion and with tenors ranging from 3 years to 30 years. The issuance was significant as it was opened to US institutional investors. The PRC also issued EUR-denominated bonds with three tranches totaling USD4.9 billion and with tenors of 5 years to 15 years. Proceeds from the bonds will be used by the Ministry of Finance for general government purposes. Prosus raised USD1.5 billion from its 30-year bond issuance denominated in US dollars. The issuance came after the e-commerce company announced in October that it would buy back up to USD5.0 billion of its own shares and those of its parent company Naspers.

The Republic of Korea accounted for a 7.9% share of all G3 currency bonds issued during the review period: USD24.2 billion in US dollars and the equivalent of USD5.8 billion in euros. In Q4 2020, the Korea Development Bank issued a total of USD1.1 billion worth of USD-denominated bonds from various issuances with varying coupon rates and tenors ranging from 1 year to 6 years. The Export–Import Bank of Korea was also active during Q4 2020, issuing several bonds denominated in US dollars and totaling USD550.0 million. These included three 30-year callable zero-coupon bonds. The state-owned export credit agency of the Republic of Korea also issued a 2-year EUR-denominated bond worth USD51.3 million.

Hong Kong, China accounted for a 9.2% share of G3 currency bond issuance in 2020. By currency, USD33.2 billion was issued in US dollars, while EUR-denominated and JPY-denominated bonds amounted to USD1.0 billion and USD0.6 billion, respectively. In December 2020, the Airport Authority Hong Kong issued USD1.5 billion dual-tranche callable perpetual bonds denominated in US dollars. Proceeds from the issuance will be used for general corporate purposes, including the construction of a third runway. Conglomerate New World Development also issued a USD-denominated perpetual

[5] G3 currency bonds are denominated in either euros, Japanese yen, or US dollars.
[6] For the discussion on G3 currency issuance, emerging East Asia comprises Cambodia; the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.

Table 4: G3 Currency Bond Issuance

2019			2020		
Issuer	Amount (USD billion)	Issue Date	Issuer	Amount (USD billion)	Issue Date
Cambodia	**0.0**		**Cambodia**	**0.4**	
China, People's Rep. of	**225.2**		**China, People's Rep. of**	**232.3**	
Tencent Holdings 3.975% 2029	3.0	11-Apr-19	Industrial and Commercial Bank of China 3.58% Perpetual	2.9	23-Sep-20
People's Republic of China (Sovereign) 0.125% 2026	2.2	12-Nov-19	Bank of China 3.60% Perpetual	2.8	4-Mar-20
People's Republic of China (Sovereign) 1.950% 2024	2.0	3-Dec-19	Bank of Communications 3.80% Perpetual	2.8	18-Nov-20
Others	218.0		Others	223.8	
Hong Kong, China	**31.9**		**Hong Kong, China**	**34.8**	
Celestial Miles 5.75% Perpetual	1.0	31-Jan-19	AIA Group 3.200% 2040	1.8	16-Sep-20
Hong Kong, China (Sovereign) 2.50% 2024	1.0	28-May-19	MTR Corporation 1.625% 2030	1.2	19-Aug-20
AIA Group 3.60% 2029	1.0	9-Apr-19	AIA Group 3.375% 2030	1.0	7-Apr-20
Others	28.9		Others	30.9	
Indonesia	**22.4**		**Indonesia**	**27.9**	
Perusahaan Penerbit SBSN *Sukuk* 4.45% 2029	1.3	20-Feb-19	Indonesia (Sovereign) 3.85% 2030	1.7	15-Apr-20
Indonesia (Sovereign) 1.40% 2031	1.1	30-Oct-19	Indonesia (Sovereign) 4.20% 2050	1.7	15-Apr-20
Indonesia (Sovereign) 3.70% 2049	1.0	30-Oct-19	Indonesia (Sovereign) 0.90% 2027	1.2	14-Jan-20
Others	19.0		Others	23.4	
Korea, Rep. of	**29.4**		**Korea, Rep. of**	**30.0**	
Republic of Korea (Sovereign) 2.500% 2029	1.0	19-Jun-19	Korea Housing Finance Corporation 0.010% 2025	1.2	5-Feb-20
Export–Import Bank of Korea 0.375% 2024	0.8	26-Mar-19	Korea Development Bank 1.250% 2025	1.0	3-Jun-20
LG Display 1.500% 2024	0.7	22-Aug-19	Export–Import Bank of Korea 0.829% 2025	0.9	27-Apr-20
Others	26.8		Others	26.9	
Lao People's Democratic Republic	**0.2**		**Lao People's Democratic Republic**	**0.0**	
Malaysia	**13.7**		**Malaysia**	**17.2**	
Malaysia (Sovereign) 0.530% 2029	1.8	15-Mar-19	Petronas Capital 4.55% 2050	2.8	21-Apr-20
Resorts World Las Vegas 4.625% 2029	1.0	16-Apr-19	Petronas Capital 3.50% 2030	2.3	21-Apr-20
Others	10.9		Others	12.2	
Philippines	**6.7**		**Philippines**	**15.5**	
Philippines (Sovereign) 3.750% 2029	1.5	14-Jan-19	Philippines (Sovereign) 2.65% 2045	1.5	10-Dec-20
Philippines (Sovereign) 0.875% 2027	0.8	17-May-19	Philippines (Sovereign) 2.95% 2045	1.4	5-May-20
Others	4.4		Others	12.6	
Singapore	**9.7**		**Singapore**	**14.7**	
DBS Group 2.85% 2022	0.8	16-Apr-19	United Overseas Bank 0.010% 2027	1.2	1-Dec-20
BOC Aviation 3.50% 2024	0.8	10-Apr-19	Oversea-Chinese Banking Corporation 1.832% 2030	1.0	10-Sep-20
Others	8.2		Others	12.5	
Thailand	**6.4**		**Thailand**	**5.3**	
Bangkok Bank in Hong Kong, China 3.733% 2034	1.2	25-Sep-19	Bangkok Bank in Hong Kong, China 5.0% Perpetual	0.8	23-Sep-20
Kasikornbank 3.343% 2031	0.8	2-Oct-19	PTT Treasury 3.7% 2070	0.7	16-Jul-20
Others	4.4		Others	3.8	
Viet Nam	**1.0**		**Viet Nam**	**0.1**	
Emerging East Asia Total	**346.6**		**Emerging East Asia Total**	**378.1**	
Memo Items:			**Memo Items:**		
India	**21.9**		**India**	**14.3**	
Indian Oil Corporation 4.75% 2024	0.9	16-Jan-19	Vedanta Holdings Mauritius II 13.00% 2023	**1.4**	21-Aug-20
Others	21.0		Others	12.9	
Sri Lanka	**4.9**		**Sri Lanka**	**0.4**	
Sri Lanka (Sovereign) 7.55% 2030	1.5	28-Jun-19	Sri Lanka (Sovereign) 6.57% 2021	0.1	30-Jul-20
Others	3.4		Others	**0.3**	

USD = United States dollar.
Notes:
1. Data exclude certificates of deposit.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
3. Bloomberg LP end-of-period rates are used.
4. Emerging East Asia comprises Cambodia; the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
5. Figures after the issuer name reflect the coupon rate and year of maturity of the bond.

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

bond worth USD700.0 million with a fixed coupon rate of 4.8%.

G3 currency bond issuance among ASEAN member economies increased 34.7% y-o-y to USD81.0 billion in 2020 from USD60.1 billion in 2019, as most ASEAN economies ramped up their issuance.[7] As a share of emerging East Asia's total G3 currency bond issuance in 2020, ASEAN issuance accounted for 21.4%, up from 17.3% in the previous year. Indonesia and Malaysia led all ASEAN members in terms of G3 currency bond issuance, followed by the Philippines, Singapore, Thailand, Cambodia, and Viet Nam.

Indonesia's G3 currency bond issuance in 2020 accounted for 7.4% of the total in emerging East Asia, comprising USD25.7 billion in US dollars, the equivalent of USD1.2 billion in euros, and the equivalent of USD1.0 billion in Japanese yen. Star Energy issued a dual-tranche USD-denominated green bond worth USD1.1 billion with tenors of 9 years and 18 years. Proceeds from the issuance will be used for the energy company's bond financing and geothermal operations. Indika Energy raised USD675.0 million from its 5-year callable bond denominated in US dollars. The integrated coal mining firm will use the proceeds to fund the redemption of some of its existing bonds.

G3 currency bonds issued by Malaysia accounted for 4.5% of emerging East Asia's total in 2020, including USD-denominated bonds worth USD16.6 billion and JPY-denominated bonds worth USD0.6 billion. During Q4 2020, Malayan Banking raised USD220.0 million from its issuance of 3-year and 40-year bonds, both denominated in US dollars. The short-term bond had a coupon rate of 0.882%, while the long-dated bond was a zero-coupon bond.

The Philippines accounted for 4.1% of total G3 currency bond issuance in emerging East Asia in 2020, comprising bonds denominated in US dollars and euros amounting to USD14.0 billion and USD1.5 billion, respectively. In December, the Philippines issued a USD-denominated dual-tranche bond worth USD2.8 billion with tenors of 10.5 years and 25 years. The proceeds from the global bonds will be used for the economy's general purposes including budgetary support. Power generation company SMC Global Power raised USD400.0 million from USD-denominated perpetual bonds for general corporate purposes, including the financing of liquefied natural gas facilities.

Singapore's share of G3 currency bond issuance in emerging East Asia was 3.9% in 2020, comprising USD12.9 billion in US dollars, the equivalent of USD1.7 billion in euros, and the equivalent of USD0.2 billion in Japanese yen. Temasek Financial was able to raise USD2.8 billion worth of USD-denominated bonds utilizing its global medium-term note program. The investment holding company issued a triple-tranche callable bond with tenors of 10 years, 30.5 years, and 50 years. United Overseas Bank also issued a long-dated bond with its 30-year callable, zero-coupon bond. The USD-denominated bond worth USD100.0 million was taken from the bank's debt issuance program.

During the review period, 1.4% of all G3 currency bonds issued in the region were from Thailand, comprising USD4.7 billion worth of bonds denominated in US dollars and USD0.5 billion in euros. Kasikornbank issued a USD500.0 million callable perpetual bond for general corporate purposes. During the same week as Kasikornbank's issuance, the Export–Import Bank of Thailand issued a USD350.0 million 5-year bond for general financing purposes.

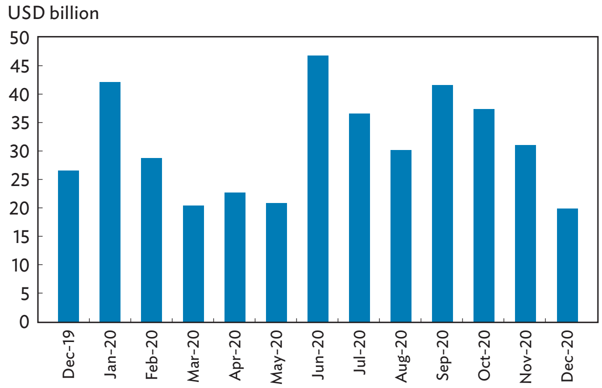
In 2020, Cambodia issued USD0.4 billion worth of G3 currency bonds, contributing a 0.1% share of such bonds issued in the region during the review period.

Viet Nam accounted for 0.02% of all G3 currency issuance in emerging East Asia in 2020 with USD-denominated bonds worth USD80.0 million. Urban infrastructure developer Phu My Hung Development Corporation was the sole issuer in Viet Nam in 2020 with its 5-year, floating-rate note.

Figure 6 presents monthly G3 currency issuance in emerging East Asia from December 2019 to December 2020. G3 issuance declined in Q4 2020 as bond issuance activities from big issuers like the PRC, Indonesia, and the Republic of Korea declined during the quarter. Q4 2020, however, saw the issuance of numerous long-term tenors, with maturities ranging from 10 years to 50 years and some issues of perpetuals.

[7] ASEAN comprises Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

Figure 6: G3 Currency Bond Issuance in Emerging East Asia



USD = United States dollar.
Notes:
1. Emerging East Asia comprises Cambodia; the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or US dollars.
3. Figures were computed based on 31 December 2020 currency exchange rates and do not include currency effects.

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

In 2020, Industrial and Commercial Bank of China issued the largest G3 currency bond with a USD2.9 billion perpetual USD-denominated bond issued in September. As the COVID-19 pandemic affected global financial markets, the March–May period saw the least G3 currency bond issuance in emerging East Asia. Issuances of G3 currency bonds picked up during the second half of 2020 as global financial market sentiment improved.

Government Bond Yield Curves

Local currency government bond yields rose at the longer-end of the curve for most emerging East Asian economies on the back of improved investor sentiment over the global economic recovery.

In Q4 2020, the outlook for the global economy largely improved as economies started easing quarantine measures and several drug makers released positive clinical trial results for their respective COVID-19 vaccines. The advent of the clinical trial results also allowed several economies to begin vaccination measures.

While there was some economic weakness in Q4 2020, central banks, particularly in advanced economies, noted that the weaknesses were expected to be transitory and the economic growth outlook was much improved, leading to an upgrade in economic forecasts.

In the US, economic growth tapered in Q4 2020, with GDP growing at annual rate of 4.1% versus 33.4% in Q3 2020. However, other economic data showed improvements with nonfarm payrolls improving in January, with additions of 166,000 following a decline of 306,000 in December 2020. In February, nonfarm payrolls further improved, increasing 379,000. The unemployment rate fell to 6.2% in February, from 6.3% and 6.7% in January and December, respectively. Retail sales also gained 7.6% month-on-month after falling 1.0% month-on-month in December.

In addition, the US Federal Reserve upgraded its economic projection in December from the previous September forecast, raising its 2021 GDP growth forecast to 4.2% from 4.0% and its 2022 forecast to 3.2% from 3.0%, The Federal Reserve also left its monetary policy unchanged during both its 15–16 December and 26–27 January meetings.

The European Central Bank (ECB), during its 10 December meeting, left its key policy rates unchanged but raised its pandemic emergency monthly purchase program by EUR500 billion to EUR1,850 billion and extended the duration to March 2022 from June 2021. The euro area's GDP declined 4.9% y-o-y in Q4 2020 after a decline of 4.2% y-o-y in Q3 2020. Unlike the US, the ECB downgraded its GDP forecasts in December from those in September. The 2021 GDP growth forecast was adjusted to 3.9% in 2021 from 5.0%. The 2022 GDP forecast was adjusted to 4.2% from 3.2%. However, the ECB said that it is somewhat optimistic that the medium-term outlook would improve over the ongoing vaccination programs in the region.

The Bank of Japan largely left monetary policy unchanged during its 17 December meeting but adjusted the duration of its purchase program for commercial paper and corporate bonds by 6 months to the end of September 2021. Japan also had positive annualized GDP growth in Q4 2020 of 11.7% after a 22.8% gain in the third quarter. Likewise, the Bank of Japan upgraded the 2021 GDP forecast to 3.9% in from 3.6% and the 2022 forecast to 1.8% from 1.6%.

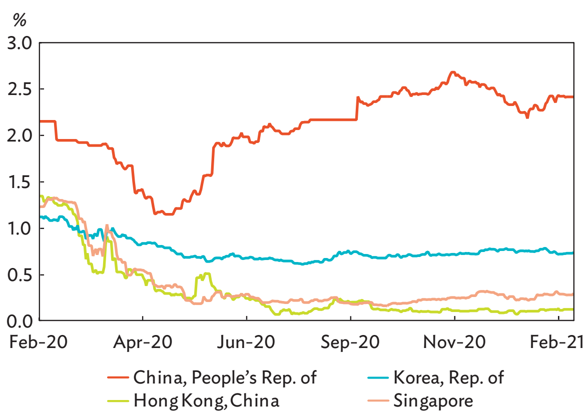
The improving outlook for the global economy also pushed yields upward in emerging East Asia between

31 December and 15 February. For the 2-year maturities, yields rose for most economies in emerging East Asia with the exception of the Republic of Korea (**Figure 7a**). The steepest increase in the 2-year yield was in Indonesia (**Figure 7b**). After consistent declines for most of 2020, the 2-year yields spiked in Indonesia at the start of 2021.

In the same period, 10-year yields also showed a similar pattern, but with much steeper increases for most emerging East Asian markets. Unlike its 2-year yield, the Republic of Korea's 10-year yield trended upward (**Figure 8a**). While Indonesia's 10-year yield rose, the gain was not as steep compared to the 2-year yield (**Figure 8b**). Viet Nam was the sole exception to the rise in 10-year yields, as it trended downward on strong market demand.

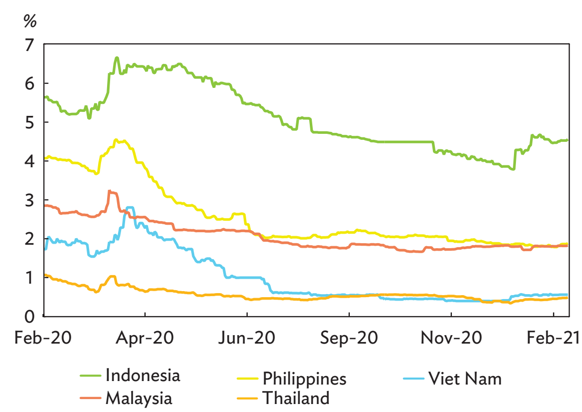
The improved economic outlook also led to a steepening of yield curves in emerging East Asia between 31 December and 15 February (**Figure 9**). Yields shifted upwards for all tenors in Hong Kong, China and Thailand, and for all but a few tenors in the PRC, Indonesia, and Malaysia. In some economies, there were declines in shorter-term yields but a rise in longer-term yields. This

Figure 7a: 2-Year Local Currency Government Bond Yields



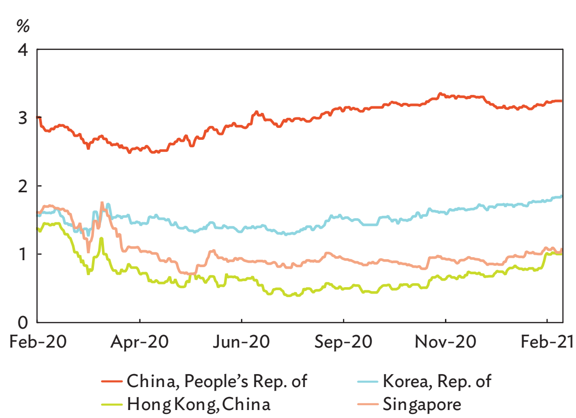
Note: Data as of 15 February 2021.
Source: Based on data from Bloomberg LP.

Figure 7b: 2-Year Local Currency Government Bond Yields



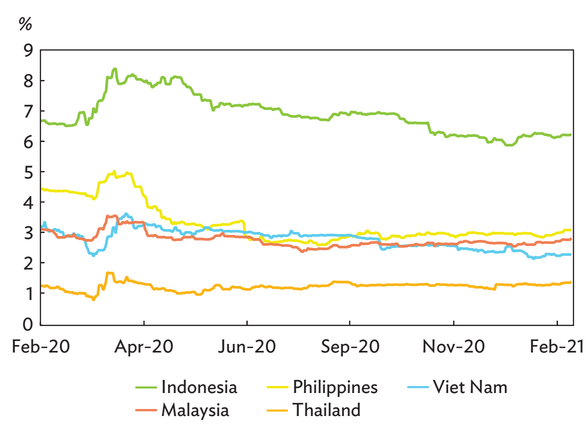
Note: Data as of 15 February 2021.
Source: Based on data from Bloomberg LP.

Figure 8a: 10-Year Local Currency Government Bond Yields



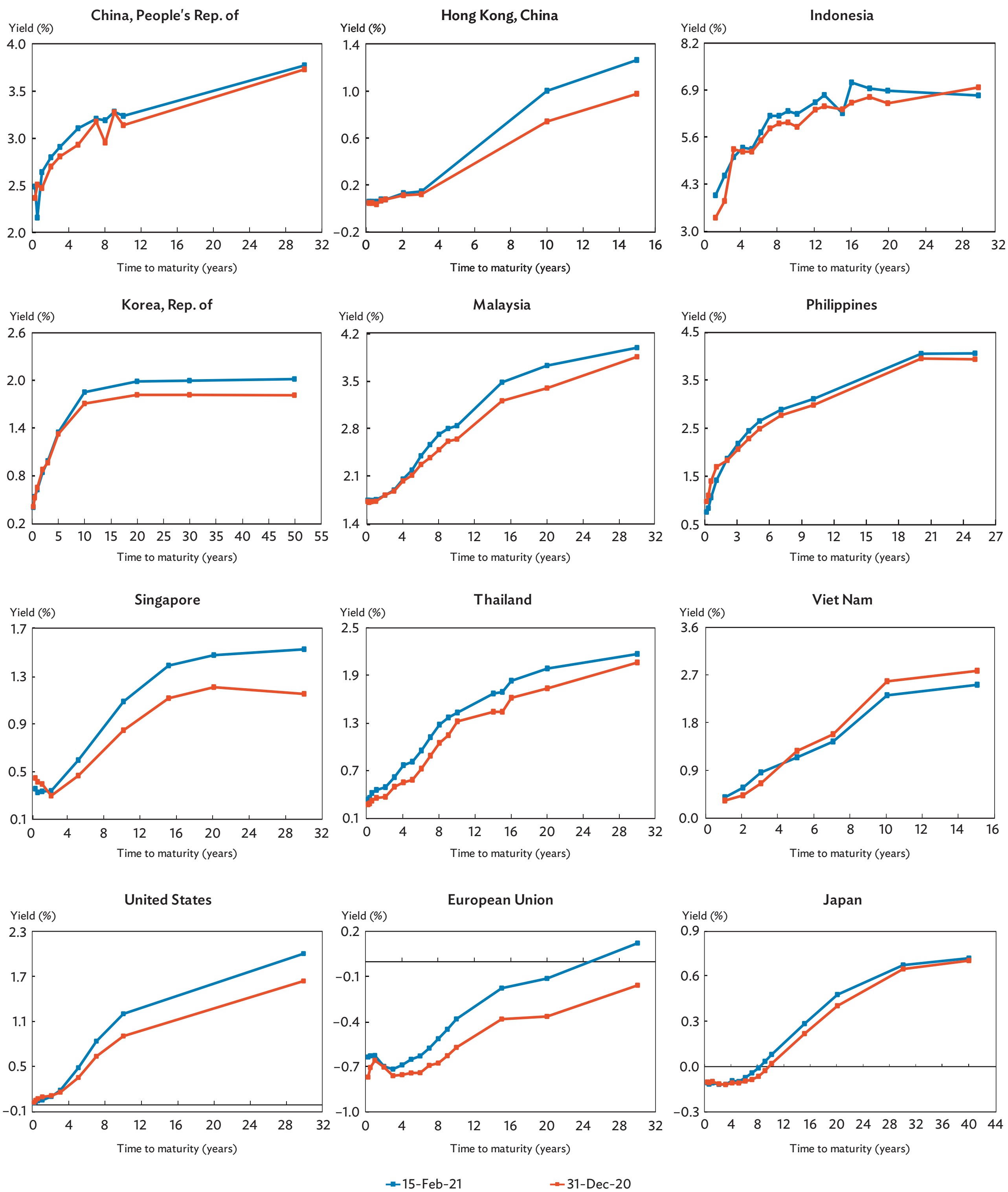
Note: Data as of 15 February 2021.
Source: Based on data from Bloomberg LP.

Figure 8b: 10-Year Local Currency Government Bond Yields



Note: Data as of 15 February 2021.
Source: Based on data from Bloomberg LP.

Figure 9: Benchmark Yield Curves—Local Currency Government Bonds



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

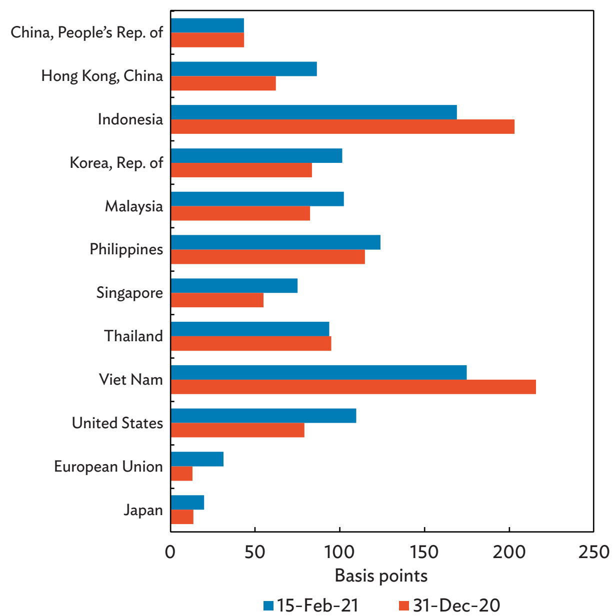
was the case in the Republic of Korea, the Philippines, and Singapore. Only Viet Nam was the exception, as its yield curve shifted upward at the shorter-end but downward at the longer-end. Rising global inflationary concerns due to past stimulus measures, however, may place further pressure on yields.

The 2-year versus 10-year yield spread widened for nearly all markets during the review period except in the PRC, where it was unchanged, and in Indonesia, Thailand, and Viet Nam, where it narrowed (**Figure 10**).

Nearly all emerging East Asian economies posted negative y-o-y growth rates in Q4 2020. The two exceptions were the PRC, which posted its third straight quarter of positive GDP growth, and Viet Nam, which had positive quarterly GDP growth rates throughout 2020. While the remaining markets posted negative y-o-y GDP growth rates in Q4 2020, consistent with the improving economic outlook and easing of quarantine measures, GDP mostly declined at a smaller y-o-y pace compared to the previous quarter. The exceptions were the Republic of Korea, which posted a 1.4% y-o-y decline in Q4 2020 after a 1.1% y-o-y decline in Q3 2020, and Malaysia, which posted a 3.4% y-o-y decline following a 2.6% y-o-y decline in the same period.

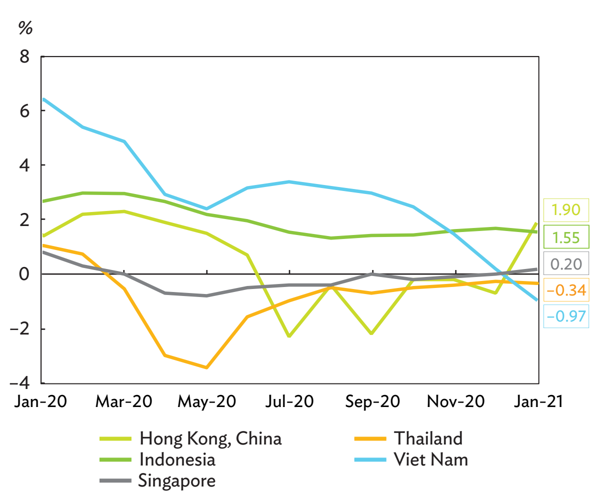
Inflation rates continued to be subdued in emerging East Asia in 2020 due to the economic downturn, with a number of economies having negative inflation rates. Despite positive economic growth, Viet Nam slipped into deflation in January with an inflation rate of −1.0% (**Figure 11a**). Indonesia's inflation rate continues to be stable, alongside the inflation rate of the Republic

Figure 10: Yield Spreads between 2-Year and 10-Year Government Bonds



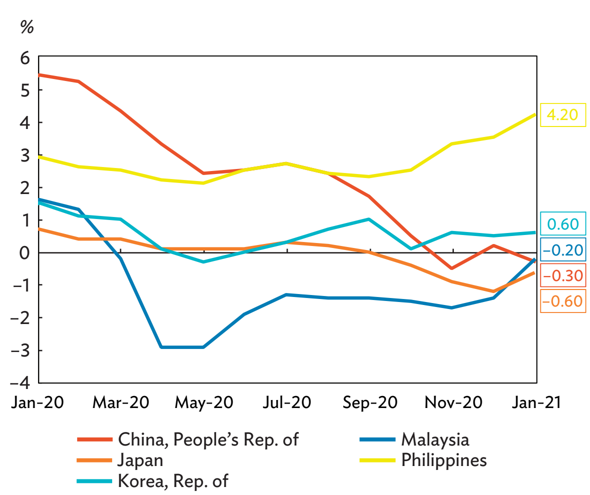
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

Figure 11a: Headline Inflation Rates



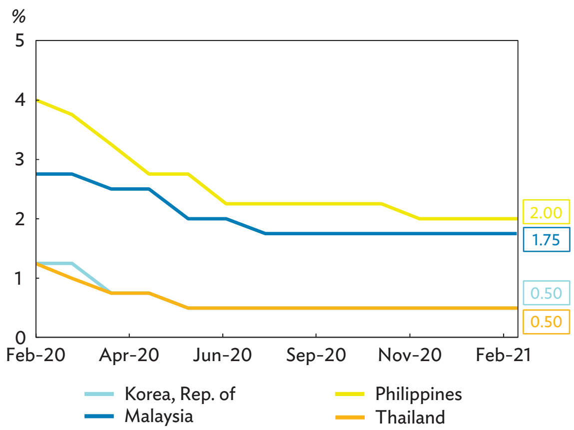
Note: Data as of 31 January 2021.
Source: Based on data from Bloomberg LP.

Figure 11b: Headline Inflation Rates



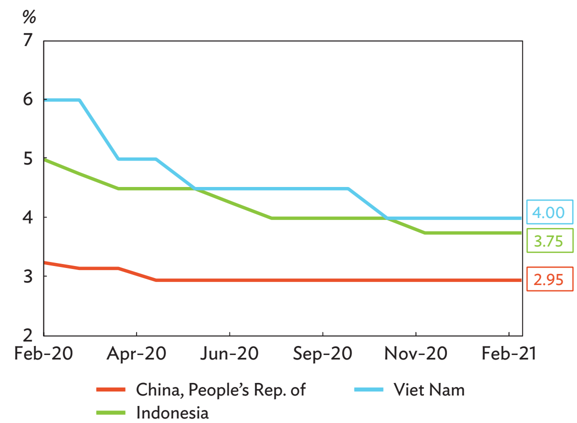
Note: Data as of 31 January 2021.
Source: Based on data from Bloomberg LP.

Figure 12a: Policy Rates



Note: Data as of 15 February 2021.
Source: Based on data from Bloomberg LP.

Figure 12b: Policy Rates



Notes:
1. Data as of 15 February 2021.
2. For the People's Republic of China, data used in the chart is the 1-year medium-term lending facility rate. While the 1-year benchmark lending rate is the official policy rate of the People's Bank of China, market players use the 1-year medium-term lending facility rate as a guide for the monetary policy direction of the People's Bank of China.

Source: Based on data from Bloomberg LP.

of Korea. Only the Philippines showed a sharp rise in inflation due to supply side issues (**Figure 11b**).

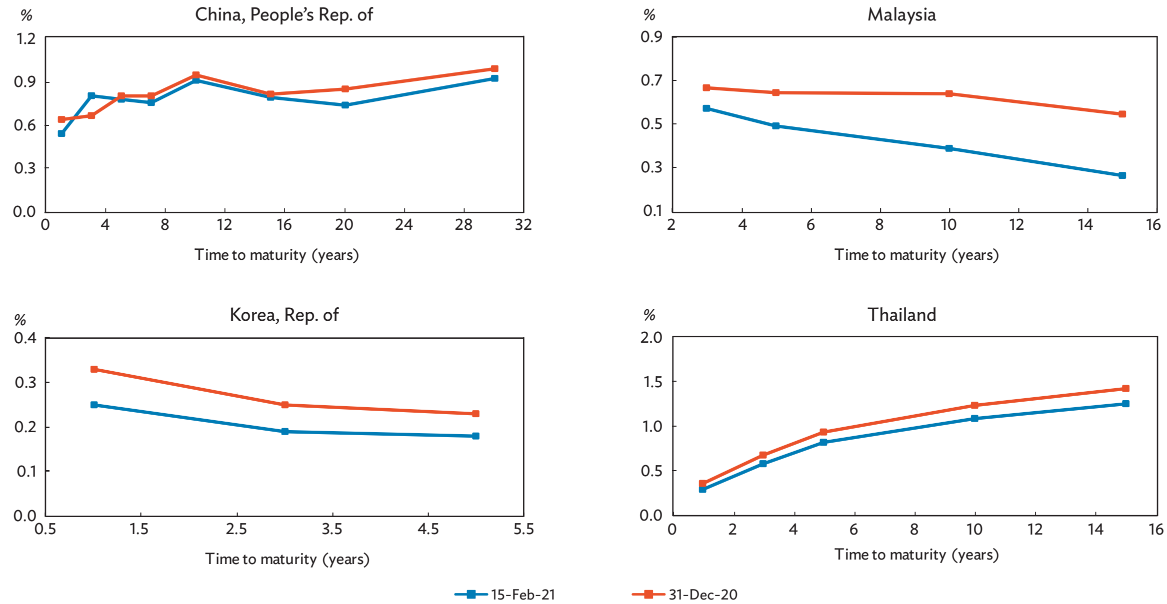
After having eased policy rates in the early part of 2020, all emerging East Asian central banks opted to leave monetary policy rates unchanged during the review period in order to assess the impact of previous monetary easing and given the improved economic outlook (**Figures 12a** and **12b**). However, Bank Indonesia on 18 February, reduced its policy rate by 25 basis points to support economic growth, and it downgraded its forecast for 2021 domestic growth to a range of 4.3%–5.3% from 4.8%–5.8%. Central banks in the region, however, may tighten monetary policy moving forward should inflation rise this year. In addition, the US recently passed a USD1.9 trillion stimulus bill, which could lead to a rise in US interest rates and subsequent tightening by the Federal Reserve. Other central banks might also follow to maintain parity and to avoid capital outflows.

Corporate spread fell on improved economic outlook.

The AAA-rated corporate versus government yield spread fell in all markets for which data are available between 31 December and 15 February on the back of improving investor optimism as confidence in the global economy grew (**Figure 13a**).

For lower-rated corporate bonds, the spreads were largely unchanged in the Republic of Korea and Thailand, but declined in the PRC and Malaysia (**Figure 13b**).

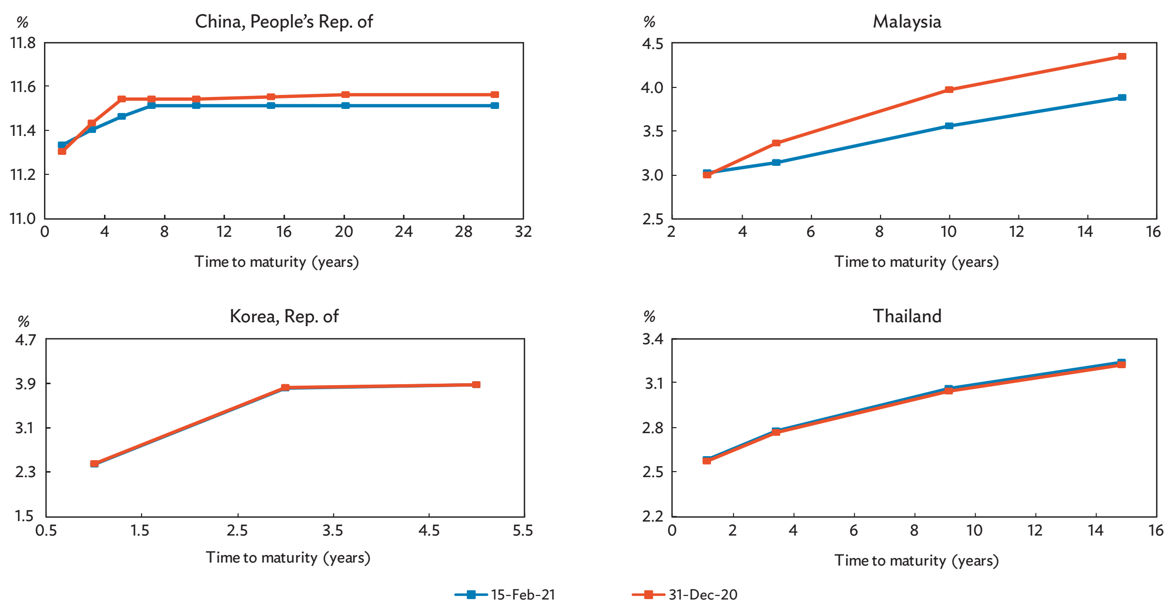
Figure 13a: Credit Spreads—Local Currency Corporates Rated AAA vs. Government Bonds



Notes:
1. Credit spreads are obtained by subtracting government yields from corporate indicative yields.
2. For the Republic of Korea, data on corporate bond yields are as of 24 December 2020 and 10 February 2021.
3. For Malaysia, data on corporate bonds yields are as of 31 December 2020 and 11 February 2021.

Sources: People's Republic of China (Bloomberg LP); Republic of Korea (KG Zeroin Corporation); Malaysia (Fully Automated System for Issuing/Tendering Bank Negara Malaysia); and Thailand (Bloomberg, LP).

Figure 13b: Credit Spreads—Lower-Rated Local Currency Corporates vs. AAA



Notes:
1. Credit spreads are obtained by subtracting government yields from corporate indicative yields.
2. For the Republic of Korea, data on corporate bond yields are as of 24 December 2020 and 10 February 2021.
3. For Malaysia, data on corporate bonds yields are as of 31 December 2020 and 11 February 2021.

Sources: People's Republic of China (Bloomberg LP); Republic of Korea (KG Zeroin Corporation); Malaysia (Fully Automated System for Issuing/Tendering Bank Negara Malaysia); and Thailand (Bloomberg, LP).