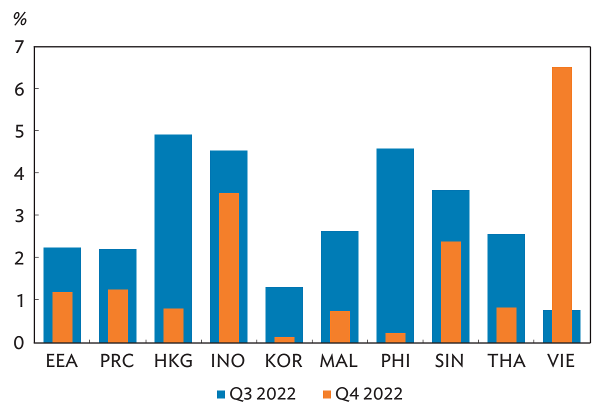
Bond Market Developments in the Fourth Quarter of 2022

Size and Composition

The local currency bond market in emerging East Asia reached a size of USD23.2 trillion at the end of December.

Emerging East Asia's local currency bond market (LCY) expanded at a slower pace in the fourth quarter (Q4) of 2022 than in the previous quarter (**Figure 1a**).[6] The region's LCY bond market totaled USD23.2 trillion at the end of December, with growth easing to 1.2% quarter-on-quarter (q-o-q) in Q4 2022 from 2.3% q-o-q in the third quarter (Q3). All markets except that of Viet Nam recorded a slowdown in growth in Q4 2022 compared with the previous quarter. Growth in government bonds outstanding in Q4 2022 was capped by a decline in issuance as most of the regions' governments had fulfilled their borrowing requirements earlier in the year. Meanwhile, corporate bond issuance contracted amid elevated borrowing costs due to monetary policy tightening by most of the region's central banks and bond default concerns in the People's Republic of China (PRC) and Viet Nam, particularly in the property sector in both economies.

Figure 1a: Growth of Select Emerging East Asian Local Currency Bond Markets in the Third and Fourth Quarters of 2022 (q-o-q, %)



EEA = emerging East Asia; HKG = Hong Kong, China; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PHI = Philippines; PRC = People's Republic of China; q-o-q = quarter-on-quarter; Q3 = third quarter; Q4 = fourth quarter; SIN = Singapore; THA = Thailand; VIE = Viet Nam.

Notes:

1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
2. Growth rates are calculated from a local currency base and do not include currency effects.
3. Emerging East Asia growth figures are based on 31 December 2022 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (CEIC Data Company); 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 (KG Zeroin Corporation and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore and Bloomberg LP); Thailand (Bank of Thailand); and Viet Nam (Bloomberg LP and Vietnam Bond Market Association).

Annual growth of outstanding LCY bonds in emerging East Asia moderated to 9.9% in Q4 2022 from 12.5% in the preceding quarter. All nine markets posted positive but weaker annual growth in Q4 2022 compared with Q3 2022 (**Figure 1b**). The markets of Viet Nam and the Philippines had the fastest year-on-year (y-o-y) growth rates in Q4 2022.

The LCY bond market of the PRC continued to be the largest in the region, reaching a size of USD18.5 trillion at the end of December. Its share of the region's LCY bond market was steady at 79.5% in both Q3 and Q4 2022. The PRC's LCY bond market growth eased to 1.3% q-o-q in Q4 2022 amid a slowdown in the government bond segment and a contraction in the corporate bond segment. The government continued to issue sovereign debt to finance stimulus measures and to roll over existing debt, albeit at a slower pace compared to prior quarters following the completion of local government bond quotas. Growth in government bonds in Q4 2022 stemmed from expansions in Treasury bonds and other government bonds (3.5% q-o-q), policy bank bonds (2.1% q-o-q), and local government bonds (1.1% q-o-q). On the other hand, the corporate bond market contracted 0.3% q-o-q, amid worsening property market debt distress.

The region's second-largest LCY bond market was that of the Republic of Korea, with an outstanding bond stock of USD2.3 trillion at the end of December. Its share of the

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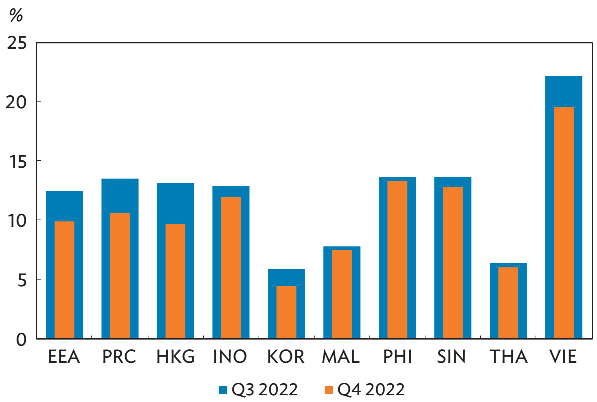
6 Emerging East Asia is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; and the Republic of Korea.

Figure 1b: Growth of Select Emerging East Asian Local Currency Bond Markets in the Third and Fourth Quarters of 2022 (y-o-y, %)



EEA = emerging East Asia; HKG = Hong Kong, China; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PHI = Philippines; PRC = People's Republic of China; Q3 = third quarter; Q4 = fourth quarter; SIN = Singapore; THA = Thailand; VIE = Viet Nam; y-o-y = year-on-year.

Notes:

1. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.
2. Growth rates are calculated from a local currency base and do not include currency effects.
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region's total outstanding LCY bonds stood at 10.1% at the end of Q4 2022. Overall growth in the Republic of Korea's LCY bonds was marginal at 0.1% q-o-q in Q4 2022 as the government bond segment contracted, while growth in the corporate bond segment eased. The government bond market contracted 0.3% q-o-q in Q4 2022, largely due to a high volume of maturities. The LCY corporate bond market inched up by only 0.4% q-o-q in Q4 2022 amid rising borrowing costs. To combat inflation, the Bank of Korea raised its policy rate by 50 basis points (bps) in October and 25 bps in November.

Hong Kong, China's LCY bond market reached a size of USD355.1 billion at the end of December, with overall growth moderating to 0.8% q-o-q and 9.7% y-o-y in Q4 2022. Growth eased for both the government and corporate bond segments. Quarterly expansion in outstanding Exchange Fund Bills picked up, while the stock of Exchange Fund Notes continued to contract. Meanwhile, quarterly growth in outstanding Hong Kong Special Administrative Region bonds and corporate bonds moderated.

Total LCY bonds outstanding of the members of the Association of Southeast Asian Nations (ASEAN) reached USD2,058.4 billion at the end of December.[7] Overall growth in the region's LCY bond market dropped to 1.9% q-o-q in Q4 2022 from 3.3% q-o-q in the previous quarter, as all markets posted weaker q-o-q growth in Q4 2022 except for Viet Nam. ASEAN members' share of emerging East Asia's total LCY bond market inched up to 8.9% in Q4 2022 from 8.8% in Q3 2022. The LCY bond markets of Singapore and Thailand were the region's largest, while Viet Nam remained the region's smallest.

Singapore's LCY bond stock totaled USD494.0 billion at the end of December, with growth moderating to 2.4% q-o-q in Q4 2022 from 3.6% q-o-q in the previous quarter. This was primarily driven by slower growth in the government bond segment as expansions in Singapore Government Securities and Monetary Authority of Singapore bills moderated. Meanwhile, the LCY corporate bond market expanded 1.2% q-o-q in Q4 2022, after a nominal contraction in Q3 2022.

Thailand's LCY bond market reached a size of USD451.5 billion at the end of December after rising a marginal 0.8% q-o-q in Q4 2022 due to weaker expansions in both the government and corporate bond segments. Government bonds and Treasury bills, as well as state-owned enterprise bonds and other bonds, posted weaker growth in Q4 2022 than in the previous quarter, while the stock of Bank of Thailand bonds continued to contract. The Government of Thailand issued THB30.0 billion (USD0.9 billion) of sustainability bonds in December. Meanwhile, growth in the LCY corporate bond market eased to 1.4% q-o-q in Q4 2022 from 3.4% q-o-q in the previous quarter.

Malaysia's LCY bond stock totaled USD423.9 billion at the end of December, with growth moderating to 0.8% q-o-q in Q4 2022 from 2.6% q-o-q in the preceding quarter. The weaker growth was due to a slowdown in

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

both the government and corporate bond segments. Growth in government bonds stemmed primarily from central government bonds, which comprised 99.0% of total government bonds at the end of December.

Malaysia's *sukuk* (Islamic bond) market, which is the largest in emerging East Asia, totaled USD268.4 billion at the end of December. Government *sukuk* amounted to USD114.2 billion, comprising 47.8% of the total LCY government bond market. Corporate *sukuk* totaled USD154.2 billion, representing 83.3% of Malaysia's LCY corporate bond market.

The LCY bond market of Indonesia reached a size of USD382.2 billion at the end of December, with overall growth decelerating to 3.5% q-o-q in Q4 2022 from 4.5% q-o-q in Q3 2022. Growth in central government bonds, which account for the largest share of government bonds, eased to 4.1% q-o-q in Q4 2022 from 5.2% q-o-q in Q3 2022 on reduced issuance as the government had fulfilled most of its financing requirements in earlier quarters. The corporate bond market contracted 2.7% q-o-q, largely due to rising borrowing costs as Bank Indonesia hiked its policy rate—in October, November, and December by a total of 125 bps—to temper inflation.

Indonesia's *sukuk* market totaled USD68.4 billion at the end of December, on growth of 3.0% q-o-q. *Sukuk* outstanding represented 18.6% of Indonesia's LCY bond market. Government *sukuk* totaled USD68.4 billion at the end of December, comprising 19.3% of the LCY government bond market. Corporate *sukuk* amounted to USD2.7 billion, representing 9.4% of the LCY corporate bond market.

At the end of December, the Philippines' outstanding LCY bond stock totaled USD200.9 billion, with growth decelerating to 0.2% q-o-q in Q4 2022, driven by a contraction in the government bond segment coupled with a weaker expansion in the corporate bond segment. Government bonds outstanding declined 0.4% q-o-q in Q4 2022, due primarily to a large volume of maturities in Treasury bills and other government bonds. Meanwhile, growth in corporate bonds outstanding moderated to 4.4% q-o-q in Q4 2022 on continued policy rate hikes by the Bangko Sentral ng Pilipinas (BSP) to address persistent inflation.

Viet Nam's LCY bond market remained the smallest in emerging East Asia, with an outstanding bond stock of USD105.7 billion at the end of December. Growth in Viet Nam's LCY bond market accelerated to 6.5% q-o-q in Q4 2022 from 0.8% q-o-q in the previous quarter, driven primarily by a rebound in the government bond segment. The stock of LCY government bonds jumped 9.9% q-o-q in Q4 2022, reversing a 1.7% q-o-q contraction in the previous quarter. Expansions in Treasury bonds, State Bank of Vietnam bills, and government-guaranteed and municipal bonds supported growth in the government bond segment. Meanwhile, the corporate bond market posted a 0.9% q-o-q decline in Q4 2022 amid a credit crunch. In September, the Government of Viet Nam issued Decree 65, tightening regulation on the offering and trading of privately issued bonds. As a majority of corporate bonds in Viet Nam are issued via private placement, Decree 65 capped issuance of bonds, leading to a decline in the corporate bond stock during the quarter. Issuers faced difficulties in issuing bonds or refinancing maturing obligations, as government investigations in the corporate bond market raised concerns over high-risk issuers, particularly in the real estate sector. The spillover of negative sentiment affected other sectors, tightening funding channels even for investment grade issuers.

Emerging East Asia's LCY bond market continued to be dominated by government bonds. The region's aggregate LCY government bond stock totaled USD14.8 trillion at the end of December, accounting for 63.9% of the region's total LCY bond stock (**Table 1**). Growth in the region's government bonds eased to 1.9% q-o-q in Q4 2022 from 2.8% q-o-q in Q3 2022. Except for the Philippines and the Republic of Korea, all of the region's LCY government bond markets posted positive q-o-q growth in Q4 2022.

With outstanding LCY government bonds amounting to USD12.1 trillion, the PRC's government bond market remained the largest in the region, comprising 81.8% of the region's LCY government bond stock at the end of Q4 2022. The Republic of Korea's LCY government bond market was the region's second-largest government bond market at USD1.0 trillion. ASEAN economies' aggregate LCY government bonds totaled USD1.5 trillion at the end of December, representing 10.3% of emerging East Asia's total LCY government bond market. Among ASEAN economies, Singapore had the largest government bond market, while Viet Nam had the smallest.

Table 1: Size and Composition of Select Emerging East Asian Local Currency Bond Markets

	Q4 2021		Q3 2022		Q4 2022		Growth Rate (LCY-base %)				Growth Rate (USD-base %)			
							Q4 2021		Q4 2022		Q4 2021		Q4 2022	
	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	18,117	100.0	17,676	100.0	18,463	100.0	3.9	13.6	1.3	10.6	5.4	16.6	4.5	1.9
Government	11,701	64.6	11,512	65.1	12,125	65.7	4.5	14.2	2.1	12.5	6.0	17.3	5.3	3.6
Corporate	6,416	35.4	6,164	34.9	6,338	34.3	2.9	12.4	(0.3)	7.2	4.4	15.4	2.8	(1.2)
Hong Kong, China														
Total	324	100.0	350	100.0	355	100.0	4.0	5.0	0.8	9.7	3.8	4.4	1.4	9.7
Government	169	52.2	183	52.1	185	52.2	5.2	11.2	0.9	9.8	5.0	10.5	1.6	9.7
Corporate	155	47.8	168	47.9	170	47.8	2.7	(1.0)	0.7	9.6	2.6	(1.5)	1.3	9.5
Indonesia														
Total	373	100.0	377	100.0	382	100.0	4.4	17.7	3.5	12.0	4.9	16.0	1.3	2.5
Government	343	91.9	347	92.0	354	92.5	4.6	19.4	4.1	12.7	5.1	17.7	1.8	3.2
Corporate	30	8.1	30	8.0	29	7.5	2.0	1.1	(2.7)	3.5	2.4	(0.4)	(4.8)	(5.3)
Korea, Rep. of														
Total	2,390	100.0	2,071	100.0	2,346	100.0	1.5	7.9	0.1	4.5	1.1	(1.4)	13.2	(1.9)
Government	995	41.6	883	42.6	996	42.5	0.2	9.6	(0.3)	6.6	(0.2)	0.1	12.8	0.1
Corporate	1,396	58.4	1,188	57.4	1,350	57.5	2.4	6.8	0.4	2.9	2.0	(2.4)	13.6	(3.3)
Malaysia														
Total	417	100.0	400	100.0	424	100.0	1.0	8.2	0.8	7.5	1.5	4.4	6.1	1.7
Government	228	54.7	226	56.6	239	56.3	1.2	11.4	0.2	10.7	1.7	7.5	5.5	4.7
Corporate	189	45.3	173	43.4	185	43.7	0.8	4.6	1.4	3.7	1.3	1.0	6.8	(1.9)
Philippines														
Total	194	100.0	190	100.0	201	100.0	0.5	14.8	0.2	13.3	0.5	8.2	5.5	3.7
Government	164	84.7	164	86.3	172	85.7	0.5	20.3	(0.4)	14.7	0.5	13.3	4.8	4.9
Corporate	30	15.3	26	13.7	29	14.3	0.6	(8.1)	4.4	5.8	0.6	(13.4)	9.9	(3.2)
Singapore														
Total	435	100.0	450	100.0	494	100.0	3.2	17.9	2.4	12.8	3.8	15.5	9.7	13.6
Government	305	70.2	327	72.6	360	72.9	4.1	24.9	2.9	17.2	4.8	22.4	10.2	18.1
Corporate	130	29.8	124	27.4	134	27.1	1.0	4.2	1.2	2.5	1.7	2.1	8.4	3.2
Thailand														
Total	441	100.0	411	100.0	452	100.0	1.1	5.8	0.8	6.1	44.0	58.7	9.9	2.4
Government	321	72.8	294	71.7	323	71.5	1.6	4.7	0.6	4.2	41.9	54.2	9.7	0.6
Corporate	120	27.2	116	28.3	129	28.5	0.01	8.6	1.4	11.0	49.7	71.9	10.6	7.2
Viet Nam														
Total	92	100.0	98	100.0	106	100.0	8.8	25.5	6.5	19.6	8.5	27.0	7.5	15.5
Government	65	71.3	67	68.6	75	70.8	4.3	8.0	9.9	18.7	4.0	9.3	11.0	14.7
Corporate	26	28.7	31	31.4	31	29.2	21.9	110.0	(0.9)	21.8	21.6	112.5	0.04	17.6
Emerging East Asia														
Total	22,782	100.0	22,024	100.0	23,222	100.0	3.5	12.7	1.2	9.9	5.3	14.5	5.4	1.9
Government	14,290	62.7	14,004	63.6	14,828	63.9	4.0	13.9	1.9	12.0	5.9	16.3	5.9	3.8
Corporate	8,492	37.3	8,020	36.4	8,394	36.1	2.8	10.8	(0.08)	6.5	4.3	11.6	4.7	(1.2)
Japan														
Total	11,338	100.0	9,084	100.0	10,154	100.0	2.6	4.3	1.3	2.0	(0.8)	(6.4)	11.8	(10.4)
Government	10,515	92.7	8,417	92.7	9,406	92.6	2.6	4.2	1.2	1.9	(0.8)	(6.5)	11.7	(10.5)
Corporate	823	7.3	667	7.3	748	7.4	2.9	6.0	1.7	3.5	(0.5)	(4.9)	12.2	(9.1)

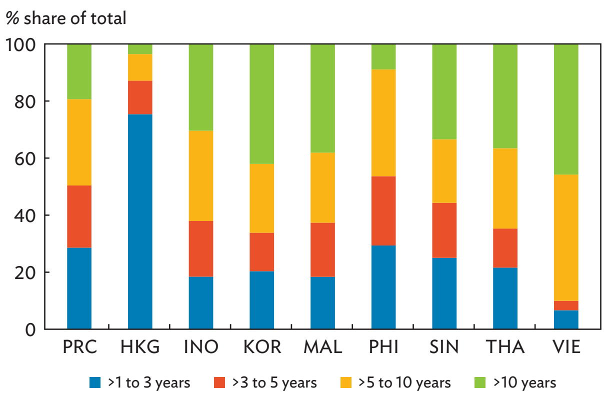
( ) = negative, LCY = local currency, q-o-q = quarter-on-quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar, y-o-y = year-on-year.

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 2022 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (CEIC Data Company); 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 (KG Zeroin Corporation and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

Emerging East Asia's LCY government bond stock remained concentrated in medium- to long-term tenors (**Figure 2**). Government bonds with maturities longer than 5 years comprised 54.4% of the region's total government bond market at the end of Q4 2022, and the size-weighted tenor of outstanding LCY government bonds in the region was 9.1 years. In nearly all markets, at least half of government bonds had maturities longer than 5 years. The exceptions were Hong Kong, China, where 75.4% of government bonds had tenors of 1–3 years, due to strong market demand for short-term securities, and the Philippines, where 53.6% of government bonds had maturities of up to 5 years. Governments like Thailand, which have extended debt repayment period through bond switch operations, had government bond maturity profiles concentrated in longer tenors.

Figure 2: Maturity Structure of Local Currency Government Bonds Outstanding in Select Emerging East Asian Markets



HKG = Hong Kong, China; INO = Indonesia; KOR = Korea, Rep. of; MAL = Malaysia; PHI = Philippines; PRC = China, People's Rep. of; SIN = Singapore; THA = Thailand; VIE = Viet Nam.

Notes:
1. Government bonds include Treasury bills and bonds.
2. Data as of 31 December 2022.

Sources: People's Republic of China (Bloomberg LP); Hong Kong, China (Hong Kong Monetary Authority); Indonesia (Directorate General of Budget Financing and Risk Management, Ministry of Finance); Republic of Korea (Bloomberg LP); Malaysia (Bank Negara Malaysia Fully Automated System for Issuing/Tendering); Philippines (Bureau of the Treasury); Singapore (Monetary Authority of Singapore); Thailand (Bank of Thailand); and Viet Nam (Bloomberg LP).

The LCY corporate bond market in emerging East Asia reached a size of USD8.4 trillion at the end of December, comprising 36.1% of the region's LCY bond stock. Emerging East Asia's LCY corporate bond market contracted 0.1% q-o-q in Q4 2022, reversing the 1.3% q-o-q expansion posted in the previous quarter. The contraction in the PRC's corporate bond market—the region's largest—drove the overall decline in the region's corporate bond stock. In addition, the corporate bond markets of Indonesia and Viet Nam also recorded quarterly contractions in Q4 2022. The rest of the region's corporate bond markets except for Singapore experienced weaker growth in Q4 2022 than in the prior quarter.

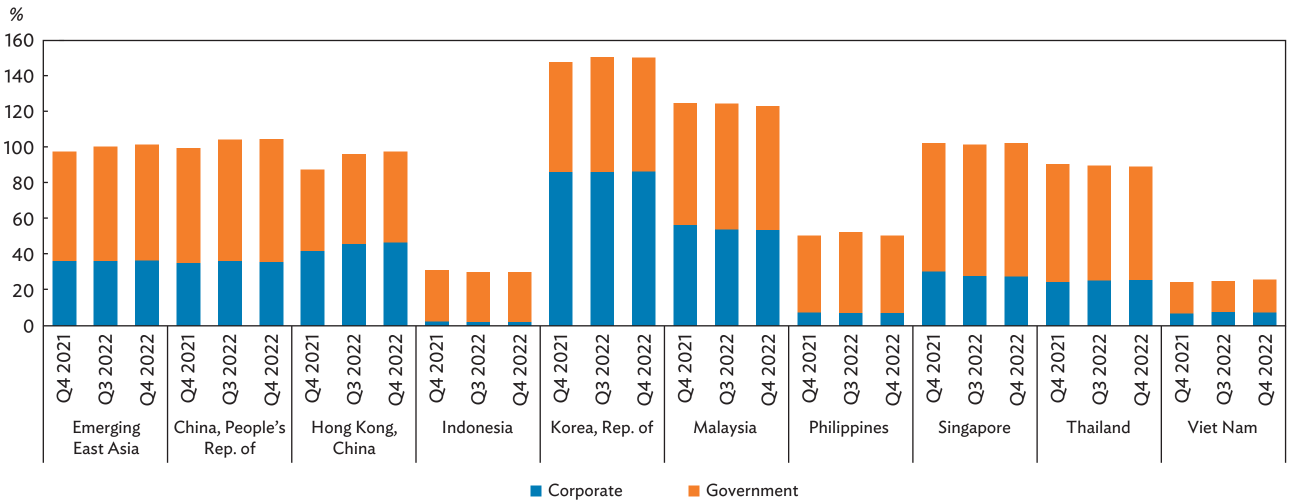
The combined shares of the PRC and the Republic of Korea represented over 90.0% of the region's corporate bond market at the end of December. ASEAN member economies' aggregate corporate bond stock comprised 6.4% of the region's total corporate bond market. Within ASEAN, Malaysia had the largest corporate bond market at the end of December, while Indonesia and the Philippines were home to the smallest corporate bond market in the region.

The ratio of emerging East Asia's bond market to the region's gross domestic product (GDP) slightly rose to 101.7% in Q4 2022 from 101.0% in Q3 2022 (**Figure 3**), as the outstanding size of all bond markets in the region posted q-o-q increases. In addition, the 5.4% q-o-q increase in the regional bond market's size (in United States dollar terms) was higher than the region's GDP growth rate of 4.7% q-o-q. The region's government bond market as a share of GDP rose to 64.9% in Q4 2022 from 64.2% in Q3 2022, while that of the region's corporate bond market was almost at par with the previous quarter at 36.8%.

Five out of nine economies in the region posted higher total bonds to GDP shares in Q4 2022 than the previous quarter. The bond markets that posted lower ratios include the Republic of Korea, Malaysia, the Philippines, and Thailand, as their q-o-q GDP growth rates were higher than the quarterly increases in their respective bond markets. The Republic of Korea continued to have the highest share at 151.1%, followed by Malaysia and the PRC at 123.9% and 105.2%, respectively. In terms of q-o-q percentage points increase, Hong Kong, China posted the largest uptick of 1.3, followed by Singapore and Viet Nam with 0.9 each. Meanwhile, Indonesia (30.4%) and Viet Nam (26.3%) had the lowest bonds-to-GDP ratios in the region.

In Q4 2022, Singapore had the highest government bonds-to-GDP share at 75.0%, followed by Malaysia at 69.7% and the PRC at 69.1%, while Viet Nam had the lowest share at 18.6%. As for the corporate bond segment, the Republic of Korea (86.9%) and Malaysia (54.1%) had the highest shares, while Indonesia had the smallest share at 2.3%.

Figure 3: Size and Composition of Select Emerging East Asian Local Currency Bond Markets (share of GDP)



GDP = gross domestic product, Q3 = third quarter, Q4 = fourth quarter.

Notes:

1. Data for GDP is from CEIC.
2. For Singapore, corporate bonds outstanding are based on *AsianBondsOnline* estimates.

Sources: People's Republic of China (CEIC Data Company); 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 (KG Zeroin Corporation and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore and Bloomberg LP); Thailand (Bank of Thailand); and Viet Nam (Bloomberg LP and Vietnam Bond Market Association).

Foreign Bond Flows

Emerging East Asia posted net foreign inflows of USD1.9 billion in Q4 2022 as market sentiment improved.

The region posted net foreign inflows of USD1.9 billion in Q4 2022, a reversal from the USD5.6 billion of net outflows in the previous quarter. This was largely driven by net inflows in November and December. October registered net outflows of USD3.8 billion due to expectations that the Federal Reserve would maintain its aggressive monetary tightening as September US inflation was still higher than expected. Nearly all markets posted outflows during the month led by Indonesia and Malaysia.

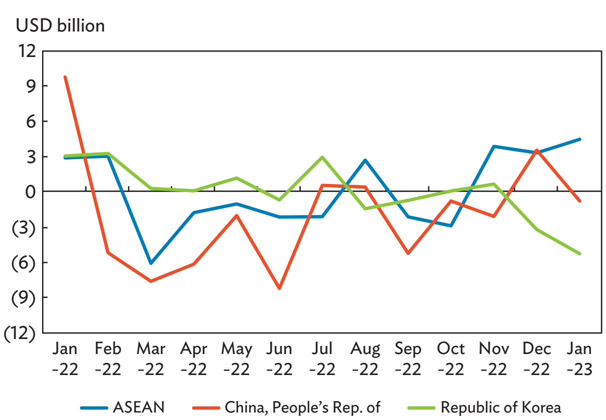
Global risk sentiment started to shift in November following the Federal Reserve's 1–2 November monetary policy meeting at which the possibility of the start in a slowdown in the pace of its rate hikes was indicated. This resulted in USD2.2 billion of net foreign inflows into the region's LCY government bond markets, largely driven by Indonesia and Thailand. In December, net foreign inflows to the region rose to USD3.5 billion following a smaller rate hike of 50 bps from the Federal Reserve at its 13–14 December monetary policy meeting, following a series of 75 bps hikes. Nearly all regional markets, led by the PRC, posted net inflows during the month. The easing of the "zero COVID" policy in the PRC and increased expectations of its reopening resulted in inflows into its government bond market. Moreover, this also drove inflows to other markets in the region due to their trade linkages with the PRC, providing support to regional economic growth. The only markets that registered outflows in December were the Republic of Korea, which was mostly due to a large volume of maturities, and Malaysia. In January, the region posted net foreign outflows of USD1.8 billion, largely driven by the USD5.3 billion of net outflows from the Republic of Korea. If excluding the Republic of Korea, net foreign inflows amounted to USD3.6 billion as foreign demand for the region's government bonds picked up in Q4 2022.

Thailand posted the largest quarterly net foreign inflows in the region in Q4 2022 at USD3.2 billion. This was driven by net inflows of USD2.1 billion and USD1.6 billion in November and December, respectively, largely offsetting the USD0.5 billion of outflows in October. Increased optimism on the reopening of the PRC, which is expected to result to increased trade and a boost to Thailand's tourism industry, drove the surge in foreign flows into the domestic bond market. In January, domestic bonds continued to register net foreign inflows, albeit at a lower volume of USD0.9 billion.

In Q4 2022, Indonesia posted its first quarterly net inflows for the year at USD2.1 billion, reversing net outflows of USD3.3 billion in the previous quarter. High domestic bond yields drove the USD1.6 billion and USD1.7 billion of net inflows in November and December, respectively, which offset the USD1.1 billion of net foreign outflows in October. Following a shift from its accommodative stance starting in August, Bank Indonesia continued with its monetary policy tightening in Q4 2022, delivering a total of 125 bps of rate hikes. Net foreign inflows rose further to USD3.3 billion in January 2023.

In the PRC, foreign investors continued to sell domestic government bonds in October and November, resulting in monthly net outflows of USD0.8 billion and USD2.2 billion, respectively (**Figure 4**). However, this shifted following announcements in mid-November that the government would ease its zero COVID policy

Figure 4: Foreign Capital Flows in Select Emerging East Asian Local Currency Bond Markets



( ) = negative, ASEAN = Association of Southeast Asian Nations, 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 are as of 31 January 2023.
3. Figures were computed based on 31 January 2023 exchange rates and do not include currency effects.

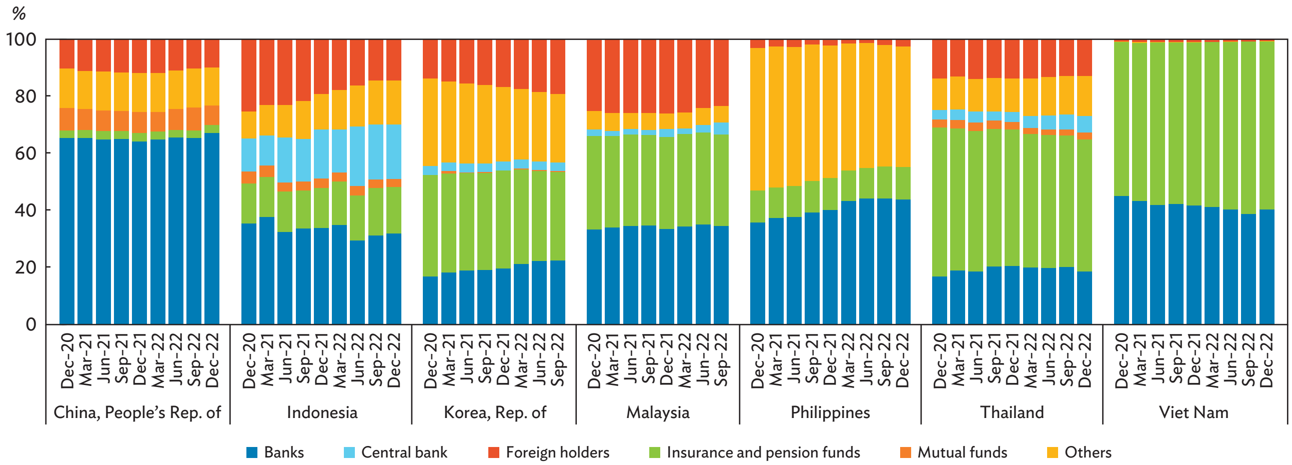
Sources: People's Republic of China (Bloomberg LP); Indonesia (Directorate General of Budget Financing and Risk Management, Ministry of Finance); Republic of Korea (Financial Supervisory Service); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury); and Thailand (Thai Bond Market Association).

and on increased expectations of its reopening. Rising domestic bond yields, narrowing negative interest rate differentials with US Treasuries, and the appreciation of the Chinese yuan together resulted in net inflows of USD3.5 billion in December. However, foreign buying reversed in January, with the PRC incurring USD0.8 billion of net foreign outflows. Investors anticipated the pace of the economy's reopening and the government's continued loose monetary policy, and domestic bond yields remained low relative to US Treasuries.

In the Republic of Korea, foreign demand remained muted in Q4 2022 due to the continued narrowing of interest rate differentials with US Treasuries in October, and as US Treasury yields surpassed domestic bond yields starting in November. The Bank of Korea continued its monetary policy tightening during the quarter but at a much slower pace compared to the Federal Reserve. The Bank of Korea is also projected to slow its rate hikes due to rising domestic credit market risks and expectations of a domestic economic slowdown. This resulted in marginal net inflows of USD0.01 billion and USD0.6 billion in October and November, respectively. In December, the Republic of Korea's LCY government bond market registered net outflows of USD3.3 billion. Aggregate net foreign outflows in Q4 2022 amounted to USD2.7 billion due to large maturities and expectations that January would be the end of the Bank of Korea's tightening cycle. In January, net outflows increased further to USD5.3 billion as foreign investors continued to offload domestic bonds, particularly those with tenors of less than 1 year. This was due to the continued decline in bond yields vis-à-vis rising US yields and market expectations of a possible rate cut this year in the Republic of Korea.

In Malaysia, foreign investors continued to sell domestic government bonds, posting quarterly net outflows of USD1.9 billion in Q4 2022. As with the rest in the region, Malaysia incurred USD1.5 billion of outflows in October due to rising US Treasury yields. Bank Negara Malaysia only raised policy rates once during the quarter, by 25 bps in its November monetary policy meeting, which was much slower than the Federal Reserve's tightening. However, net foreign outflows declined toward the end of the year to USD0.3 billion and USD0.2 billion in November and December, respectively, on the Federal Reserve's less hawkish stance at its November monetary policy meeting. In January, Malaysia posted its first monthly net foreign inflows since August at USD0.1 bilion.

Figure 5: Investor Profiles of Local Currency Government Bonds in Select Emerging East Asian Markets



Notes:

1. Data for the Republic of Korea and Malaysia are up to September 2022.
2. "Others" include government institutions, individuals, securities companies, custodians, private corporations, and all other investors not elsewhere classified.

Sources: People's Republic of China (CEIC Data Company); Indonesia (Directorate General of Budget Financing and Risk Management, Ministry of Finance); Republic of Korea (The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury); Thailand (Bank of Thailand); and Viet Nam (Ministry of Finance).

The Philippines continued to post monthly net inflows during Q4 2022 with a quarterly aggregate amount of USD0.7 billion. This was largely driven by high domestic bond yields as the BSP continued to hike rates during the quarter. The Philippines continued to register net foreign inflows in January of USD0.1 billion.

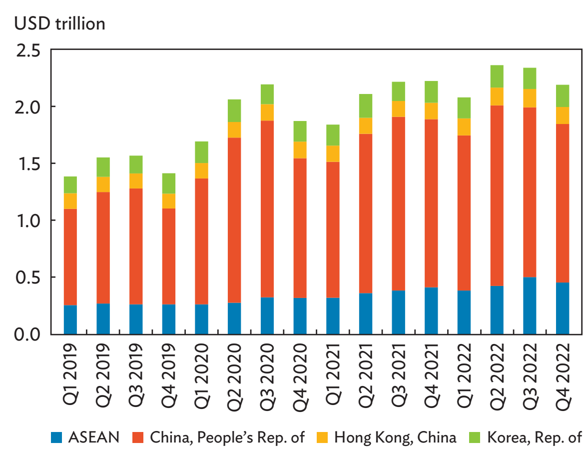
At the end of December, banks and insurance and pension funds remained the largest investor groups in most LCY government bond markets in the region (**Figure 5**). Their shares also increased in Q4 2022 as foreign ownership of government bonds slightly declined during the quarter. Central banks also saw increases in their participation in the bond market, particularly in Indonesia and Thailand.

Local Currency Bond Issuance

Aggregate issuance of local currency bonds by emerging East Asian economies reached a record-high volume in 2022.

Regional LCY bond sales in emerging East Asia remained robust in 2022, posting record-high volume. Total issuance in the region tallied USD9.0 trillion, up 6.8% y-o-y from the USD8.4 trillion recorded in 2021. Quarterly issuance volumes remained above the USD2.0 trillion mark for the seventh consecutive quarter amid monetary tightening in most regional economies in 2022 (**Figure 6**).

Figure 6: Local Currency Bond Issuance in Select Emerging East Asian Markets



ASEAN = Association of Southeast Asian Nations, Q1 = first quarter, Q2 = second quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar.

Notes:

1. ASEAN comprises the markets of Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.
2. Figures were computed based on 31 December 2022 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (CEIC Data Company); 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 (KG Zeroin Corporation and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore and Bloomberg LP); Thailand (Bank of Thailand); and Viet Nam (Bloomberg LP, Hanoi Stock Exchange, and Vietnam Bond Market Association).

In Q4 2022, new bond sales reached USD2.2 trillion, contracting on both a q-o-q and y-o-y basis. The decline in regional bond issuance accelerated to 6.7% q-o-q in Q4 2022 from 1.0% q-o-q in Q3 2022, with all bond segments posting contractions. On a y-o-y basis, issuance fell 1.9% in Q4 2022 after rising 5.6% in the earlier quarter, due mainly to less issuance by corporates. The decline in issuance volume was largely influenced by rising borrowing costs and markets having completed their bond issuance targets earlier than planned.

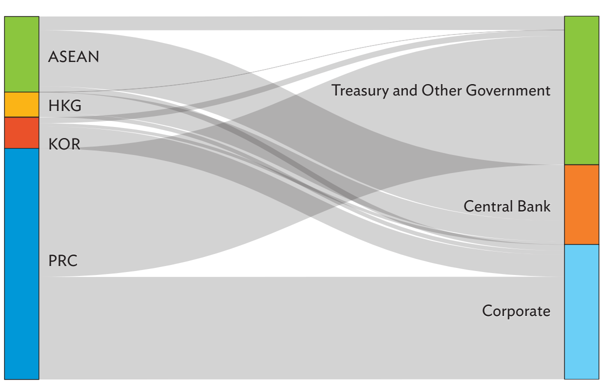
Across different bond types, Treasury and other government bonds accounted for the largest share of the region's aggregate issuance volume in Q4 2022 (**Figure 7**). The share of Treasury and other government bonds to total issuance, however, slipped to 40.9% in Q4 2022 from 42.2% in Q3 2022, but was still higher than Q4 2021's 38.0%. All emerging East Asian economies issued a lower volume of Treasury and other government bonds during the quarter, as most economies had already fulfilled their borrowing plans, with Thailand and Viet Nam as the exception. Treasury and other government bonds contracted the most among bond types, declining 9.5% q-o-q but rising 5.6% y-o-y in Q4 2022.

In Q4 2022, Treasury instruments issued in most markets in emerging East Asia were dominated by medium- to long-term maturities. The size-weighted tenor of LCY government bond issuance during the quarter was 5.9 years, with 60.4% of total Treasury bonds issued in Q4 2022 having a tenor of more than 5 years. This was broadly similar with the 60.6% share in Q3 2022 but was up from 55.4% in Q4 2021 (**Figure 8**). Issuance of Treasury bonds with maturities of 5 years or less accounted for 39.6% of the issuance total during Q4 2022.

Central bank bond issuance during the quarter declined 5.6% q-o-q in Q4 2022, as most central banks in the region opted to raise policy rates to combat inflationary pressure. Most regional central banks had less issuance of bonds during the quarter compared with Q3 2022, with the Hong Kong Monetary Authority and the Bank of Thailand as the exceptions. Bonds issued by the region's central banks reached USD479.8 billion, with their aggregate share of the regional issuance total inching up to 22.0% in Q4 2022 from 21.7% in the prior quarter.

Amid the tightening monetary stances of most central banks in emerging East Asia, rising borrowing costs dragged down corporate bond issuance during the quarter. New issuance of corporate bonds reached USD810.4 billion in Q4 2022 on contractions of 4.0% q-o-q and 15.0% y-o-y. Six out of the nine regional economies saw contractions in their issuance of corporate bonds during the quarter. The only markets that recorded q-o-q increases were those of the Republic of Korea, Malaysia, and the Philippines. The share of corporate bonds in the issuance total inched up to 37.1% in Q4 2022 from 36.1% in the prior quarter.

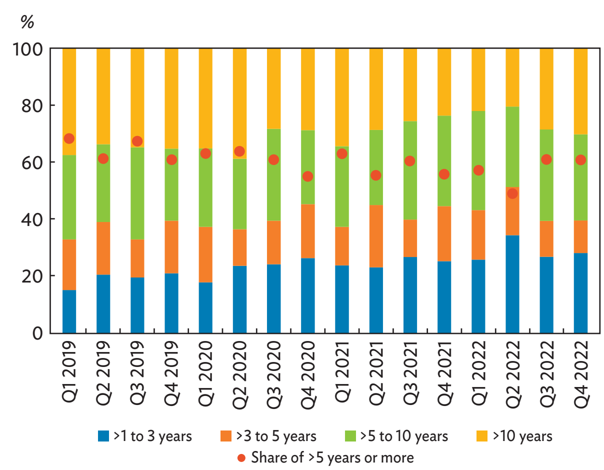
Figure 7: Local Currency Bond Issuance in the Fourth Quarter of 2022 by Economy and Type of Bond



ASEAN = Association of Southeast Asian Nations; HKG = Hong Kong, China; KOR = Republic of Korea; PRC = People's Republic of China.

Source: *AsianBondsOnline*.

Figure 8: Maturity Structure of Quarterly Local Currency Government Bond Issuance in Select Emerging East Asian Markets



Q1 = first quarter, Q2 = second quarter, Q3 = third quarter, Q4 = fourth quarter.

Note: Figures were computed based on 31 December 2022 currency exchange rates and do not include currency effects.

Source: *AsianBondsOnline* computations based on various local sources.

In Q4 2022, seven out of the nine emerging East Asian economies tapered their respective issuance volumes compared with Q3 2022 (**Table 2**). On a q-o-q basis, the only markets that saw increased issuance of LCY bonds were those of the Republic of Korea and Malaysia. Relative to the same period a year earlier, overall issuance rose in Hong Kong, China; Malaysia; the Philippines; Singapore; and Thailand.

In the PRC, LCY bond issuance continued to decline, falling 6.7% q-o-q as total issuance reached USD1.4 trillion in Q4 2022 after shrinking 5.9% q-o-q in Q3 2022. Government bond sales fell, led primarily by a drop in local government bond issuance. Local government bond issuance declined 9.9% q-o-q in Q4 2022 as many local governments had fully utilized their special bond quotas by the end of June. The decline was offset by a 7.5% q-o-q gain in Treasury bonds as the PRC continued to provide fiscal stimulus to support the economy. In December, the Government of the PRC issued CNY750 billion worth of special bonds to finance economic and social development. Corporate bond issuance in the PRC also contracted 6.5% q-o-q in Q4 2022, as companies were concerned about the PRC's economic prospects.

In the Republic of Korea, bond issuance inched up 0.3% q-o-q to USD186.7 billion in Q4 2022 after a 5.0% q-o-q decline in the previous quarter. The reduced government bond issuance dragged down the Republic of Korea's bond issuance total in Q4 2022, following the frontloading policy that the government pursued in the first half of the year. Central bank bond issuance also contributed to the decline in government bond issuance, falling 8.2% q-o-q as the Bank of Korea scaled back its money market operations. However, corporate bond market sentiment improved, with corporate bond issuance extending its growth to 12.4% q-o-q in Q4 2022.

New bonds issued in Hong Kong, China reached USD149.9 billion in Q4 2022, representing a contraction of 6.7% q-o-q. The decline was largely contributed by reduced issuance of Treasury and other government bonds during the quarter, which followed from a high base in Q3 2022 due to an issuance of Silver Bonds. In addition, corporate bond issuance declined amid rising borrowing costs. Interest rate adjustments in the US and Hong Kong, China are largely aligned.

Aggregate LCY bond sales of ASEAN member markets tallied USD456.4 billion in Q4 2022, a contraction of 9.3% q-o-q after posting strong growth of 18.0% q-o-q in the preceding quarter. In the same period, issuance growth also moderated to 10.0% y-o-y from 30.1% y-o-y. Among ASEAN markets, only Malaysia had an overall increase in issuance during the quarter in review. Within ASEAN, the largest issuer was Singapore, which accounted for a 61.2% share of the ASEAN issuance total. Next was Thailand with a 14.0% share, followed by Indonesia and the Philippines each having an 8.5% share.

Singapore remained the most active issuer of LCY bonds among ASEAN peers in Q4 2022, despite issuance contracting across all bond types on a q-o-q basis. Government bond issuance, which largely comprised 99.3% of the total issuance volume, sank 2.7% q-o-q in Q4 2022. Corporate bond issuance declined a much faster 31.9% q-o-q; however, its share of the overall issuance tally was negligible.

Bond issuance activities marginally slowed in Thailand, dragged down by weak sales in the corporate bond segment. Overall issuance slipped 0.3% q-o-q in Q4 2022 amid rising borrowing costs that restrained corporate bond issuance. In contrast, issuance by the government, particularly for Treasury and other government bonds, climbed during the quarter following the start of a new fiscal year in October. The government, however, aims to cut its borrowings in fiscal year 2022–2023 as it scales back on coronavirus disease (COVID-19) related spending.

LCY bond sales in Indonesia totaled USD38.8 billion in Q4 2022, with issuance contracting 10.2% q-o-q. Indonesia was the sole market in the region that posted declines in issuance on both a q-o-q and a y-o-y basis across all bond segments. The government scaled back its issuance due to higher revenue collections that allowed it to reduce state financing requirements. The government recorded a budget deficit equivalent to 2.4% of GDP in 2022 versus a revised target of 4.5%. In Q4 2022, Bank Indonesia also reduced its issuance of Sukuk Bank Indonesia as the central bank opted to contain inflation by raising policy rates each month from August to December. Corporate bond issuance declined the most among all bond types, as higher borrowing costs curtailed issuance during the quarter.

Table 2: Local Currency Bond Issuance in Select Emerging East Asian Markets (gross)

	Q4 2021		Q3 2022		Q4 2022		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q4 2022		Q4 2022	
	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	1,598	100.0	1,443	100.0	1,390	100.0	(6.7)	(5.6)	(3.7)	(13.1)
Government	775	48.5	804	55.7	773	55.6	(6.8)	8.2	(3.9)	(0.3)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	775	48.5	804	55.7	773	55.6	(6.8)	8.2	(3.9)	(0.3)
Corporate	823	51.5	639	44.3	616	44.4	(6.5)	(18.7)	(3.5)	(25.1)
Hong Kong, China										
Total	144	100.0	160	100.0	150	100.0	(6.7)	4.2	(6.1)	4.1
Government	118	81.7	129	80.7	125	83.4	(3.5)	6.3	(2.9)	6.2
Central Bank	117	81.1	123	76.8	124	82.9	0.7	6.5	1.4	6.4
Treasury and Other Govt.	1	0.7	6	3.9	0.8	0.5	(87.8)	(20.0)	(87.7)	(20.1)
Corporate	26	18.3	31	19.3	25	16.6	(19.7)	(5.3)	(19.2)	(5.4)
Indonesia										
Total	49	100.0	44	100.0	39	100.0	(10.2)	(13.0)	(12.2)	(20.4)
Government	47	95.5	41	91.7	37	95.5	(6.5)	(13.0)	(8.5)	(20.3)
Central Bank	28	57.4	23	52.0	22	55.8	(3.6)	(15.4)	(5.7)	(22.5)
Treasury and Other Govt.	19	38.1	18	39.8	15	39.7	(10.3)	(9.4)	(12.2)	(17.0)
Corporate	2	4.5	4	8.3	2	4.5	(51.7)	(13.6)	(52.7)	(20.9)
Korea, Rep. of										
Total	205	100.0	165	100.0	187	100.0	0.3	(3.0)	13.4	(8.9)
Government	60	29.4	61	36.9	55	29.3	(20.5)	(3.6)	(10.1)	(9.4)
Central Bank	21	10.3	19	11.2	19	10.3	(8.2)	(3.4)	3.8	(9.2)
Treasury and Other Govt.	39	19.1	42	25.7	35	19.0	(25.9)	(3.7)	(16.2)	(9.6)
Corporate	145	70.6	104	63.1	132	70.7	12.4	(2.7)	27.1	(8.6)
Malaysia										
Total	21	100.0	26	100.0	27	100.0	0.9	34.1	6.3	26.8
Government	11	53.7	16	63.5	10	38.7	(38.5)	(3.5)	(35.3)	(8.7)
Central Bank	0	0.0	0.9	3.5	0.3	1.0	(71.1)	–	(69.6)	–
Treasury and Other Govt.	11	53.7	15	60.0	10	37.7	(36.6)	(6.0)	(33.3)	(11.1)
Corporate	10	46.3	9	36.5	17	61.3	69.7	77.7	78.7	68.1
Philippines										
Total	39	100.0	49.0	100.0	39	100.0	(24.8)	8.1	(20.8)	(1.1)
Government	38	97.1	47	95.6	36	94.1	(26.0)	4.7	(22.1)	(4.2)
Central Bank	24	60.0	28	58.2	29	75.0	(3.0)	35.0	2.0	23.5
Treasury and Other Govt.	15	37.0	18	37.5	7	19.1	(61.6)	(44.2)	(59.6)	(49.0)
Corporate	1	2.9	2	4.4	2	5.9	1.6	118.1	6.9	99.6
Singapore										
Total	244	100.0	269	100.0	279	100.0	(3.0)	13.8	3.9	14.6
Government	240	98.2	266	99.0	277	99.3	(2.7)	15.0	4.3	15.8
Central Bank	211	86.3	237	88.3	250	89.4	(1.7)	17.8	5.3	18.6
Treasury and Other Govt.	29	11.9	29	10.7	28	9.9	(10.6)	(5.4)	(4.2)	(4.7)
Corporate	4	1.8	3	1.0	2	0.7	(31.9)	(55.0)	(27.0)	(54.6)
Thailand										
Total	61	100.0	59	100.0	64	100.0	(0.3)	7.8	8.7	4.1
Government	50	82.1	44	74.8	49	77.5	3.2	1.8	12.5	(1.7)
Central Bank	31	50.9	28	48.0	31	49.4	2.6	4.7	11.9	1.1
Treasury and Other Govt.	19	31.2	16	26.9	18	28.1	4.2	(2.9)	13.6	(6.3)
Corporate	11	17.9	15	25.2	14	22.5	(10.9)	35.3	(2.8)	30.6

continued on next page

Table 2 *continued*

	Q4 2021		Q3 2022		Q4 2022		Growth Rate (LCY-base %)		Growth Rate (USD-base %)	
							Q4 2022		Q4 2022	
	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	10	100.0	29	100.0	9	100.0	(70.9)	(10.2)	(70.7)	(13.3)
Government	4	42.4	27	92.9	8	98.1	(69.3)	118.9	(69.0)	111.4
Central Bank	0	0.0	25	86.3	4	46.5	(84.3)	–	(84.2)	–
Treasury and Other Govt.	4	42.4	2	6.6	4	51.6	126.8	15.1	129.0	11.2
Corporate	6	57.6	2	7.1	0.2	1.9	(92.3)	(97.2)	(92.2)	(97.3)
Emerging East Asia										
Total	2,371	100.0	2,243	100.0	2,183	100.0	(6.7)	(1.9)	(2.7)	(8.0)
Government	1,343	56.7	1,435	64.0	1,372	62.9	(8.2)	8.0	(4.4)	2.1
Central Bank	431	18.2	484	21.6	480	22.0	(5.6)	12.7	(0.9)	11.3
Treasury and Other Govt.	912	38.5	951	42.4	892	40.9	(9.5)	5.6	(6.1)	(2.2)
Corporate	1,028	43.3	808	36.0	810	37.1	(4.0)	(15.0)	0.3	(21.2)
Japan										
Total	662	100.0	373	100.0	481	100.0	16.7	(17.1)	28.9	(27.3)
Government	615	93.0	347	92.9	448	93.1	17.0	(17.0)	29.1	(27.1)
Central Bank	0	0.0	0	0.0	0	0.0	–	–	–	–
Treasury and Other Govt.	615	93.0	347	92.9	448	93.1	17.0	(17.0)	29.1	(27.1)
Corporate	47	7.0	26	7.1	33	6.9	13.4	(19.2)	25.2	(29.1)

( ) = negative, – = not applicable, LCY = local currency, q-o-q = quarter-on-quarter, Q2 = second quarter, Q3 = third 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 2022 currency exchange rates and do not include currency effects.

Sources: People's Republic of China (CEIC Data Company); 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 (KG Zeroin Corporation and The Bank of Korea); Malaysia (Bank Negara Malaysia); Philippines (Bureau of the Treasury and Bloomberg LP); Singapore (Monetary Authority of Singapore and Bloomberg LP); Thailand (Bank of Thailand); Viet Nam (Bloomberg LP, Hanoi Stock Exchange, and Vietnam Bond Market Association); and Japan (Japan Securities Dealers Association).

In the Philippines, bond issuance plunged 24.8% q-o-q in Q4 2022, with aggregate issuance reaching USD38.8 billion. The slowdown in issuance was largely driven by a substantial decline in government bonds due to a high-base effect from the previous quarter when the government's issuance of Retail Treasury Bonds soared. Issuance by the BSP also contracted as it continued to raise policy rates to rein in inflation. The BSP was the most aggressive central bank in the region in terms of raising policy rates in 2022. Meanwhile, the corporate bond segment posted marginal issuance growth of 1.6% q-o-q in Q4 2022.

LCY bond issuance in Malaysia recorded marginal growth of 0.9% q-o-q in Q4 2022 to reach USD27.1 billion, buoyed by increased issuance in the corporate bond segment. Corporate bond sales nearly doubled, climbing 69.7% q-o-q in Q4 2022 after a decline of 0.7% q-o-q in the prior quarter. On the other hand, government bond issuance substantially declined over reduced issuance by the central government and the central bank.

In Viet Nam, LCY bond issuance declined the most among ASEAN peers in Q4 2022 with a contraction of 70.9% q-o-q, but this was largely due to a high base effect. Total issuance declined to USD8.6 billion amid a deceleration in issuance by both the central bank and corporate segments. Corporate bond issuance slumped as liquidity constraints dragged issuance, making it difficult for issuers to raise funds from the bond market or refinance maturing obligations. Meanwhile, issuance of Treasury and other government bonds more than doubled in Q4 2022.

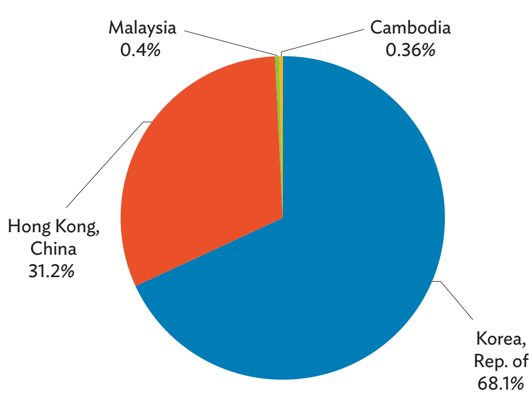
Cross-Border Bond Issuance

Cross-border bond issuance in emerging East Asia reached USD12.0 billion in Q4 2022.

Emerging East Asia's cross-border bond issuance in Q4 2022 reached USD12.0 billion, reflecting a 46.0% q-o-q increase from the USD8.2 billion raised in the previous quarter. The higher issuance volume was largely driven by the Republic of Korea, whose bond issuance increased more than tenfold in Q4 2022. Other economies that registered cross-border bond issuances in the same quarter were Malaysia and Hong Kong, China, which both recorded a decline in the issuance of intra-regional bonds in Q4 2022, as well as Cambodia, which issued its sole cross-border bond for 2022. Monthly issuance volumes amounted to USD1.9 billion, USD9.5 billion, and USD0.7 billion in October, November, and December, respectively. Compared with Q4 2021, total cross-border bond issuance increased almost threefold from USD4.1 billion.

The Republic of Korea's cross-border bond issuance volume increased significantly in Q4 2022, garnering a regional market share of 68.1% and topping Hong Kong, China, which had the largest market share in the previous quarter (**Figure 9**). The Republic of Korea's cross-border issuance in Q4 2022 totaled USD8.2 billion, posing a notable jump of 932.3% q-o-q from USD0.8 billion in Q3 2022. During the quarter, eight institutions from the Republic of Korea issued cross-border bonds that were denominated in three different currencies: Chinese yuan, Hong Kong dollars, and Singapore dollars. KB Capital, a publicly listed company that engages in personal and corporate financial services in the Republic of Korea raised a total of USD7.2 billion via issuance of a 2-year CNY-denominated bond, making it the largest issuer of cross-border bonds and the single-largest issuance in both the Republic of Korea and the region in Q4 2022. Korea Hydro & Nuclear Power Company was the second largest cross-border bond issuer during the quarter, raising USD0.3 billion via issuance of a 10-year HKD-denominated bond. Another notable issuer was Korea Expressway with a total issuance volume of USD0.2 billion comprising three tranches denominated in Hong Kong dollars and Singapore dollars. The Export–Import Bank of Korea raised USD0.1 billion via issuance of multitranche HKD-denominated bonds in Q4 2022.

Figure 9: Origin Economies of Select Intra-Emerging East Asian Bond Issuance in the Fourth Quarter of 2022



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

Hong Kong, China was the second-largest issuer of cross-border bonds in emerging East Asia during Q4 2022, with an aggregate issuance volume of USD3.8 billion for a 31.2% share of the regional cross-border bond issuance total during the quarter. This represented a significant decline of 43.5% q-o-q from USD6.6 billion of intra-regional bond issuance in Q3 2022. During the review period, 14 firms issued intra-regional bonds in Hong Kong, China, which were all denominated in Chinese yuan. Transportation and financial companies were the top issuers of intra-regional bonds in Hong Kong, China during Q4 2022, with shares of 53.0% and 38.5%, respectively. China Merchants Group, a state-owned enterprise engaged in logistics services, raised USD1.9 billion via issuance of a triple-tranche bond, making it the largest issuer of cross-border bonds in Hong Kong, China and the second-largest issuer in emerging East Asia in Q4 2022. Other notable issuers came from financial companies, including Hong Kong Mortgage Corporation and Bocom Leasing Management Hong Kong Company, which raised USD0.5 billion via issuance of a multitranche bond and USD0.3 billion via issuance of a 3-year bond, respectively.

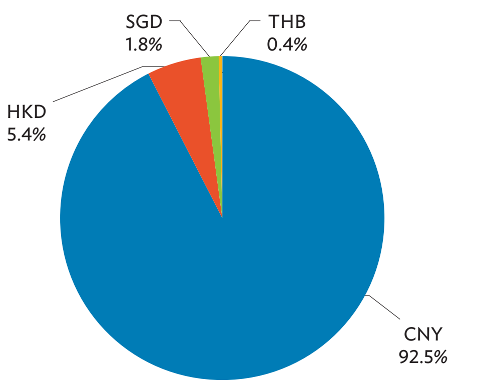
In Malaysia, Cagamas Global was the sole issuer of intra-regional bonds in Q4 2022, raising USD48.5 million worth of 1-year bonds denominated in Singapore dollars. In the same quarter, Hattha Bank was the only issuer of cross-border bonds from Cambodia, successfully raising USD43.3 million via issuance of a 3-year bond denominated in Thai baht.

The top 10 issuers of intra-regional bonds in Q4 2022 had an aggregate issuance volume of USD11.2 billion and accounted for 93.2% of the regional total. Four of the firms were from the Republic of Korea, with aggregate issuance of USD7.9 billion, and the remaining six firms were from Hong Kong, China, with a total volume of USD3.3 billion. The top issuer was financial firm KB Capital based in the Republic of Korea, followed by two firms from Hong Kong, China: China Merchants

Group and Hong Kong Mortgage Corporation, which are engaged in the transportation and finance industries, respectively. Financial firms comprised six of the top 10 cross-border bond issuers in Q4 2022.

The Chinese yuan continued to be the most widely used currency for cross-border bond issuance in Q4 2022, with an aggregate issuance volume of USD11,135.2 million or 92.5% of the regional total (**Figure 10**). Institutions from the Republic of Korea and Hong Kong, China issued intra-regional bonds denominated in Chinese yuan. Other issuances were carried out in Hong Kong dollars (USD649.6 million), Singapore dollars (USD214.3 million), and Thai baht (USD43.3 million), which accounted for regional shares of 5.4%, 1.8%, and 0.4%, respectively. Cambodia was the only market that issued cross-border bonds denominated in Thai baht.

Figure 10: Currency Shares of Select Intra-Emerging East Asian Bond Issuance in the Fourth Quarter of 2022

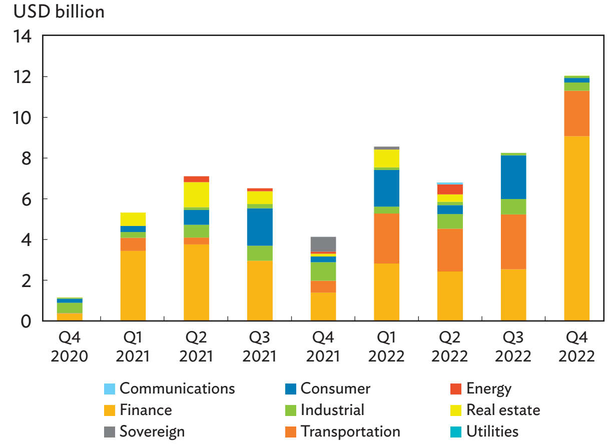


CNY = Chinese yuan, HKD = Hong Kong dollar, SGD = Singapore dollar, THB = Thai baht.

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

In Q4 2022, issuance of intra-regional bonds in emerging East Asia was largely dominated by the financial sector with an aggregate issuance volume of USD9.1 billion, comprising 75.3% of the regional total (**Figure 11**). The financial sector was the only sector that posted a quarterly increase in its regional issuance share, exhibiting a significant jump of 257.5% q-o-q from USD2.5 billion in Q3 2022. The transportation sector was the second-largest issuer group of cross-border bonds in the same quarter, with total issuance of USD2.2 billion and a regional share of 18.5%. The third-largest group was the utilities sector at USD0.4 billion and a share of 3.4% of the regional total.

Figure 11: Select Intra-Emerging East Asian Bond Issuance by Sector



Q1 = first quarter, Q2 = second quarter, Q3 = third quarter, Q4 = fourth quarter, USD = United States dollar.

Note: Figures were computed based on 31 December 2022 exchange rates to avoid currency effects.

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

G3 Currency Issuance

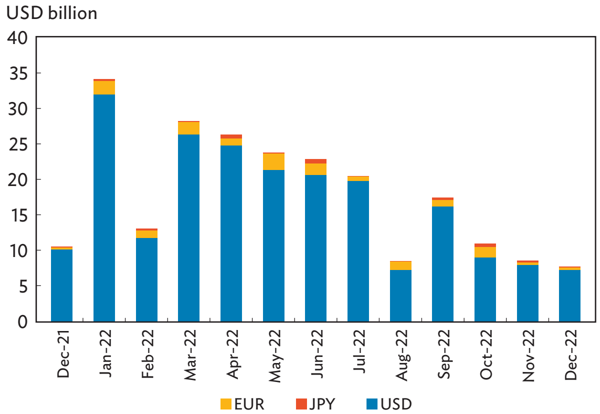
Emerging East Asian markets raised G3 currency bonds totaling USD222.1 billion in 2022.

G3 currency bonds worth USD222.1 billion were issued by emerging East Asia in 2022 (**Figure 12**).[8] This represented a decline of 41.0% y-o-y from the USD376.4 billion raised in 2021. All economies in the region registered a decline in total G3 currency bonds issued during the review period. These contractions were due to aggressive rate hikes throughout the year by the United States (US) Federal Reserve giving rise to a strong US dollar. The higher borrowing costs led to fewer entities in all economies in the region issuing G3 currency bonds in 2022.

In 2022, 92.2% of the total value of emerging East Asia's issuance of G3 currency bonds was denominated in US dollars, 6.5% in euros, and 1.3% in Japanese yen. USD-denominated bonds issued during 2022 totaled

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

Figure 12: G3 Currency Bond Issuance in Select Emerging East Asian Markets



EUR = euro, JPY = Japanese yen, USD = United States dollar.

Notes:

1. G3 currency bonds are denominated in either euros, Japanese yen, or United States dollars.
2. Figures were computed based on 31 December 2022 currency exchange rates and do not include currency effects.

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

USD204.7 billion, falling 40.5% y-o-y from 2021 due to reduced fundraising activities from all markets in the region. Issuances denominated in euros totaled USD14.5 billion on a contraction of 52.1% y-o-y due to a y-o-y drop in issuances from the PRC and the Republic of Korea, as well as the absence of any fundraising in euros from Hong Kong, China; Indonesia; and the Philippines. G3 currency bonds denominated in Japanese yen amounted to USD3.0 billion, an expansion of 36.0% y-o-y as the Republic of Korea, Malaysia, and the Philippines issued more samurai bonds, and the PRC resumed issuances in Japanese yen in 2022.

In terms of G3 currency bond issuance in 2022, entities from the PRC led emerging East Asia with total issuance equivalent to USD127.6 billion (**Table 3**). A distant second was the Republic of Korea with USD41.7 billion. Hong Kong, China followed with USD15.3 billion. All economies in the region continued to issue most of their G3 currency bonds in US dollars in 2022.

In 2022, 57.4% of total sales in G3 currency bonds in the region came from entities in the PRC: USD119.4 billion in US dollars, USD8.0 billion worth of issuances in euros, and the equivalent of USD0.2 billion in Japanese yen. In November and December, Huatai International Financial Holdings issued nine USD-denominated bonds totaling USD0.3 billion with tenors ranging from 3 months to 4 years.

The Republic of Korea had a share of 18.8% of the overall G3 currency bond issuance in emerging East Asia in 2022: US dollar issuance was USD36.8 billion; the equivalent of USD3.8 billion was EUR-denominated; and a total of USD1.1 billion was issued in Japanese yen, an 828.0% increase in JPY-denominated issuance from 2021. At the beginning of October, Korea Electric Power Corporation issued dual-tranche, USD-denominated green bonds totaling USD0.8 billion. The green bonds had tenors of 3.5 years and 5.5 years, proceeds of which will be used for financing green projects under the company's sustainable finance framework. Before October ended, Hyundai Capital Services had raised a total of USD0.2 billion from a triple-tranche issuance of samurai bonds with tenors of 1.5 years, 2 years, and 3 years. The privately placed bond was the first samurai bond issuance by the company since 2018.

Hong Kong, China accounted for 6.9% of G3 currency bond issuance in the region in 2022. This comprised USD-denominated bonds amounting to USD15.2 billion and the equivalent of USD0.1 billion in Japanese yen. There were no EUR-denominated issuances in Hong Kong, China in 2022. In October, insurance company AIA Group issued a USD-denominated callable bond with a tenor of 5 years amounting to USD0.9 billion. In November, the Hong Kong Mortgage Corporation raised funds through a 1-year USD-denominated bond worth USD0.1 billion.

Issuance of bonds in G3 currencies in the ASEAN region declined 50.2% y-o-y in 2022 as such issuance from all economies contracted during the year. A combined USD37.5 billion of G3 currency bonds were issued by entities based in the region in 2022. This was less than the USD75.4 billion registered in 2021. Markets from the ASEAN region had a share of 16.9% of emerging East Asia's G3 currency bond issuance in 2022, a decline from 20.0% in the previous year. During the review period, the economy with the most G3 currency bond issuance in the ASEAN region was Indonesia, trailed by Singapore, Malaysia, the Philippines, and Thailand.

Issuance of G3 currency bonds in Indonesia in 2022 accounted for 5.5% of the total in emerging East Asia. A majority of Indonesia's G3 currency bond issuances

Table 3: G3 Currency Bond Issuance in Select Asian Markets

2021			2022		
Issuer	Amount (USD billion)	Issue Date	Issuer	Amount (USD billion)	Issue Date
China, People's Rep. of	**217.4**		**China, People's Rep. of**	**127.6**	
Industrial and Commercial Bank of China 3.200% Perpetual	6.2	24-Sep-21	Easy Tactic 7.50% 2027	2.3	11-Jul-22
China Development Bank 0.380% 2022	2.0	10-Jun-21	China Construction Bank 2.85% 2032	2.0	21-Jan-22
Prosus 3.061% 2031	1.9	13-Jul-21	Easy Tactic 7.50% 2028	1.7	11-Jul-22
Others	207.4		Others	121.7	
Hong Kong, China	**39.7**		**Hong Kong, China**	**15.3**	
Hong Kong, China (Sovereign) 0.000% 2026	1.4	24-Nov-21	Airport Authority Hong Kong 2.50% 2032	1.2	12-Jan-22
NWD Finance 4.125% Perpetual	1.2	10-Jun-21	Airport Authority Hong Kong 3.25% 2052	1.2	12-Jan-22
Hong Kong, China (Sovereign) 0.625% 2026	1.0	2-Feb-21	Airport Authority Hong Kong 1.75% 2027	1.0	12-Jan-22
Others	36.1		Others	11.9	
Indonesia	**26.4**		**Indonesia**	**12.2**	
Indonesia (Sovereign) 3.05% 2051	2.0	12-Jan-21	Perusahaan Penerbit SBSN Indonesia III 4.400% 2027	1.8	6-Jun-22
Perusahaan Penerbit SBSN Indonesia III 1.50% 2026	1.3	9-Jun-21	Freeport Indonesia 5.315% 2032	1.5	14-Apr-22
Indonesia (Sovereign) 1.85% 2031	1.3	12-Jan-21	Perusahaan Penerbit SBSN Indonesia III 4.700% 2032	1.5	6-Jun-22
Others	21.9		Others	7.4	
Korea, Rep. of	**43.9**		**Korea, Rep. of**	**41.7**	
Posco 0.00% 2026	1.2	1-Sep-21	Export–Import Bank of Korea 1.375% 2025	1.1	24-May-22
Korea Housing Finance Corporation 0.01% 2026	1.1	29-Jun-21	Korea Development Bank 2.000% 2025	1.0	24-Feb-22
SK Hynix 1.50% 2026	1.0	19-Jan-21	Export-Import Bank of Korea 4.250% 2027	1.0	15-Sep-22
Others	40.6		Others	38.6	
Malaysia	**16.0**		**Malaysia**	**7.5**	
Petronas Capital 3.404% 2061	1.8	28-Apr-21	MISC Capital Two (Labuan) 3.75% 2027	0.6	6-Apr-22
Petronas Capital 2.480% 2032	1.3	28-Apr-21	Bank Negara Interbank Bills 0.00% 2022	0.6	25-Jan-22
Others	13.0		Others	6.3	
Philippines	**10.8**		**Philippines**	**4.8**	
Philippines (Sovereign) 3.200% 2046	2.3	6-Jul-21	Philippines (Sovereign) 4.20% 2047	1.0	29-Mar-22
Philippines (Sovereign) 1.375% 2026	1.1	8-Oct-21	Philippines (Sovereign) 5.95% 2047	0.8	13-Oct-22
Others	7.5		Others	3.0	
Singapore	**16.5**		**Singapore**	**10.7**	
BOC Aviation 1.625% 2024	1.0	29-Apr-21	United Overseas Bank 0.387% 2025	1.6	17-Mar-22
Temasek Financial I 2.750% 2061	1.0	2-Aug-21	DBS Bank 2.375% 2027	1.5	17-Mar-22
Others	14.5		Others	7.6	
Thailand	**4.1**		**Thailand**	**2.4**	
Bangkok Bank in Hong Kong, China 3.466% 2036	1.0	23-Sep-21	GC Treasury Center 4.4% 2032	1.0	30-Mar-22
GC Treasury Center 2.980% 2031	0.7	18-Mar-21	Bangkok Bank in Hong Kong, China 4.3% 2027	0.8	15-Jun-22
Others	2.4		Others	0.7	
Viet Nam	**1.6**		**Viet Nam**	–	
Emerging East Asia Total	**376.4**		**Emerging East Asia Total**	**222.1**	
Memo Items:			**Memo Items:**		
India	**23.7**		**India**	**8.3**	
Vedanta Resources 8.95% 2025	1.2	11-Mar-21	Reliance Industries 3.625% 2052	1.8	12-Jan-22
Others	22.5		Others	6.5	
Sri Lanka	**0.8**		**Sri Lanka**	**0.01**	
Sri Lanka (Sovereign) 7.95% 2024	0.2	3-May-21	Sri Lanka (Sovereign) 8% 2023	0.01	24-Jan-22
Others	0.6		Others	0.002	

USD = United States dollar.

Notes:
1. Data exclude certificates of deposit.
2. G3 currency bonds are bonds denominated in either euros, Japanese yen, or United States dollars.
3. Bloomberg LP end-of-period rates are used.
4. Figures after the issuer name reflect the coupon rate and year of maturity of the bond.

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

were in US dollars, amounting to USD11.5 billion, while the equivalent of USD0.6 billion were in Japanese yen. No EUR-denominated bonds were issued by Indonesia in 2022. In December, township developer Kawasan Industri Jababeka issued a 5-year callable bond denominated in US dollars worth USD0.2 billion. Proceeds from the issuance will be used to pay off part of the company's existing senior notes worth USD0.3 billion. Just before 2022 ended, Indonesia's flag air carrier Garuda Indonesia issued a USD-denominated callable Islamic bond worth USD0.08 billion with tenor of 9 years, as part of its debt restructuring plan. The company defaulted in 2021 on its *sukuk* following difficulties caused by the COVID-19 pandemic and related air travel restrictions.

Singapore had a 4.8% share of the region's G3 currency bond issuance during the review period. Entities from Singapore raised USD7.9 billion denominated in US dollars, the equivalent of USD2.6 billion in euros, and JPY-denominated securities worth USD0.2 billion. Unlike issuances in Japanese yen and the US dollar, EUR-denominated bond issuances increased in 2022 compared to the prior year. In October, DBS Bank issued a 3-year EUR-denominated covered bond worth USD0.8 billion. Toward the end of November, most investors in coal mining company Golden Energy and Resources' existing bonds due in 2026 swapped the bonds for a 5-year callable USD-denominated bond worth USD0.3 billion. The swap allowed the company to restructure its coal energy business.

Issuers in Malaysia raised 3.4% of the total G3 currency bonds issued in emerging East Asia in 2022. Issuances in USD-denominated bonds totaled USD7.3 billion, while JPY-denominated bonds reached the equivalent of USD0.2 billion, more than double from the previous year. These bonds denominated in Japanese yen were issued by Malayan Banking in February. During Q4 2022, Bank Negara Malaysia issued five Bank Negara Interbank Bills. These zero-coupon short-term securities are used by the central bank for liquidity management purposes.

Issuers from the Philippines comprised a 2.2% share of total issuance of regional G3 currency bonds in 2022. By currency, entities from the Philippines raised USD4.3 billion worth of bonds denominated in US dollars and the equivalent of USD0.5 billion in Japanese yen. JPY-denominated issuances increased, while USD-denominated bonds decreased in 2022.

The Philippines had no euro issuances during the year. In October, the Government of the Philippines issued three tranches of USD-denominated Global Bonds with tenors of 5 years, 10.5 years, and 25 years. Proceeds from the 5-year and 10.5-year bonds will be utilized for general purposes, while funds raised from the 25-year tenor will be used for the Philippines' projects under its Sustainable Finance Framework.

A 1.1% share of emerging East Asian G3 currency bond issuance in 2022 came from Thailand. These bonds, all of which were denominated in US dollars for a total of USD2.4 billion, were issued in March and June.

Bond Yield Movements

Yields in most emerging East Asian markets declined as the Federal Reserve slowed the pace of its monetary tightening.

While most advanced economy central banks have largely continued their monetary policy tightening as global inflation remains elevated, there are some signs of a gradual shifting or pivot.

In the US, the Federal Reserve, during its 1–2 November meeting, raised its policy rate target range by 75 bps but also announced that it would reduce the pace of its rate hikes. Following this, the Federal Reserve raised its policy rate target range by only 50 bps on 14–15 December and by an even smaller 25 bps each, at its 31 January–1 February and 21–22 March meetings.

Similar to the Federal Reserve, the European Central Bank softened the pace of its rate hikes. In the euro area, the European Central Bank raised its policy rates by 75 bps on 27 October. It followed this up with successive and smaller 50 bps rate hike on 15 December, 2 February, and 16 March.

The Bank of Japan has largely kept monetary policy accommodative, but during its 20 December meeting it adjusted the band by which it allows the 10-year Japanese Government Bond to fluctuate from ±0.25% to ±0.50%. This led to market speculation that the Bank of Japan would soon be exiting from its accommodative policy. However, expectations were dashed when on 10 March, the Bank of Japan left monetary policy unchanged, keeping policy rates and the Japanese Government Bonds trading band steady.

While a Federal Reserve shift has improved market optimism and led yields to largely decline in emerging East Asia, volatility increased from 1 February through 10 March. The Federal Reserve minutes of the January meeting, coupled with strong January nonfarm payroll data, heightened concerns that the Federal Reserve may raise policy rates in March by 50 bps as opposed to the previously expected 25 bps. However, the closure of Silicon Valley Bank on 10 March drove contagion fears and, while it has largely negatively impacted equity markets in the region, changed market expectations of a softer Federal Reserve move.

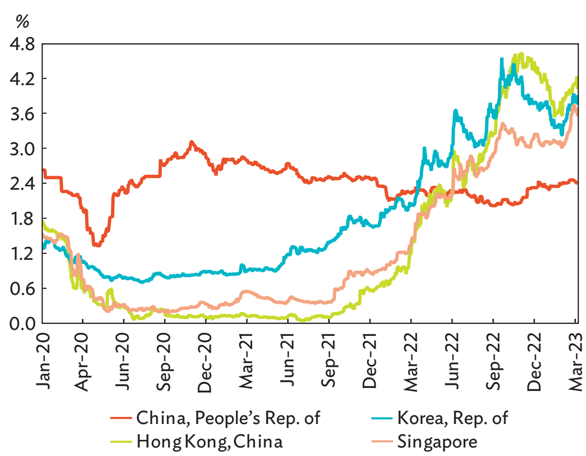
As a result, while 2-year yields largely trended downward starting at the end of November 2022, yields began rising again from 1 February through 10 March, except for the PRC (**Figure 13a**). In the PRC, rising yields were driven by speculation in November that the PRC would be reopening its economy. Subsequently, the PRC announced on 7 December that it would be moving away from its zero COVID policy. On 26 December, the PRC announced that it would ease quarantine measures for foreign travelers effective 8 January 2023. In contrast, other markets had more dramatic declines in yields from November onward, before exhibiting the same upward movement from 1 February through 10 March. Yield movements in Malaysia and Thailand, however, were more muted from 30 November to 10 March in comparison to its peers (**Figure 13b**).

Yields on the region's 10-year bonds largely exhibited similar trends, declining in November before rising again from 1 February to 10 March, with the PRC being the exception as its 10-year yield was largely stable (**Figure 14a**). Meanwhile, Thailand's 10-year yield did not exhibit as strong as a rise in 1 February-10 March period compared to its peers (**Figure 14b**).

Yield curves in most markets in emerging East Asia shifted downward between 30 November and 10 March (**Figure 15**). Only Singapore's and the PRC's yield curves rose for most tenors. In the PRC, yields rose following the end of the PRC's zero COVID policy. The continued tightening of central banks in the region has begun to take effect, with speculation that, globally, most central banks are near the end of their tightening cycle. The GDP of regional economies has been impacted by the tightening phase, and Q4 2022 GDP growth rates slowed for all markets in the region. The largest GDP slowdowns were seen in the Republic of Korea, Malaysia, Thailand, and Viet Nam, which posted growth rates less than half of their previous quarter growth rates. In contrast to the rest of the region, Hong Kong, China's GDP continued to contract in Q4 2022, affected by zero COVID measures in the PRC as well as a weak external environment.

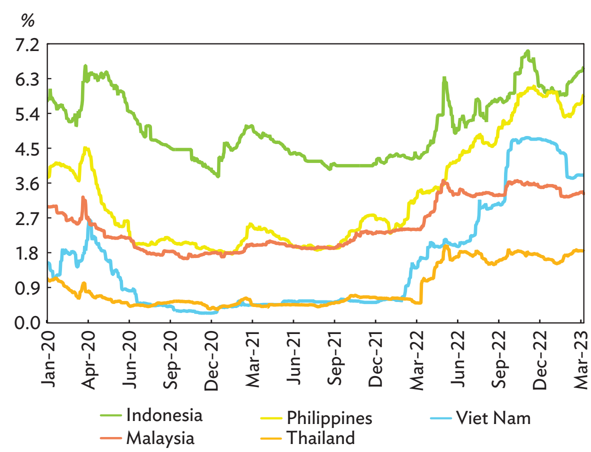
Inflation also began to decline in most markets during Q4 2022 amid continued monetary tightening as well as declining commodity prices globally. The exceptions to

Figure 13a: 2-Year Local Currency Government Bond Yields



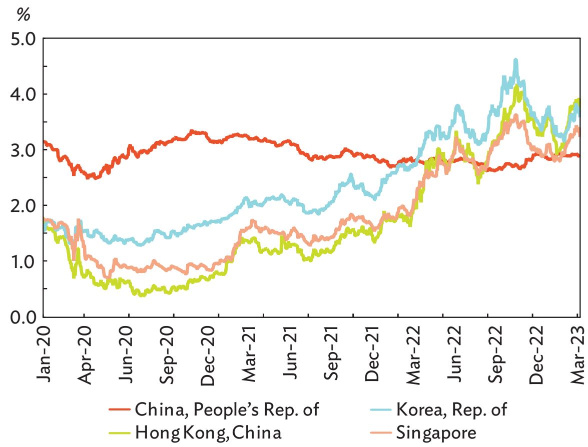
Note: Data coverage is from 1 January 2020 to 10 March 2023.
Source: Based on data from Bloomberg LP.

Figure 13b: 2-Year Local Currency Government Bond Yields



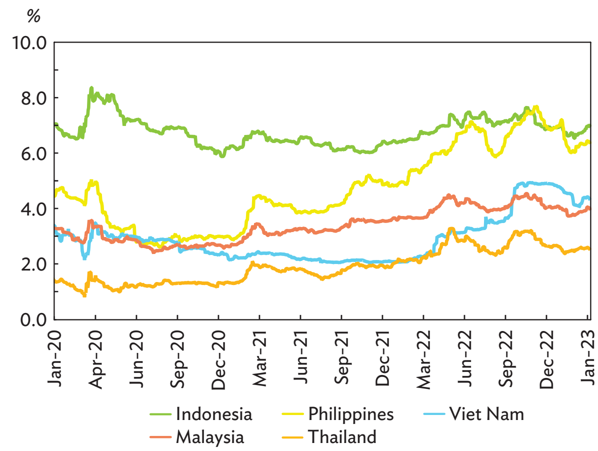
Note: Data coverage is from 1 January 2020 to 10 March 2023.
Source: Based on data from Bloomberg LP.

Figure 14a: 10-Year Local Currency Government Bond Yields



Note: Data coverage is from 1 January 2020 to 10 March 2023.
Source: Based on data from Bloomberg LP.

Figure 14b: 10-Year Local Currency Government Bond Yields



Note: Data coverage is from 1 January 2020 to 10 March 2023.
Source: Based on data from Bloomberg LP.

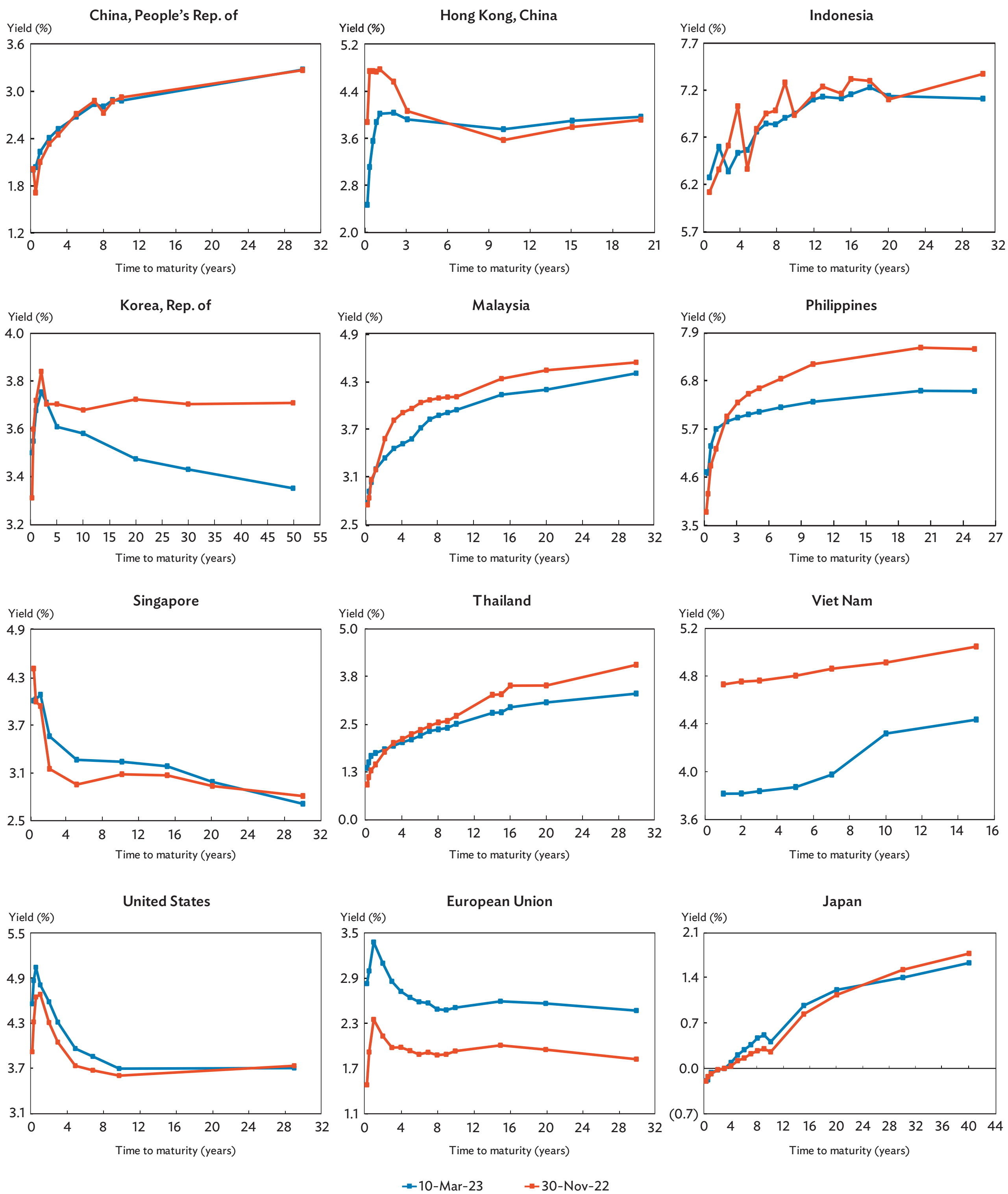
the declining trend in inflation were Hong Kong, China, where inflation accelerated following the opening of its economy, and also Viet Nam, as its central bank was slower to tighten monetary policy than its regional peers (**Figure 16a**). The Philippines was also an exception as the economy continued to grapple with higher food prices (**Figure 16b**).

As a result, the BSP remained vigilant in tightening monetary policy. During the November–January period, the BSP was the most aggressive, having raised rates by a total of 125 bps. It followed up on this with another 50 bps rate hike on 16 February (**Figure 17a**). Indonesia was the next most aggressive with a cumulative 100 bps rate hike during the review period, but it kept its policy rate steady in its February and March meetings (**Figure 17b**). Interestingly, the State Bank of Vietnam, after having consecutive 100 bps rate hikes in September and October, kept its refinancing rate steady at 6.00% on 14 March, but cut its overnight and rediscounting rates by 100 bps each to support economic recovery.

Corporate spreads rose for lower-rated corporate bonds.

The spread between AAA-rated yields and government yields declined in emerging East Asian markets for which data are available (**Figure 18a**). In contrast, lower-rated credit spreads widened in most markets as rising funding costs highlighted concerns over funding for riskier corporates (**Figure 18b**).

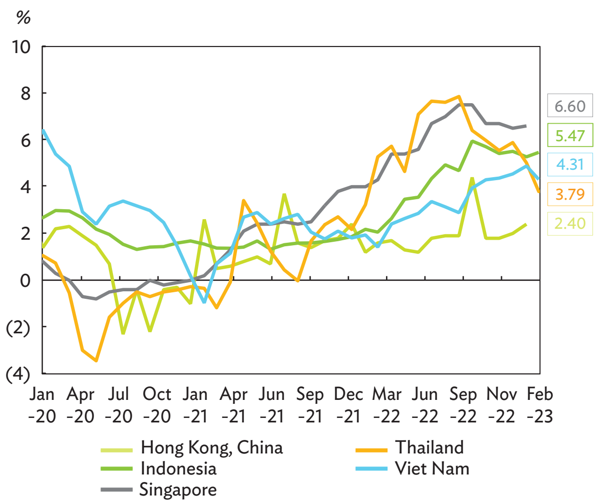
Figure 15: Benchmark Yield Curves—Local Currency Government Bonds



( ) = negative.

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

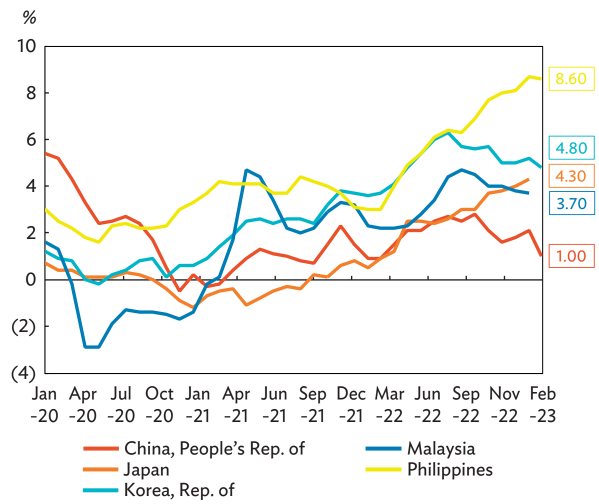
Figure 16a: Headline Inflation Rates



Note: Data coverage is from January 2020 to February 2023 except for Hong Kong, China and Singapore (January 2023).

Source: Based on data from Bloomberg LP.

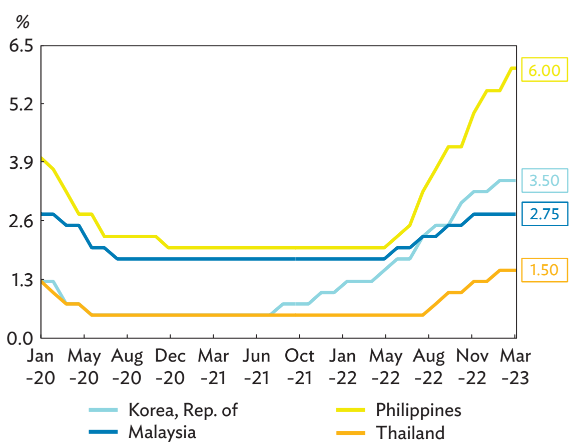
Figure 16b: Headline Inflation Rates



Note: Data coverage is from January 2020 to February 2023 except for Japan and Malaysia (January 2023).

Source: Based on data from Bloomberg LP.

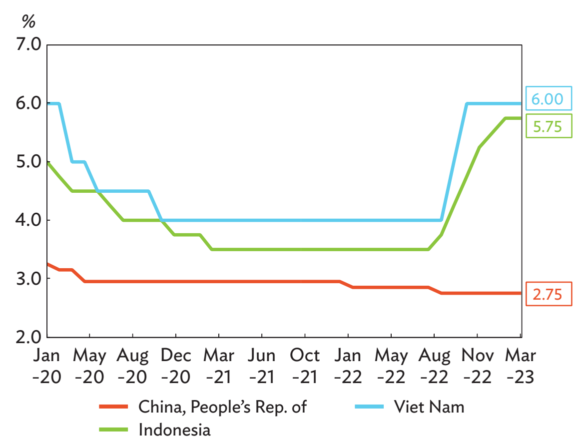
Figure 17a: Policy Rates



Note: Data coverage is from 31 January 2020 to 10 March 2023.

Source: Based on data from Bloomberg LP.

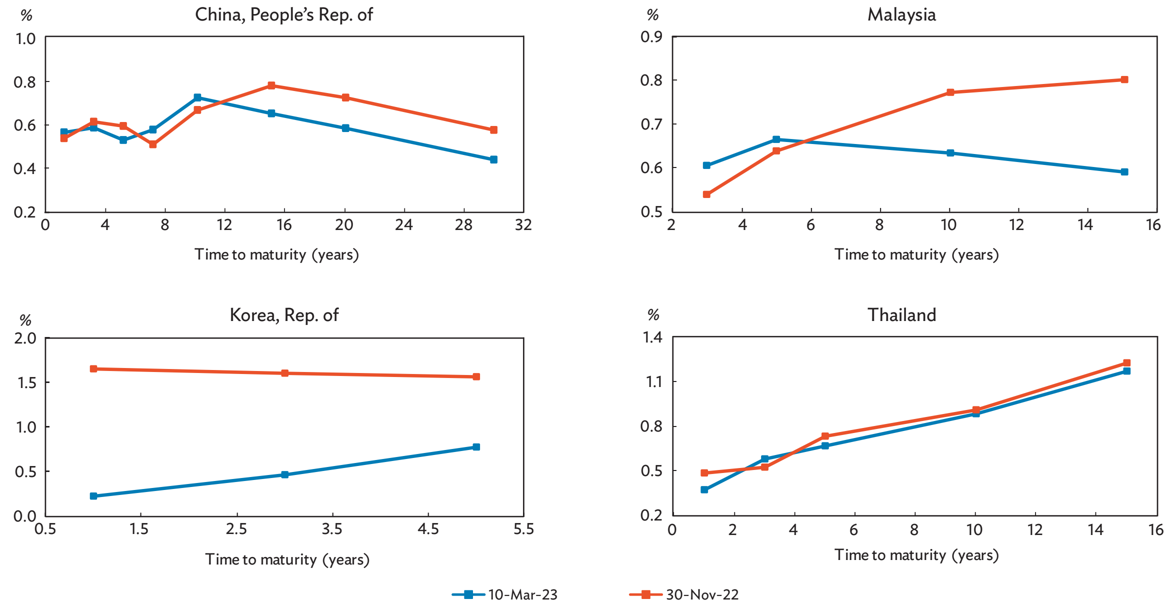
Figure 17b: Policy Rates



Notes:
1. Data coverage is from 31 January 2020 to 10 March 2023.
2. For the People's Republic of China, data used in the chart are 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.

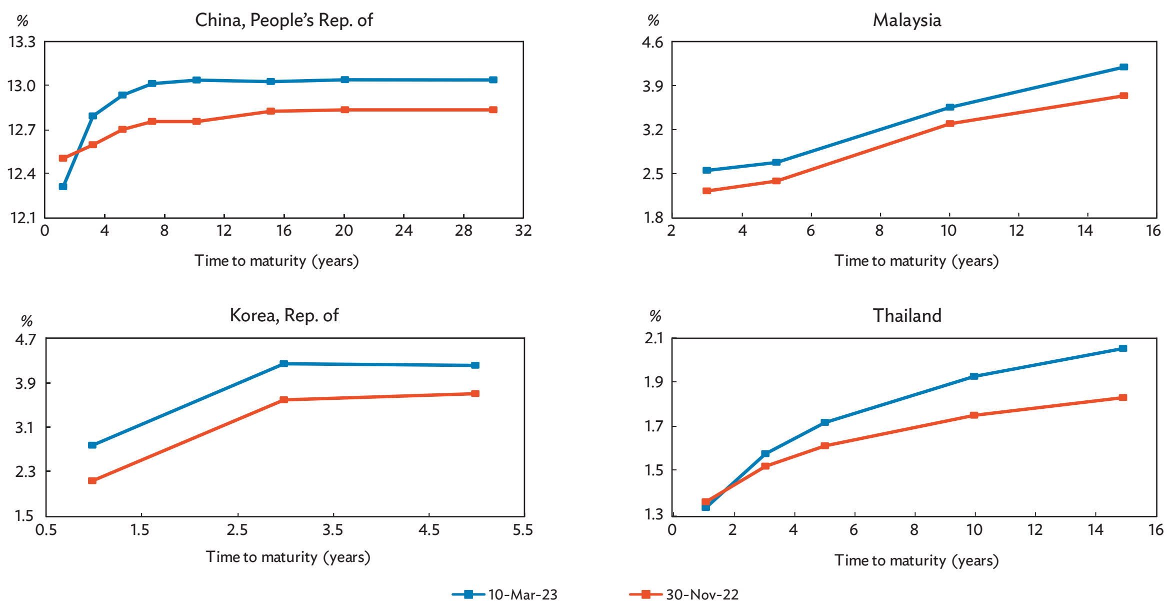
Figure 18a: Credit Spreads—Local Currency Corporates Rated AAA versus Government Bonds



Notes:
1. Credit spreads are obtained by subtracting government yields from corporate indicative yields.
2. Corporate yields for Malaysia are as of 30 November 2022 and 7 March 2023.

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 18b: Credit Spreads—Lower-Rated Local Currency Corporates versus AAA



Notes:
1. Credit spreads are obtained by subtracting government yields from corporate indicative yields.
2. Corporate yields for Malaysia are as of 30 November 2022 and 7 March 2023.

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).