Developments in Regional Financial Conditions

Financial conditions in emerging East Asia slightly weakened between 1 December 2024 and 28 February 2025 amid heightened global uncertainty and higher-for-longer United States (US) interest rates.[1] Bond yields mostly rose in advanced economies as inflation remained persistent during the review period, leading to slower-than-expected rate cuts by the US Federal Reserve (**Table A**). Higher-for-longer interest rates in the US slightly weighed on regional currencies during the review period. Most bond yields in the region declined, tracking US movements, amid continued monetary easing in the region. Uncertainty regarding US trade policies and their possible impact on major US trading partners in emerging East Asia have dampened investor sentiment, leading to portfolio outflows from regional equity and bond markets, and equity losses and widened risk premiums in the majority of regional markets. Nevertheless, favorable domestic factors supported investor sentiment in some regional markets, leading to equity gains and narrowed risk premiums in those markets.

In advanced economies, yields rose during the review period for the 10-year tenor. In both the US and the euro area, long-term yield upticks were driven by elevated inflation as well as ongoing uncertainties in US economic policy, while yield gains in Japan followed its central bank's monetary tightening.

From 1 December 2024 to 14 February 2025, the US saw a rise in both its 2-year and 10-year bond yields amid sound economic performance and persistent inflation. Gross domestic product (GDP) growth remained solid in the fourth quarter (Q4) of 2024 at an annualized 2.3%, leaving full-year 2024 GDP growth at a robust 2.8%. Domestic consumption continued to post strong gains,

Table A: Changes in Financial Conditions in Major Advanced Economies and Select Emerging East Asian Markets from 1 December 2024 to 28 February 2025

	2-Year Government Bond Yield (bps)	10-Year Government Bond Yield (bps)	5-Year Credit Default Swap Spread (bps)	Equity Index (%)	FX Rate (%)
Major Advanced Economies					
Euro Area	7	32	–	13.7	(1.9)
Japan	22	33	(6)	0.04	(0.6)
United States	(16)	4	–	(1.3)	–
Select Emerging East Asian Markets					
People's Republic of China	8	(26)	(17)	(0.2)	(0.4)
Hong Kong, China	(8)	30	–	18.1	0.04
Indonesia	(11)	(5)	4	(11.9)	(4.4)
Republic of Korea	(2)	(6)	(5)	3.1	(4.3)
Malaysia	(1)	(1)	2	(1.2)	(0.3)
Philippines	(11)	13	4	(9.3)	1.1
Singapore	(13)	(0.5)	–	4.2	(0.9)
Thailand	(9)	(15)	4	(15.7)	0.4
Viet Nam	25	33	(5)	4.4	(0.8)

( ) = negative, – = not available, bps = basis points, FX = foreign exchange.

Note: FX rates are presented against the United States dollar. A positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the United States dollar.

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

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

rising an annualized 4.2% in Q4 2024 after gaining 3.7% in the previous quarter. The S&P Global US manufacturing Purchasing Managers Index (PMI) continued to rise in expansionary territory, reaching 52.7 in February from 51.2 in January and 49.4 in December. This uptick was largely supported by increased output and new orders. Meanwhile, the unemployment rate slightly rose to 4.1% in February from 4.0% in January but was unchanged from December's 4.1%. Nonfarm payrolls weakened in February and January to 151,000 and 125,000, respectively, from 323,000 in December. At its December meeting, the Federal Reserve revised its GDP forecast for 2025 upward to 2.1% from 2.0% in September, while the corresponding forecast for the unemployment rate was revised down to 4.3% from 4.4%. However, more recent economic indicators have shown some weakness, leading the Federal Reserve to downgrade its 2025 GDP forecast in March to 1.7%, while it revised the unemployment rate up to 4.4%.

The release of several weaker data indicators in the second half of February contributed to the overall fall in the 2-year yield during the review period. Retail sales contracted 1.2% month-on-month (m-o-m) in January after a 0.7% m-o-m gain each in December and November, posting the largest decline since April 2023. The consumer confidence index fell steeply to 98.3 in February from 105.3 in January and 109.5 in December.

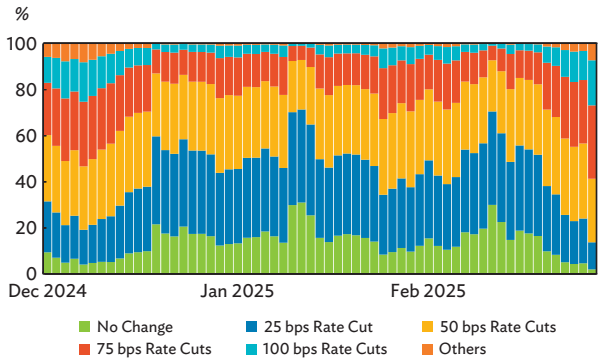
Meanwhile, inflationary pressure in the US economy persists. Consumer price inflation remains above the Federal Reserve's 2.0% target at 2.8% year-on-year (y-o-y) in February from 3.0% y-o-y in January and 2.9% y-o-y in December. Core inflation ticked down to 3.1% y-o-y in February from 3.3% y-o-y in January and 3.2% y-o-y in December. In January, however, personal consumption expenditures (PCE) inflation inched back down to 2.5% y-o-y from 2.6% y-o-y in December and 2.5% y-o-y in November, while core PCE inflation fell to 2.6% y-o-y in January from 2.9% y-o-y in December, following a slight uptick from 2.8% y-o-y in November, which was in line with Federal Reserve projections. In December, the Federal Reserve revised upward its 2025 projection for PCE inflation to 2.5% from 2.1% and for core PCE inflation to 2.5% from 2.2%. Further, in March, the Federal Reserve raised its PCE inflation and core PCE inflation forecasts for 2025 to 2.7% y-o-y and 2.8% y-o-y, respectively.

Persistent inflationary pressure and heightened uncertainty over economic policies have led the Federal Reserve to become less dovish. While the Federal Reserve reduced the target rate range by 25 basis points (bps) during its 17–18 December 2024 Federal Open Market Committee (FOMC) meeting, the number of projected rate cuts in 2025 was reduced to two from a forecast of four made in September. The release of the December FOMC meeting minutes on 8 January indicated increased upside risks for inflation following the uptick in inflation data and uncertainty regarding future economic policies. In December and January, Federal Reserve officials expressed caution over the inflation path and uncertainty over US policy shifts. As was widely expected, the Federal Reserve left its target rate range unchanged at 4.25%–4.50% at its 28–29 January FOMC meeting. The Federal Reserve removed the phrase regarding progress toward inflation from its monetary policy statement, indicating rising uncertainty. During the January FOMC press conference, Federal Reserve Chair Jerome Powell indicated that he would like to see further progress on inflation before adjusting interest rates. On 12 February, Jerome Powell testified to Congress that they were not in a hurry to adjust policy rates.

Despite some softer economic indicators released in February, other Federal Reserve officials also remained cautious over inflationary pressure, casting uncertainty on the monetary easing path. Federal Reserve Bank of Richmond President Thomas Barkin on 25 February said that he expected January PCE inflation to be lower but noted that it still makes sense for monetary policy to stay moderately restrictive. On 27 February, Federal Reserve Bank of Atlanta President Raphael Bostic also said that the Federal Reserve needed to stay restrictive. As widely expected, the Federal Reserve left its policy rate unchanged at its 18-19 March FOMC meeting. Based on the CME FedWatch Tool, as of 28 February, the likelihood of a cumulative 50 bps rate reduction (via two rate cuts) in 2025 rose to 27.6% from 22.7% as of 2 December, while the probability for a 75 bps reduction (via three rate cuts) rose to 31.8% from 28.8% (**Figure A**).

In the euro area, yields rose during the review period, tracking persistent inflation, despite continued easing by the European Central Bank (ECB). Economic indicators in the euro area remain subdued. GDP in the euro area grew 1.2% y-o-y in Q4 2024, up from 1.0% y-o-y in the third quarter (Q3) of 2024. However, on a quarter-on-quarter (q-o-q) basis, GDP growth decelerated to 0.2% in Q4 2024 from 0.4% in Q3 2024. The manufacturing PMI reading, which has remained in contractionary territory since July 2022, rose slightly to 47.6 in February from 46.6 in January 2025, a 2-year high. During its December

Figure A: Probability of Cumulative Rate Adjustments by the Federal Reserve in 2025



bps = basis points.
Note: Data are as of 28 February 2025.
Source: CME FedWatch Tool.

meeting, the ECB revised downward its GDP forecasts for 2025 and 2026 to 1.1% and 1.4%, respectively, from September forecasts of 1.3% and 1.5%. Subsequently, the ECB further downgraded the GDP outlook for 2025 and 2026 to 0.9% and 1.2%, respectively, in March. Inflation in the euro area slightly eased to 2.3% y-o-y in February after ticking up to 2.5% y-o-y in January 2025 from 2.4% y-o-y in December. The ECB noted that the uptick in inflation in December was expected and acknowledged that near-term inflation may fluctuate around current levels, as both domestic and service inflation are still persistently high. However, the ECB also expects consumer price inflation to fall and eventually reach its 2.0% target over the medium term. During its December meeting, the ECB revised downward its consumer price inflation forecast for full-year 2025 to 2.1% from a 2.2% forecast made in September, while keeping its 2026 inflation forecast unchanged at 1.9%. The inflation forecast for 2025, however, was subsequently revised upward to 2.3% during its March meeting.

The ECB's monetary easing remained on track during the review period, but concerns were elevated over increased global uncertainty. To support economic growth, the ECB consecutively reduced its key policy rates—the deposit facility, main refinancing operations, and marginal lending facility—by 25 bps each at its 12 December, 30 January, and 6 March monetary policy meetings, citing that the disinflation process remained on track and economic growth was expected to remain weak in the near-term. Nevertheless, ECB officials, while supporting rate cuts, have turned cautious over rising global volatility.[2] On 11 February, ECB President Christine Lagarde noted that while the disinflation trend was on track, greater friction in trade could add to inflation uncertainty. On 12 February, ECB Executive Board Member Frank Elderson said that in light of elevated global volatility, it was important to examine its impact on inflation. On the same day, ECB Governing Council Member Joachim Nagel noted the importance of not acting hastily in the present uncertain environment.

Monetary tightening by the Bank of Japan (BOJ), amid an expected economic recovery and rising inflation, drove yields up during the review period. However, Japan's economic performance remained subdued. While Japan's GDP recorded annualized 2.2% growth in Q4 2024 after gaining 1.4% in Q3 2024, full-year GDP growth was only 0.1% in 2024 versus 1.5% in 2023. Domestic consumption was weak in Q4 2024, unchanged from Q3 2024. Industrial production, however, gained 2.2% y-o-y in January after falling 2.2% y-o-y in December. Manufacturing PMI remained weak but improved somewhat to 49.0 in February from 48.7 in January. Inflation in Japan remained elevated at 3.7% y-o-y in February, down slightly from 4.0% y-o-y in January but still up from 3.6% y-o-y in December. Meanwhile, the unemployment rate stood at 2.5% y-o-y in January, higher than December's 2.4% figure but unchanged from November's.

During its 19 December 2024 meeting, the BOJ left its policy rate unchanged but noted that the domestic economy is recovering and expected to grow above potential. The central bank also acknowledged that consumer price inflation is expected to rise. The BOJ later raised its key policy rate by 25 bps at its 24 January 2025 meeting, noting that if current projections were met, the BOJ would implement additional rate hikes. The BOJ released updated economic forecasts in January, keeping GDP forecasts for 2025 (1.1%) and 2026 (1.0%) unchanged from those made in October, while revising consumer price inflation projections upward for 2025 and 2026 to 2.4% y-o-y and 2.0% y-o-y, respectively, from October projections of 1.9% y-o-y and 1.9% y-o-y. BOJ Governor Kazuo Ueda on 12 February said that the recent rise in food prices could have an impact on inflation expectations. On 19 March, the BOJ left its policy rate unchanged at 0.5%.

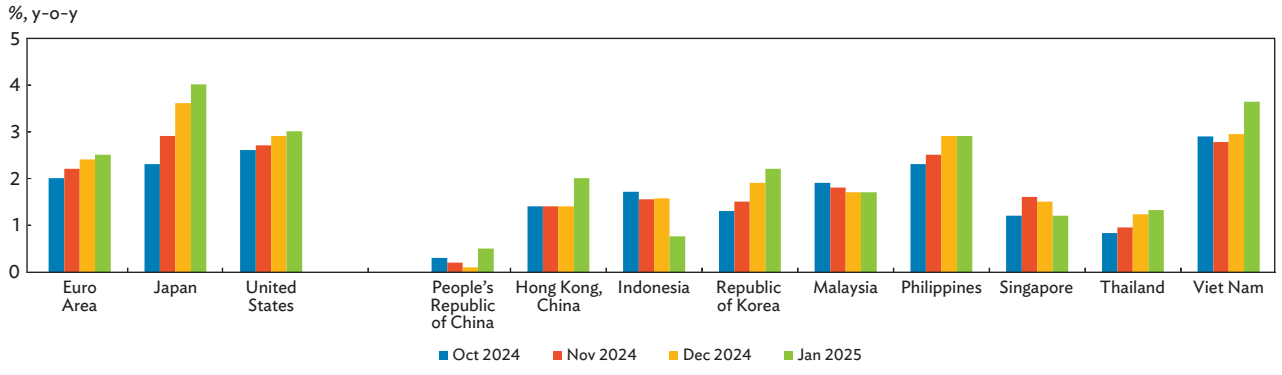
[2] These include talks given by Bank of France Governor Francois Villeroy de Galhau, ECB Executive Board Member Philip Lane, Bank of Austria Governor Robert Holzmann, Bank of Lithuania Governor Gediminas Simkus, and National Bank of Slovakia Governor Peter Kazimir.

In emerging East Asia, local currency government bond yields declined for most markets, largely driven by the easing stances of central banks in the region. Bond yields declined for both 2-year and 10-year maturities in Indonesia, the Republic of Korea, Singapore, and Thailand following monetary policy easing by their respective central banks during the review period. In contrast, Viet Nam's yields rose on strong growth expectations as the government revised upward its GDP growth forecast for 2025. Meanwhile, the People's Republic of China (PRC) saw a significant decline in its 10-year yield during the review period amid low inflation and the central bank's easing monetary stance. The PRC had the region's lowest inflation rate, falling to –0.7% y-o-y in February from January (0.5% y-o-y) on weak domestic demand (**Figure B**). The People's Bank of China announced it would ease its monetary policy further sometime this year.

Several regional central banks continued their monetary easing to support economic growth amid heightened uncertainty:

- After having left policy rates unchanged in Q4 2024, Bank Indonesia reduced its key rate by 25 bps on 15 January, in line with benign domestic inflation as well as to support economic growth. Bank Indonesia left policy rates unchanged in its subsequent meetings in February and March, citing high global uncertainty over the implementation of US import tariffs and the Federal Reserve's policy stance (**Table B**).
- On 24 January, the Monetary Authority of Singapore reduced slightly the slope of the Singapore dollar nominal effective exchange rate, reflecting its easing stance, noting that economic growth had moderated and inflation had fallen much more quickly than expected.
- The Bank of Korea left monetary policy unchanged during its 16 January meeting amid increased volatility in exchange rates and uncertainty in the economic outlook. The central bank subsequently cut its policy rate by 25 bps at its meeting on 25 February, noting that economic growth is expected to slow and the global economy faces downward pressure.
- In the Philippines, the Bangko Sentral ng Pilipinas (BSP) left the policy rate unchanged in its 13 February meeting after it reduced the policy rate by 25 bps in both October and December. The BSP noted that while the inflation outlook has not substantially changed, there are increased price pressures in the utilities sector and uncertainty over the impact of foreign economic policies on the domestic economy. On 5 February, BSP Governor Eli Remolona said that a cumulative 50 bps rate cut for 2025 was possible—scaling back his November outlook of a cumulative 100 bps rate cut for 2025. However, on 21 February, the BSP announced cuts to its reserve requirement ratio for banks and nonbank financial institutions by 200 bps effective 28 March.
- The Bank of Thailand reduced policy rates on 26 February, as the economy is expected to slow.
- The People's Bank of China, which last reduced policy rates in September 2024, indicated on 4 January that it intended to continue with its moderately loose monetary policy by lowering policy rates and reserve requirement ratios later this year.

Figure B: Inflation in Major Advanced Economies and Select Emerging East Asian Markets



y-o-y = year-on-year.
Sources: Various local sources.

Table B: Changes in Monetary Stances in Major Advanced Economies and Select Emerging East Asian Markets

Economy	Policy Rate 1-Feb-2024 (%)	Rate Change (%)												Policy Rate 28-Feb-2025 (%)	Change in Policy Rates (basis points)
		Feb-2024	Mar-2024	Apr-2024	May-2024	Jun-2024	Jul-2024	Aug-2024	Sep-2024	Oct-2024	Nov-2024	Dec-2024	Jan-2025	Feb-2025		
Euro Area	4.00					↓0.25			↓0.25	↓0.25		↓0.25		↓0.25	2.75	↓ 125
Japan	(0.10)		↑0.20				↑0.15						↑0.25		0.50	↑ 60
United Kingdom	5.25							↓0.25			↓0.25			↓0.25	4.50	↓ 75
United States	5.50								↓0.50		↓0.25	↓0.25			4.50	↓ 100
People's Republic of China	1.80						↓0.10		↓0.20						1.50	↓ 30
Indonesia	6.00			↑0.25					↓0.25				↓0.25		5.75	↓ 25
Republic of Korea	3.50									↓0.25	↓0.25			↓0.25	2.75	↓ 75
Malaysia	3.00														3.00	◆ 0
Philippines	6.50							↓0.25		↓0.25		↓0.25			5.75	↓ 75
Singapore	–												↓		–	↓ –
Thailand	2.50									↓0.25				↓0.25	2.00	↓ 50
Viet Nam	4.50														4.50	◆ 0

( ) = negative, ◆ = no change, – = no data.

Notes:
1. Data coverage is from 1 February 2024 to 28 February 2025.
2. For the People's Republic of China, the data used in the chart is for the 7-day reverse repurchase rate.
3. For the United States, the upper bound of the policy rate target range is reported on the table.
4. The up (down) arrow for Singapore signifies monetary policy tightening (loosening) by its central bank. The Monetary Authority of Singapore utilizes the Singapore dollar nominal effective exchange rate to guide its monetary policy.

Sources: Various central bank websites.

- Bank Negara Malaysia, on 6 March, left its monetary policy unchanged, noting that the decision was in line with the favorable domestic economic growth and inflation outlooks. However, the central bank noted that there was elevated global policy uncertainty, which could create greater volatility.

Economic growth in the region remained solid in Q4 2024, with most markets posting faster growth compared to the previous quarter. Among regional markets, Viet Nam posted its most rapid growth since Q3 2022 and the highest in the region at 7.6% y-o-y, buoyed by domestic consumption, exports, and investments (**Table C**). GDP growth in the PRC accelerated over the same period to 5.4% y-o-y from 4.6% y-o-y, supported by stimulus measures. Meanwhile, economic performances in the Republic of Korea and Singapore slowed when compared with the previous quarter. In the Republic of Korea, economic growth moderated over weak consumption, a slowdown in export growth, and a continued contraction in investments, while in Singapore it was due to slower growth in manufacturing. Based on the *Asian Development Outlook December 2024*, the most recent 2025 growth projections for East Asia and Southeast Asia were unchanged from September estimates of 4.2% and 4.7%, respectively.

Table C: Gross Domestic Product Growth in Select Emerging East Asian Economies (y-o-y, %)

Economy	2024					Forecast for 2025
	Q1	Q2	Q3	Q4	Full Year	
PRC	5.30	4.70	4.60	5.40	5.00	4.50
HKG	2.80	3.10	1.90	2.40	2.50	2.30
INO	5.11	5.05	4.95	5.02	5.03	5.00
KOR	3.30	2.30	1.50	1.20	2.00	2.00
MAL	4.20	5.90	5.40	5.00	5.10	4.60
PHI	5.80	6.40	5.24	5.23	5.60	6.20
SIN	3.20	3.40	5.70	5.00	4.40	2.60
THA	1.70	2.30	3.00	3.20	2.50	2.70
VIE	5.66	6.93	7.43	7.55	7.09	6.60

PRC = People's Republic of China; HKG = Hong Kong, China; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PHI = Philippines; Q1 = first quarter; Q2 = second quarter; Q3 = third quarter; Q4 = fourth quarter; SIN = Singapore; THA = Thailand; VIE = Viet Nam; y-o-y = year-on-year.

Note: Forecasts for 2025 are based on the *Asian Development Outlook* December 2024.

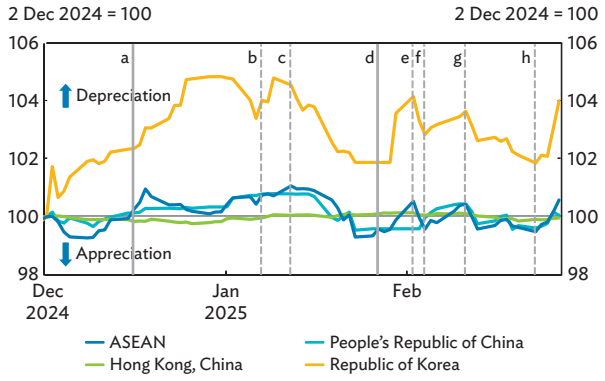
Sources: Various local sources.

However, growth forecasts were revised down for both Hong Kong, China (from 3.0% to 2.3%) and the Republic of Korea (from 2.3% to 2.0%).

Amid expected higher-for-longer interest rates in the US, emerging East Asian currencies marginally weakened during the review period, depreciating 0.9% (GDP-weighted) and 0.8% (simple average) versus

the US dollar. Projections from the Federal Reserve in December showing fewer expected rate cuts in 2025 than previously anticipated, as well as more cautious language from Federal Reserve officials regarding inflation, led to the broad strengthening of the US dollar. Uncertainties regarding the impact of US tariffs on regional economic growth placed added downward pressure on currencies. During the review period, the Indonesian rupiah fell the most in the region (–4.4%) over domestic fiscal concerns. The Korean won fell 4.3% largely due to ongoing domestic political issues (**Figure C**). On the other hand, the Philippine peso gained 1.1% during the review period as the BSP indicated that it expects to implement fewer rate cuts this year than previously expected.

Figure C: Currency Exchange Rates Against the United States Dollar in Select Emerging East Asian Markets



ASEAN = Association of Southeast Asian Nations, US = United States.

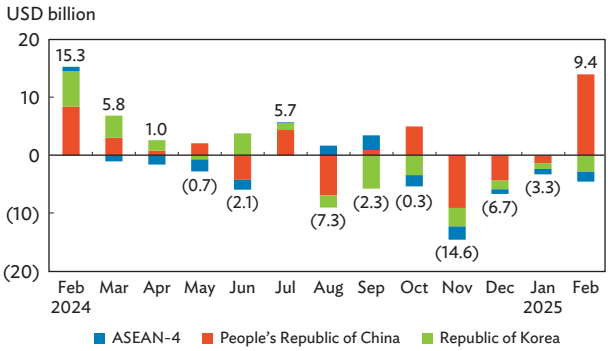
Notes:
1. Corresponding dates of the following news reported:
a The Federal Reserve lowered the federal funds rate by 25 basis points to a range of 4.25%–4.50%, but it also suggested a slower pace of rate cuts in 2025.
b The December Federal Open Market Committee meeting minutes included members noting that upside risks to inflation had increased and the Federal Reserve would move slowly on rate cuts.
c Plans for the gradual implementation of tariffs by the United States are reported.
d The Federal Reserve maintained its interest rates within a range of 4.25%–4.50% amid elevated inflation and stable labor market conditions.
e US delays implementation of tariffs on goods from Mexico and Canada.
f Federal Reserve officials (Austan Goolsbee and Thomas Barkin) noted rising uncertainty due to possible shifts in US economic policy.
g The possible delay of tariff implementation to April due to reciprocal tariff investigations is reported.
h US tariffs on Canada and Mexico are scheduled to proceed in March.
2. ASEAN comprises the markets of Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.
3. Data are as of 28 February 2025.
4. A value higher (lower) than 100 indicates currency depreciation (appreciation) against the US dollar.

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

Heightened economic policy uncertainty contributed to portfolio outflows from the region during the review period. Regional equity markets logged net portfolio outflows of USD0.6 billion from 1 December 2024 to 28 February 2025, with net portfolio outflows observed in all regional markets totaling USD6.7 billion in December and USD3.3 billion in January (**Figure D**). In February, the region excluding the PRC continued to record net outflows of USD4.7 billion, however, net inflows in the PRC (USD14.0 billion) drove the region's net portfolio inflows of USD9.4 billion during the month. The net inflows in the PRC in February were mostly driven by new measures announced on 13 January to implement funding facilities aimed at supporting stock purchases.[3] Further measures were announced on 22 January to help stabilize the PRC's stock market.[4] Meanwhile, the Republic of Korea continued to post outflows (USD2.8 billion) in February as investor sentiment was dragged down by lingering domestic political concerns.

Most bond markets in the region also posted net outflows during the review period. Between 1 December and 31 January, the regional bond market recorded net

Figure D: Foreign Capital Flows in Select Emerging East Asian Equity Markets



( ) = outflows, USD = United States dollar.

Notes:
1. Data coverage is from 1 February 2024 to 28 February 2025.
2. The numbers above (below) each bar refer to net inflows (net outflows) for each month.
3. 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.
4. ASEAN-4 includes Indonesia, the Philippines, Thailand, and Viet Nam.

Source: Institute of International Finance.

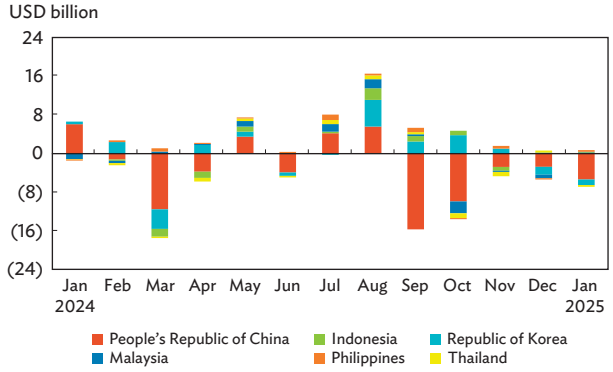
[3] In January, the China Securities Regulatory Commission announced plans to help boost the stock market. Among others, these include collaboration with the central bank to provide funding facilities for stock repurchases, encouraging companies to increase their dividend payouts and small investor protection through special litigation, and expanded efforts to combat financial fraud.

[4] The measures include (i) encouraging mutual funds to create more equity-related investment products; (ii) expanding listed corporates access to the relending tool of the central bank; (iii) allowing mutual funds and insurance companies to increase their stock market investments; and (iv) making adjustments to the performance appraisal of state-owned insurers, among others.

outflows of USD10.9 billion. Investor sentiment was negatively affected by persistent inflation in the US and the less dovish stance taken by Federal Reserve officials since December. The region's bond market saw net outflows of USD4.7 billion in December, followed by additional outflows of USD6.1 billion in January, resulting in 5 straight months of net outflows from September 2024 through January 2025 (**Figure E**). The largest outflows between 1 December and 31 January were recorded in the PRC (USD8.1 billion), over concerns about economic performance, and in the Republic of Korea (USD2.8 billion), on heightened political uncertainty.

Five out of nine equity markets in the region weakened during the review period as uncertainty over US economic policy and monetary policy dampened investor sentiment. The region recorded a simple average loss of –0.9% during the review period but a market-weighted average gain of 3.3% that was driven by equity rallies in Hong Kong, China; Viet Nam; and Singapore. The largest gains were recorded in Hong Kong, China (18.1%), buoyed by technology stocks' rally over artificial intelligence (AI) innovations such as DeepSeek (**Figure F**). A discussion on how AI can be beneficial for the financial industry but could also pose challenges is discussed in **Box 1**. The next largest equity market gains were recorded in Viet Nam (4.4%) and Singapore (4.2%). Viet Nam's equity market was buoyed by an upward revision in the government's growth target for 2025 as well as new initiatives being implemented to gain emerging market status in the FTSE Russell Index. In Singapore, equity market growth was largely driven by positive investor sentiment over the Monetary Authority of Singapore's support measures for the stock market.[5] In contrast, Thailand's equity market posted the region's largest losses of –15.7% over its slow economic recovery: Its full-year 2024 GDP growth was among the weakest in the region. Risk premiums, captured by credit default swap (CDS) spreads, slightly narrowed in the region by a simple average of 1.9 bps during the review period, while declining 13.1 bps on a GDP-weighted basis, driven by the PRC. In December, all regional markets saw a rise in their respective CDS spreads on heightened uncertainty over the Federal Reserve's monetary stance and US economic policy (**Figure G**). The region's CDS spreads collectively narrowed in January on positive sentiment over the gradual implementation of US tariffs. In February, a few

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

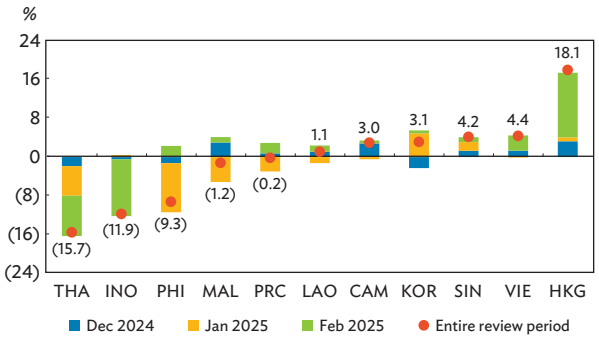


( ) = outflows, USD = United States dollar.

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 2025.
3. Figures were computed based on 31 January 2025 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).

Figure F: Changes in Equity Indexes in Select Emerging East Asian Markets



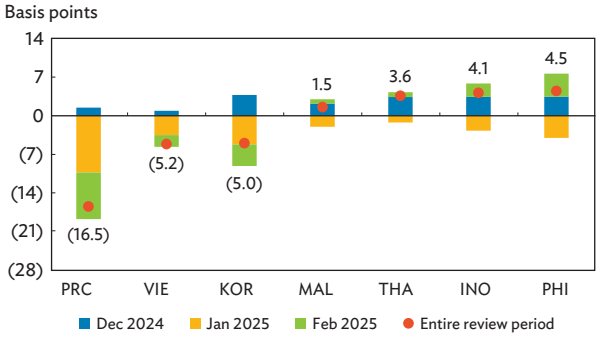
( ) = negative; CAM = Cambodia; PRC = People's Republic of China; HKG = Hong Kong, China; INO = Indonesia; KOR = Republic of Korea; LAO = Lao People's Democratic Republic; MAL = Malaysia; PHI = Philippines; SIN = Singapore; THA = Thailand; VIE = Viet Nam.

Note: The numbers above (below) each bar refer to the percentage change between 1 December 2024 and 28 February 2025.

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

[5] In February, the Monetary Authority of Singapore unveiled its intentions to implement the following measures, among others: (i) establish a SGD5 billion fund for investment placement with fund managers and tax exemptions for fund managers with substantial investment in Singapore-listed equities, (ii) limit the domestic portion investment requirement for foreign investors to exchange-listed assets, and (iii) offer a tax rebate for new listings and new secondary listings and a 5% concessionary tax rate on qualifying income for new fund managers listings.

Figure G: Changes in Credit Default Swap Spreads in Select Emerging East Asian Markets (senior 5-year)



( ) = negative; PRC = People's Republic of China; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PHI = Philippines; THA = Thailand; VIE = Viet Nam.

Note: The numbers above (below) each bar refer to the change in spreads between 1 December 2024 and 28 February 2025.

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

markets witnessed continued risk premium narrowing. During the review period, risk premiums fell the most in the PRC (–16.5 bps) over expectations of continued support from the government.

Risks to the region's financial conditions outlook are tilted to the downside, primarily driven by the uncertainty surrounding policy shifts under the new US administration, particularly in trade. Uncertainty in US economic policies could affect the financial conditions outlook via negative investor sentiment as well as higher-for-longer interest rates in the US. As flagged by officials of the Federal Reserve and the ECB, changes in trade policies and associated rising tariffs could lead to higher costs, possibly disrupting disinflation patterns. Additionally, larger-than-expected shifts in US immigration (more restrictive) and fiscal (more expansionary) policies could also potentially hinder the disinflationary process. Persistent inflation could slow easing cycles in advanced economies. The US' prolonged higher interest rates presented challenges to regional financial stability during the review period via capital outflows. Delayed easing action in the US may affect regional central banks' easing cycles, slowing the decline in borrowing costs and weighing on growth. Within the region, uncertainty over stabilizing the property market and improving domestic economic performance in the PRC could also weaken investor sentiment in other regional markets. In the medium term, extreme weather events related to climate change could negatively impact growth and inflation. Meanwhile, sovereign sustainable bond issues help mobilize private sustainable bond finance to mitigate the impact of climate change, which is discussed in **Box 2**. A discussion on how sustainability-linked bonds can be made more effective in driving sustainable outcomes is presented in **Box 3**.

Box 1: Opportunities and Challenges of Artificial Intelligence for Financial Systems

The financial sector is data-intensive and among the most exposed to artificial intelligence (AI). The application of AI in finance is significantly changing how markets operate, risks are managed, and consumers interact with financial services.

The use of AI in finance is not something new. Traditional analytics have been applied in various functions throughout the financial system. For example, AI models have been used for rule-based risk analysis in financial intermediation, risk management and portfolio optimization in asset management, and fraud detection in payment systems. Machine learning methods have also been employed in various applications in the financial sector such as credit- and insurance-risk analysis, high-frequency trading, new liquidity management tools, and anti-money laundering (Aldasoro et al. 2024).

Generative AI (GenAI) is distinct from traditional analytics and machine learning methods in three aspects: automaticity, speed, and ubiquity (Shin 2024). GenAI has the ability to generate and execute transactions, even without human intervention. It enables the processing of huge amounts of data at a speed far beyond human capacity. Furthermore, it can be integrated across different activities and sectors of the economy.

GenAI offers vast opportunities for the financial sector across several functions including financial intermediation, insurance, asset management, and payment systems. Financial institutions have used GenAI to strengthen credit scoring, back-end processing, customer support, risk analysis, robo-advising, and know-your-customer processes. The **Table B1** below summarizes the opportunities to apply AI in finance.

While AI has created numerous benefits for the financial sector, there are some challenges related to its adoption. In particular, there are new risks associated with the use of GenAI. Since AI can be adopted across different functions, processes, and applications, financial systems will likely become more vulnerable to cybersecurity threats. Further, GenAI models are prone to the garbage-in-garbage-out problem, as they tend to capture and sustain biases and errors inherent in the underlying data that they have been trained on. The use of AI-generated strategies that rely on "black box" analysis suggests that it may be difficult to explain their predictions.[a] AI models could also generate "hallucinations," which are false or misleading information resulting from incorrect or insufficient training data and faulty assumptions. Furthermore, the use of GenAI can create systemic risks. Market concentration is rife across all layers of the AI supply chain—from hardware and

Table B1: Opportunities for Artificial Intelligence in the Financial Sector

	Financial Intermediation	Insurance	Asset Management	Payments
Traditional Analytics	Rule-based risk analysis, greater competition	Rule-based risk analysis, greater competition	Risk management, portfolio optimization, HF trading	Fraud detection
Machine Learning	Credit risk analysis, lower underwriting costs, financial inclusion	Insurance risk analysis, lower processing costs, fraud detection	Analysis of new data sources, HF trading	New liquidity management tools, fraud detection and AML
Generative AI	Enhanced credit scoring (unstructured data), easier back-end processing, better customer support	Better risk analysis with newly legible data, easier compliance	Robo-advising, asset embedding, new products, customer service	Enhanced KYC and AML processes

AI = artificial intelligence, AML = anti-money laundering, HF = high-frequency, KYC = know-your-customer.
Source: Adapted from Aldasoro et al. (2024).

This box was written by Leonardo Gambacorta (head of the Emerging Markets Unit) at the Bank for International Settlements and Gemma Estrada (senior economics officer) and Donghyun Park (economic advisor) of the Asian Development Bank. The views expressed here are those of the authors and not necessarily those of the Bank for International Settlements or the Asian Development Bank.

[a] "Black box" in AI refers to a system whose inputs and operations are not known to users. Black box AI models generate predictions and decisions without any clear explanation as to how they have been produced. Techtarget. Definition—What is Black Box AI?

continued on next page

Box 1 *continued*

cloud computing to training data and foundation models (Gambacorta and Shreeti 2025). Big tech players in the GenAI space are expanding their presence in the AI supply chain, integrating their services across different markets and reinforcing their dominance. AI supply chain concentration causes third-party dependencies (e.g., model, data, and algorithmic herding), resulting in more uniform behavior. This suggests that failures and disruptions within the AI systems of big tech players can have widespread effects that lead to overall financial instability.

A key challenge is to build AI regulations that recognize the risks and benefits of AI adoption. This would help maximize the benefits of AI for finance while minimizing its risks. The principles underlying AI regulations must encompass social and environmental well-being, transparency and accountability, and fairness and protection of privacy. Further, they must adhere to safety measures and human oversight, while being robust and reliable (Aldasoro et al. 2024). Different regulatory models for AI have been proposed. One model is a market-driven approach, in which the focus is on self-regulation and innovation. A second model is a state-driven approach, which focuses on political objectives and technology exports. A third model is rights-driven, in which the emphasis is on individual and social rights (Bradford 2023). The three models are not necessarily mutually exclusive and therefore can be adopted to varying degrees and combinations.

Given differences in economies' level of development and the extent of their AI adoption, global cooperation on AI regulation is critical. Economies stand to gain from harmonized regulatory standards and governance rules that enable the transfer of knowledge, uniform risk assessment, and the prevention of regulatory arbitrage.

To conclude, the adoption of AI can deliver potentially large benefits for the financial sector. However, AI also introduces significant risks such as market concentration, model hallucination, and cybersecurity risks. While AI can boost the productivity of the financial sector, it also poses systemic risks and potential market disruptions. To maximize the net benefits for finance, AI regulations must strike a balance between innovation and safety. Doing so requires international cooperation, transparency, and adaptable principles that can keep up with fast-evolving AI technologies.

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Box 2: Sovereign Sustainable Bond Issuance and Sustainable Bond Market Development in Developing Asia

Sustainable bonds have become important instruments in directing capital toward eco-friendly and socially responsible investments. These debt instruments—issued by governments, corporations, and other entities—allocate funds to projects that meet certain environmental or social objectives. In developing Asia, sustainable bond markets have expanded rapidly during the past decade, driven by new investment opportunities, regulatory shifts and policy support, and rising investor demand (Giardino et al. 2024).[a]

In developing Asia, corporate issuers are the main players in the sustainable bond market. At the end of 2024, 70.5% of outstanding sustainable bonds in developing Asia were issued by corporates. However, this contrasts with the fact that government bonds accounted for 65.7% of total bonds outstanding in developing Asian markets at the end of 2024. Developing Asia's public sector share of sustainable bond issuance is less than in the world's largest sustainable bond market, the European Union, where 48.8% of sustainable bond outstanding at the end of 2024 were issued by governments.

Developing Asia can mobilize more private capital for sustainable investments through greater public sector participation. Ehlers et al. (2024) find that sovereign sustainable bond issuance can boost corporate sustainable bond issuance. Increased issuance can be facilitated by governments signaling their commitment to implementing renewable energy policy to fulfill net-zero pledges (Chesini 2024; Cheng, Ehlers, and Packer 2022; Capelle-Blancard et al. 2019), as well as through greater transparency via improved verification and reporting (Cheng, Ehlers, and Packer 2022; Jankovic, Vasic, and Kovacevic 2022). The study that this box is based on extends the findings of Ehlers et al. (2024) by examining the role of sovereign sustainable bond issuance on corporate sustainable bond market development in Asia. Specifically, we explore how the first sovereign issuance of sustainable bonds and ongoing buildup of sovereign sustainable bond issuances affect the size and diversification of corporate sustainable bond markets.

Our study follows Ehlers et al. (2024) and employs a panel regression approach with market-quarter fixed effects. The panel dataset encompasses nine developing Asian economies with sovereign sustainable bond issuances from the third quarter of 2014, when the first corporate sustainable bond was issued in developing Asia, to the second quarter of 2024, the most recent quarter for which data are available. The markets included in the sample are Hong Kong, China; Indonesia; India; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Uzbekistan.

This study examines the impact of sovereign sustainable bond issuance on several corporate sustainable bond market development indicators, including size, which is captured by the proportion of sustainable corporate bond issuances as a share of total corporate bond issuances during the quarter (size); the proportion of local currency sustainable bond issuance to total sustainable bond issuance during the quarter (LCY); the natural logarithm of the number of first-time corporate sustainable bond issuance (first time), as well as the number of unique corporate sustainable bond issuers during the quarter (unique); and the Herfindahl–Hirschman Index of cumulative corporate sustainable bond issuance from the first issuance until the current quarter by sector (HHI-sector) and by issuer (HHI-issuer) to measure market concentration.

To capture sovereign sustainable bond issuance, this study includes several measures. The first is a binary variable (sovereign debut) that denotes the quarter of the first sovereign issuance of sustainable bonds in a market. The second measure is the proportion of a market's cumulative sovereign sustainable issuance to cumulative total sovereign bond issuance by quarter (sustainable share of sovereign issuances) to reflect the efforts of government spending on sustainable activities. To gauge whether the currency denomination of a sovereign sustainable bond issuance affects its impacts, this study also includes a binary variable to indicate the first LCY sovereign sustainable bond issuance (LCY sovereign debut).

The analysis controls for sustainable bond market development using total sustainable bonds outstanding (total bonds outstanding) during the quarter, overall market financing conditions (total bond issuance) during the quarter, and domestic bond market development (outstanding bonds as a share of gross domestic product) during the quarter.

This box was written by Resi Ong Olivares (consultant) and Shu Tian (principal economist) of the Asian Development Bank.

[a] Developing Asia comprises the 46 developing member economies of the Asian Development Bank.

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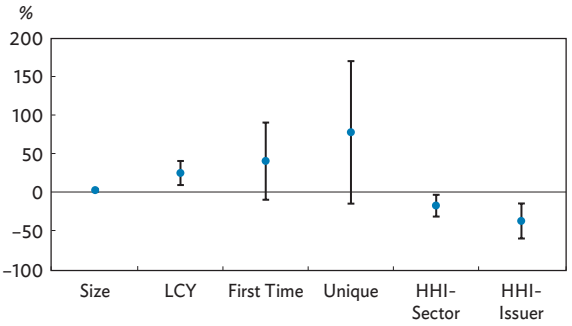
Box 2 *continued*

The empirical results are reported in **Figure B2**. As shown in **panel A**, there is a significant and positive association between sovereign debuts and corporate sustainable bond market development. Sovereign debuts are related to a 4.0% increase in overall corporate bond issuance and a substantial 26.2% increase in LCY corporate bond issuance. Furthermore, sovereign debt is significantly associated with declines of 15.8% and 35.6%, respectively, in market concentration in terms of both sustainable bond sectors and issuers. Issuing LCY sovereign sustainable bonds is also beneficial to market development. An LCY sovereign sustainable bond debut is related to a 20.9% increase in LCY corporate bond issuance (**panel B**); a 40.9% increase in unique issuers; and declines of 14.1% and 25.0% in market concentration as measured by sectors and issuers, respectively. These results indicate that sovereign sustainable bonds are related to corporate sustainable bond market development. As shown in **panel C** of Figure B2, a 1% higher share of sovereign sustainable bond issuance is related to a 0.05% increase in the volume of total corporate sustainable bonds outstanding, 0.69% more LCY corporate sustainable bond issuance, and 0.69% more unique corporate sustainable bond issuers.

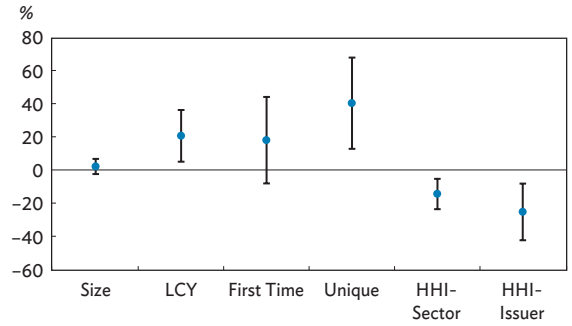
These findings provide evidence that sovereign issuances of sustainable bonds can help catalyze private sustainable finance in developing Asia. As discussed in Ehlers et al. (2024), sovereign sustainable bond issuance can promote corporate sustainable bond issuance via signaling and transparency in reporting. In developing Asia, we find that sovereign issuance can increase the number of corporate sustainable bond issuers and broaden corporate sustainable market participation, thereby reducing market concentration. These findings have significant implications for policymakers aiming to accelerate the transition to a more sustainable economy. By strategically issuing sovereign sustainable bonds, governments can raise capital for sustainable projects and catalyze private sector engagement in sustainable finance. The findings of this study will guide future exploration of possible working channels in developing Asia and the long-term impact of sovereign issuance on issuer performance and broader economic outcomes.

Figure B2: Impacts of Sovereign Sustainable Bond Issuance on Corporate Sustainable Bond Issuance

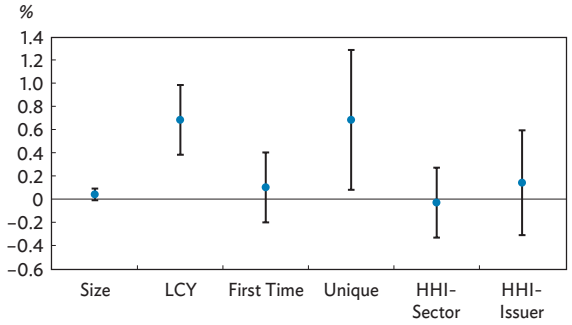
A. Sovereign Debut



B. Local Currency Sovereign Debut



C. Sustainable Share of Sovereign Issuances



HHI = Herfindahl–Hirschman Index, LCY = local currency.
Source: Authors' calculations.

continued on next page

Box 2 *continued*

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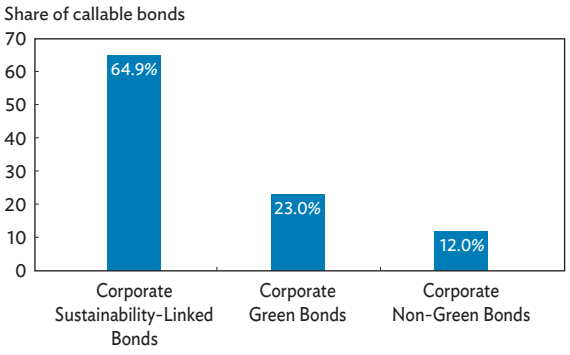
Box 3: Strengthening Sustainability-Linked Bonds

Sustainability-linked bonds (SLBs) are an innovative debt instrument designed to embed financial incentives that encourage issuers to meet predetermined sustainability targets. By linking financial performance to sustainability outcomes, SLBs aim to enhance issuer accountability and mitigate concerns about greenwashing in the sustainable debt market. The overwhelming majority of SLBs have a coupon step-up penalty as the embedded financial incentive, which is a rise in the interest cost if the issuer fails to meet preset sustainability targets by a predetermined deadline (i.e., target date).

However, for SLBs to be truly effective, the embedded financial incentives must be significant enough to influence issuer behavior. Evidence suggests that this is often not the case: The average coupon step-up penalty accounts for less than 12% of the coupon rate.

Figure B3: Callability of Corporate Bonds by Bond Type



Sources: Ul Haq and Doumbia (2022) for sustainability-linked bonds and green bonds; Dias (2021) for non-green bonds.

Ul Haq and Doumbia (2022) highlights certain bond features that weaken SLBs' financial incentives regardless of the penalty size. Their study sheds light on two specific features that may dilute the effectiveness of SLBs in promoting sustainable impacts: (i) the timing of penalties and (ii) the ability for early redemption of a bond by the issuer.

First, many SLBs set sustainability target dates near the end of the bond's tenor, meaning financial penalties for noncompliance apply to only a few remaining coupon payments. This significantly reduces the financial consequences for issuers that fail to meet their targets. The problem is further compounded by the fact that SLBs with higher step-up penalties tend to have later target dates, effectively diluting even large penalties. To improve accountability, SLBs should incorporate multiple interim targets throughout the bond's life, ensuring that financial incentives remain in place over time and that issuers face ongoing accountability.

Second, call options embedded in SLBs also allow issuers to minimize or avoid penalties. Many issuers retain the option to redeem their bonds before or close to sustainability target dates, effectively allowing them to sidestep penalties if sustainability targets are not met. SLBs are five times more likely to be callable than conventional corporate bonds, and most callable SLBs impose no additional financial penalty for early redemption even if sustainability targets are unmet, further undermining the credibility of financial incentives (**Figure B3**). Strengthening SLB structures by applying penalties if bonds are called early can help prevent issuers from exploiting this loophole.

Addressing these structural weaknesses—by setting multiple or timely target dates and ensuring adequate penalties on early redemption—can make SLBs a more credible tool for driving sustainability outcomes. This is especially critical for high-emission issuers, who are more likely to take advantage of these loopholes. Industry standards should incorporate these best practices, while regulators can enhance transparency by requiring disclosure of these structural features. External reviewers can also expand their scope to cover the materiality of financial incentives in addition to that of sustainability targets. Strengthening SLBs in this manner will help ensure that they fulfill their intended role of mobilizing capital for sustainability while delivering real impacts.

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