Developments in Regional Financial Conditions

Financial conditions in emerging East Asia marginally improved between 1 December 2023 and 29 February 2024 despite some weakening in January. Financial market conditions were largely influenced by shifting expectations over the path of United States (US) monetary policy, moderating inflation, and improved economic performance across the region. In most regional markets during the review period, equity indexes gained, risk premiums narrowed, and positive net foreign portfolio equity and bond market inflows were recorded—all despite the marginal depreciation of regional currencies against the US dollar due to an expected delay in US rate cuts. Short-term bond yields declined for most markets in emerging East Asia over the expected end of monetary tightening, but long-term bond yields slightly rose in most markets, tracking bond yields in major advanced economies. Nevertheless, risks to regional financial conditions remained tilted to the downside, particularly regarding the uncertainty about the timing of US monetary easing, possible disruptions

to disinflationary momentum, as well as spillover effects from the economic slowdown and persistent deflation in the People's Republic of China (PRC).

In major advanced economies, both 2-year and 10-year local currency government bond yields slightly rose between 1 December 2023 and 29 February 2024 because of uncertainty about the timing of monetary policy adjustments (**Table A**). While financial markets largely expect advanced economy central banks to eventually ease their monetary stances, the recent release of economic data, particularly in the US, heightened uncertainties regarding the timing of their policy rate cuts.

In the US, 2-year and 10-year sovereign bond yields marginally edged up during the review period. Bond yields initially declined in December on expectations that the Federal Reserve would cut the federal funds target rate as early as March 2024. However, in January and February, US yields trended upward over rising uncertainty on

Table A: Changes in Financial Conditions in Major Advanced Economies and Select Emerging East Asian Markets from 1 December 2023 to 29 February 2024

| | 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 | 22 | 5 | - | 10.4 | (0.7) |
| Japan | 13 | 1 | (5) | 13.6 | (2.1) |
| United States | 8 | 5 | - | 10.9 | - |
| Select Emerging East Asian Markets | | | | | |
| China, People's Republic of | (37) | (33) | 7 | (0.5) | (8.0) |
| Hong Kong, China | (26) | 3 | - | (1.9) | (0.2) |
| Indonesia | (34) | (10) | (4) | 3.6 | (1.5) |
| Korea, Republic of | (14) | (22) | 5 | 5.5 | (1.9) |
| Malaysia | 0 | 4 | (0.5) | 6.5 | (1.5) |
| Philippines | 13 | 1 | (4) | 11.2 | (1.4) |
| Singapore | 0.2 | 11 | - | 1.7 | (0.9) |
| Thailand | (31) | (40) | (0.3) | (0.7) | (2.3) |
| Viet Nam | (39) | 3 | (0.9) | 13.7 | (1.5) |

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

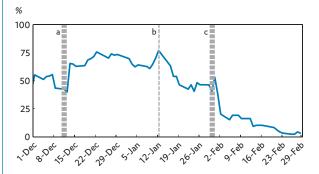
Note: A positive (negative) value for the FX rate indicates the appreciation (depreciation) of the local currency against the United States dollar. Source: AsianBondsOnline calculations based on Bloomberg LP data.

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

the timing of rate cuts following the hawkish comments of several Federal Reserve officials and stronger-thanexpected economic data. In its 12-13 December 2023 Federal Open Market Committee (FOMC) meeting, the Federal Reserve left its policy rate unchanged at a range of 5.25%-5.50%, but the updated dot plot raised expectations for more rate cuts in 2024—with a total increase of 75 basis points (bps), up from 50 bps in the September projections. Financial markets also anticipated that the first rate cut would happen at the March 2024 FOMC meeting. As shown in the CME FedWatch Tool (Figure A), the likelihood of a 25 bps rate cut at the March FOMC meeting increased from 39.7% on 12 December to 65.4% on 13 December.

Several Federal Reserve officials, however, expressed caution in January and February about cutting interest rates in the near term, citing inflation concerns. For instance, Federal Reserve Bank of Cleveland President Loretta Mester said on 11 January that March was too soon for a rate cut, while Federal Reserve Governor Christopher J. Waller on 16 January echoed the sentiment that there was no reason to move quickly and the pace and size of rate cuts would depend on incoming data. During the 31 January FOMC press conference, Federal Reserve Chairman Jerome Powell said that a rate cut in March was unlikely. Federal Reserve officials confirmed these views with a hawkish tone in the minutes

Figure A: Probability of a 25 bps Rate Cut at the Federal Open Market Committee Meeting on 19-20 March 2024



bps = basis points, FOMC = Federal Open Market Committee. Note: Data are as of 29 February 2024.

- FOMC December meeting with the Federal Reserve hinting of rate cuts in 2024.
- Federal Reserve Bank of Cleveland President Loretta Mester says March is probably too early for a rate cut.
- Federal Reserve Chairman Jerome Powell says rate cut unlikely in the March FOMC meeting.

Source: CME FedWatch Tool.

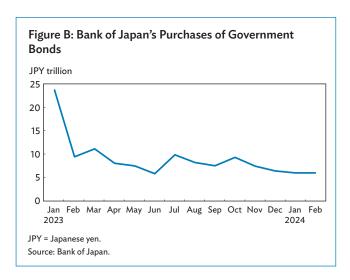
of the January FOMC meeting, which were released in early February. The January meeting minutes noted that inflation had receded but remained above target and it would not be appropriate to adjust the policy rate until there was more confidence that inflation was trending down. This was reaffirmed by Federal Reserve Governor Michelle W. Bowman on 2 February, who cited that inflation needed to continue moving stably toward the 2.0% goal before the policy rate could be gradually lowered. On 14 February, Federal Reserve Vice Chair Michael Barr said that the soft-landing scenario was not certain yet. Federal Reserve Bank of Atlanta President Raphael Bostic also claimed on 15 February that he was not ready to support a rate cut due to ongoing risks. On 29 February, Federal Reserve Bank of New York President John Williams said he expects the Federal Reserve to cut rates later in the year. Consequently, market expectations on the probability of a rate cut in the March FOMC meeting dropped sharply from 70.2% on 11 January to 3.0% on 29 February (Figure A). Likewise, the probability that rates would also be left unchanged at the May FOMC meeting rose to 77.9% on 29 February from 2.3% on 11 January. This signaled a higher-for-longer rate and that the Federal Reserve could cut rates in the second half of the year. The CME FedWatch Tool on 29 February supported this assessment, reflecting a 53.9% likelihood of a 25 bps rate cut at the June FOMC meeting. Thus, the pace of Federal Reserve rate cuts remains uncertain.

US economic performance improved in the fourth quarter (Q4) of 2023 and early 2024. Gross domestic product (GDP) was expected to have expanded at an annualized 3.2% in Q4 2023, based on estimates that showed a continuation of the third quarter's annualized growth of 4.9%. Nonfarm payroll additions were reported at 275,000 in February, up from the previous month's 229,000. Meanwhile, the unemployment rate slightly increased to 3.9% in February from 3.7% in January. Consumer price inflation in January eased to 3.1% yearon-year (y-o-y) from December's 3.4% y-o-y, and producer price inflation also slowed to 0.9% y-o-y in January from 1.0% y-o-y in December. Based on the Federal Reserve's updated economic forecast released in December, 2024 GDP was downgraded slightly to 1.4% from 1.5%, and 2025 GDP was left unchanged at 1.8%. The Personal Consumption Expenditure inflation forecasts for 2024 and 2025 were revised downward to 2.4% y-o-y and 2.1% y-o-y, respectively, from 2.5% y-o-y and 2.2% y-o-y.

In the euro area, yields rose during the review period due to uncertainties regarding the European Central Bank's (ECB) monetary policy stance. While the ECB kept rates unchanged at its 14 December meeting, it announced the gradual reduction of its balance sheet by EUR7.5 billion per month on average, starting in the second half of 2024. During the 25 January ECB meeting, at which monetary policy was left unchanged, ECB President Christine Lagarde said that it was premature to discuss rate cuts and the central bank would continue to be data dependent. However, comments from some ECB officials suggested that a rate cut was forthcoming but the timing remained uncertain. ECB Governing Council Member Peter Kazimir said on 29 January that a rate cut would eventually occur, noting that a June rate cut was more likely than a rate cut in March. Likewise, on 9 February, Banco de España Governor Pablo Hernandez de Cos mentioned that the next ECB move was likely a rate cut. Minutes of the 25 January ECB meeting acknowledged that it was premature to discuss cutting rates but noted that inflation appeared to be on track to reach the ECB's target, possibly even faster than expected.

Inflation in the euro area continued to decline, while economic performance remained subdued. GDP in the euro area grew 0.1% y-o-y in Q4 2023, compared with 0.0% growth in the previous quarter. Consumer price inflation slightly eased to 2.6% y-o-y in February from 2.8% y-o-y in January. The ECB's December forecasts for 2024 consumer price inflation and GDP were downgraded to 2.7% y-o-y and 0.8% y-o-y, respectively, from 3.2% and 1.0% in September. On 7 March, the ECB left monetary policy unchanged but further lowered its 2024 inflation and GDP forecasts to 2.3% y-o-y and 0.6% y-o-y, respectively.

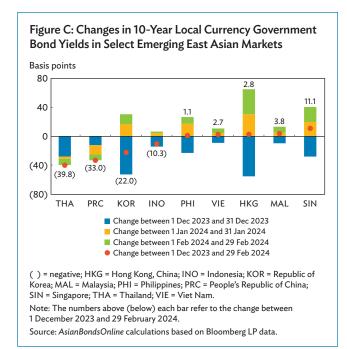
In Japan, bond yields rose slightly during the review period as the Bank of Japan (BOJ) signaled that it was gradually ending its easy monetary stance. At its 31 October meeting, the BOJ kept unchanged its –0.1% policy rate and scrapped the 1.0% ceiling on 10-year yields, saying that the 1.0% ceiling would be used as a reference. The BOJ has also been gradually reducing its Japan Government Bond purchases since the first quarter of 2023 (**Figure B**). While the policy rate was left unchanged at the 23 January meeting, BOJ Governor Kazuo Ueda said in a parliamentary meeting on 15 February that Japan's "virtuous cycle of wages and prices is strengthening." Japan's GDP performance also stabilized in Q4 2023, with a slower pace of decline at



an annualized rate of -0.4% compared to -3.2% in the previous quarter. Consumer price inflation eased to 2.2% y-o-y in January from 2.6% y-o-y in December, approaching the central bank's 2.0% goal. In January, the BOJ's 2024 GDP forecast was upgraded slightly to 1.2% from 1.0% in October, and its 2024 inflation estimate was lowered to 2.4% y-o-y from 2.8% y-o-y in October. In the Summary of Opinions at the Monetary Policy Meeting released on 31 January, some members noted that, if the current trajectory of the economy is maintained, it may be appropriate to begin considering whether to "continue with its large-scale monetary easing measures, including the negative interest rate policy." However, uncertainties remain as BOJ Governor Kazuo Ueda, on 29 February, said that he could not yet say if the BOJ was close to achieving its inflation target.

Emerging East Asia's 2-year local currency government bond yields largely declined in most markets during the review period on the expected ending of monetary tightening, but 10-year bond yields trended up, tracking movements in advanced economies. Yields on 10-year government bonds declined in December over the likelihood that the Federal Reserve would begin ratecutting in the first half of 2024. However, uncertainty about the Federal Reserve's expected monetary easing led to a rise in yields for most markets in January and February (**Figure C**).

Moderating inflation in the region helped keep yields from rising during the review period. Most economies recorded a decline in their respective inflation rates as supply shocks eased for some commodities (**Figure D**).



Moderating inflation combined with the Federal Reserve's expected easing have largely kept policy rates in the region unchanged, with some central banks hinting at a possible easing by the second half of the year (**Table B**). On 26 January, Bangko Sentral ng Pilipinas Governor Eli Remolona said that a rate cut was possible in 2024 but unlikely in the first half of the year. Similarly, on 21 February, Bank Indonesia Governor Perry Warjiyo noted that Bank Indonesia's outlook points to a rate cut sometime in the second half of the year. While the Bank of Thailand kept its monetary policy rate unchanged

on 7 February, two members voted in favor of a rate cut. On 8 February, Bank of Thailand Senior Director Sakkapop Panyanukul said that the central bank was ready to cut rates if consumption weakened. Moreover, central banks in the PRC and Viet Nam engaged in some form of easing last year to support their respective economies. In the PRC, the People's Bank of China announced a reduction in the reserve requirement ratio by 50 bps in January and reduced the 5-year loan prime rate by 25 bps to 3.95% in February. In Viet Nam, the State Bank of Vietnam lowered its refinancing rate to 4.50% via three cuts from April to June 2023.

Emerging East Asian currencies slightly weakened against the US dollar, largely driven by US monetary policy uncertainty (**Figure E**). Regional currencies weakened by a marginal 1.1% (simple average) and 1.0% (GDP-weighted average) from 1 December to 29 February. Collectively, regional currencies appreciated in December amid hints the Federal Reserve was approaching the end of its rate-hiking cycle. However, a majority of regional currencies weakened in January and February on a stronger US economy and hawkish tones from some Federal Reserve officials.

US monetary policy uncertainty marginally pushed up risk premiums in January. Risk premiums, as measured by credit default swap (CDS) spreads, fell marginally in the region during the review period by an average of 0.8 bps (simple) but widened by 0.1 bps (GDP-weighted), if excluding the PRC. CDS fell for most markets in December following expectations that the

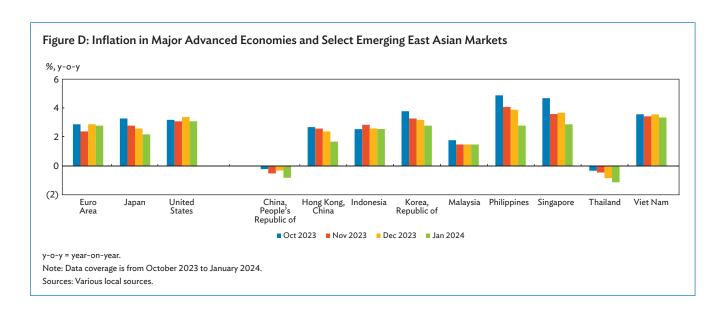


Table B: Changes in Monetary Stances in Major Advanced Economies and Select Emerging East Asian Markets

| | Policy Rate | | | | | | Rate | Change | (%) | | | | | | Policy Rate | Change in Policy Rates (basis points) |
|-----------------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------------------------------|
| Economy | 1-Feb-2023 (%) | Feb- 2023 | Mar- 2023 | Apr- 2023 | May- 2023 | Jun- 2023 | Jul- 2023 | Aug- 2023 | Sep- 2023 | Oct- 2023 | Nov- 2023 | Dec- 2023 | Jan- 2024 | Feb- 2024 | 29-Feb-2024 | |
| Euro Area | 2.00 | † 0.50 | † 0.50 | | ↑ 0.25 | 1 0.25 | | 1 0.25 | 1 0.25 | | | | | | 4.00 | 1 200 |
| Japan | (0.10) | | | | | | | | | | | | | | (0.10) | • 0 |
| United Kingdom | 3.50 | † 0.50 | † 0.25 | | † 0.25 | † 0.50 | | † 0.25 | | | | | | | 5.25 | 175 |
| United States | 4.75 | | ↑ 0.25 | | ↑ 0.25 | | † 0.25 | | | | | | | | 5.50 | ↑ 75 |
| China, People's Republic of | 2.75 | | | | | ↓ 0.10 | | ↓ 0.15 | | | | | | | 2.50 | ↓ 25 |
| Indonesia | 5.75 | | | | | | | | | † 0.25 | | | | | 6.00 | ↑ 25 |
| Korea, Republic of | 3.50 | | | | | | | | | | | | | | 3.50 | • 0 |
| Malaysia | 2.75 | | | | ↑ 0.25 | | | | | | | | | | 3.00 | ↑ 25 |
| Philippines | 5.50 | † 0.50 | † 0.25 | | | | | | | † 0.25 | | | | | 6.50 | 1 00 |
| Singapore | - | | | | | | | | | | | | | | - | - |
| Thailand | 1.50 | | ↑ 0.25 | | † 0.25 | | | † 0.25 | 1 0.25 | | | | | | 2.50 | 1 00 |
| Viet Nam | 6.00 | | | ↓ 0.50 | ↓ 0.50 | ↓ 0.50 | | | | | | | | | 4.50 | ↓ 150 |

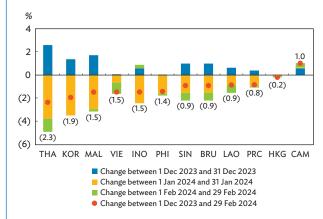
^{() =} negative, • = no change, - = no data.

Notes:

- 1. Data coverage is from 1 February 2023 to 29 February 2024.
- 2. For the People's Republic of China, data used in the chart are for 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.
- 3. 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.

Figure E: Changes in Select Emerging East Asian Currencies versus the United States Dollar



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

- A positive (negative) value for the foreign exchange rate indicates the appreciation (depreciation) of the local currency against the United States dellar.
- The numbers above (below) each bar refer to the change between 1 December 2023 and 29 February 2024.

Source: AsianBondsOnline calculations based on Bloomberg LP data.

Figure F: Changes in Credit Default Swap Spreads in Select Emerging East Asian Markets (senior 5-year) Basis points 10 5 0 (0.3) (5) (0.9)(0.5)(4.3)(10)(4.0)(15)PHI MAL KOR PRC ■ Change between 1 Dec 2023 and 31 Dec 2023 Change between 1 Jan 2024 and 31 Jan 2024 ■ Change between 1 Feb 2024 and 29 Feb 2024 Change between 1 Dec 2023 and 29 Feb 2024 () = negative; INO = Indonesia; KOR = Republic of Korea; MAL = Malaysia; PHI = Philippines; PRC = People's Republic of China; THA = Thailand; VIE = Viet Nam. Note: The numbers above (below) each bar refer to the change in spreads

between 1 December 2023 and 29 February 2024.

Source: AsianBondsOnline calculations based on Bloomberg LP data.

Federal Reserve would begin cutting rates in 2024 (Figure F). However, heightened uncertainties over the timing of Federal Reserve rate cuts led to a rise in CDS spreads in all markets in January. CDS spreads recovered in most markets in February as market sentiment improved over the PRC's stimulus and fiscal measures to boost economic expansion. These measures included, among others, a reduction in the 5-year loan prime rate, a cut in the reserve requirement ratio, increased fiscal spending, frontloaded sovereign bond issuance, and low-interest loans to policy banks through the pledged supplementary facility. CDS spreads narrowed the most in the Philippines on improved sentiments as it posted the fastest growth in 2023 among all regional economies.

Regional equity markets were supported by robust economic performance in most markets. During the review period, regional equity markets gained an average of 5.9% (simple) and 4.7% (market-weighted) if the PRC and Hong Kong, China are excluded (Figure G). The gains were partly driven by better Q4 2023 GDP growth for most markets in the region versus the prior quarter (**Table C**). The growth outlook for most regional markets is also expected to improve in 2024 per the December 2023 Asian Development Outlook. In addition, equity markets were also supported by positive investor sentiment in December over the Federal Reserve's expected easing. On the other hand, equity markets in

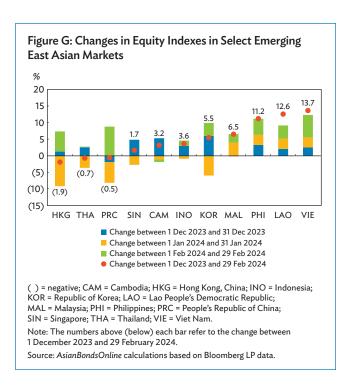


Table C: Gross Domestic Product Growth in Select Emerging East Asian Markets (%, y-o-y)

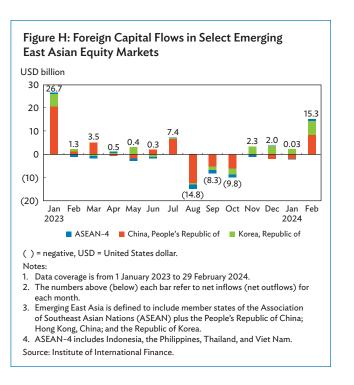
| Market | Q3 | Q4 | Full Year | 2024ª |
|-----------------------------|------|------|-----------|-------|
| China, People's Republic of | 4.90 | 5.20 | 5.20 | 4.50 |
| Hong Kong, China | 4.10 | 4.30 | 3.20 | 3.30 |
| Indonesia | 4.94 | 5.04 | 5.05 | 5.00 |
| Korea, Republic of | 1.40 | 2.20 | 1.40 | 2.20 |
| Malaysia | 3.30 | 3.00 | 3.70 | 4.60 |
| Philippines | 6.00 | 5.60 | 5.60 | 6.20 |
| Singapore | 1.00 | 2.20 | 1.10 | 2.50 |
| Thailand | 1.40 | 1.70 | 1.90 | 3.30 |
| Viet Nam | 5.33 | 6.72 | 5.05 | 6.00 |

Q3 = third quarter, Q4 = fourth quarter, y-o-y = year-on-year.

both the PRC and Hong Kong, China recorded losses amid weakening economic conditions and concerns over the property sector. In February, regional equity markets recovered following the Government of the PRC's stimulus measures and a slew of additional stock market support. For example, the China Securities Regulatory Commission initiated measures to support the stock market by encouraging institutional investors to increase investments, asking companies to increase stock buy-backs, and creating a task force to monitor shortselling. The China Securities Regulatory Commission also banned select institutional investors from selling stocks at the start and end of each of each trading day. In addition, government-owned financial institutions, such as Central Huijin Investment, have become more active in the A share market. The Shanghai and Shenzhen stock exchanges announced that they would step-up the monitoring of quantitative hedge funds. The Ministry of Housing and Urban-Rural Development also asked banks to fund a white list of key housing projects.

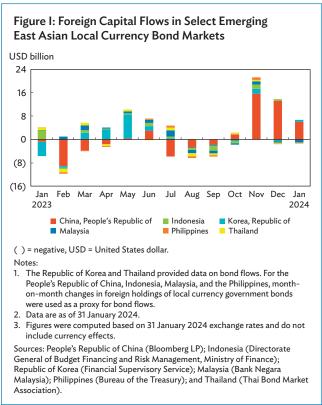
Emerging East Asian capital markets recorded net portfolio inflows of USD17.4 billion during the review period on expectations of US monetary easing (Figure H). The largest portfolio inflows were recorded in February at USD15.3 billion over improving economic performance in the region and the PRC's government stimulus measures to support the economy, boosting foreign investor sentiment. Meanwhile, bond inflows into regional bond markets totaled USD12.2 billion in December, following signals the Federal Reserve would ease its monetary stance (Figure I). By January, inflows narrowed to

^a Forecasts for 2024 are based on the Asian Development Outlook December 2023. Sources: Various local sources.



USD5.3 billion on uncertainty over the timing of US monetary policy easing.

The risk outlook for regional financial conditions is tilted to the downside, including not only uncertainty about the timing and magnitude of the Federal Reserve's monetary easing but also possible disruptions to disinflationary momentum and spillover effects from the economic slowdown and deflation in the PRC. The adverse effects of weather conditions and the intensification of geopolitical tensions around the world could further disrupt supply chains and reverse the process of disinflation in the region. Some geopolitical risks, such as Houthi attacks on ships in the Red Sea and a drought in the Panama Canal area, have caused a surge in container freight rates in Asia since late 2023.² Inflation persistence—due to factors such as adverse weather and other supply shocks—could still heighten



risk aversion among investors and consumers in the region, negatively affecting investment. In addition, weather-related disruptions have highlighted the need for additional investment in reducing carbon emissions. However, the region's large climate investment gap and its financing remain a challenge. **Box 1** discusses how blended finance helps close climate investment gaps by scaling up contributions of private capital. In the medium to long term, climate-related risks threaten development and economic growth. Financial markets are witnessing a growing interest in net zero investing as part of efforts to mitigate climate change, which also contributes to closing the climate finance gap. **Box 2** discusses the concept of net zero investing in greater detail.

² United Nations Conference on Trade and Development. 2024. "Navigating Troubled Waters Impact to Global Trade of Disruption of Shipping Routes in the Red Sea, Black Sea and Panama Canal." Geneva.

Box 1: The Growing Role of Blended Finance in Supporting Asia's Clean Energy Investments

Blended finance is an international public–private funding mechanism aimed at mobilizing private funds for infrastructure investment in emerging and developing economies (EMDEs). Given the growing need to decarbonize Asia's economy, expanding the scale of blended finance in clean energy requires innovative efforts by the international community to reform traditional development finance approaches.

Expanding Clean Energy Investment Requires Significant Financing

Asia faces substantial energy demand. The People's Republic of China (PRC), India, and Southeast Asia together will account for an estimated 70% of the world's growth in electricity demand during 2023-2025 (International Energy Agency [IEA] 2023).

To achieve net zero greenhouse gas (GHG) emissions, Asia needs to increase its annual clean energy annual investments from USD623 billion in 2022 to USD1,386 billion during 2026–2030 and USD1,658 billion during 2031–2035 (IEA 2023). **Table B1.1** shows that the PRC accounted for approximately 80% of total clean energy investment in Asia in 2022. As other Asian economies increase their clean energy investments over time, the PRC's share of the regional total is expected to drop to 62% during 2026–2030 and 57% during 2031–2035. To both promote decarbonization and meet

growing electricity demand, other Asian economies will need to increase their investments by about 6–8 times over current levels by 2031–2035. Even excluding the PRC, Asia's clean energy investments (derived from adding Southeast Asia, India, and "Other Asia") will be the largest in the EMDEs.

EMDEs, excluding the PRC, represent nearly 70% of the world's population, but their clean energy investment accounts for only 20% of the global total. This clearly reflects a shortage of private capital available for such investment due to political, economic, and exchange rate risks. Blended finance—which entails allocating more public funds initially and then gradually reducing this allocation as private capital increases—can be helpful for EMDEs with a track record of implementing such projects (Shirai 2023). Public funds can reduce risks borne by private investors through equity investments, loans, guarantees, grants, and technical assistance.

Blended Finance and Credit Ratings

One major constraint to scaling up private capital contributions for clean energy investments is the relatively low credit ratings of EMDEs. Many global investors have been subject to stringent financial regulations since the global financial crisis. They tend to prioritize investment-grade bonds with a credit rating of BBB or higher, and thus invest mainly in developed and some large emerging

Table B1.1: Annual Clean Investment Required under the Net Zero Scenario (USD billion)

| | | | | Net Zero Scenario | | | |
|----------------------------|------|------|---------------|-------------------|----------------|--|--|
| | 2015 | 2022 | (1) 2026-2030 | (2) 2031-2035 | (2)/2020 Level | | |
| EMDEs | 538 | 773 | 2,222 | 2,805 | 4 | | |
| People's Republic of China | 287 | 511 | 853 | 947 | 2 | | |
| EMDEs excluding PRC | 251 | 262 | 1,369 | 1,858 | 7 | | |
| Southeast Asia | 28 | 30 | 185 | 244 | 8 | | |
| India and Other Asia | 76 | 82 | 348 | 467 | 6 | | |
| Africa | 26 | 32 | 203 | 265 | 8 | | |
| Latin America | 63 | 66 | 243 | 332 | 5 | | |
| Middle East and Eurasia | 57 | 52 | 390 | 550 | 11 | | |
| Asian EMDEs | 391 | 623 | 1,386 | 1,658 | 3 | | |

EMDE = emerging and developing economy, PRC = People's Republic of China, USD = United States dollar.

Source: Author's calculations based on International Energy Agency (2023).

This box was written by Sayuri Shirai, PhD, an advisor for sustainable policies at the Asian Development Bank Institute, a professor at the Faculty of Policy Management of Keio University, and a former policy board member of the Bank of Japan. The content of this box is based on Shirai, Sayuri. 2023. Asia's Clean Energy Investment Needs and the Role of Blended Finance. Asia Pathways. 10 August.

^{1.} Regions are defined based on International Energy Agency (IEA) classifications.

^{2.} The sum of regional data does not add up to total amount due to rounding.

Box 1 continued

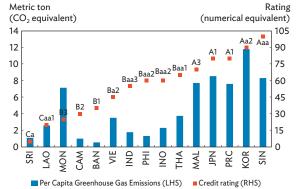
economies. However, since about 80% of EMDE government bonds have a speculative rating of BB or lower, with high political and exchange rate risks, private investors often hesitate to invest in these economies. Thus, financial institutions that invest in speculative-grade securities require additional capital to build up a buffer, and these investments often do not provide enough returns to make up for the additional capital costs.

The funding environment for EMDEs has deteriorated further since the United States (US) Federal Reserve began normalizing monetary policy in 2022 due to rising inflation. This has led to the depreciation of EMDE currencies against the US dollar and amplified domestic inflation in developing economies through higher imported inflation. Many central banks in these markets reacted to inflation and capital outflows by raising their policy rates. Furthermore, public debt levels in EMDEs were expanded to cope with the coronavirus disease (COVID-19) crisis, making it even more challenging to mobilize new funds from the private sector.

Figure B1 shows the sovereign bond ratings and per capita GHG emissions of markets in Asia. Emission-intensive markets with low credit ratings face challenges to attracting private capital and thus may need to rely more heavily on public funds. Blended finance may not be suitable for low-income economies with high degrees of debt stress. In such economies, debt-for-climate swaps and grants based on climate performance could be explored (Shirai 2023).

To achieve net-zero goals in low-income economies, a greater share of concessional funds will be needed to bolster the use

Figure B1: Per Capita Greenhouse Gas Emissions (metric tons, CO_2 equivalent) and Sovereign Credit Ratings



BAN = Bangladesh, CAM = Cambodia, $\mathrm{CO_2}$ = carbon dioxide, IND = India, INO = Indonesia, JPN = Japan, KOR = Republic of Korea, LAO = Lao People's Democratic Republic, LHS = left-hand side, MAL = Malaysia, MON = Mongolia, PHI = Philippines, PRC = People's Republic of China, RHS = right-hand side, SIN = Singapore, SRI = Sri Lanka, THA = Thailand, VIE = Viet Nam.

Note: The sovereign credit rating is adjusted to the numerical number from 0 (CCC) to 100 (AAA).

Source: Author's illustration based on S&P Global and Our World in Data.

of blended finance. The IEA (2023) has estimated that such funds would need to account for about 10%–20% of total clean energy investments in Asia. In Africa, where investments are often perceived to carry higher risks compared to Asia, nearly half of clean energy blended finance would need to be concessional (**Table B1.2**).

Table B1.2: Annual Clean Investment and Concessional Finance Required under the Net Zero Scenario (USD billion)

| | | | Net Zero Scenario | | | | | | |
|-------------------------|------|------|-------------------|--------------------------------|-------------|------------------|--------------------------------|-------------|--|
| | 2015 | 2022 | (a) 2026-2030 | (b) Concessional Finance | (b)/(a) (%) | (a) 2031-2035 | (b) Concessional Finance | (b)/(a) (%) | |
| EMDEs excluding PRC | 250 | 262 | 1,369 | 83 | 6 | 1,858 | 101 | 5 | |
| Southeast Asia | 28 | 30 | 185 | 7 | 4 | 244 | 9 | 4 | |
| India and Other Asia | 76 | 82 | 348 | 16 | 5 | 467 | 20 | 4 | |
| Africa | 26 | 32 | 203 | 37 | 18 | 265 | 46 | 17 | |
| Latin America | 63 | 66 | 243 | 13 | 5 | 332 | 14 | 4 | |
| Middle East and Eurasia | 57 | 52 | 390 | 10 | 3 | 550 | 11 | 2 | |

EMDEs = emerging and developing economies, PRC = People's Republic of China, USD = United States dollar. Source: Author's calculations based on International Energy Agency (2023).

Box 1 continued

Just Energy Transition Partnerships and Their Challenges

Just Energy Transition Partnerships, which were announced at the United Nations Climate Change Conference in Glasgow in 2021, are a collective financial mechanism to help EMDEs achieve their GHG reduction targets by replacing coal-fired power plants with clean energy. Advanced economies and the Glasgow Financial Alliance for Net Zero have jointly pledged to mobilize climate funds for Just Energy Transition Partnerships. Such partnerships were concluded with South Africa (USD8.5 billion) in 2021, Indonesia (USD20.0 billion) and Viet Nam (USD15.5 billion) in 2022, and Senegal (USD2.7 billion) in 2023. The recipient economies are required to develop emission reduction plans, including a path toward reduced coal dependence and a smooth transition for impacted industries and workers.

Final Remarks

It may be important for advanced economies to consider taking more innovative actions to increase the use of blended finance. Bilateral overseas development assistance and other development finance could benefit from increased coordination on clean energy projects and in relevant sectors through the sharing of skills, knowledge, and funds, given that limited financial resources are available among donor economies due to challenging domestic economic and fiscal

conditions. The existence of parallel initiatives by Group of 7 (G7) members in the same sectors heightens the risk of the inefficient channeling of limited funds. In some cases, a clearer division of labor among G7 members based on preferential geographies—for example, the European Union focusing on Africa, the US on Latin America, and Japan on Asia-might prove to be more efficient and impactful by reducing fragmentation problems. Further, advanced economies could reexamine their traditional development finance approaches and steer more funds to blended finance through guarantees and equity investments. In conclusion, it may be time for G7 economies to assume greater leadership in promoting carbon neutrality among EMDEs.

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Box 2: Net Zero Investing

The transition to Net Zero to mitigate the impacts of global warming will continue to influence investor behavior. Therefore, investors should align their equity and corporate bond allocations in accordance with Net Zero principles. Investors must reassess traditional asset allocation practices to reflect the fundamental alteration to the global economy caused by climate change. To better understand the implications of the transition to Net Zero, we compared multiple asset allocation variations against a standard, non-climate aligned asset allocation comprising 60% equities and 40% fixed income.

Pursuing Net Zero Asset Allocations

Net Zero investing involves not only pursuing a low-carbon portfolio but also financing the process of transitioning to a green economy. Integrating Net Zero targets into asset allocations also provides benefits from a risk-return perspective. The rise of the low-carbon economy is presenting new possibilities to investors, as innovative business models are introduced and the global economy undergoes unprecedented structural transformation. The future is unknowable, however, current trends highlight the importance of immediately integrating Net Zero considerations into investments to be better positioned for the economic implications of a carbon-neutral world.

Targeting Net Zero asset allocations entails several subobjectives that collectively contribute to acheving Net Zero emissions by 2050 (**Figure B2.1**).

Figure B2.1: Primary Benefits of Net Zero Investing



Source: Amundi.

Integrating Net Zero Targets into Portfolios

The two main building blocks for Net Zero portfolios are Net Zero Contribution portfolios and the Net Zero Transition portfolios. The former refers to investments

in firms and projects that promote the green economy through the development of new technologies and innovative solutions. Net Zero Contributions generally increase the green share of an allocation by investing in climate-friendly endeavors. The latter, Net Zero Transition portfolios, seek a gradual decarbonization of investments in alignment with the Paris Agreement and in support of reaching global carbon neutrality by 2050. This can be achieved by managing equity or credit investments in favor of corporates that are contributing to limiting global warming to 1.5°C above pre-industrial levels and away from issuers that fail to demonstrate sufficient commitment to a low-carbon economy.

Divestment should be used as a last resort, and reducing the emissions linked to a portfolio should involve more than just shunning investments in high-polluting sectors. Institutional investors can use their influence to encourage companies to pursue a Net Zero transition and contribute to emissions reductions.

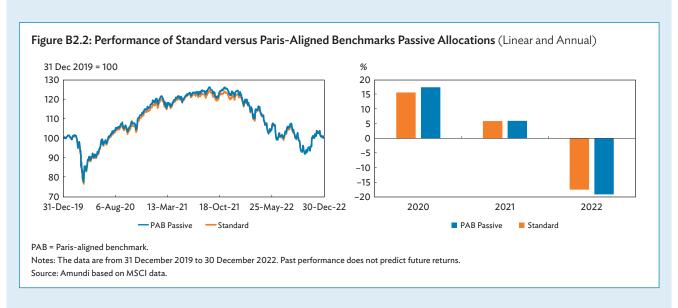
The Financial Impact of a Net Zero Portfolio

A comparison of Net Zero asset allocations with standard, non-climate aligned asset allocations reveals differences in financial performance and risk; sectoral composition; environmental, social, and governance (ESG) issues; and climate performance (i.e., ESG ratings and carbon emissions) (Figure B2.2).

Integrating Net Zero targets into asset allocations has a short-term impact on portfolio metrics, primarily in the form of more Tracking Errors (TEs). This is not surprising since the global economy has not yet fully adopted decarbonization. Further, while short-term financial costs are limited, these can be more than offset in the long term as corporates worldwide gradually transition to low-carbon models.

Net Zero asset allocations have outperformed standard asset allocations in ESG and climate metrics, while also contributing to reduced carbon intensity. At the sectoral level, Net Zero asset allocations deviate the most from standard allocations in the energy and technology sectors, suggesting that Net Zero investors will be better prepared to continue capitalizing on structural economic changes that are already underway.

Box 2 continued



Analysis by the Amundi Institute has identified three main aspects of Net Zero asset allocations (Table B2):

- 1. The short-term impact on key portfolio metrics is evidenced by higher TEs, especially for the Net Zero Active asset allocations with a contribution pocket, since the transition to a low-carbon economy is in the nascent stage. However, as Europe is further along in the energy transition process than developing economies, it offers hope as the TEs for European institutional investors pursuing Net Zero strategies are likely lower than in emerging markets.
- 2. Standard and Paris-aligned benchmark passive asset allocations have exhibited similar financial performances, with the latter slightly outperforming in 2020 and 2021.
- 3. There has been significant improvement in ESG and climate metrics in Net Zero asset allocations compared to standard ones. Active asset allocations have effected reductions in carbon intensity, while many corporates have set science-based targets.

Table B2: Composition of Different Asset Allocations (%)

| | | | Standard Passive | PAB Passive | Net Zero Active | With Green Contribution ^a |
|--------------|-----|-------------|---------------------|----------------|--------------------|---|
| Equity | 60% | World | 40 | 40 | 40 | 30 |
| | | EM | 20 | 20 | 20 | 20 |
| | | Green | - | - | _ | 10 |
| Fixed income | 40% | US IG Corp. | 20 | 20 | 20 | 15 |
| | | EU IG Corp. | 20 | 20 | 20 | 15 |
| | | Green | _ | _ | _ | 10 |

EM = emerging market, EU = Europe, IG = investment grade, PAB = Paris-aligned benchmark, US = United States.

- 1. Colors: blue = active, green = green investments, orange = passive.
- 2. Data are as of April 2023.
- a Net Zero Active with Green Contribution AA, ex-ante analysis only.

Source: Amundi.