SEACEN CAPITAL FLOWS MONITOR 2024

July 2024

The South East Asian Central Banks (SEACEN) Research and Training Centre

The **SEACEN** Centre

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CAPITAL FLOWS MONITOR
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Notes:

The SEACEN Centre recognises "China" as People's Republic of China; "Hong Kong" as Hong Kong SAR, China; and "Korea" as Republic of Korea.

USD and US$ refer to U.S. dollar.

IMF and national source data accessed through CEIC Database. Data cut-off as 31 May 2024.

Asian economies include the nineteen economies of the SEACEN member central banks and monetary authorities. It includes Brunei Darussalam; Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Lao PDR; Malaysia; Mongolia; Myanmar; Nepal; Papua New Guinea; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand and Vietnam.

This report also discusses subregional groupings. Advanced Asian Economies includes Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN5 includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Asian Emerging and Developing Market Economies (EDMEs) include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, and Sri Lanka.

This report has been reviewed and approved by Dr. Srichander Ramaswamy (Director of Financial Stability, Supervision, and Payments; and Acting Executive Director). Dr. Ole Rummel (Director of Macroeconomic and Monetary Policy Division - MMPM) also edited and reviewed the report. Dr. Rogelio Mercado (Senior Economist, MMPM) authored Sections 1 and 2, co-authored Section 3 with Mr. Luca Sanfilippo of the International Finance Corporation, and supervised the production of the report. Mr. Ahmad Aizudeen provided research assistance. Ms. YunYee Seow edited the draft sections, and Mr. Aizul Fazli Zulkifli of Swift Cursor Studio designed, typeset and layout the report.

CONTENTS

ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
BoP	Balance of Payments
BPM6	Balance of Payments Manual 6
IMF	International Monetary Fund
IIF	Institute for International Finance
IIP	International Investment Position
SEACEN	South East Asian Central Banks Grouping

CONCEPTS

Net Foreign Assets or Net IIP	Net International Investment Position, computed as the total foreign asset holdings minus total foreign liabilities.
Resident capital flows	Net purchases of foreign assets by domestic residents, commonly referred to gross capital outflows. This corresponds to financial account assets in the BoP's Financial Account Balance.
Nonresident capital flows	Net purchases of domestic assets by non-residents, commonly referred to gross capital inflows. This corresponds to financial account liabilities in the BoP's Financial Account Balance.
Net resident capital flows	Computed as resident capital outflows minus non-resident capital inflows. Positive values may refer to situations where domestic residents are purchasing more foreign assets than non-residents purchasing domestic assets.

FOREWORD

Capital flows inform us about cross-border financial transactions and investments. For investors, cross-border financial transactions facilitate portfolio diversification and risk-sharing. For the recipient country, capital inflows aid economic growth, financial development, and knowledge transfer. However, large and abrupt capital inflows and outflows can be disruptive, leading to sharp fluctuations in the exchange rate and excessive asset price volatility, which can lead to credit booms and busts. Monitoring and understanding the recent trends and outlook as well as the underlying drivers remain important steps in managing capital flows.

As the Secretariat of the SEACEN Expert Group (SEG) on Capital Flows, which includes SEACEN's nineteen-member central banks and monetary authorities, The SEACEN Centre is issuing its bi-annual report on capital flows – the "SEACEN Capital Flows Monitor", as part of its surveillance work on capital flows in the Asian region. The July issue discusses the previous year's overall trends, latest patterns, and the outlook for the current year, while the December issue focuses on the current year's quarterly capital flows and an updated analysis for the current year.

During the first half of 2024, SEACEN member economies have sustained the economic growth momentum while inflation pressures have generally moderated. But risks to economic growth and inflation outlook remain against the backdrop of continued geoeconomic fragmentation and U.S. policy uncertainty. Monitoring capital flows and staying attentive to the sources of vulnerabilities to these flows, therefore, become important.

The report includes three sections. The first section reviews the recent global and regional trends that impact capital flows in Asia. The second section discusses the latest composition of capital flows and international investment positions. The third section is an analytical section which focuses on a specific policy relevant topic related to capital flows and international investment positions. For this issue, the analytical section highlights volatile portfolio bond flows driven by multi-sector bond funds.

The views expressed in this report are those of The SEACEN Centre and do not necessarily represent those of its member central banks/monetary authorities.

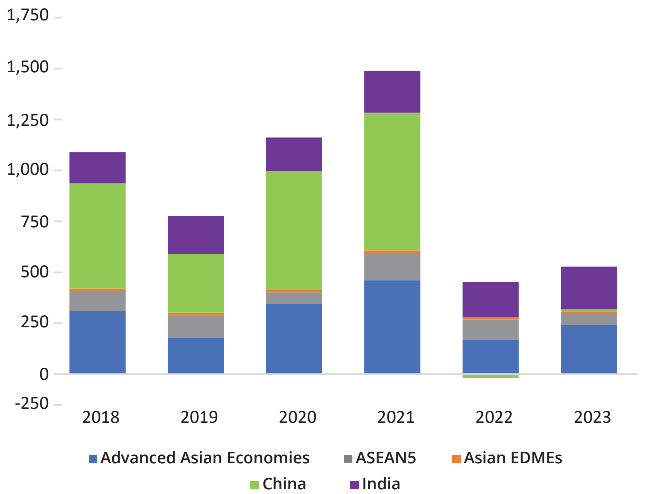
Srichander Ramaswamy
Acting Executive Director
The SEACEN Centre

July 2024

SEACEN Capital Flows Monitor July 2024: Key Messages

- *Asian economies, as a group, continued to be a net capital exporter in 2023, having positive net resident outflows. But resident and nonresident capital flows were smaller compared to previous years due to higher U.S. and domestic interest rates.*
- *The region's aggregate net foreign asset position remained positive in 2023, although some economies continued to have a net borrower position.*
- *Asian economies sustained economic growth momentum in the first quarter of 2024. Inflationary pressures have mostly subsided, but inflation remains high on the policy agenda of some economies.*
- *Although most central banks in the region kept policy rates on hold, some economies have tightened while others have lowered their policy rates in the first five months of 2024.*
- *Regional currencies remained weak in the first five months of 2024; yet financial market conditions improved, backed by moderating inflationary pressures and sustained economic performance of the region.*
- *Despite uncertainty on the timing of U.S. monetary policy rate cuts, global investor risk aversion and financial market stress in the region were muted in the period under review.*
- *Moving forward, the region's growth momentum will likely be sustained in 2024, and inflation will remain moderate.*
- *Multi-sector bond funds (MSBFs) are regulated open-end investment funds with broad mandates that give investment managers discretion on geographic and sector exposures. They also exhibit opportunistic investment behaviour, causing MSBF flows to be potentially risky.*
- *Empirical evidence shows that capital account tightening measures can be effective in reducing MSBF-driven portfolio bond flows.*

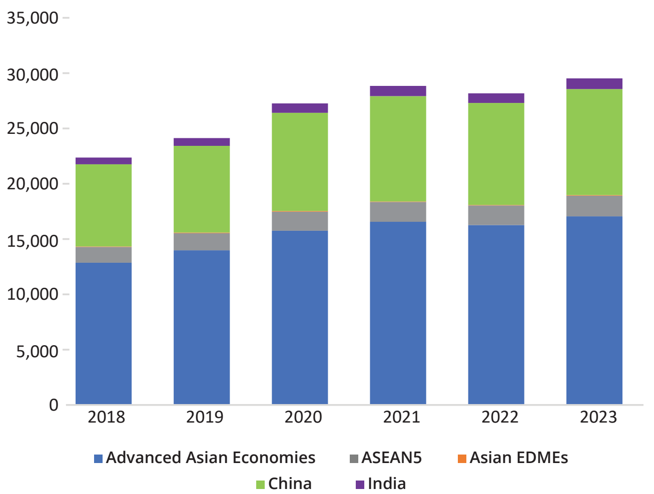
Figure H1: Nonresident Capital Flows, Asia,
by subregion *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN5 includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Asian Emerging and Developing Market Economies include Brunei Darussalam, Cambodia, Mongolia, Nepal, and Sri Lanka.

Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

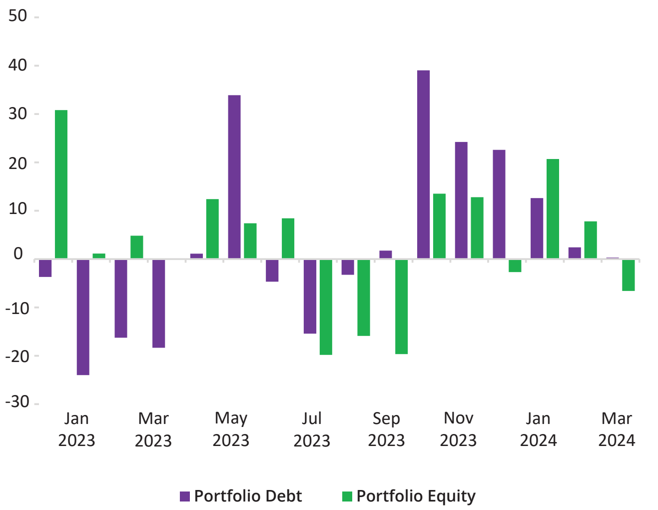
Figure H2: International Investment Assets,
by sub-region *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. Asian EDMEs include Cambodia, Mongolia, and Nepal.

Sources: SEACEN staff calculations using data from IMF's International Investment Position accessed through CEIC Database (downloaded June 2024).

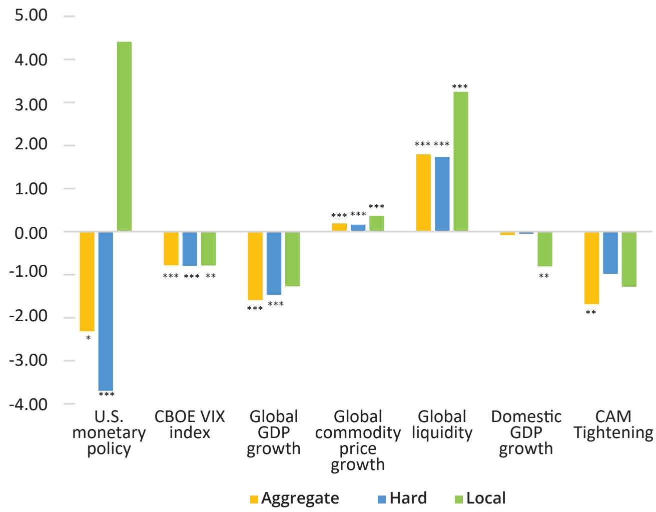
Figure H3: Nonresident Portfolio Flows
Selected Asian Economies *(US$ billion)*



Notes: For nonresident portfolio equity flows, the sample includes China, India, Indonesia, Korea, Malaysia, Mongolia, Philippines, Sri Lanka, Chinese Taipei, Thailand, and Vietnam. The sample for nonresident portfolio debt flows includes China, India, Indonesia, Korea, Malaysia, Mongolia, Philippines, and Thailand.

Sources: SEACEN staff calculation using data from the Institute for International Finance.

Figure H4: Determinants of MSBF Flows and Effectiveness of Capital Account Measures



Notes: Values refer to estimated regression coefficients taken from Table 2 of Mercado and Sanfilippo (2024). CAM (capital account) tightening measure was derived from two-step regression approach to address potential endogeneity. ***, significant at 1%, ** at 5% and * at 10%.

Sources: Mercado and Sanfilippo (2024) estimates.

SECTION I: RECENT GLOBAL AND REGIONAL ECONOMIC AND FINANCIAL TRENDS AND DEVELOPMENTS

This section reviews the global and regional economic and financial trends that impacted capital flows to Asia in the first five months of 2024. It highlights several key developments:

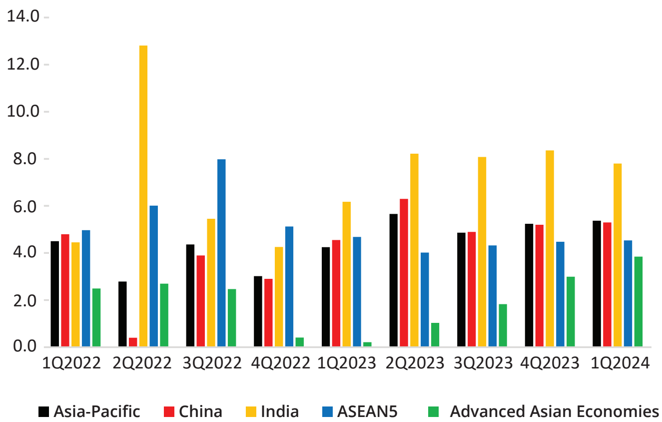
- *Asian economies sustained economic growth momentum in the first quarter of 2024.*
- *Inflationary pressures have mostly subsided, but inflation remains high on the policy agenda of some economies.*
- *Although most central banks and monetary authorities in the region kept policy rates on hold, there appears to be a diverging monetary policy stance for some economies in the region.*
- *Regional currencies remained weak in the first five months of 2024; yet financial market conditions improved, backed by moderating inflationary pressures and sustained economic performance of the region.*
- *Despite uncertainty on the timing of U.S. monetary policy rate cuts, global investor risk aversion and financial market stress in the region were muted in the period under review.*
- *Moving forward, the region's growth momentum will likely be sustained in 2024, and inflation will remain moderate.*

Asian economies sustained growth momentum in the first quarter of 2024. The economic output of selected Asian economies, as a whole, expanded by 5.4% year-on-year in the first quarter of 2024 (1Q2024), higher than the 5.2% year-on-year growth posted in the final quarter of 2023 (4Q2023) **(Figure 1.1).**[1] The regional growth rate was buoyed by stronger private spending, a rebound in net exports, and a recovery in tourism. Across economies and subregions, China's growth inched higher to 5.3% from 5.2% in 4Q2023, supported by an expansion in industry and manufacturing. India's robust growth momentum was sustained in 1Q2024 as the economy expanded by 7.8%. The economic growth of ASEAN5 (Indonesia, Malaysia, Philippines, Thailand, and Vietnam) in 1Q2024 remained steady at 4.5% year-on-year, which is the same as in 4Q2023. Meanwhile, Advanced Asian Economies (Hong Kong, China; Korea; Singapore; and Chinese Taipei) registered stronger growth at 3.8% during the period, higher than the 3.0% growth in 4Q2023, due to a strong recovery in tourism and external demand. Overall, the region's economic growth has been increasing steadily since 3Q2023.

Inflation continued to ease in most Asian economies during the first five months of 2024, down from recent peaks in 2022-23. For several Asian economies, monthly inflation has gone down within or below the target range of central banks or monetary authorities in the region **(Figure 1.2a-b)**. However, for some economies, there was a slight uptick in inflation due to higher prices of food, beverages, consumer goods and services, and utilities within the first five months of the year. In the case of China, disinflation has decelerated in April and May 2024, signaling an improvement in domestic demand.

Most central banks and monetary authorities in the region kept policy rates on hold since the latest round of policy rate hikes in 2023, although there appears to be policy divergence

Figure 1.1: Quarterly GDP Growth, Selected Asian Economies *(% change, year-on-year)*



Notes: Values for regional growth rates are weighted averages of individual growth rates, using Gross National Income (Atlas Method in U.S. dollar) as weights. Asia Economies include China, India, Mongolia, ASEAN5 (Indonesia, Malaysia, Philippines, Thailand, and Vietnam), and Advanced Asian Economies (Hong Kong, China; Korea; Singapore; and Chinese Taipei).

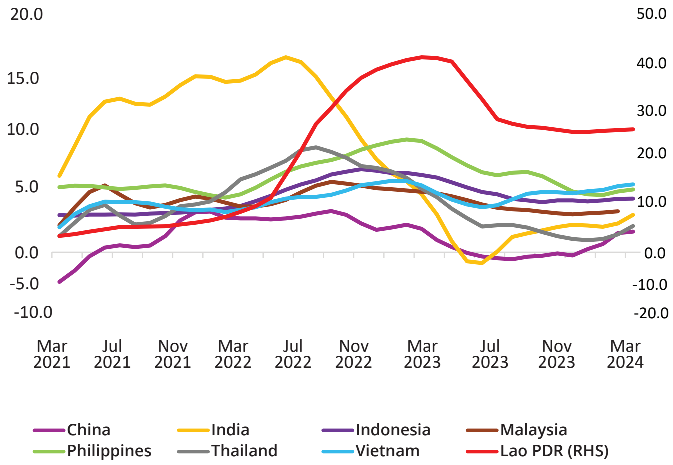
Sources: SEACEN staff calculations using data from national sources accessed through CEIC Database.

1. Asian economies in this monitor include Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Lao PDR; Malaysia; Mongolia; Nepal; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand; and Vietnam with available data (whenever possible). These economies are also SEACEN member economies. Aggregate GDP growth rates and inflation were computed using Gross National Income (Atlas Method in U.S. dollar) sourced from the World Bank's World Development Indicators Online as weights.

among some economies. As of end-May 2024, China, India, Korea, Malaysia, Philippines, Thailand, and Vietnam kept their policy rates on hold since their last policy actions in 2023. However, there appears to be a divergence of monetary policy stance amongst some economies in the region **(Figure 1.3a-c).** Chinese Taipei and Indonesia have raised policy rates in March and April 2024, respectively, to further control inflation and/or to support the weaker currency. In contrast, Mongolia, Nepal, and Sri Lanka have cut policy rates between December 2023 to May 2024 in a move to support economic growth. Meanwhile, the U.S. Federal Reserve and European Central Bank also kept their policy rates at 5.33% and 4.50%, respectively, as of end-May 2024. In the United States, consumer price inflation in May dipped slightly to 3.3% year-on-year, from 3.4% in April 2024, but was still above the 2% year-on-year inflation, suggesting that the U.S. Federal Reserve may wait longer for inflation to fall further before lowering its policy rate.

Due to the continued high U.S. policy rate, many regional currencies weakened against the U.S. dollar in the first five months of 2024. They include the Thai baht, NT dollar, Korean won, Philippines

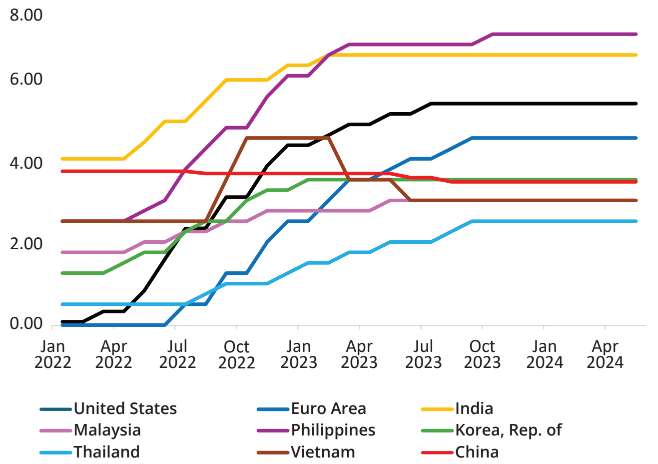
Figure 1.2a: Monthly Inflation, Selected Asian Economies *(% change, year-on-year)*



Notes: RHS = right hand scale. Values are three-month moving averages of year-on-year monthly changes in consumer price indices (for India, wholesale price index).

Sources: SEACEN staff calculations using data from national sources accessed through CEIC Database.

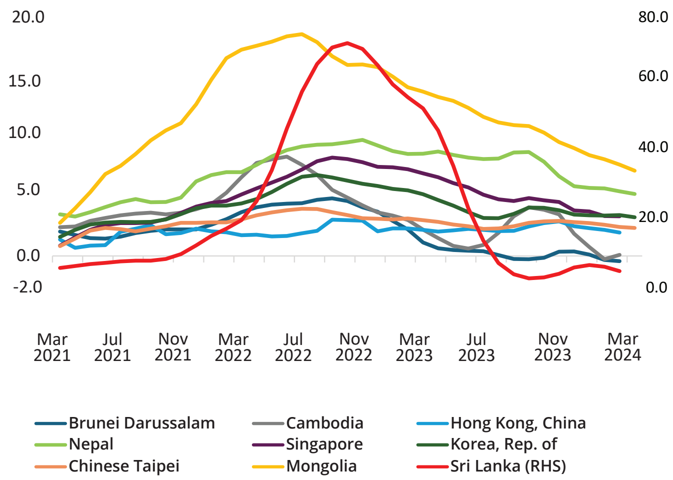
Figure 1.3a: Policy Rates in Selected Advanced and Asian Economies *(% per annum)*



Notes: The policy rate for the United States refers to the effective Fed Funds rate. Data for China pertains to the one-year loan prime rate sourced from the Bank for International Settlements (BIS) Data Portal. The policy rate for the Euro Area is the main refinancing fixed rate of the European Central Bank.

Sources: Data taken from national sources accessed through CEIC Database and BIS Data Portal.

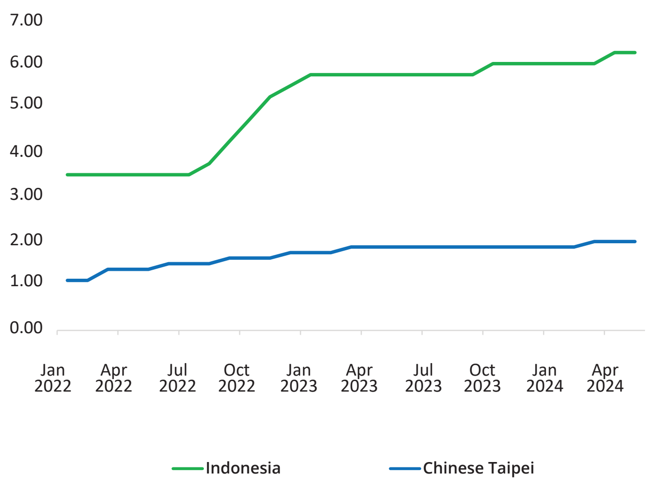
Figure 1.2b: Monthly Inflation, Selected Asian Economies *(% change, year-on-year)*



Notes: RHS = right hand scale. Values are three-month moving averages of year-on-year monthly changes in consumer price indices.

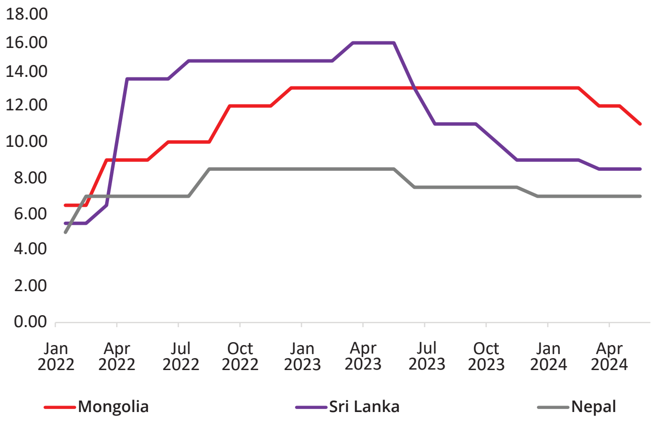
Sources: SEACEN staff calculations using data from national sources accessed through CEIC Database.

Figure 1.3b: Policy Rates in Selected Asian Economies *(% per annum)*



Sources: Data taken from national sources accessed through CEIC Database.

Figure 1.3c: Policy Rates in Selected Asian Economies
(% per annum)



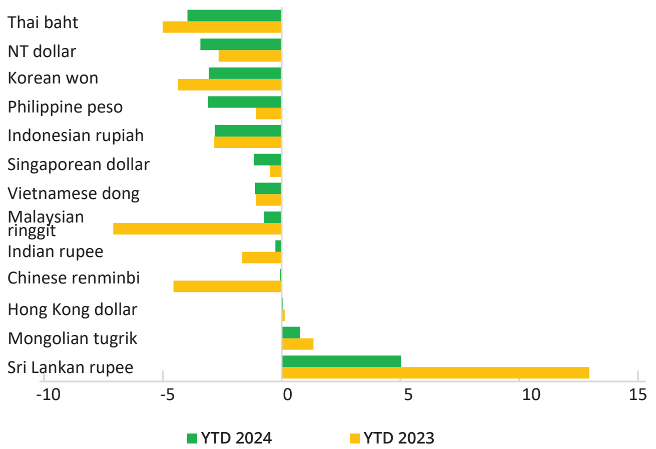
Sources: Data taken from national sources accessed through CEIC Database.

peso, and Indonesia rupiah, which depreciated by more than 2% year-to-date, while the Singapore dollar, Vietnamese dong, Malaysian ringgit, Indian rupee, and Chinese renminbi weakened by less than 2% year-to-date **(Figure 1.4).** In the case of the Thai baht, Korean won, Malaysian ringgit, Indian rupee, and Chinese renminbi, the year-to-date depreciation in the first five months of 2024 was significantly lower than the full-year depreciation reported in 2023. In contrast, for the NT dollar, Philippines peso, Indonesia rupiah, Singapore dollar, and Vietnamese dong, the year-to-date depreciation of the currencies was either the same or larger than the full-year depreciation in 2023. Meanwhile, the Sri Lankan rupee, Mongolian tugrik, and Hong Kong dollar appreciated against the U.S. dollar in the same period.

Financial market conditions in the Asian region improved in the first five months of 2024, backed by moderating inflationary pressures and sustained economic performance of the region. Benchmark stock price indices in the region ended mostly in positive territories in the first five months of 2024, buoyed by sustained economic growth in the region. Benchmark stock price indices of China, Hong Kong; China; and Chinese Taipei grew more than 10% on a year-to-date basis (end of May 2024), with China and Hong Kong, China reversing previous year's losses, while Chinese Taipei sustained its gains from last year **(Figure 1.5).** Similarly, the benchmark stock price indices of Singapore, Korea, Malaysia, Vietnam, and India grew by 3% to 6% on a year-to-date basis; while the stock price indices of Indonesia, Philippines, and Thailand decreased by around 1.4% - 3.3% year-to-date. Meanwhile, risk premiums in selected Asian economies, measured by year-to-date changes in sovereign credit default swap (CDS) spreads, continued to narrow in the first five months of the year by a (simple) average of 1.1 basis points (bps) **(Figure 1.6).** This follows a narrowing of risk premiums by a (simple) average of about 19.0 bps in 2023.

However, 5-year sovereign bond yields rose modestly (by less than 1.0%) on a year-to-date basis (January to May 2024) in several economies including: Vietnam; Singapore; Hong Kong, China; Philippines; Indonesia; Chinese Taipei; Korea; Malaysia; and Thailand **(Figure 1.7).** Subsiding inflationary pressures in most economies as well as

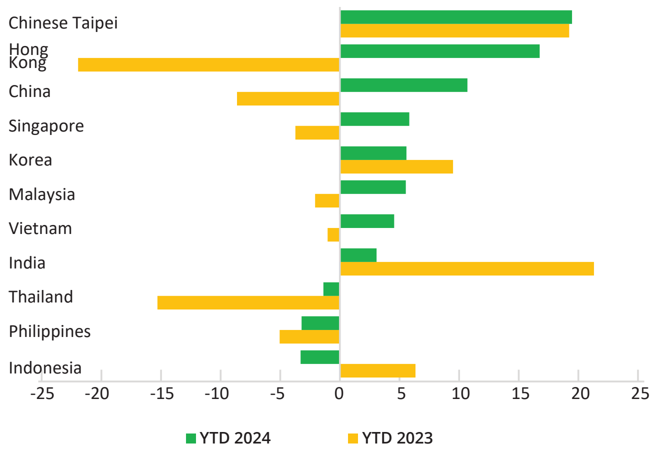
Figure 1.4: Exchange Rate Changes, Selected Asian Economies *(% change, year-to-date)*



Notes: Year-to-date values are computed as the monthly difference between the first and last data points within a year. Positive changes refer to an appreciation of the local currency versus the U.S. dollar, and negative changes refer to depreciation.

Sources: SEACEN staff calculations using data accessed through CEIC Database.

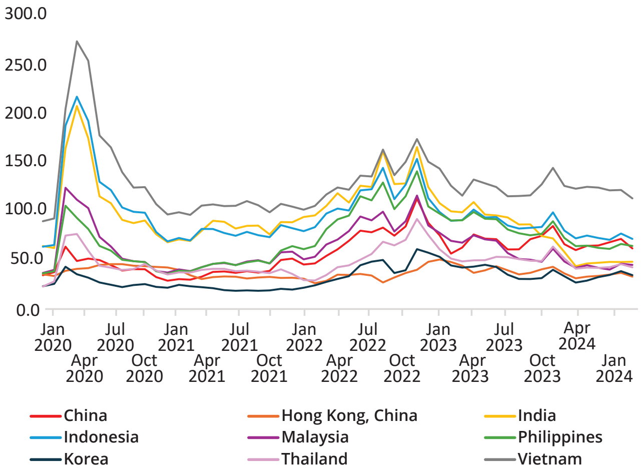
Figure 1.5: Changes in Benchmark Stock Price Indices, Selected Asian Economies *(% change, year-to-date)*



Notes: Year-to-date values are computed as the monthly difference between the first and last data points within a year.

Sources: SEACEN staff calculations using data accessed through CEIC Database.

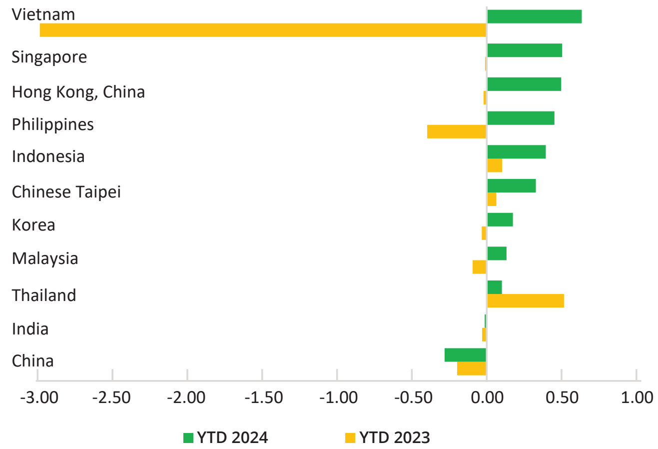
Figure 1.6: 5-Year Sovereign Credit Default Swap, Selected Asian Economies *(basis points)*



Notes: 5-Year USD Credit Default Swap par mid-rate in basis points.

Sources: CMA Datavision and Haver Analytics downloaded from Haver Analytics.

Figure 1.7: Changes in Sovereign Bond Yields, Selected Asian Economies *(% change, year-to-date)*



Notes: Year-to-date values are computed as the monthly difference between the first and last data points within a year.

Sources: SEACEN staff calculations using data accessed from Haver Analytics.

uncertainty about U.S. Fed policy action kept regional bond yields from rising further during the review period. In contrast, China and India's sovereign bond yields declined in the same period by the same level as the full year drop in 2023.

In terms of portfolio capital flows, nonresident portfolio equity flows to selected Asian economies registered inflows of about US$19.2 billion in the first five months of 2024, which is a significant turnaround from the equity outflows of US$9.2 billion reported in the last five months of 2023 **(Figure 1.8).**[2] However, based on monthly data, January and April registered foreign portfolio equity outflows. Nonresident portfolio debt flows in the region, likewise, reported inflows of around US$37.9 billion in the first five months of the year, although significantly smaller compared to the portfolio debt inflows of US$61.7 billion in the last five months of 2023. Excluding China, foreign portfolio debt inflows to selected Asian economies would be about US$9.4 billion, driven mostly by inflows to India and Korea.

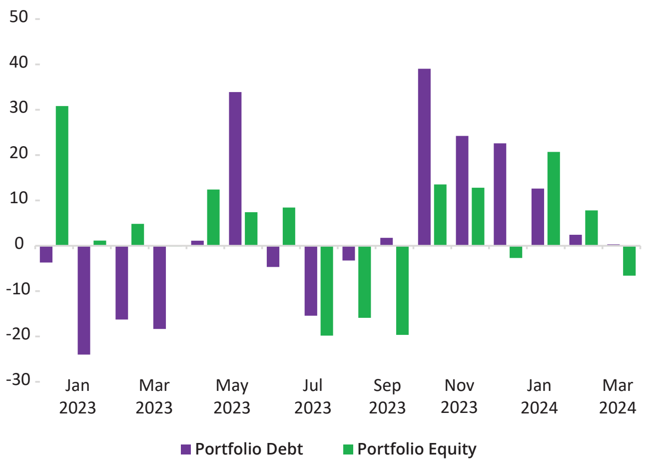
Despite ongoing uncertainty on the timing of U.S. monetary policy rate cuts, global investor risk aversion and financial market stress remained muted in the first five months of 2024. The Chicago Board of Exchange Volatility Index (VIX) continued to trend downwards in 2024, way below the index level of 20 **(Figure 1.9).** However, there was a slight uptick in April 2024 which subsequently reversed in May. But Asia's financial market stress indices from January to April 2024 do not suggest any sign of financial sector distress in the region **(Figure 1.10).** Taken together, these two measures suggest that there were no visible signs of global investor risk aversion and financial market distress in the region during the review period.

Moving forward, the region's growth momentum will likely be sustained in 2024, and inflation will remain moderate. Economic output of Asian economies, as a group, is expected to grow by 4.7% year-on-year in 2024, slightly slower than the output growth of 5.0% year-on-year in 2023 **(Figure 1.11a).**[3] Growth in China will likely slow in 2024 due to ongoing property sector weaknesses and a decline in potential growth (IMF, 2024). In contrast, India is expected to sustain its growth momentum in 2024 driven by greater investments. Advanced Asian Economies and ASEAN5 are expected to grow stronger in 2024, compared to 2023, due to higher private consumption and a recovery in the tourism sector (IMF, 2024). For Asian Emerging and Developing Market Economies (EDMEs), economic recovery will, likewise, continue in 2024, particularly for Sri Lanka. The region's inflation outlook will likely remain moderate in 2024, increasing by 1.8% year-on-year from the previous year (**Figure 1.11b).** Inflation in Advanced Asian Economies, ASEAN5, and

2. Monthly nonresident portfolio debt and equity flows data were sourced from the Institute for International Finance. For portfolio equity flows, the sample includes China; India; Indonesia; Korea; Malaysia; Mongolia; Philippines; Sri Lanka; Chinese Taipei; Thailand; and Vietnam. The sample for portfolio debt flows include China; India; Indonesia; Korea; Malaysia; Mongolia; Philippines; and Thailand.

3. The GDP growth and inflation forecasts for 2024 and 2025 are sourced from the International Monetary Fund's World Economic Outlook April 2024.

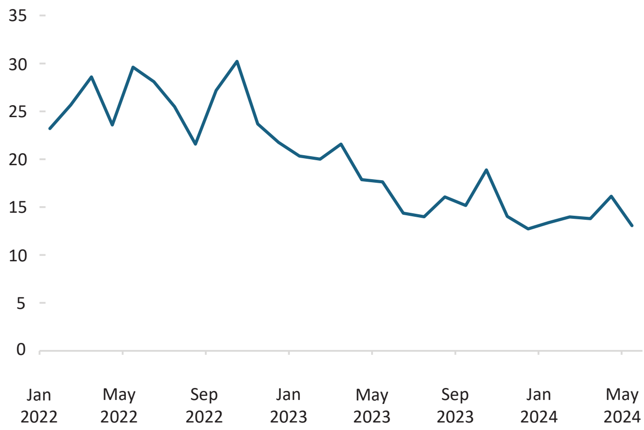
Figure 1.8: Nonresident Portfolio Flows, Selected Asian Economies *(US$ billion)*



Notes: For nonresident portfolio equity flows, the sample includes China, India, Indonesia, Korea, Malaysia, Mongolia, Philippines, Sri Lanka, Chinese Taipei, Thailand, and Vietnam. The sample for nonresident portfolio debt flows includes China, India, Indonesia, Korea, Malaysia, Mongolia, Philippines, and Thailand.

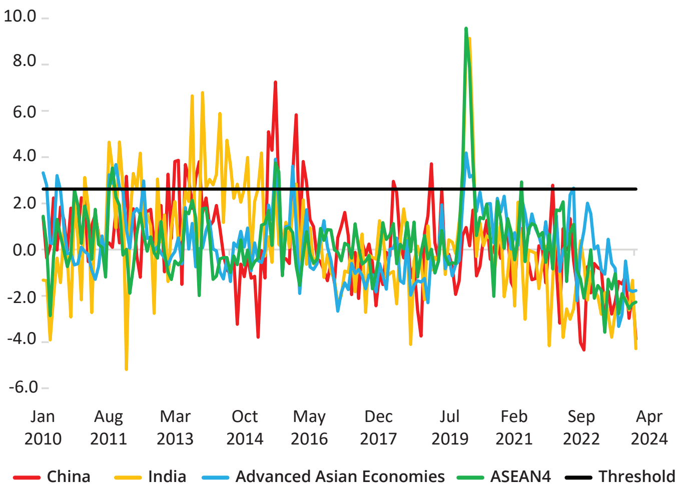
Sources: SEACEN staff calculation using data from the Institute for International Finance.

Figure 1.9: Volatility Index (VIX)



Sources: Chicago Board of Exchange.

Figure 1.10: Financial Stress Indices,
Selected Asian Economies



Notes: Advanced Asian Economies includes Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. Financial stress indices for Advanced Asian Economies and ASEAN4 are computed as simple average of individual country financial stress indices. Individual country financial stress indices are calculated following the methodology of Park and Mercado (2014) but uses financial sector beta instead of banking sector beta. Financial market stress indices are computed starting 2010. The threshold value represents two standard deviations above sample mean.

Sources: SEACEN staff calculations using data accessed from CEIC Database and Haver Analytics.

India will further moderate. For Asian EDMEs, although inflation is expected to significantly decelerate in 2024 compared to 2023, it will remain comparatively high at around 9% year-on-year. In the case of China, inflation is expected to inch higher from 2023, implying weakening disinflationary pressures.

However, several risks can potentially undermine economic outlook. First, extreme weather events,natural disasters, and geopolitical risks might cause supply disruptions and increase food and fuel prices. These risks could stoke inflationary pressures. Second, an easing of the U.S. monetary policy rate, on the one hand, could trigger higher volatility in asset prices and capital flows to the region and elsewhere (AMRO, 2024). On the other hand, slower-than-expected disinflation in the U.S. could postpone policy rate cuts, which would keep borrowing costs higher for longer in the region and elsewhere (IMF, 2024). Third, in economies where inflation is already below target, a further weakening of external or domestic demand could stoke deflationary pressures, leading to a period of

Figure 1.11a: GDP Growth Outlook
(% change, year-to-date)

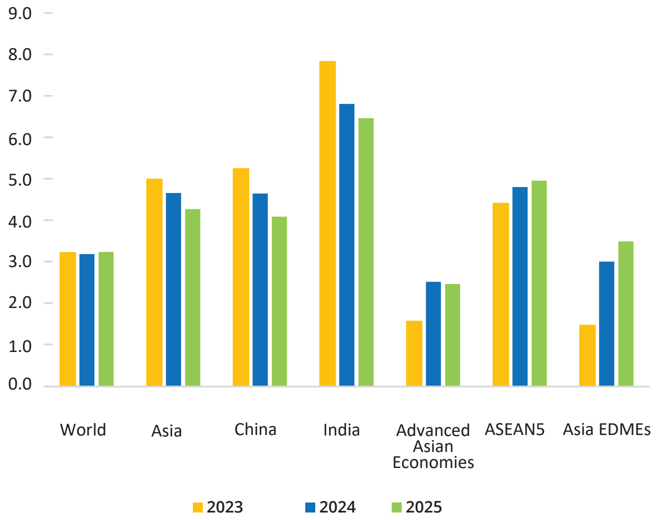
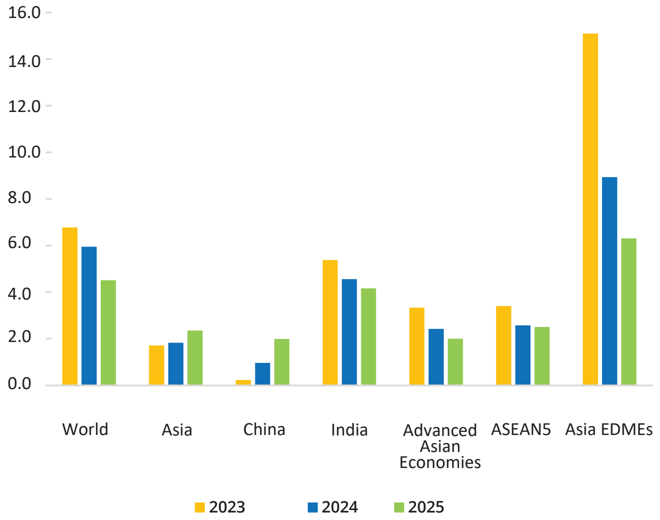


Figure 1.11b: Inflation Outlook
(% change, year-to-date)



Notes: Values for regional growth rates and inflation are weighted averages of individual growth rates and inflation, using Gross National Income Atlas Method from World Bank's World Development Indicators as weights. Asia economies include China, India, Advanced Asian Economies (Hong Kong, China; Korea; Singapore; and Chinese Taipei), ASEAN5 (Indonesia, Malaysia, Philippines, Thailand, and Vietnam), and Asia EDMEs (Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Myanmar, Nepal, Papua New Guinea, and Sri Lanka).

Sources: SEACEN staff calculations using actual and forecast values from the IMF's World Economic Outlook Database April 2024.

prolonged low inflation or deflation (IMF, 2024). Fourth, a weakening of growth momentum in major advanced economies, could undermine external demand and dampen economic recovery in the region and elsewhere.

Despite risks, improved policy frameworks have made the region more resilient in the face of high global interest rates, and in mitigating the adverse effects of downside risks. Changes in the region's exchange rates, sovereign spreads, and risk premiums have remained in a narrow range in the first five months of 2024 **(Figures 1.4, 1.6, and 1.7).** Moreover, foreign portfolio flows reported a cumulative inflow during the review period **(Figure 1.8).** These indicators, coupled with sustained regional growth in 1Q2024 **(Figure 1.1),** demonstrate Asia's resiliency in the face of continued high global interest rates and other external challenges. The region's resiliency can be attributed to its improved policy frameworks and central bank independence (Adrian, Natalucci, and Wu, 2024). For instance, in the face of global inflationary pressures, following the COVID-19 pandemic, most economies used interest rates as the primary tool for ensuring price stability. That said, several other complementary tools were also used to manage the difficult trade-offs between price and financial stability. In particular, several central banks, including those in the region, used foreign exchange intervention to dampen the shock amplification and to lower the impact of imported inflation, notably from the appreciation of the U.S. dollar *vis-à-vis* Asian currencies. In addition, macroprudential measures and some capital flow measures were also used to manage the adverse impact of the tightening financial condition on financial stability in the past few years.[4]

4. See BIS Asian Consultative Council Report on Inflation, External Financial Conditions, and Macro-Financial Stability Frameworks in Asia-Pacific (2023) for a detailed discussion on policy tools in 2022.

SECTION II: RECENT TRENDS IN CAPITAL FLOWS AND EXTERNAL POSITIONS

This section reviews the trends and compositions of capital flows and international investment positions of Asian economies in 2023.[1]

- *Asian economies, as a group, continued to be a net capital exporter in 2023, having positive net resident outflows.*
- *But resident and nonresident capital flows were smaller compared to previous years due to higher U.S. and domestic interest rates.*
- *The region's aggregate net foreign asset position stayed positive, although some economies continued to have a net borrower position in 2023.*

A. Trends in Capital Flows and International Investment Positions

Net resident capital outflows of Asian economies, as a whole, amounted to US$456 billion in 2023.[2] Net acquisition of foreign assets by residents (Financial Account Assets) reached US$984 billion, while net incurrence of liabilities to nonresidents (Financial Account Liabilities) amounted to US$528 billion, bringing net resident capital outflows to around US$456 billion. Most of the net acquisitions of foreign assets were in the form of direct investment abroad, followed by portfolio debt and equity assets, and official reserve assets **(Figure 2.1a).** The region's resident investments abroad in these categories were largely driven by Advanced Asian Economies (Hong Kong, China; Korea; Singapore; and Chinese Taipei) and China. Likewise, net incurrence of liabilities to nonresidents were mostly in the form of foreign direct investment, followed by portfolio debt and equity liabilities, and other investments **(Figure 2.1b).**[3] The largest recipient of foreign direct investment in 2023 was Advanced Asian Economies, followed by ASEAN5 (Indonesia, Malaysia, Philippines, Thailand, and Vietnam) and then China.

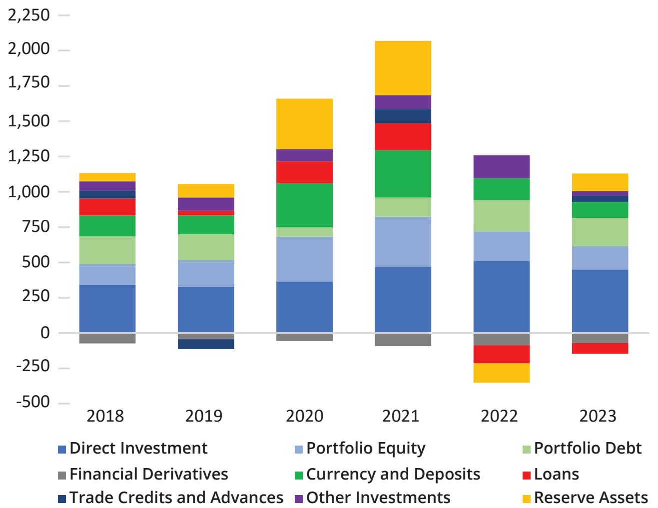
Across economies and subregions, Advanced Asian Economies and China reported the largest resident outflows, followed by India, ASEAN5 and Asian Emerging and Developing Market Economies (EDMEs), which include Brunei Darussalam, Cambodia, Mongolia, Nepal, and Sri Lanka **(Figure 2.2a).** For nonresident capital inflows, Advanced Asian Economies received the largest nonresident capital flows in 2023, followed by India **(Figure 2.2b).** ASEAN5 and Asian EDMEs received smaller nonresident inflows, compared to 2022; while China reported US$13 billion nonresident inflows in 2023, a turnaround from the US$19 billion nonresident outflows the previous year.

Figures 2.1a-2.2b clearly show a marked decline in cross-border capital flows in 2022 and 2023. In particular, net resident capital flows declined in 2023 by 3.5% year-on-year from 2022, after dropping by 3.2% year-on-year in 2022. The observed drop in net resident flows reflects higher global and domestic interest rates since 2022, which have discouraged cross-border investment flows.

The region's net resident capital flows coincided with a narrower current account surplus in 2023 of around US$525 billion, which was considerably less than the surplus posted in 2022 of around US$600 billion. The region's trade in goods balance remained in surplus albeit significantly lower as China's trade in good surplus weakened to US$594 billion in 2023 from US$665 billion in 2022 **(Figure 2.3).** In contrast, the region's trade in services registered a deficit during the period due to a larger deficit from China of around US$208 billion. Meanwhile, Asia's primary income deficit (which includes investment income) continued to improve from a deficit of US$307 billion in 2022 to a deficit of around US$268 billion in 2023, whereas the secondary income balance (which includes remittances) remained in surplus at US$175 billion, which was slightly higher than the reported surplus of US$167 billion in the previous year. Across regional economies, the

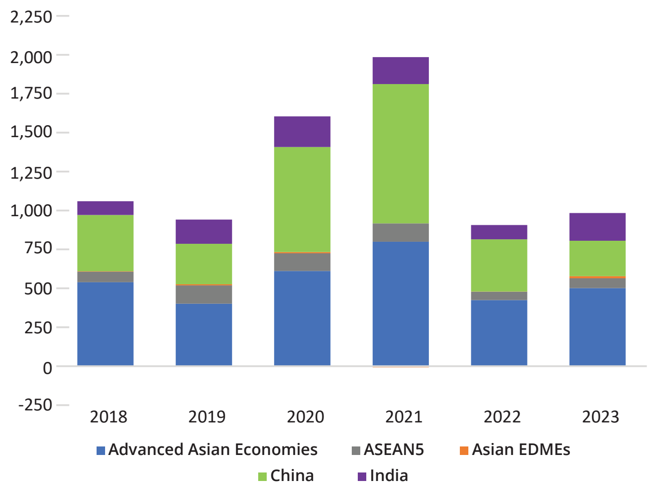
1. Asian economies in this monitor include Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Lao PDR; Malaysia; Mongolia; Nepal; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand; and Vietnam with available data (whenever possible). These economies are also SEACEN member economies. The primary source of Balance of Payments (BoP) and International Investment Position (IIP) data are from the International Monetary Fund (IMF). Data from the IMF (downloaded from the CEIC database) are consistently classified and standardised series in U.S. dollars across economies. All figures and data in this section excludes Lao PDR, Myanmar, and Papua New Guinea due to unavailable 2023 data.
2. The value of US$456 billion net capital flows refers to net acquisition of foreign assets by residents minus net incurrence of liabilities to non-residents.
3. In this section, other investments include other receivables (payables), other equity, insurance and pension, and SDRs (for liabilities). Currency and deposits, loans, and trade credits and advances are treated as separate items in this report.

Figure 2.1a: Resident Capital Flows, Asia, by category *(US$ billion)*



Notes: Asia includes Brunei Darussalam; Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Malaysia; Mongolia; Nepal; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand; and Vietnam. Other investments include other receivables, other equity, and insurance and pension.

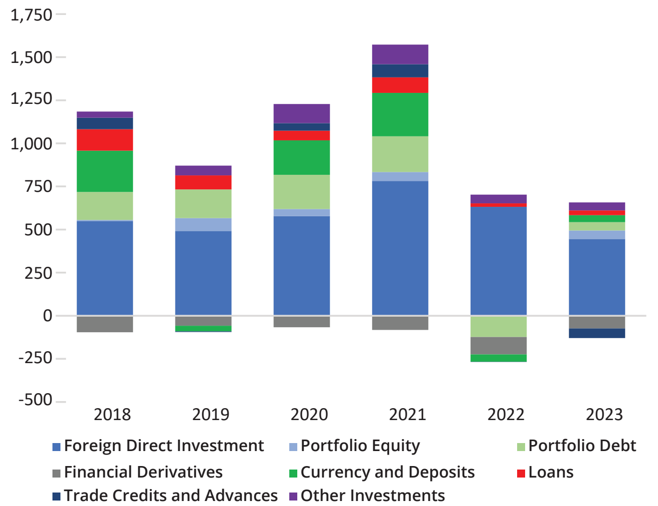
Figure 2.2a: Resident Capital Flows, Asia, by subregion *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN5 includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Asian Emerging and Developing Market Economies include Brunei Darussalam, Cambodia, Mongolia, Nepal, and Sri Lanka.

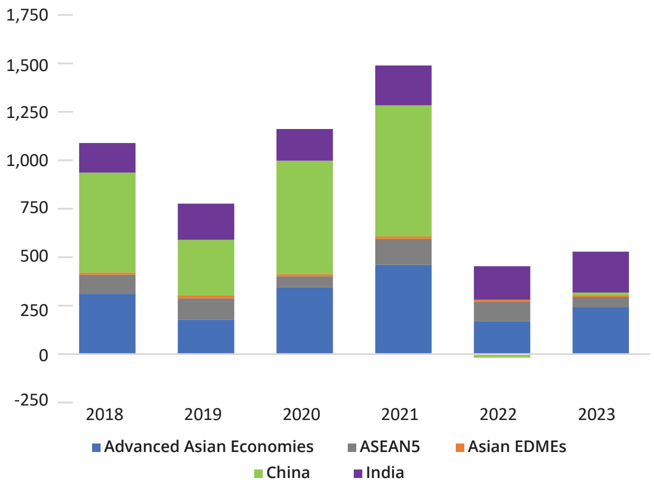
Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

Figure 2.1b: Nonresident Capital Flows, Asia, by category *(US$ billion)*



Notes: Asia includes Brunei Darussalam; Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Malaysia; Mongolia; Nepal; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand; and Vietnam. Other investments include other payables, other equity, insurance and pension, and SDRs liabilities.

Figure 2.2b: Nonresident Capital Flows, Asia, by subregion *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN5 includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Asian Emerging and Developing Market Economies include Brunei Darussalam, Cambodia, Mongolia, Nepal, and Sri Lanka.

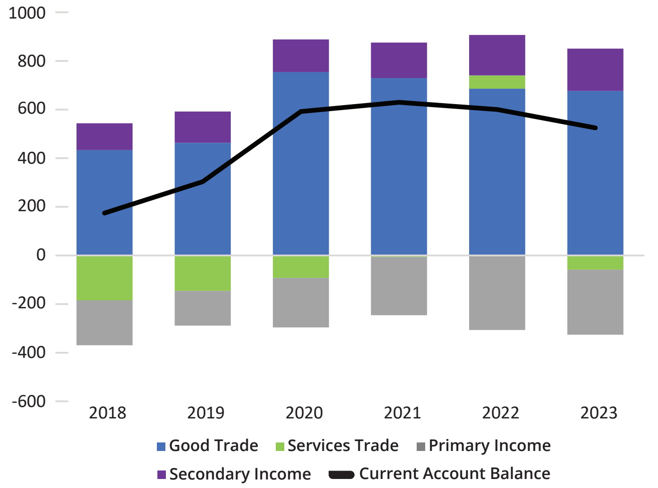
Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

current account balances of India, Indonesia, and the Philippines were in deficit during the period, while the rest posted current account surpluses. But the current account surpluses of most Asian economies (including China) narrowed in 2023, while those of Korea, Singapore, Chinese Taipei, and Vietnam widened during the period.

The resident capital outflows of most Asian economies increased in 2023, although China registered a significant decline in overseas investments. China's resident capital outflows decreased in 2023 compared to 2022, primarily due to smaller portfolio debt (bond) investment abroad and lower accumulation of official foreign reserves, in line with its narrower current account surplus during the period **(Figure 2.4a).** Moreover, China's direct investment abroad also fell by around 12% year-on-year. In contrast, resident capital outflows of Advanced Asian economies, ASEAN5, Asian EDMEs, and India have increased in 2023 from the previous year. For ASEAN5 economies, resident investments abroad grew from US$53 billion in 2022 to US$63 billion in 2023 due to larger portfolio equity and debt flows and foreign reserve accumulation **(Figure 2.4b).** India's resident investment abroad almost doubled from US$92 billion in 2022 to US$178 billion in 2023 because of the continued increase in resident currency and deposits abroad and foreign reserve accumulation **(Figure 2.4c).** Advanced Asia's resident capital outflows grew by 18% year-on-year in 2023 to US$502 billion from US$425 billion in 2022 driven by larger resident flows of portfolio debt and trade credits and advances, as well as foreign reserve accumulation **(Figure 2.4d).** Likewise, Asian EDMEs' resident flows increased in 2023 due to larger currency and deposits abroad, trade credits and advances, as well as foreign reserve accumulation **(Figure 2.4e).**

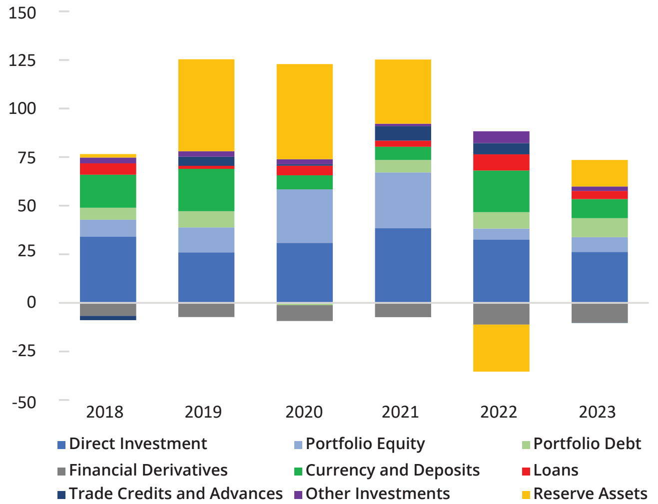
The region's nonresident capital inflows witnessed a divergence between economies which reported higher and lower nonresident capital inflows. For the former group, China's nonresident capital inflows improved in 2023 to US$13 billion, following a reversal of US$19 billion in 2022. Nonresident portfolio debt flows witnessed a turnaround in 2023 from a reversal in the previous year, while currency and deposits reported a smaller reversal. **(Figure 2.5a).** India also registered a significant increase in nonresident capital inflows in 2023 driven by portfolio equity and currency and deposits **(Figure 2.5b).** Similarly, nonresident capital inflows to Advanced Asia Economies grew from US$169

Figure 2.3: Current Account Balance, Asia
(US$ billion)



Notes: Asia includes Brunei Darussalam; Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Malaysia; Mongolia; Nepal; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand, and Vietnam.

Figure 2.4b: Resident Capital Flows, ASEAN5
(US$ billion)



Notes: ASEAN5 includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Other investments include other receivables, other equity, and insurance and pension.

Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

Figure 2.4a: Resident Capital Flows, China
(US$ billion)

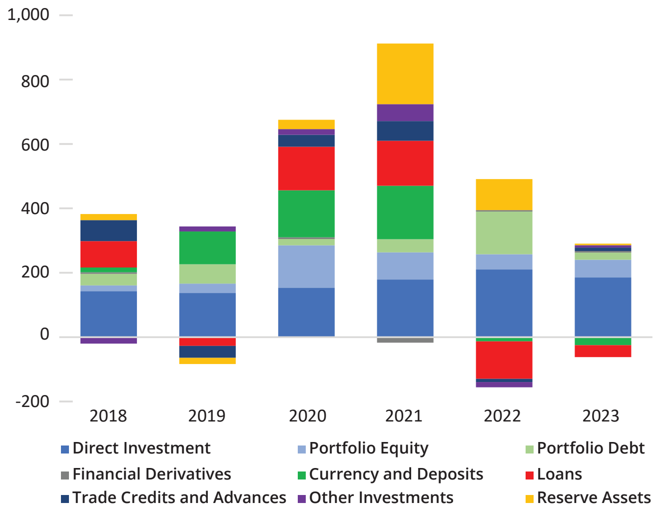
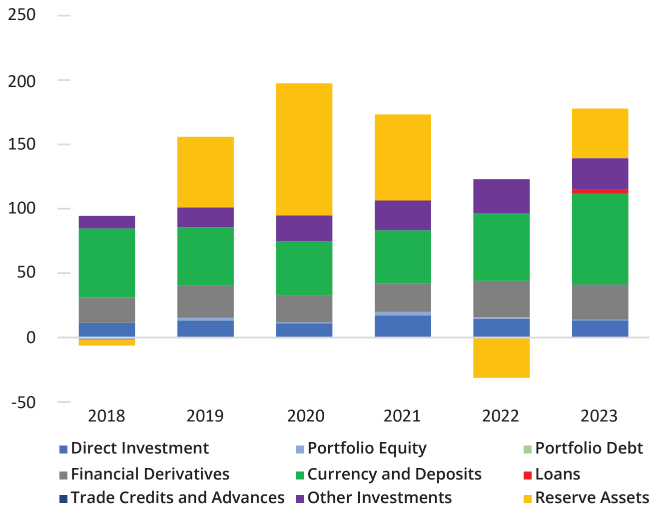


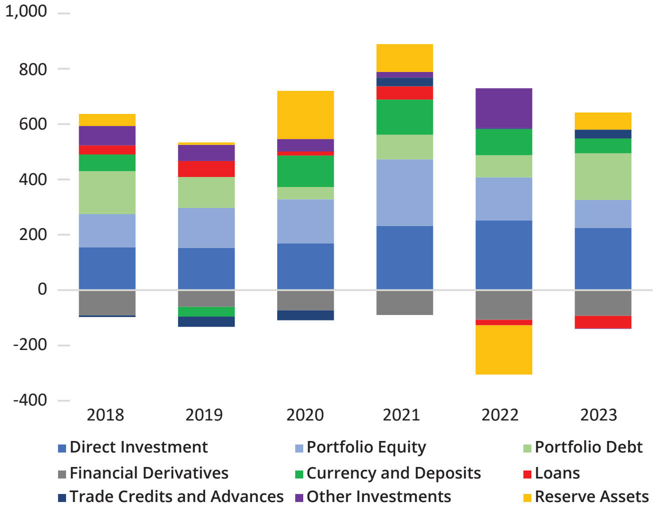
Figure 2.4c: Resident Capital Flows, India
(US$ billion)



Notes: Other investments include other receivables, other equity, and insurance and pension.

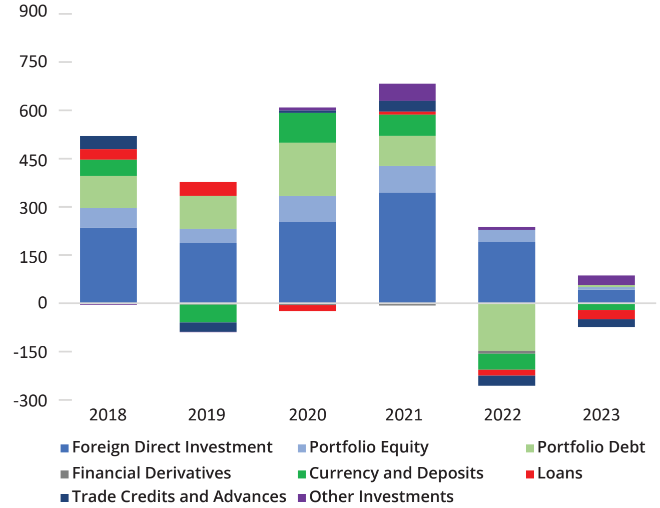
Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

Figure 2.4d: Resident Capital Flows, Advanced Asian Economies *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. Other investments include other receivables, other equity, and insurance and pension.

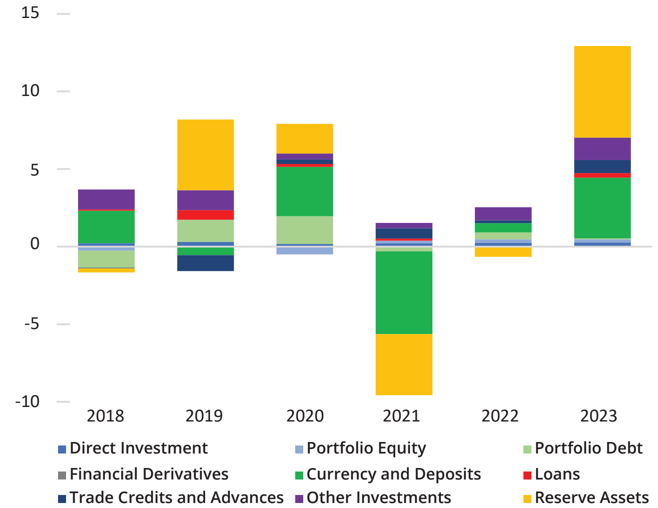
Figure 2.5a: Nonresident Capital Flows, China *(US$ billion)*



Notes: Other investments include other payables, other equity, insurance and pension, and SDR liabilities..

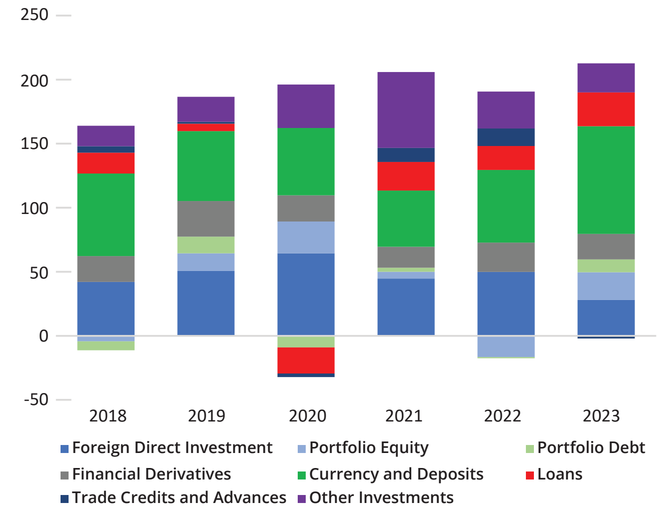
Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

Figure 2.4e: Resident Capital Flows, Asian Emerging and Developing Market Economies (EDMEs) *(US$ billion)*



Notes: Asian Frontier Markets include Brunei Darussalam, Cambodia, Mongolia, Nepal, and Sri Lanka. Other investments include other receivables, other equity, and insurance and pension.

Figure 2.5b: Nonresident Capital Flows, India *(US$ billion)*



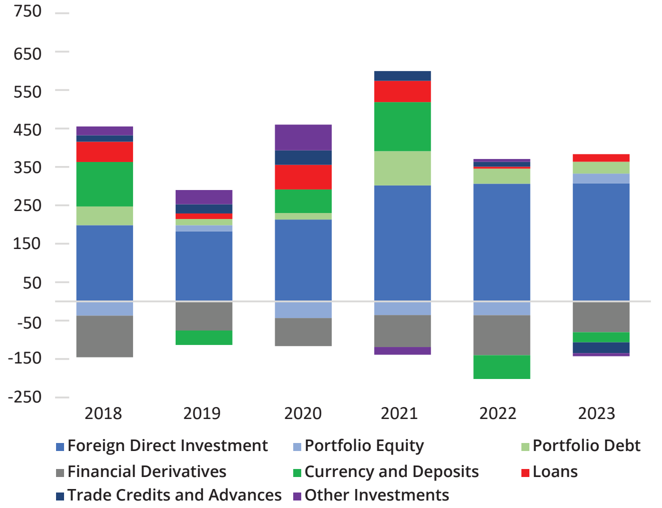
Notes: Other investments include other payables, other equity, insurance and pension, and SDR liabilities.

Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

billion in 2022 to US$241 billion in 2023 due to a turnaround in portfolio equity inflows and higher cross-border nonresident currency and deposits **(Figure 2.5c).** In contrast, ASEAN5 and Asian EDMEs reported lower nonresident capital inflows. Foreign capital inflows to ASEAN5 economies dropped by around half from US$100 billion in 2022 to US$54 billion in 2023 as it registered lower nonresident inflows on foreign direct investment, currency and deposits, loans, and other investments, in addition to reversals of foreign inflows on portfolio equity and trade credits and advances **(Figure 2.5d).** Nonresident capital inflows to Asian EDMEs decreased slightly in 2023, compared to the previous year, due to smaller nonresident loan inflows and a reversal of foreign other investment inflows **(Figure 2.5e).**

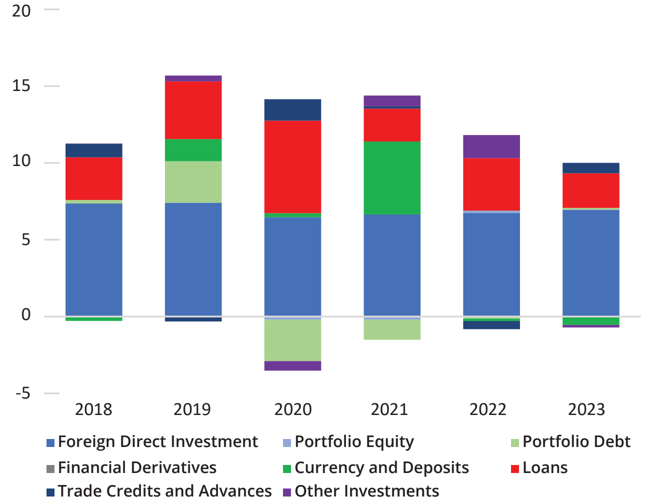
High U.S. and domestic interest rates discouraged resident and nonresident cross-border investments in 2023. In percentage of regional GDP, average resident capital outflows were significantly larger during the COVID-19 pandemic period (2020 to 2021) at 7.1%, followed by the pre-COVID-19 pandemic period (2018 to 2019) at 4.4%. In contrast, for the current period of high interest rates (2022 to 2023), average resident capital outflows were smaller at 3.4%, which was less than half than the average during the COVID-19 period. This pattern holds true for China,

Figure 2.5c: Nonresident Capital Flows, Advanced Asian Economies *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. Other investments include other payables, other equity, insurance and pension, and SDR liabilities.

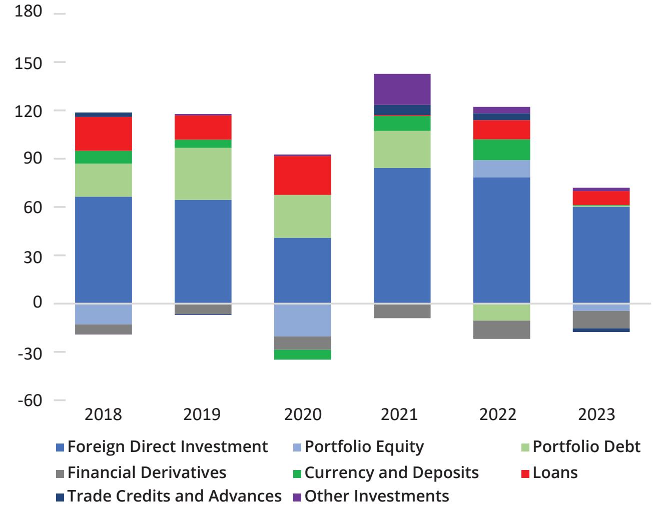
Figure 2.5e: Nonresident Capital Flows, Asian Emerging and Developing Market Economies (EDMEs) *(US$ billion)*



Notes: Asian EDMEs include Brunei Darussalam, Cambodia, Mongolia, Nepal, and Sri Lanka. Other investments include other payables, other equity, insurance and pension, and SDR liabilities.

Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

Figure 2.5d: Nonresident Capital Flows, ASEAN5 *(US$ billion)*



Notes: ASEAN5 includes Indonesia, Malaysia, Philippines, Thailand, and Vietnam. Other investments include other payables, other equity, insurance and pension, and SDR liabilities.

Sources: SEACEN staff calculations using data from IMF's Balance of Payments Statistics accessed through CEIC Database (downloaded June 2024).

India, Advanced Asian economies, and ASEAN5. Likewise, the average nonresident capital inflows were largest during the COVID-19 pandemic period (2020 to 2021) at 5.2% of regional GDP, followed by the pre-COVID-19 pandemic period (2018 to 2019) at 4.1%, while it was lowest during the current period of high interest rates at 1.7% (2022 to 2023). This pattern is also observed for China, India, Advanced Asian economies, and ASEAN5.

Total international investment assets of Asian economies reached US$29.5 trillion at end-2023, up by 4.8% from US$28.2 trillion at end-2022. Among Asian economies, Advanced Asian economies, as a subgroup, had the largest international financial assets amounting to US$17.0 trillion, followed by China (US$9.6 trillion), ASEAN4 (US$1.9 trillion), India (US$970 billion), and Asian EDMEs (US$55 billion), respectively. The international investment holdings of Advanced Asian economies and China alone comprised around 90% of the region's total international investments **(Figure 2.6a).** Across asset types, direct investment abroad (US$9.0 trillion) and official reserve assets (US$6.5 trillion) comprised the bulk of the region's foreign asset holdings in 2023, followed by portfolio equity (US$4.0 trillion), portfolio debt (US$3.3 trillion), and currency and deposits (US$ 3.0 trillion). Interestingly, portfolio investment assets were roughly equally distributed between portfolio equities and portfolio debt **(Figure 2.6b).** Excluding financial derivatives, the debt-equity asset ratio stood at 1.24 as of end-2023, which was slightly lower than the 1.26 as of end-2022.[4] By contrast, debt-equity asset ratio stood at 1.44 in 2018-19. While it is tempting to argue that this decline in the debt-equity ratio reflects a shift in preference for equity-type investments, it might well be the result of an appreciation in value of equity investments held and/or a fall in value of investments in debt instruments.

4. Debt investments include portfolio debt, currency and deposits, loans, trade credits and advances, other investments, and official reserve assets, which are mostly currency and deposits and portfolio debt securities.

Figure 2.6a: International Investment Assets, by sub-region *(US$ billion)*

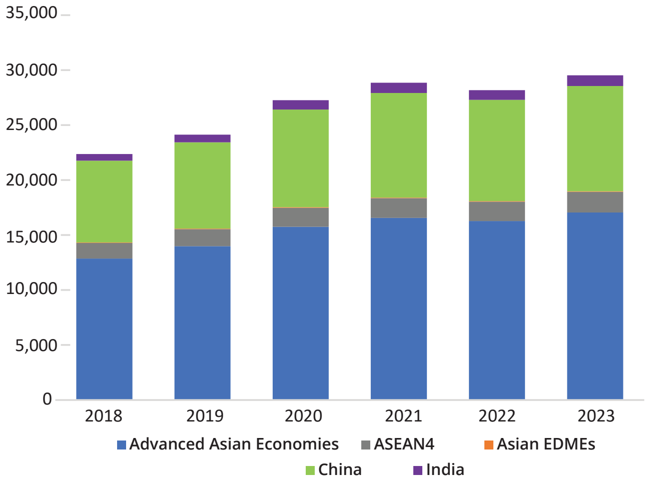
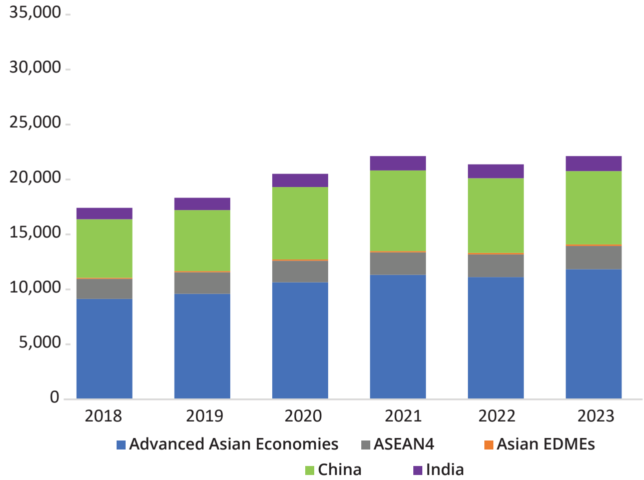


Figure 2.7a: International Investment Liabilities, by sub-region *(US$ billion)*



Notes: Advanced Asian Economies include Hong Kong, China; Korea; Singapore; and Chinese Taipei. ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. Asian EDMEs include Cambodia, Mongolia, and Nepal.

Sources: SEACEN staff calculations using data from IMF's International Investment Position accessed through CEIC Database (downloaded June 2024).

Figure 2.6b: International Investment Assets, by category *(US$ billion)*

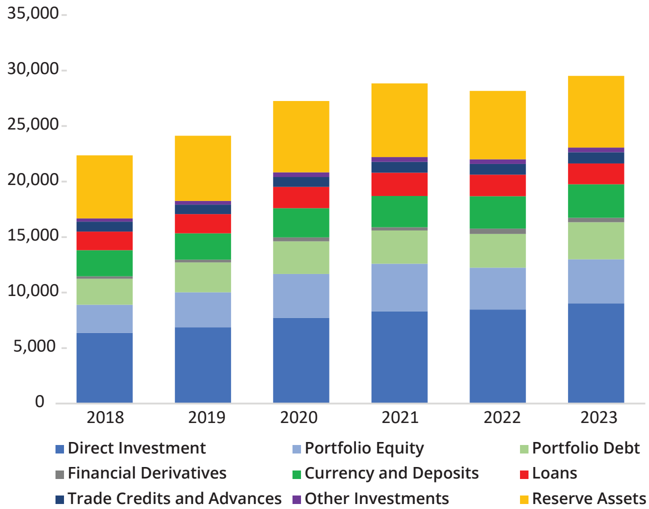
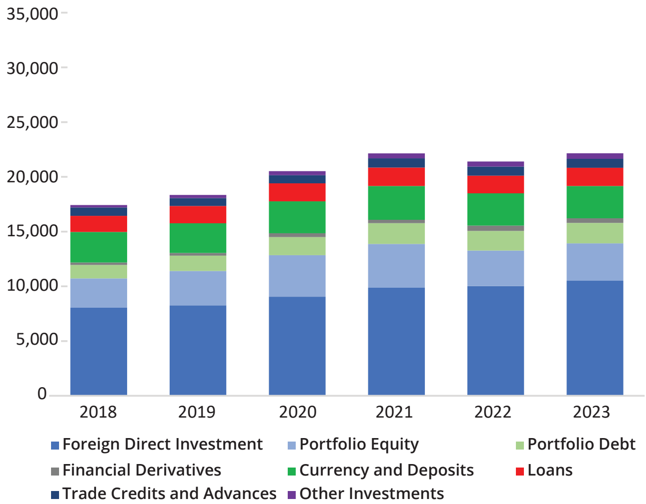


Figure 2.7b: International Investment Liabilities, by category *(US$ billion)*



Notes: Asia includes Cambodia; China; Hong Kong, China; India; Indonesia; Korea; Malaysia; Mongolia; Nepal; Philippines; Singapore; Chinese Taipei; and Thailand. Other investments include other receivables, other equity, and insurance and pension.

Sources: SEACEN staff calculations using data from IMF's International Investment Position accessed through CEIC Database (downloaded June 2024).

Total international investment liabilities of Asian economies increased by 3.5% to US$22.1 trillion as of end-2023, up from US$21.4 trillion in end-2022. Among Asian economies, Advanced Asian economies had the highest international financial liabilities amounting to US$11.8 trillion in 2023, again followed by China at US$6.7 trillion and ASEAN5 at US$2.1 trillion, respectively **(Figure 2.7a).** Across investment types, the region incurred foreign direct investment liabilities amounting to US$10.5 trillion, followed by portfolio equity investment at US$3.4 trillion and currency and deposits at US$2.9 trillion, respectively. **(Figure 2.7b).** Excluding financial derivative liabilities, the debt-equity liabilities ratio stood at 0.56 as of end-2023, lower than the 0.58 as of end-2022, reflecting a continued tilt towards equity liabilities since 2022.

Asian economies, as a group, remained a net capital exporter in 2023 as their positive net foreign asset position stood at US$7.4 trillion, higher than the US$6.8 trillion at end-2022. However, within Asian economies, there was a clear divide between net capital exporters and net capital importers. China; Hong Kong, China; Korea; Malaysia; Singapore; Chinese Taipei; and Thailand were net capital exporters as they had positive net foreign asset position in 2023. In contrast, Cambodia, India, Indonesia, Mongolia, Nepal, and Philippines had negative net foreign asset positions, indicating they were net capital borrowers. Across subregions, the net negative position of ASEAN5 economies improved significantly in 2023 whereas the net negative position of India and Asian EMDEs remained roughly the same in the past two years.

B. Outlook on Capital Flows and Net Foreign Asset Position[5]

As a group, Asian economies will most likely sustain their positive net resident capital outflows and net foreign asset position in 2024, although at a lower level compared to 2023. The region's net resident capital outflows, as a group, will most likely remain positive in 2024, buoyed by the region's current account balance which is expected to remain positive according to the latest IMF World Economic Outlook 2024 (IMF, 2024). However, compared to 2023, net resident capital outflows in Asia will most likely decrease in line with the region's narrower projected current account surplus for 2024. Meanwhile, given the expected current account surpluses in 2024, the region will likely maintain its positive net foreign asset position, although divergence between economies with positive and negative positions will persist due to varying current account balances, exchange rate movements, and capital gains in 2024. High U.S. and domestic policy rates will continue to dampen cross-border capital flows. In particular, the longer the U.S. policy rate remains high, the weaker cross-border investments will be. However, U.S. policy rate cuts might stoke capital flow volatility in the region, thereby warranting continued macro-financial monitoring.

5. The outlook discussed in this section is mostly based on SEACEN staff assessment of economic and financial prospects and forecasts from the International Monetary Fund (World Economic Outlook Database April 2024).
6. See Section 1 on economic growth outlook for 2024.

SECTION III: MULTI-SECTOR BOND FUNDS AND CAPITAL ACCOUNT MEASURES[1]

This analytical section discusses multi-sector bond funds and the effectiveness of capital account measures. The main highlights are:

- *Multi-sector bond funds (MSBFs) are regulated open-end investment funds with broad mandates that give investment managers discretion on geographic and sector exposures, resulting in an active investment style with positions in emerging and developing market economies.*
- *MSBFs are highly concentrated in their positioning and decision-making. They also exhibit opportunistic behaviour, causing MSBF flows to be potentially risky.*
- *Empirical evidence shows that capital account tightening measures can be effective in reducing MSBF-driven portfolio bond flows.*

A. Multi-sector Bond Funds

Bond issuance in emerging and developing market economies (EDMEs) has grown significantly over the last decade. In selected Southeast Asian economies, outstanding foreign currency bonds almost tripled from US$150 billion in 2010 to US$420 billion in 2022, while local currency bond markets in the region more than doubled from US$865 billion to US$2,100 billion.[2] The EMDE bond market growth, also beyond Southeast Asia, reflects a shift in the international financial landscape, characterised by Shin (2013) as the "second phase of global liquidity," contrasting with the bank-centred "first phase" from 2003 to the 2008-09 global financial crisis (GFC).

The transition from bank-centred to bond market-driven global liquidity has allowed EMDE issuers to tap into a broader investor base beyond traditional banks. Diversified sources of external funds offer EMDE issuers increased access to finance and reduced reliance on a single financing channel. Bond markets also provide longer-term financing, compared to bank loans, reducing rollover risks. In addition, bond issuance subjects EMDEs to greater market scrutiny and transparency, potentially promoting sound macroeconomic policies and structural reforms that could foster local capital market development. At the same time, the shift toward bonds has brought about new challenges. Portfolio debt flows are often more volatile and prone to sudden reversals in response to global factors. International bond investors may exhibit procyclical behaviour, amplifying economic and financial cycles and transmitting shocks across countries through global and regional portfolios. Moreover, EMDEs often issue bonds in hard currencies, leading to currency mismatches that can amplify risk during periods of exchange rate volatility.[3]

The shift to EDME bonds paved the way for the rise of multi-sector bond funds (MSBFs). MSBFs are regulated open-end investment funds with broad mandates that give managers investment discretion regarding geography and sector exposures. This usually translates into an active investment style with positions in advanced and emerging markets.[4] In contrast, country and regional dedicated funds usually reallocate within the asset class and adhere more closely to benchmark indices. Given their large footprint across bond markets and unconstrained nature, MSBFs are potentially risky as their opportunistic behaviour and sudden portfolio reallocations may amplify asset price co-movements and generate contagion across bond markets linked solely through their common ownership.[5] To put this in context, based on a ranking of the largest investment funds by assets available in Bloomberg LP, as of the start of April 2024, investment funds domiciled in Western Europe or North America managed some US$51 trillion in assets.[6] The largest asset category is equity, which accounted for some US$28 trillion, but about

1. This section is taken from SEACEN Working Paper No. 02/2024 co-authored by Rogelio Mercado Jr. (The SEACEN Centre) and Luca Sanfilippo (International Finance Corporation) entitled: "Multi-sector Bond Funds: New Evidence on Global and Domestic Drivers and Effectiveness of Capital Account Measures." The working paper was presented at the BSP Research Academy (BRAc) Research Huddle on 13 June 2024 in Manila, Philippines.
2. Refer to AsianBondsOnline https://asianbondsonline.adb.org/ (accessed March 2024).
3. Hard currency assets are sovereign debt issues by EMDEs in major foreign currencies, such as U.S. dollars or euros, that typically are less likely to fluctuate suddenly in value than local EMDE currencies.
4. Funds that share at least one or more features with MSBFs in the literature are also called global, international, multi-country, cross-over, or broad mandate.
5. An opportunistic investment strategy is typically a high-conviction investment approach with a high-return objective (outsized opportunity for excess return vs. targeted return) but generally a riskier, often concentrated profile. Typically, these investments are not clearly defined by asset allocation limitations and are unconstrained by region, size, or style.
6. Funds domiciled in these jurisdictions account for the lion's share of the assets managed globally by regulated investment funds.

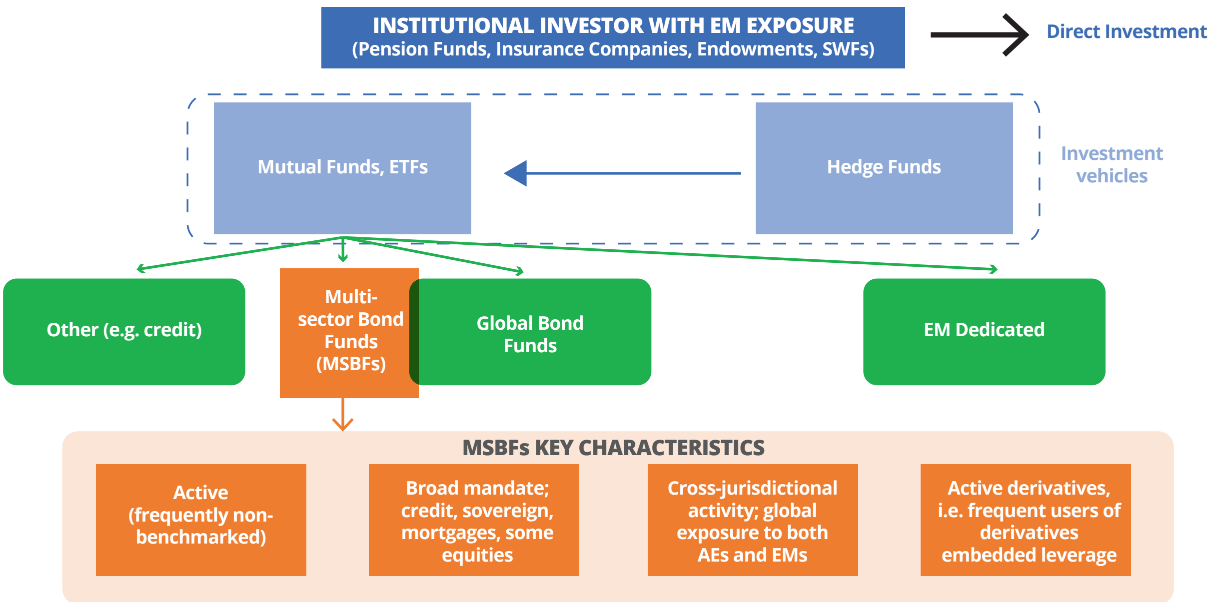
US$11 trillion is focused on fixed-income.[7] Netting out the fixed-income investment funds categorised as exchange-traded funds, which are mostly passive investments pegged to the performance of a particular index, leaves close to US$9 trillion in assets. With this much potential exposure across fixed-income sectors (while acknowledging that not all are managed by cross-border funds), sudden portfolio reallocations may cause significant volatility and spillovers.[8]

Previous studies have shown the potential risks MSBF flows pose to EMDEs. Cortes and Sanfilippo (2020 and 2021) show that MSBFs are highly concentrated in their positioning and decision-making, exhibiting opportunistic behaviour — investing in EDMEs to improve returns, and reallocating away when returns are unsatisfactory, typically deviating significantly from benchmarks. **Figure 3.1** provides a schematic diagram of institutional investors' exposure to EMDE assets and key characteristics of MSBFs. During periods of high-risk aversion, especially when combined with large redemptions, MSBFs' sizeable, concentrated, and non-benchmarked reallocations could be associated with the underperformance of selected emerging and developing markets. Sensitive to global factors and unconstrained in nature, MSBFs can be a source of spillovers of financial volatility into and across EMDEs, potentially exerting significant impact on cross-border flows. These results suggest that, on balance, MSBFs are not a stabilising force but rather exacerbate periods of stress.

During a period of easy monetary policy and low global bond yields, EMDEs increasingly saw portfolio debt inflows from large international investment funds, such as MSBFs. The assets under management of regulated investment funds in global capital markets grew significantly following the GFC **(Figure 3.2).** EDME fixed-income assets were attractive to investors seeking returns and diversification. Assets under management of a sample of 40 large MSBFs nearly doubled in the decade after the GFC to about US$1 trillion at their peak, representing almost 10% of the entire bond investment fund sector globally **(Figure 3.3).** Since 2010, MSBFs' aggregate EDME investment portfolio has ranged between US$50 billion and US$160 billion (peaking in 2014), mostly invested in sovereign bonds **(Figure 3.4).**

However, the global financing environment for EDMEs became more restrictive around 2016-17. MSBFs started shedding significant sovereign bond exposures in various key EDMEs. The asset class saw

Figure 3.1: Institutional Investors with Emerging and Developing Market Exposures

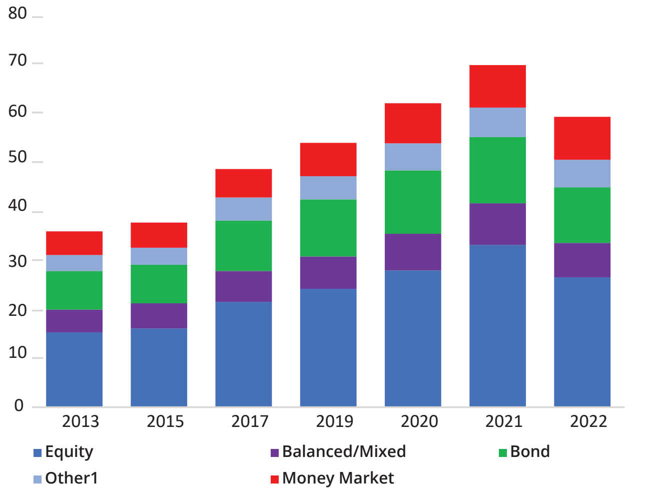


Notes: Multi-sector bond funds (MSBFs) are important investors in emerging and developing markets fixed income. The global bond fund and MSBF sector boxes overlap as some of the latter could be categorised as global bond funds, but others have considerably different remits. For instance, global bond funds are traditionally more exposed to sovereign bonds than credit, while MSBFs can be large investors in corporate bonds.

Sources: Cortes and Sanfilippo (2020).

7. Other classes are alternative, commodity, mixed allocation, money market, private equity, real estate, and specialty assets.
8. A 'sector' refers to the entity that issued the bond and has some key investment characteristics. Government and corporate bonds are the largest sectors of the bond market, but there are many other types. For instance, MSBFs invest in various sectors, including government but also investment-grade corporate, high-yield corporate, mortgage, and municipal bonds. They can also be quite active in the financial derivatives associated with these sectors.

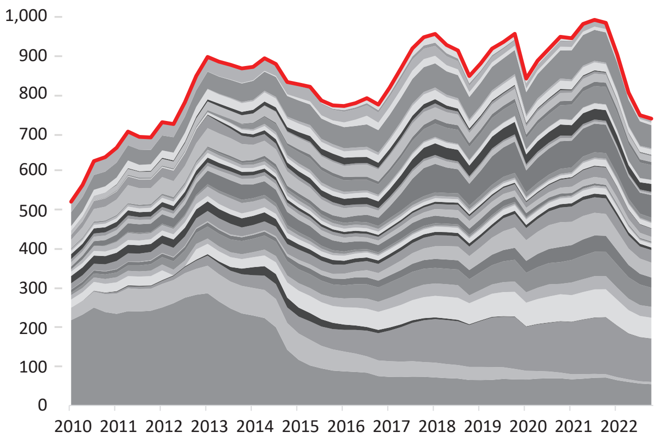
Figure 3.2: Assets Under Management of Regulated Investment Funds *(US$ trillion)*



Notes: Other funds include guaranteed/protected funds, real estate funds, and other funds. Data for Russia are 3Q2017. Regulated open-end funds include mutual funds, ETFs, and institutional funds.

Sources: Mercado and Sanfilippo (2024) using data from the International Investment Funds Association.

Figure 3.3: Assets Under Management of Multi-sector Bond Funds Sample *(US$ billion)*

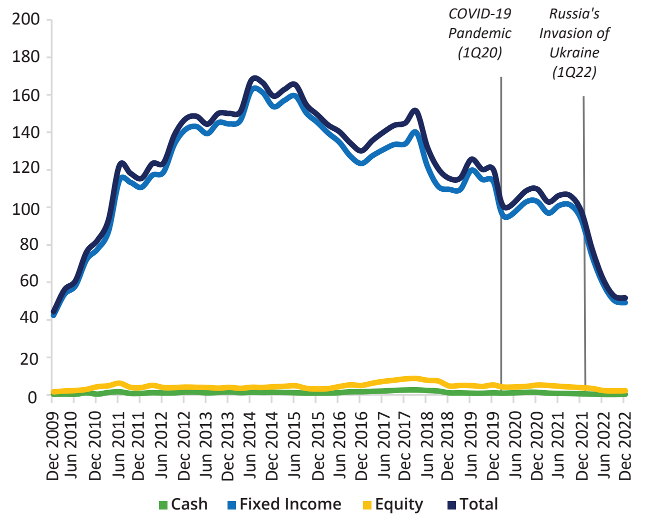


Notes: Refer to Appendix 2 of Mercado and Sanfilippo (2024) for a discussion on MSBF data.

Sources: Mercado and Sanfilippo (2024) using data from Bloomberg LP.

sharp outflows, totalling US$36 billion in 2018, from the sample of MSBFs under study alone. After a brief rebound, these dynamics accelerated during successive macroeconomic and geopolitical shocks, including the COVID-19 pandemic, the Russia-Ukraine conflict, soaring inflation and policy rates, and increased fiscal and debt vulnerabilities. MSBF EMDE exposure declined by US$68.5 billion to US$52 billion from end-2019 to end-2022, with most of the decline occurring in 2022 (US$46.3 billion), bringing EDME portfolio holdings back close to the level at the start of the sample period in early 2010. These dramatic

Figure 3.4: Assets Under Management of Regulated Investment Funds in Emerging and Developing Market Economies: By Asset Type *(US$ billion)*



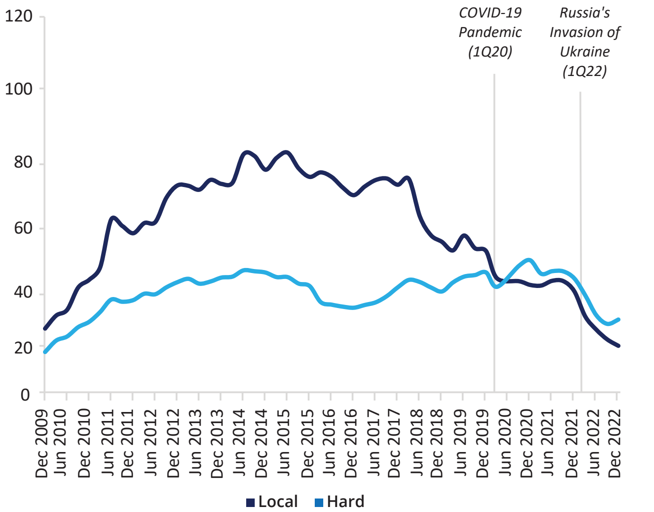
Source: Mercado and Sanfilippo (2024) using data from Bloomberg LP.

swings in a relatively brief period, mainly influenced by factors outside the control of domestic policymakers, illustrate the volatility of capital flows and the vulnerability of EDME issuers to the international financial system.

The evolution of aggregate MSBF EMDE holdings by currency denomination demonstrates a search for yield and subsequent flight to safety. Until early 2016, MSBFs quickly grew their local currency debt holdings, increasing their dominance *vis-à-vis* hard currency assets **(Figure 3.5).**[9] The ratio then stabilised, only to drop around mid-2017, trending towards less local in favour of more hard currency. The sharp capital outflows witnessed at the start of the global pandemic and the recent turmoil following the Russia-Ukraine conflict affected the entire asset class. Yet, hard currency debt was relatively quick to recover and overtook local currency debt holdings. This dominance has persisted and become more pronounced, with some 62% of MSBF bond holdings denominated in hard currency as of end-2022. Demand for local currency assets has been weaker as higher exchange rate volatility weighed on carry-trade-related flows, and MSBFs rebalanced their portfolios into safer assets while selling positions in response to redemptions (Cortes and Sanfilippo, 2021).

9. The hard currency holdings on MSBF balance sheets are nearly all U.S. dollar-denominated, with some euro positions, while other hard currencies combined barely stand out.

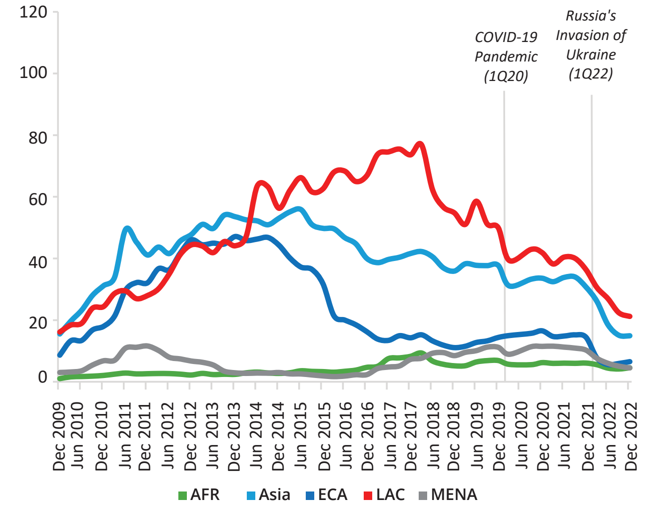
Figure 3.5: Assets Under Management of Multi-sector Bond Funds Sample: By Currency Denomination *(US$ billion)*



Notes: Local currency refers to domestic currency. Hard currency reflects nearly all U.S. dollars, with minor euro positions, and other hard currencies including GBP, JPY, CHF, AUD, CAD, SGD, DKK, NOK, NZD, and SEK.

Sources: Mercado and Sanfilippo (2024) using data from Bloomberg LP.

Figure 3.6: Assets Under Management of Regulated Investment Funds: By Region *(US$ billion)*



Notes: AFR = Africa; ECA = Emerging Europe and Central Asia; LAC = Latin America; and MENA = Middle East and North Africa.

Sources: Mercado and Sanfilippo (2024) using data from Bloomberg LP.

Besides volatility and currency risks concentration is another concern. Since 2010, there have been 101 EMDE recipients globally of MSBF flows, with Latin America, followed by Asia, leading the asset class **(Figure 3.6).**[10] Moreover, significant cross-country differentiation exists, with a few selected economies benefitting greatly in boom periods and suffering most in the bust. Unlike dedicated bond funds, where the decision to invest in emerging markets rests with the end investor, MSBF portfolio managers are responsible for asset allocation decisions across fixed-income sectors and geographic locations subject to their particular investment mandates. As a result, MSBF reallocate their portfolios disproportionally, focusing on the bonds of a few selected emerging market sovereign issuers in more liquid and developed financial markets. In this regard, differences in regulatory frameworks and policy measures play an important role in understanding the cross-country heterogeneity of MSBF flows.

B. Multi-sector Bond Funds and Capital Account Measures[11]

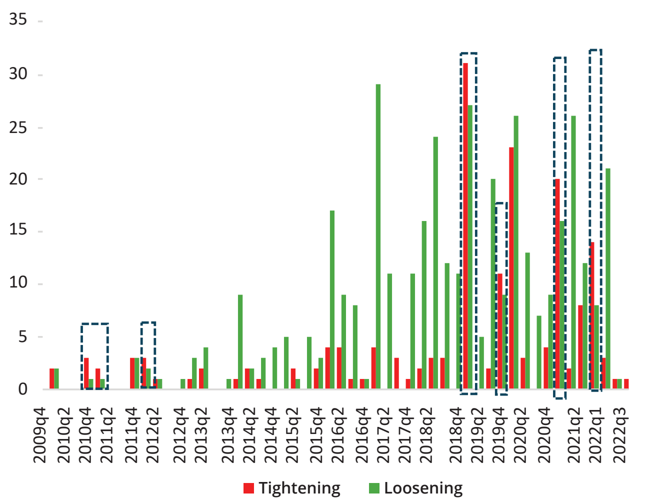
As MSBF asset holdings in EMDEs have shown dramatic swings in value since 2010, it is expected that MSBF cross-border investment flows to EDMEs would, likewise, exhibit considerable volatility.[12] In this regard, a better understanding of the determinants of cross-border MSBF flows, as well as the effectiveness of capital account measures are vital in designing and implementing appropriate policy measures. However, constructing capital account measures are plagued by empirical challenges that have complicated assessments of capital control effectiveness — namely intensity, specificity, and measurement.[13] In a recent paper, Mercado and Sanfilippo (2024) have addressed these challenges. On intensity, the authors coded every policy adjustment that tightens the capital account measures as reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) in the same spirit as Ahmed et al. (2020), Ghosh et al. (2017), and Lepers and Mehigan (2019). Tracking the total changes in restrictiveness captures the direction and the frequency of policy adjustments, thereby reflecting the intensity of implemented measures. On specificity, Mercado and Sanfilippo (2024) included only capital account measures that relate to MSBFs, such as (i) bonds and other debt

10. Of which 24 in Eastern Europe and Central Asia, 23 in Latin America and the Caribbean, 21 in Africa, 20 in Asia, and 13 in the Middle East and North Africa.
11. In this section, we use the term capital account measures, instead of capital controls and capital flow management measures, to refer to measures reported in the IMF's AREAER that could impact the capital (financial) account balance.
12. Refer to Mercado and Sanfilippo (2024) Appendix 2 for a detailed discussion on deriving multi-sector bond fund flows.
13. Refer to Mercado and Sanfilippo (2024) Appendix 3 for a detailed discussion on deriving capital account measures.

securities; (ii) money market instruments; (iii) collective investment securities; (iv) derivatives and other instruments; and (v) provisions specific to the financial sector, such as limits and currency matching of investment firms and collective investment funds. Lastly, on measurement, the authors interpreted policy measures to include not only direct restrictions on cross-border financial transactions but also regulatory requirements that can act as a *de facto* incentive/deterrent to international financial transactions, even if not aimed at international capital flows *per se.* **Figure 3.7** presents the computed capital account measures of Mercado and Sanfilippo (2024) and highlights specific episodes when tighter capital account measures were imposed.

More recent papers on capital account measures using new methodologies and more refined data on policy measures offer some evidence of their effectiveness in reducing capital flows.[14] For instance, Forbes et al. (2016) use fund-level portfolio investments by country from the Emerging Portfolio Fund Research (EPFR) Global Database in a case study of Brazil and find that an increase in the tax on foreign investment in bonds causes fund managers to significantly reduce their portfolio allocations in both bonds and equities of that country, as well as of those economies viewed more likely to implement similar capital controls. Using Balance of Payments

Figure 3.7: Capital Account Tightening and Loosening Measures of Selected EDMEs



Notes: Tightening = capital account tightening measures; Loosening = capital account loosening measures. Those in dashed boxes denote episodes when capital account tightening measures are greater than capital account easing measures.

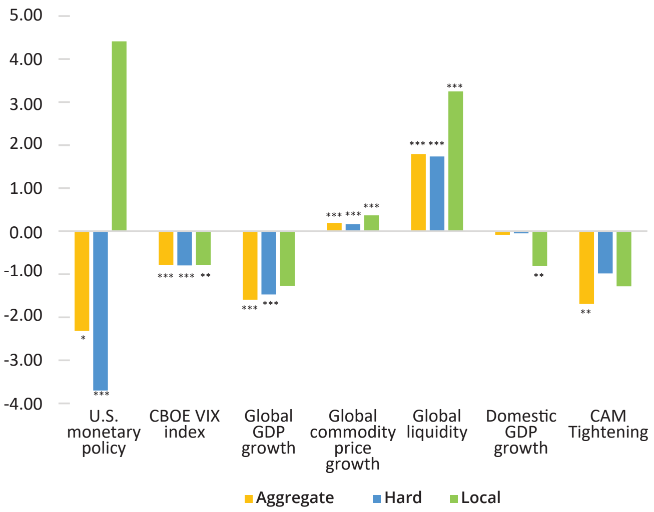
Sources: Mercado and Sanfilippo (2024) using data from the Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) Online of the International Monetary Fund.

data, Baba and Kokenyne (2011) find that Colombia's unremunerated reserve requirements reduced short-term inflows but had no effect on total capital flows. Ahmed and Zlate (2014) show that capital controls introduced in emerging economies after the GFC discouraged both total and portfolio (bonds and equity) net and gross capital flows. Using portfolio flow data from the EPFR Global Database and Balance of Payments data, as well as bond-specific and broader capital control measures, Chantapacdepong and Shim (2015) find a country's policy action of loosening bond inflows increases bond flow correlation of the country with other countries in Asia-Pacific. Lepers and Mehigan (2019) show that residency-based measures on bond flows reduce total capital inflows but provide limited support for a credit-mitigation role. Using sectoral capital flows and sectoral capital flow measures for a sample of advanced and emerging economies, Lepers and Mercado (2021) find that tightening capital controls on the banking sector and other financial corporates lower the volume of capital inflows to these sectors. In contrast to these papers, Forbes et al. (2015) find that most capital controls do not significantly affect other key targets, such as exchange rates, capital flows, interest-rate differentials, inflation, equity indices, and different volatilities.

Empirical estimates show that MSBF flows are sensitive to domestic and global factors, as well as capital account measures. The estimates of Mercado and Sanfilippo (2024) reveal several new findings: (i) higher U.S. monetary policy rates and global risk aversion (measured by the VIX) significantly reduce aggregate MSBF flows and those denominated in hard currencies,[15] while stronger global commodity price growth and global liquidity significantly increase the same flows; (ii) global and domestic GDP growth tend to have a countercyclical impact on MSBF flows; (iii) capital account tightening measures related to, or targeted, at fixed-income and investment funds are effective in reducing MSBF flows to EDMEs. **Figure 3.8** presents the estimated coefficients, taken from Mercado and Sanfilippo (2024). The authors also find that (iv) loosening capital account restrictions increases MSBF flows denominated in hard currencies, albeit less so than tightening reduces inflows; (v) tightening

14. Refer to Mercado and Sanfilippo (2024) for a more detailed discussion on capital account measures.
15. Aggregate flows are defined as the sum of all hard- and local currency-denominated flows of the 40 MSBFs in the sample.

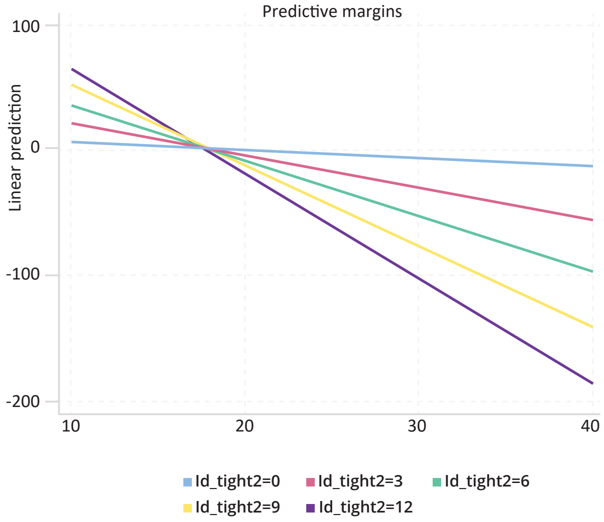
Figure 3.8: Determinants of MSBF Flows and Effectiveness of Capital Account Measures



Notes: Values refer to estimated regression coefficients taken from Table 2 of Mercado and Sanfilippo (2024). CAM (capital account) tightening measure was derived from two-step regression approach to address potential endogeneity. ***, significant at 1%, ** at 5% and * at 10%.

Sources: Mercado and Sanfilippo (2024) estimates.

Figure 3.9: Margins Plot of Capital Account Tightening Measures and VIX



Notes: Based on estimates of average marginal effects between capital account tightening measures and VIX on aggregate MSBF flows.

Sources: Mercado and Sanfilippo (2024).

controls on directional inflows are more effective compared to tightening measures on directional outflows; and (vi) implementing capital account tightening measures is more effective in reducing MSBF flows at higher levels of global risk aversion. **Figure 3.9** presents the downward sloping margins plot, indicating that a one-unit increase in global risk aversion reduces MSBF flows across various levels of capital account tightening measures. But the more tightening measures are imposed, the greater the reduction in MSBF flows. In other words, the effectiveness of capital account tightening measures in reducing MSBF flows strengthens as more tightening measures are imposed given a one-unit increase in VIX.

C. Policy Considerations

The section highlights that capital flows from multi-sector bond funds are volatile and potentially risky. Importantly, recent empirical work on multi-sector bond funds provides evidence on the sensitivity of MSBF-driven flows on capital account tightening measures. While more empirical work needs to be done in examining other fund level (granular) data as well as the effectiveness of specific capital account measures, the results in the context of MSBF flows provide evidence on the effectiveness of targeted capital account measures on specific types of capital flows, which can aid in designing and implementing policy responses in managing volatile portfolio flows.

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The SEACEN Capital Flows Monitor is a bi-annual report on cross-border capital flows and net foreign asset positions of SEACEN member economies, which are members of the SEACEN Expert Group (SEG) on Capital Flows. The report discusses financial market developments in the region as well as recent trends and outlook on capital flows and international investment positions. A separate section provides thematic analysis on topical issues, such as multi-sector bond funds and the impact of capital account measures.

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