



# SEACEN CAPITAL FLOWS MONITOR 2020

June 2020

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



The SEACEN Centre



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The SEACEN Capital Flows Monitor 2020 should not be reported as representing the views of the SEACEN Centre or its member central banks/monetary authorities. The views expressed in this report are those of the author(s) and do not necessarily represent those of SEACEN or its member central banks/monetary authorities.

*Notes:*

The SEACEN Centre recognizes “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 01 June 2020.

SEG economies include the nineteen economies of the SEACEN member central banks and monetary authorities in addition to Australia and Japan, which are also members of the SEACEN Expert Group (SEG) on Capital Flows. The complete list of twenty-one economies include Australia, Brunei Darussalam, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Nepal, Papua New Guinea, Philippines, Singapore, Sri Lanka, Chinese Taipei, Thailand and Vietnam.

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## 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 Research and Training Centre
SEG	SEACEN Expert Group on Capital Flows

## CONCEPTS

Net IIP	Net International Investment Position, computed as the total foreign asset holdings minus total foreign liabilities.
Non-resident capital flows	Net purchases of domestic assets by non-residents, commonly referred to <i>gross capital inflows</i> . 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.
Resident capital flows	Net purchases of foreign assets by domestic residents, commonly referred to <i>gross capital outflows</i> . This corresponds to financial account assets in the BoP's Financial Account Balance.

## FOREWORD

Capital flows inform us about cross-border financial transactions and investments. They facilitate portfolio diversification and risk-sharing; and aid economic growth, financial development, and knowledge transfer. However, large capital inflows as well as large capital outflows can be disruptive, leading to sharp fluctuations in the exchange rate, asset price bubbles, excessive credit growth, sudden reversals and cross-border spillovers. Monitoring and understanding their 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 comprises SEACEN's nineteen-member central banks and monetary authorities including the Reserve Bank of Australia and Bank of Japan, the SEACEN Centre issues a bi-annual report on capital flows – the *SEACEN Capital Flows Monitor*. It covers the SEG economies of Australia, Brunei Darussalam, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Nepal, Papua New Guinea, the Philippines, Singapore, Sri Lanka, Chinese Taipei, Thailand and Vietnam. The report is released every June and December of the calendar year. Starting with the current *SEACEN Capital Flows Monitor*, the two annual issues will focus more on recent half-yearly developments using higher-frequency capital flows data and a deeper analysis of topical issues over the period.

The report has three sections. The first section serves as a review of recent trends in the composition of capital flows and key internal and external drivers of cross-border flows. It also discusses international investment positions, which is the existing stock of international investment assets and liabilities. The second section is an analytical chapter which focuses on a specific topic related to capital flows and international investment positions. For this issue, the analytical section covers sectoral capital flows. The third section presents standard indicators of capital flows and international investment positions for the SEG economies.

This report has been reviewed and approved by the Executive Director. Dr. Ole Rummel (Director of Macroeconomic and Monetary Policy Division - MPPM) also reviewed the report. Sections I and II were authored by SEACEN Centre staff. Mrs. Jami'ah Jaffar (Research Associate, MPPM) provided excellent research assistance and compiled data for Section III. YunYee Seow edited the draft sections, and Mr. Zamri Abu Bakar designed, typeset and provided the layout for the report.

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



**Mangal Goswami**  
Executive Director  
The SEACEN Centre

June 2020





## SECTION I: CAPITAL FLOWS RECENT TRENDS AND OUTLOOK

This section reviews the most recent developments in higher frequency capital flows, notably in portfolio equity and debt flows to SEG member economies.<sup>1</sup>

- Emerging and frontier economies globally, including in Asia, experienced one of the sharpest reversals and sudden stops of portfolio flows following the heightened risk aversion from the onset of COVID-19 in early March 2020.
- The timely policy responses across countries, including SEG central banks/monetary authorities, helped ease financial conditions and resulted in the stabilization of markets.
- Despite the scale of the monetary, financial, and fiscal measures, the recovery remains fragile with downside risks from a more protracted recession caused by a potential second wave of the spread of the infection that can further dampen investor sentiment, hampering foreign direct and portfolio investments in the region.

### A. Recent Trends and Outlook on SEG Capital Flows for 2020<sup>2</sup>

**The heightened economic and financial risk with the onset of the COVID-19 pandemic resulted in one of the sharpest reversals and sudden stops of portfolio flows to emerging and frontier markets, following period of growth in portfolio liabilities.**

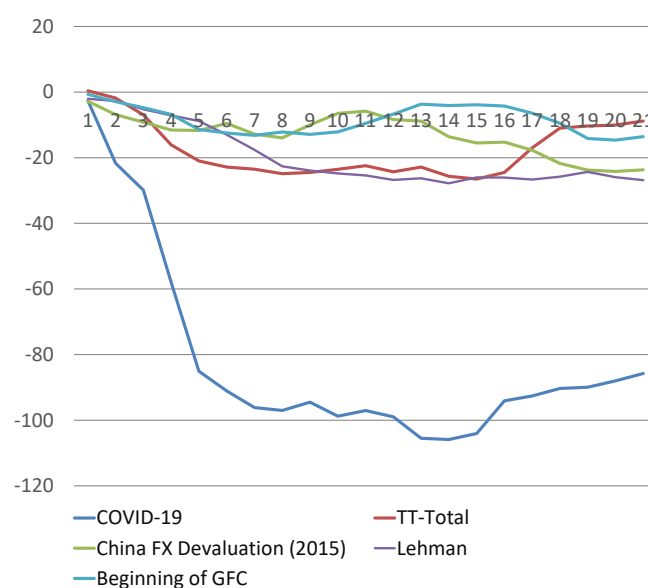
Investor risk aversion rose dramatically in early March 2020, to levels last seen during the great financial crisis of 2008-09, as COVID-19 spread across the world with governments imposing containment measures. Total portfolio flow reversal across

1. SEG economies include the nineteen economies of SEACEN member central banks and monetary authorities in addition to Australia and Japan, which are also members of SEACEN Expert Group (SEG) on Capital Flows. The complete list of twenty-one economies include Australia, Brunei Darussalam, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Nepal, Papua New Guinea, Philippines, Singapore, Sri Lanka, Chinese Taipei, Thailand and Vietnam. The IMF's Balance of Payments (BoP) Statistics and International Investment Position are the main data sources for this report. However, for some economies, national data are used whenever IMF data are unavailable.
2. The outlook discussed in this section is mostly based on SEACEN staff assessment.

emerging and frontier markets in March amounted to more than US\$80 billion (Figure 1.1a).<sup>3</sup> This episode of sudden stop was larger than during any recent crisis episode, including the GFC (IIF, 2020). Debt outflows in March amounted to US\$33 billion while equity outflows amounted to US\$55 billion (Figure 1.1a). Non-resident portfolio investment in Emerging Markets (EMs) and frontier economies had grown significantly since the GFC, notably in portfolio debt through bond funds and Exchange Traded Funds (ETFs). EMs received about US\$67 billion in portfolio debt inflows during January and February 2020, including a rise in government debt in local currency with increasing foreign ownership while the rise in foreign currency debt has mainly been driven by EM corporates and frontier economies sovereigns. The reversal of these flows was partly driven by the tightening of global financial conditions as well as the prospect of a sharper EM growth adjustment to the COVID-19 shock. Apart from the real economy, capital flow reversals have also impacted exchange rate volatility especially in EMs in economies with higher foreign holdings of local currency debt.

**Figure 1.1a: Cumulative Non-resident Portfolio Flows to Emerging Markets**

(USD billion based on Weekly Observations)



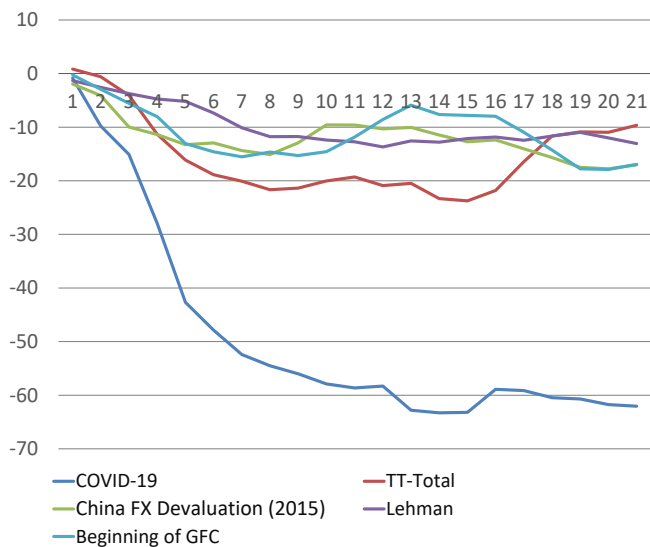
Source: IIF, SEACEN staff calculations.

3. Source: IIF Capital Flows Tracker (2020).

**Non-resident capital flows to SEG emerging economies reported a sharp sudden stop or reversal of foreign capital flows, particularly in March 2020.**

The emerging and frontier economies in Asia, which were the recipient of significant inflows during early 2020, experienced one of the sharpest portfolio outflows in history during the COVID-19 shock (Figure 1.1b). Capital outflows were dominated by non-resident portfolio flows, both in equity and in local currency bond flows with the EM SEACEN member economies impacted by the reversal and sudden stop. In terms of portfolio flows, weekly non-resident equity and debt flows experienced a steep drop or reversal in early March, amounting to over US\$50 billion, but subsequently recovered while foreign portfolio equity inflows resumed by end-May 2020 (Figure 1.2b).<sup>4</sup> These recent trends in SEG capital flows reflected the uncertainties experienced at the onset of the current global pandemic (Figure 1.3a). Consequently, exchange rates depreciated (Figures 1.3b) while government bond yields increased and share prices plunged in March 2020, as economies ground to a halt by public policy driven lockdowns in a bid to slow the transmission of the virus. The trajectories of these indicators reflected tightening of financial conditions due to economic, financial, and health uncertainties related to the ongoing pandemic.

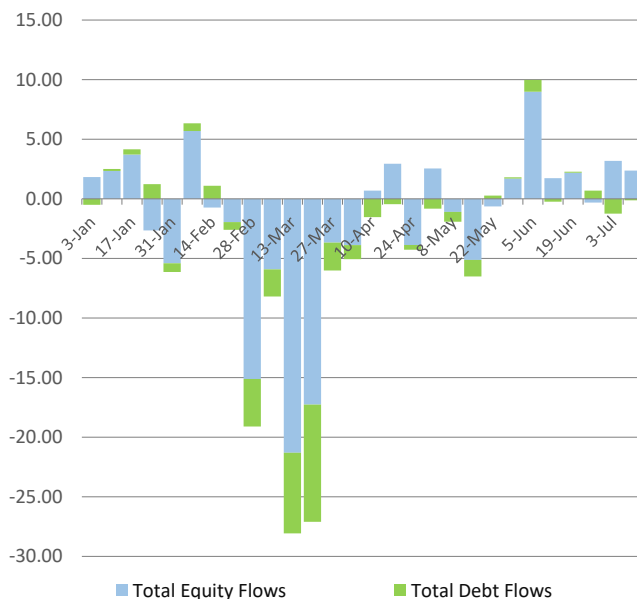
**Figure 1.1b: Cumulative Non-resident Portfolio Flows to Selected SEACEN Economies\***  
(USD billion based on Weekly Observations)



\* India, Indonesia, Korea, Philippines and Thailand.  
Source: IIF, SEACEN staff calculations.

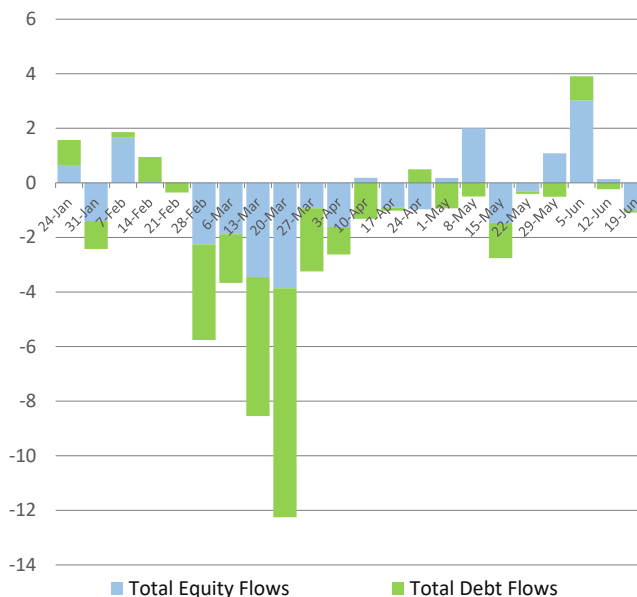
4. Non-resident portfolio debt flows for Indonesia, India and Thailand.

**Figure 1.2a: Total Weekly Portfolio Flows for Emerging Markets\***  
(USD billion)



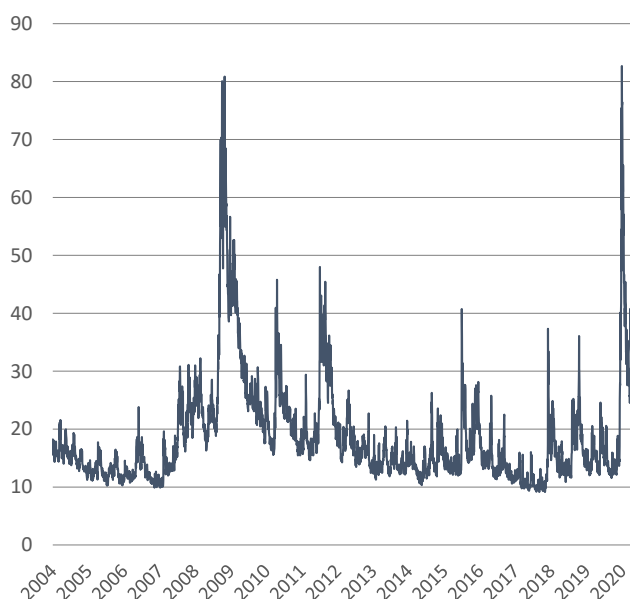
\* Total weekly portfolio flows for Emerging Markets (excluding Mexico and Turkey) for 2020.  
Source: IIF, SEACEN staff calculations.

**Figure 1.2b: Total Weekly Portfolio Flows in Selected SEACEN Economies\***  
(USD billion)



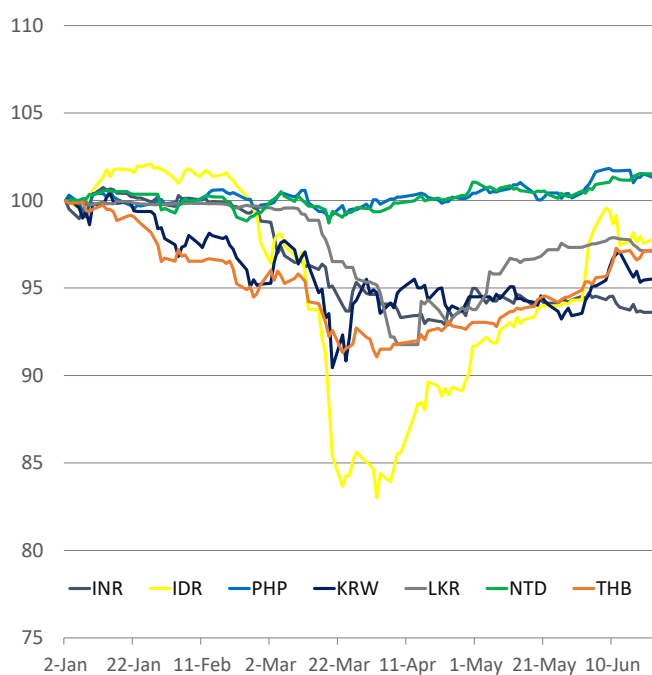
\* Total weekly portfolio flows for India, Indonesia and Thailand for 2020.  
Source: IIF, SEACEN staff calculations.

**Figure 1.3a: CBOE Volatility Index (VIX)**



Source: Chicago Board of Exchange.

**Figure 1.3b: Exchange Rate Index**



Note: Values are exchange rate index for 2020 where the value of 100 is assigned for 2 January 2020. An increase (decrease) is an appreciation (a depreciation) relative to the rate in 2 January 2020. INR = Indian rupee, IDR = Indonesian rupiah, PHP = Philippine peso, KRW = Korean won, LKR = Sri Lankan rupee, NTD = Chinese Taipei new dollar, and THB = Thai baht.

Source: SEACEN staff calculations using national source data accessed through CEIC Database.

*The timely global policy response, including SEG central banks/monetary authorities, helped ease financial conditions and resulted in the stabilization of markets, although the susceptibility to further deterioration in the outlook remains a concern.*

The initial policy support took place in the form of policy rate cuts, liquidity injections in the short as well as medium to longer term tenors, credit provisions, repayment moratoria, adjustment of selected regulatory and supervisory requirements, purchase of government bonds (so far mainly in the secondary market), FX intervention, FX swap arrangements, and temporary capital controls. The global US dollar shortage, faced by emerging and frontier economies during the sudden stop episode, was partly addressed by the Federal Reserve’s activation of the swap lines to a small number of economies and the implementation of a repo facility for central banks in need of FX liquidity. Consequently, these swift policy actions by the authorities, within and outside the region, reduced risk aversion by mid-April 2020 (Figure 1.3a). Stock prices trended upwards, bond yields dropped, and exchange rate stabilized by April (Figures 1.3b). The policy response by EMs included some central banks having to complement traditional monetary accommodation with a broader set of actions including some form of unconventional policy measures for the first time. In some countries, the central banks/monetary authorities addressed severe market dislocations with asset purchases, notably in government bonds to provide market liquidity. In a few EMs, the asset purchases included corporate debt, given the level of distress in this segment of the market. Monetary policy measures were complemented by fiscal and financial policy measures providing support to households and firms including government credit guarantees, support for the restructuring of loans, and encouraging banks to use available capital and liquidity buffers to support lending.

*Despite the scale of the monetary, financial, and fiscal measures, the recovery remains fragile with downside risks from a more protracted recession caused by a potential second wave of the spread of the infection that can further dampen investor sentiment, hampering foreign direct and portfolio investments in the region.*

Indeed, the growth outlook, as projected by the IMF’s June update, indicates that Asia’s growth is expected to contract by 1.6 percent, for the time in living memory. While Asia’s economic growth in 2020:Q1 was better than expected, the prolonged containment measures and weaker global conditions are likely to weigh-in

on growth in most economies for the rest of 2020. Compounding such dynamics are the pre-existing conditions of higher household and corporate leverage. That said, on average, EM Asia remains better placed than EMs in other regions, given their policy space (both monetary and fiscal) and policy buffers (foreign exchange reserves). As a result, Asian EMs may be able to withstand a renewed tightening of financial conditions due to a further potential weakening of investor sentiment. Indeed, SEG Advanced Economies, ASEAN-4 and China, on aggregate, are expected to continue to have current account surpluses and be net capital exporters in 2020. However, there will be more divergence in terms of individual country positions as some economies may experience sharper deteriorations in their current balances.

## B. SEG Capital Flows and International Investment Positions in 2019

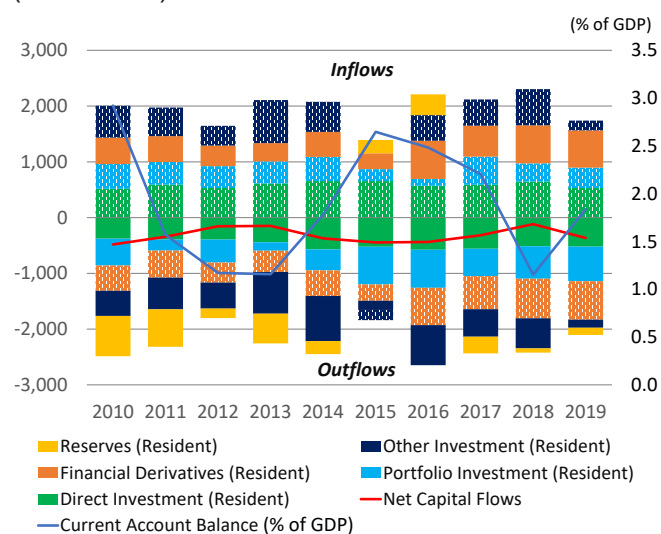
*This section reviews the recent trends and compositions of capital flows and international investment positions of selected SEG member economies.*

- *Broader trends in SEG capital flows during 2019 indicate that SEG economies, in aggregate, remained a net capital exporter in 2019 with higher current account surpluses and a higher net international investment position. Net resident capital outflows were up, driven by higher resident direct and portfolio outflows.*
- *There were, however, marked differences in overall net positions and composition of capital flows across member economies. The composition of non-resident capital flows continued to vary within SEG member economies, reflecting diverse economic structures and different levels of financial development.*
- *There was a clear divide between net capital exporters and net capital importers. Japan, China, Hong Kong, Chinese Taipei, Singapore, Malaysia, Korea and Thailand have been net capital exporters since 2015; whereas Australia, Cambodia, India, Indonesia, Lao PDR, Mongolia, Nepal, Philippines, and Sri Lanka have been net capital importers since 2014.*

**Net resident capital outflows of SEG member economies amounted to US\$360 billion in 2019, significantly higher than 2018, reflecting higher resident portfolio outflows and reserve accumulation and lower non-resident inflows.<sup>5</sup>**

Net acquisition of foreign assets by residents (financial account assets) reached US\$716 billion, while net incurrence of liabilities to non-residents (financial account liabilities) amounted to US\$356 billion, bringing net resident capital outflows to around US\$360 billion (Figure 2.1a). Most of the net acquisition of foreign assets was in the form of portfolio investment, followed by direct investment abroad. In contrast, net incurrence of liabilities to non-residents was mostly in the form of direct investment, followed by portfolio and other investment, respectively. Net resident capital outflows in 2019 were thrice the amount reported in 2018. The increase reflects higher resident portfolio outflows and reserve accumulation, and significantly lower non-resident other investment inflows.

**Figure 2.1a: Financial Account Flows (USD billion)**



*Notes:* Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial account liabilities minus financial account assets. SEG economies include Australia; Brunei Darussalam, Cambodia; China; Hong Kong; India; Indonesia; Japan; Korea; Lao PDR; Malaysia; Mongolia; Nepal; Philippines; Singapore; Sri Lanka; Chinese Taipei; Thailand and Vietnam. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

*Source:* SEACEN staff calculations using data from the IMF's Balance of Payment Statistics and national sources accessed through CEIC.

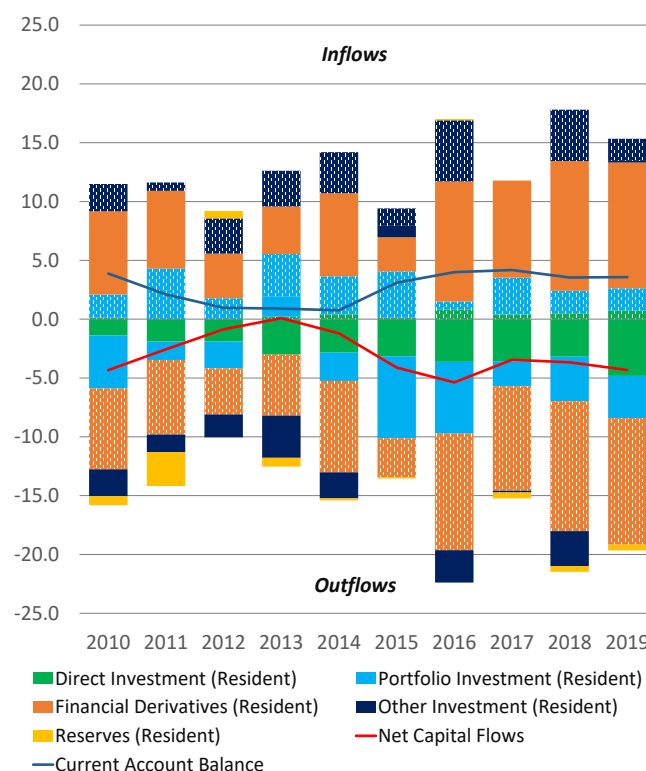
5. The value of US\$361 billion net capital flows refers to net acquisition of foreign assets by residents minus net incurrence of liabilities to non-residents.

*The increase in net resident capital outflows of SEG economies in 2019 reflected the region’s larger current account surplus of about US\$530 billion in 2019, which was significantly higher than the surplus of US\$318 billion posted in 2018.* China recorded a significant turnaround in its current account balance, as trade tensions eased somewhat in the latter part of 2019. Japan, Malaysia, and Thailand also registered higher current account surpluses in 2019, while India, Philippines, and Sri Lanka posted lower deficits. The overall improvement in the current account balance of SEG economies in 2019 coincided with larger resident portfolio investment abroad and official reserve accumulation.

*Although SEG economies posted continued net resident capital outflows in 2019, there appeared to be marked differences in overall net positions and composition of capital flows across member economies.* Japan posted net resident capital outflows of around US\$223 billion in 2019, mainly driven by large resident direct and portfolio investment abroad (Figure 2.2a). China recorded net non-resident capital inflows of around US\$57 billion, driven by non-resident direct and portfolio investment inflows. The increase in non-resident portfolio inflows was buoyed by its inclusion in the Bloomberg Global Aggregate Bond Index in April 2019. In fact, non-resident portfolio inflows were as large as non-resident direct investment inflows. However, it reported official reserve deaccumulation amounting to US\$19 billion in 2019, which was a turnaround from the US\$18 billion reserve accumulation in 2018 (Figure 2.2b). India also had net non-resident capital inflows amounting to US\$27 billion in 2019. Foreign capital inflows were mostly in the form of other investment followed by foreign direct and portfolio investment flows, respectively (Figure 2.2c). Australia posted net resident capital outflows of US\$5 billion during the period, which was a shift in its position as it usually registered net non-resident capital inflows (Figure 2.2d). As a subgroup, SEG Advanced Economies, which include Hong Kong, Korea, Singapore and Chinese Taipei, registered net resident capital outflows of around US\$223 billion in 2019, slightly lower than the US\$227 billion posted in 2018 (Figure 2.2e). Net capital outflows broadly corresponded to the subgroup’s overall current account surplus. In fact, each of the member economies sustained a current account surplus in 2019. Across investment types, net capital outflows

from these highly open economies were mainly in the form of net resident portfolio outflows, which amounted to US\$264 billion in 2019. Likewise, the ASEAN-4 economies also recorded net resident capital outflows but amounted to only US\$5 billion in 2019, which was a significant turnaround from the net non-resident capital inflows of US\$24 billion registered in 2018 (Figure 2.2f). Within the group, net non-resident capital inflows to Indonesia were offset by net resident capital outflows from Malaysia, Philippines, and Thailand. SEG Frontier Economies which include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, Sri Lanka and Vietnam recorded net non-resident capital inflows of about US\$6 billion (Figure 2.2g). Net capital inflows were mostly in foreign direct investment and was driven mainly by Vietnam.

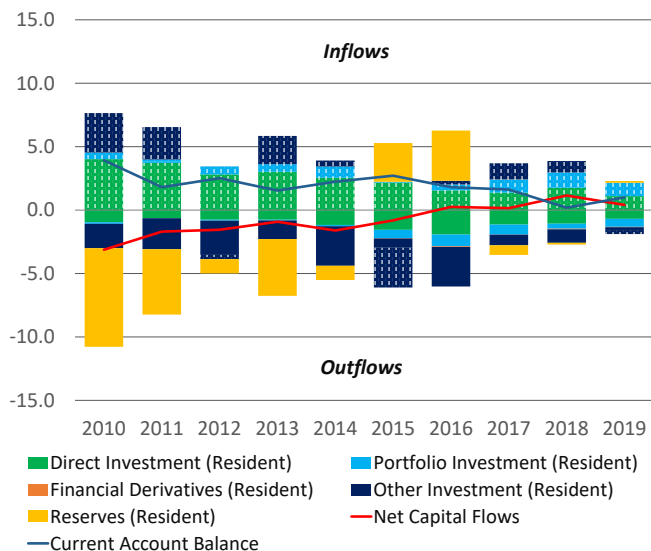
**Figure 2.2a: Capital Flows - Japan**  
(% of GDP)



*Notes:* Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial account liabilities minus assets. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

*Sources:* SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database.

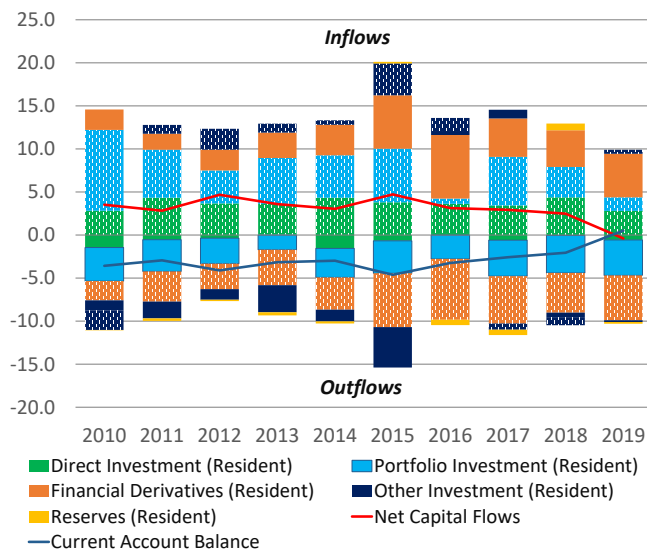
**Figure 2.2b: Capital Flows - China**  
(% of GDP)



*Notes:* Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial account liabilities minus assets. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

*Sources:* SEACEN staff calculations using data from the IMF's Balance of Payment Statistics and World Economic Outlook Database.

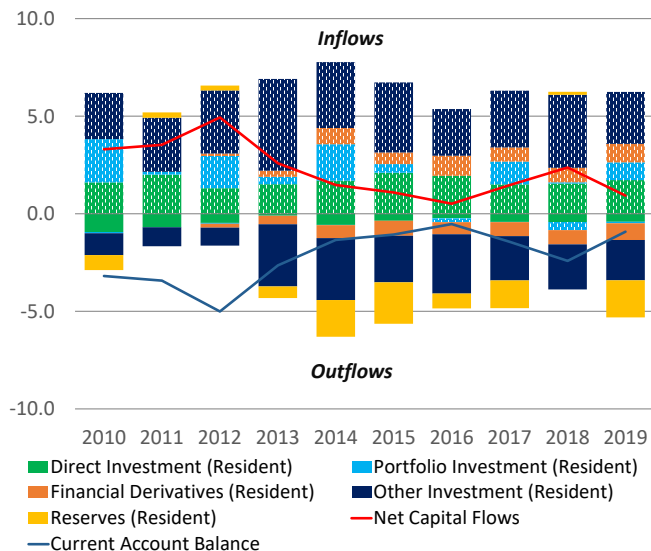
**Figure 2.2d: Capital Flows - Australia**  
(% of GDP)



*Notes:* Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial liabilities minus assets. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

*Sources:* SEACEN staff calculations using data from the IMF's Balance of Payment Statistics and World Economic Outlook Database.

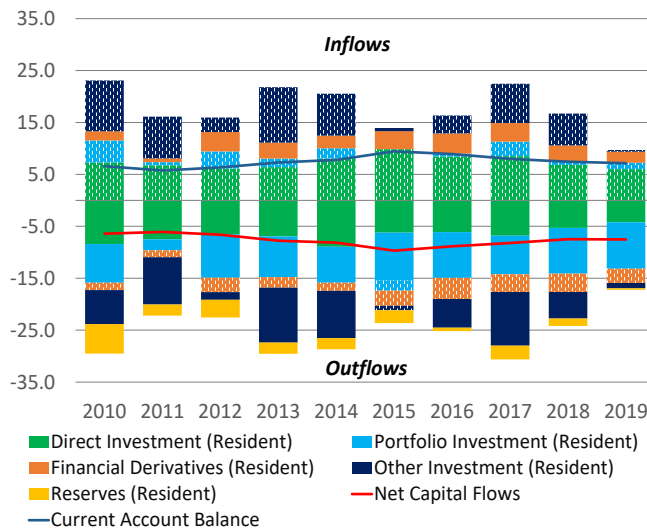
**Figure 2.2c: Capital Flows - India**  
(% of GDP)



*Notes:* Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial account liabilities minus assets. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

*Sources:* SEACEN staff calculations using data from the IMF's Balance of Payment Statistics and World Economic Outlook Database; and national source.

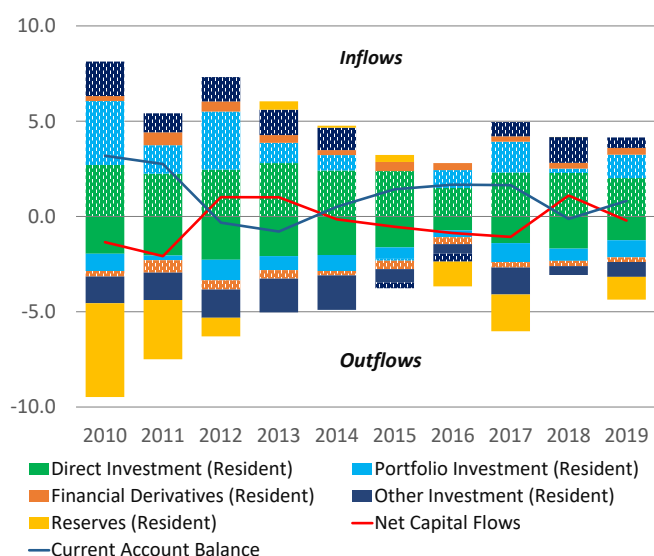
**Figure 2.2e: Capital Flows - SEG Advanced Economies**  
(% of GDP)



*Notes:* Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial liabilities minus assets. SEG Advanced Economies include Hong Kong; Korea, Singapore, and Chinese Taipei. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

*Sources:* SEACEN staff calculations using data from the IMF's Balance of Payment Statistics, World Economic Outlook Database; and national sources.

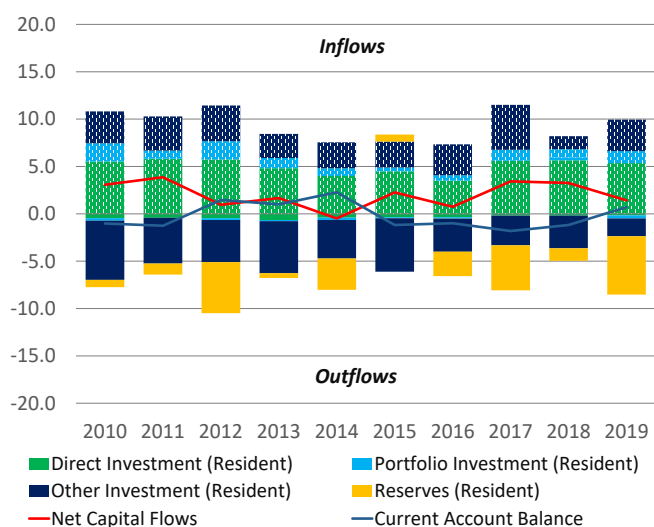
**Figure 2.2f: Capital Flows - ASEAN4**  
(% of GDP)



Notes: Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial account liabilities minus assets. The ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

Sources: SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database; and national sources.

**Figure 2.2g: Capital Flows - SEG Frontier Economies**  
(% of GDP)



Notes: Solid fill refers to resident capital flows, while those with pattern fill refers to non-resident capital flows. Net capital flows are computed as financial account liabilities minus assets. SEG Frontier Economies include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, Sri Lanka and Vietnam. Refer to IMF Balance of Payments Manual 6 for the definition of investor resident and non-resident.

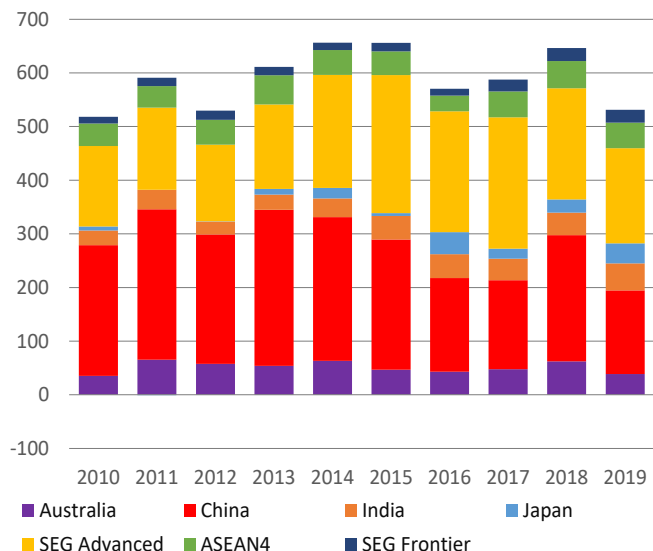
Sources: SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database; and national sources.

*The composition of non-resident capital flows continued to vary within SEG member economies, reflecting diverse economic structures and different levels of financial development.*

Foreign direct investment inflows in 2019 mostly went to China and SEG Advanced Economies, reflecting their continued attractiveness as export-oriented investment destinations. The ASEAN-4, Australia, India, and Japan received roughly equal amounts of foreign direct investments of about US\$37-51 billion, while SEG Frontier Economies acquired US\$17 billion, notably into Vietnam (Figure 2.3a). In terms of portfolio inflows, China received around US\$147 billion in 2019, due its inclusion in the Bloomberg Global Aggregate Bond Index. It was followed by Japan, which received US\$98 billion of non-resident portfolio flows. These two economies alone accounted for two-thirds of foreign portfolio inflows among the SEG economies. SEG Advanced Economies received US\$36 billion non-resident portfolio flows, while the ASEAN-4 and India each had around US\$28 billion (Figure 2.3b). For other investments, China posted a reversal of flows in 2019, amounting to around US\$44 billion. The rest of the SEG economies had combined non-resident inflows in other investments, which include banking sector flows, of about US\$214 billion (Figure 2.3c).<sup>6</sup> As a group, the SEG economies accumulated combined official reserve assets of around US\$108 billion in 2019, significantly higher than the US\$73 billion posted in 2018. The ASEAN-4, India, and Japan accumulated the largest reserves (Figure 2.3d).

6. See Section 2 of this issue of the SEACEN Capital Flows Monitor for a discussion on sectoral capital inflows of selected SEG economies.

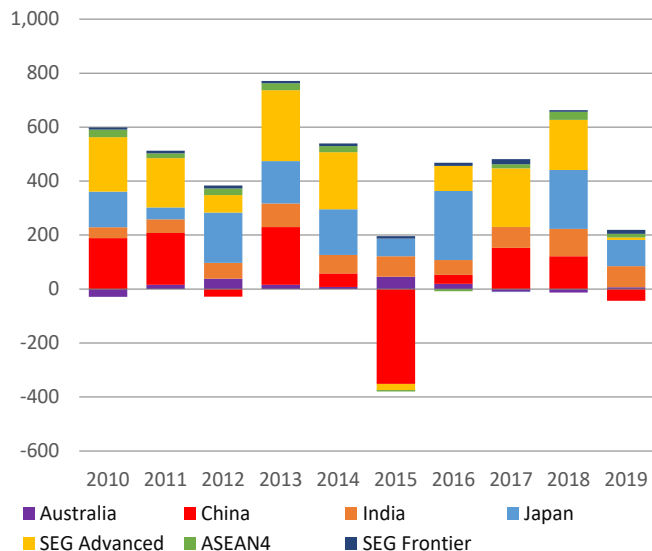
**Figure 2.3a: Foreign Direct Investment Flows (USD billion)**



*Notes:* SEG Advanced Economies include Hong Kong, Korea, Singapore, and Chinese Taipei. The ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. SEG Frontier Economies include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, Sri Lanka and Vietnam.

*Sources:* SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database; and national sources accessed through CEIC Database.

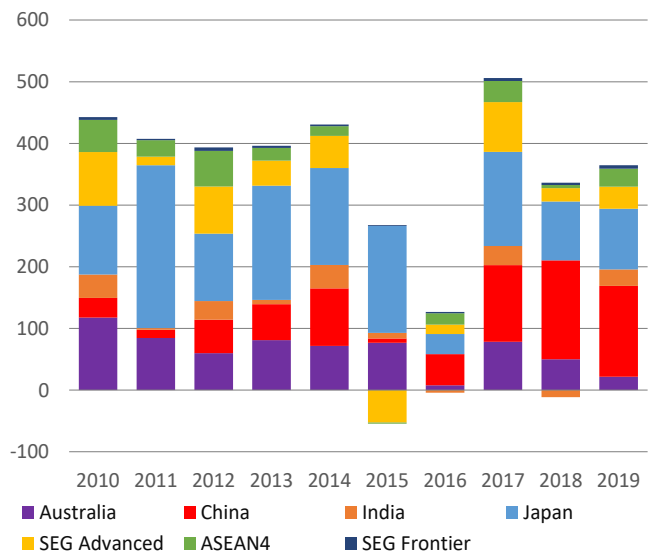
**Figure 2.3c: Non-Resident Other Investment Flows (USD billion)**



*Notes:* SEG Advanced Economies include Hong Kong, Korea, Singapore, and Chinese Taipei. The ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. SEG Frontier Economies include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, Sri Lanka and Vietnam.

*Sources:* SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database; and national sources accessed through CEIC Database.

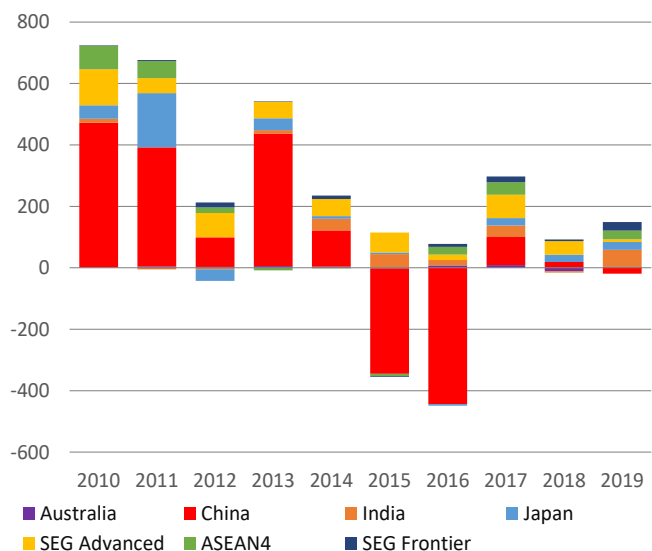
**Figure 2.3b: Non-Resident Portfolio Flows (USD billion)**



*Notes:* SEG Advanced Economies include Hong Kong, Korea, Singapore, and Chinese Taipei. The ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. SEG Frontier Economies include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, Sri Lanka and Vietnam.

*Sources:* SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database; and national sources accessed through CEIC Database.

**Figure 2.3d: Official Reserve Flows (USD billion)**



*Notes:* SEG Advanced Economies include Hong Kong, Korea, Singapore, and Chinese Taipei. The ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand. SEG Frontier Economies include Brunei Darussalam, Cambodia, Lao PDR, Mongolia, Nepal, Sri Lanka and Vietnam.

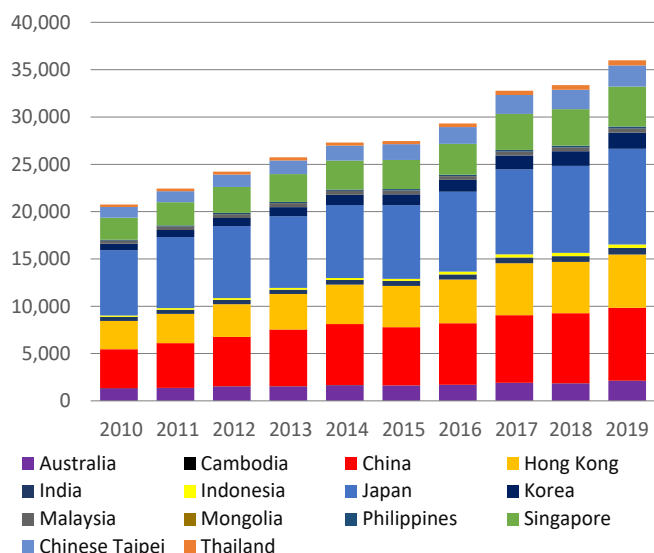
*Sources:* SEACEN staff calculations using data from the IMF’s Balance of Payment Statistics and World Economic Outlook Database; and national sources accessed through CEIC Database.



**Total international investment assets of SEG economies reached US\$36 trillion as of end-2019, up by 7.9 percent from US\$33.4 trillion at end-2018.<sup>7</sup>**

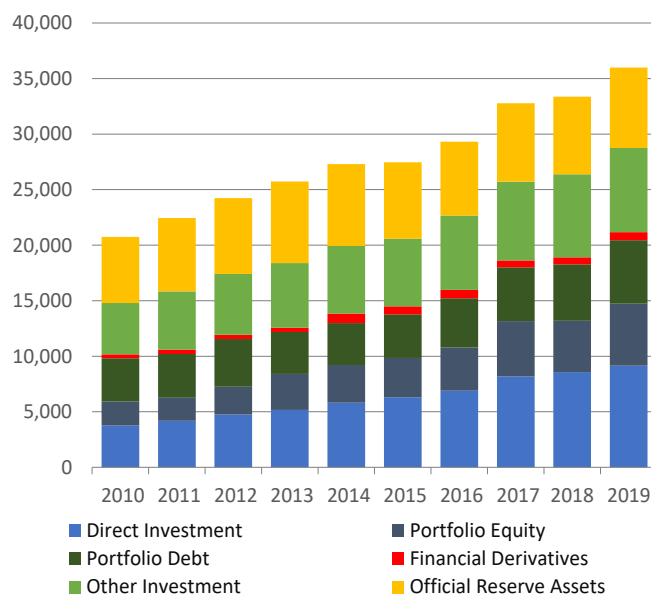
Among the SEG economies, Japan had the highest international financial assets amounting to US\$10 trillion, followed by China and Hong Kong with US\$7.7 trillion and US\$5.6 trillion, respectively. These three SEG economies alone accounted for about two-thirds of the group’s total international investment assets as of end-2019 (Figure 2.4a). Across asset types, portfolio investments dominated asset holdings, followed by foreign direct investment, other investment, and official reserve assets. But portfolio investment assets were equally distributed between portfolio equities and portfolio debt, with each amounting to US\$6 trillion in 2019 (Figure 2.4b). Excluding financial derivatives and official reserves, the debt-equity ratio stood at 0.90 in 2019, which was lower than 0.95 as of end-2018. Compared to 2014-2016, when the debt-equity ratio stood at 1.0, the continued decline in the debt-equity ratio for international investment assets indicates a growing preference for equity-type investments which has, on average, offered better returns during normal conditions.

**Figure 2.4a: International Investment Position Assets**  
(USD billion)



Source: SEACEN staff calculations using data from IMF’s International Investment Position and national sources accessed through CEIC.

**Figure 2.4b: International Investment Position Assets, by Investment Type**  
(USD billion)



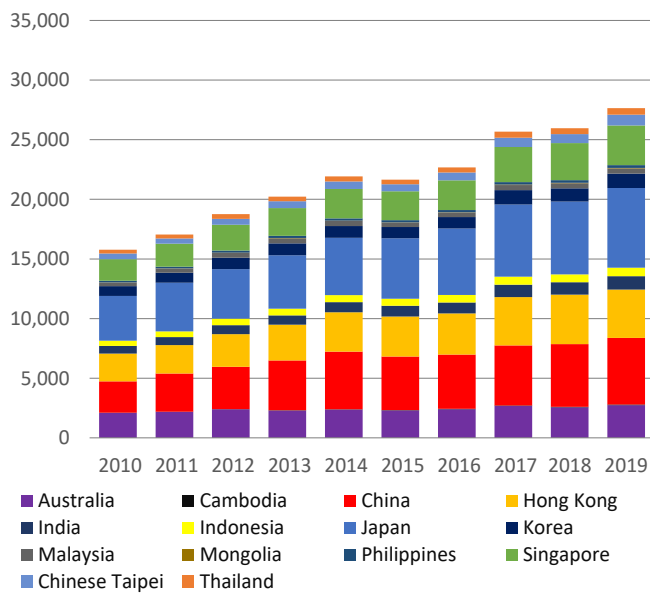
Source: SEACEN staff calculations using data from IMF’s International Investment Position and national sources accessed through CEIC.

**Total international investment liabilities of SEG economies also increased to US\$27.6 trillion as of end-2019, up by 6.5 percent from US\$26.0 trillion at end-2018.**

Among the SEG economies, Japan had the highest international financial liabilities amounting to US\$6.7 trillion, followed by China and Hong Kong with US\$5.6 trillion and US\$4.1 trillion, respectively. Australia and Singapore reported total international investment liabilities of US\$2.7 trillion and US\$3.2 trillion respectively (Figure 2.5a). Across investment types, foreign direct and portfolio investment liabilities stood at around US\$9.3 trillion each. Turning to portfolio investment, portfolio equities were significantly larger at US\$5.4 trillion than portfolio debt at US\$4.0 trillion (Figure 2.5b). The debt-equity ratio stood at 0.82 as of end-2019, lower than 0.86 at end-2018, reflecting a tilt towards equity liabilities.

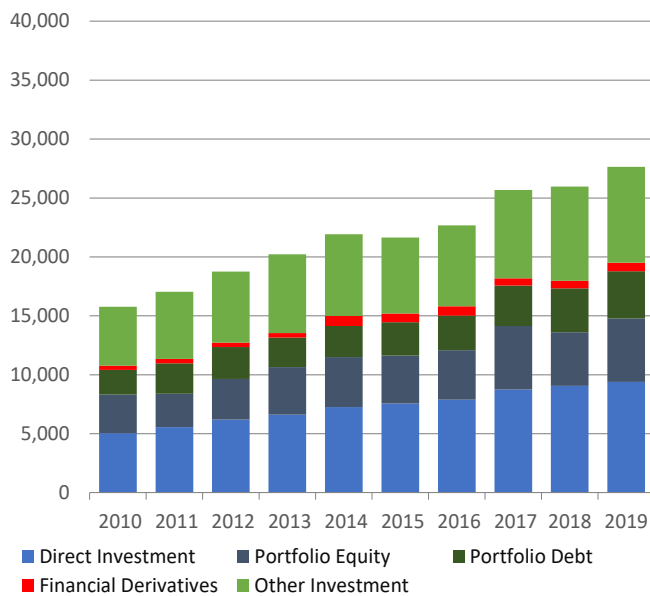
7. SEG economies for international investment position include Australia, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines, Singapore, Chinese Taipei, and Thailand.

**Figure 2.5a: International Investment Position Liabilities**  
(USD billion)



Source: SEACEN staff calculations using data from IMF’s International Investment Position and national sources accessed through CEIC.

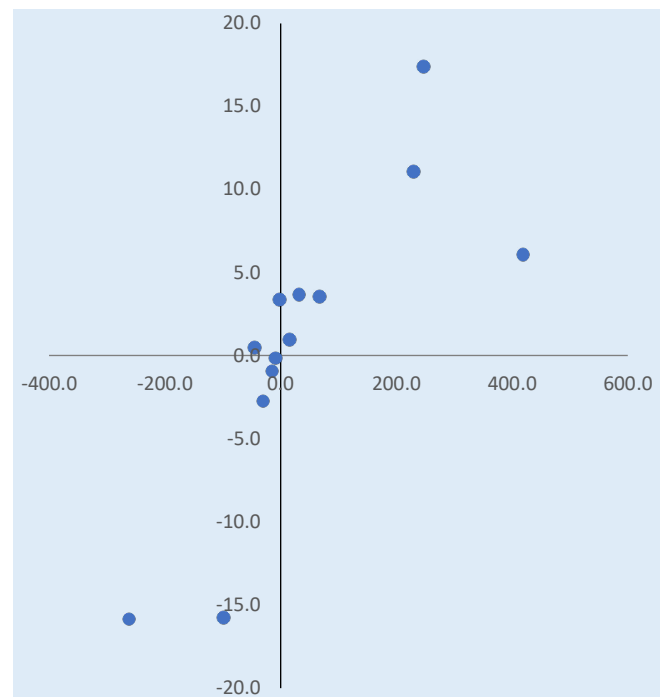
**Figure 2.5b: International Investment Position Liabilities, by Investment Type**  
(USD billion)



Source: SEACEN staff calculations using data from IMF’s International Investment Position and national sources accessed through CEIC.

SEG economies, as a group, remained a net capital exporter as of end-2019 with its positive net international investment position at US\$8.3 trillion, which was significantly higher than US\$7.4 trillion at end-2018. However, within the SEG economies, there was a clear divide between net capital exporters and net capital importers: Japan, China, Hong Kong, Chinese Taipei, Singapore, Malaysia, Korea and Thailand have been net capital exporters since 2015; whereas Australia, Cambodia, India, Indonesia, Lao PDR, Mongolia, Nepal, Philippines, and Sri Lanka have, on average, been net capital importers since 2015. At the same time, external positions not only depend on cumulative current account balances (Figure 2.6), but also on valuation effects, which could increase or decrease the value of international assets relative to international liabilities or vice-versa, thereby affecting the overall net position.

**Figure 2.6: Net International Investment Position and Current Account Balance**  
(%GDP)



Notes: Current account balance in percent of nominal GDP is on the y-axis. Net international investment position in percent of nominal GDP is on the x-axis.

Source: SEACEN staff calculations using data from IMF’s International Investment Position and World Economic Outlook October 2019.

## SECTION II: SECTORAL CAPITAL FLOWS

*This section discusses sectoral capital inflows to selected SEG economies, using the Lepers and Mercado (2020) dataset.<sup>1</sup> It highlights the importance of a sectoral approach to understand the drivers of cross-border flows in the region; and considers global and domestic factors that are correlated with sectoral flows as well as the co-movements of flows across such sectoral breakdown. Several policy considerations in relation to sectoral flows are drawn from the analysis.*

### A. Sectoral Flows Analysis

***Capital flows have been studied across various aspects in the context of Asian economies, including their determinants, impacts, volatilities, cyclicity, and policy responses.<sup>2</sup>*** These empirical studies have guided policy makers and institutions in designing appropriate responses by understanding capital flows patterns and drivers as well as examining their adverse impacts. However, most studies have generally focused on aggregate or specific types of flows, highlighting the importance of the composition of capital flows, and differentiating between resident and non-resident flows.

***One important aspect of capital flows analysis for which empirical evidence has been scarce relates to the differences in the cross-border behaviour of different sectors of an economy.*** Considering capital flows along sectoral lines reveals sectoral identities behind observed patterns as different sectors may

be undertaking different cross-border financial transactions and reacting differently to shocks. For example, there is evidence that banking sector flows largely explain the surge and sudden stop before and during the great financial crisis (GFC) of 2008-09 (Milesi-Ferretti and Tille, 2011), as well as the moderate levels of gross flows post-GFC (McCauley et al., 2019; McQuade and Schmitz, 2017).

In addition, the past decades have seen structural changes in the actors in the global financial systems. In many countries, the relative importance of non-bank financial institutions has dramatically increased with traditional deposit-taking institutions playing a lesser role in financial intermediation, particularly for advanced economies (Patalano and Roulet, 2020). In the case of the United States, for instance, the assets of non-bank financial institutions have increased from 44% of GDP in 1980 to 155% in 2016, with the ratio of deposit bank assets to non-bank assets decreasing from 142% to 40% in the same period. Large non-financial multinationals and domestic corporates have also integrated more deeply in global and domestic financial systems, with many of them now engaging in financial intermediation and acting as banks (Bruno and Shin, 2017; Caballero et al., 2015). These recent experiences highlight both the importance of a sectoral approach and the need for a comprehensive approach in understanding financial account dynamics.

***Although recent studies on specific sectoral flows have extended our understanding of capital flow patterns, there are merits to considering a broader and finer classification of sectoral flows.*** Lepers and Mercado (2020) recently extend the literature in this direction by constructing a comprehensive sectoral capital flows dataset for 64 advanced and emerging economies from 2000-18, including direct, portfolio, and other investment to and from five sectors: namely, central banks (CB), general government (GG), banks (BKs), non-financial corporates (NFCs) and other financial corporates (OFCs). They show the usefulness of a sectoral approach in assessing capital flow covariates, co-movements, and the effectiveness of capital controls for a large set of economies.

1. This section is mostly based on the analysis and dataset of Lepers and Mercado (2020), "Sectoral Capital Flows: Covariates, Co-movements, and Controls", SEACEN WP 04/2020, The SEACEN Centre.

2. On covariates using global and domestic factors, see Calderon and Kubota (2013), Calvo et al. (1993), Cavallo and Frankel (2008), Chuhan et al. (1998), Forbes and Warnock (2012), Fratzscher (2012), Ghosh et al. (2014), Li et al. (2018), Mercado and Park (2011), Mercado (2018), Puy (2016), and Reinhart and Reinhart (2008). On volatilities, refer to Broto et al. (2011), Eichengreen et al. (2018), Mercado and Park (2011), and Neumann et al. (2009). On cyclicity of capital flows, refer to Kaminsky et al. (2004). On correlations, see Avdjiev et al. (2018), Alfaro et al. (2014), Broner et al. (2013), and Davis and van Wincoop (2018). On policy responses to capital controls, see Ahmed and Zlate (2014), Chamon and Garcia (2016), Forbes et al. (2015), Lepers and Mehigan (2019), and Magud and Reinhart (2006).

Their dataset offers several advantages. First, their broader and finer sectoral groupings highlight further sectoral identities and heterogeneities in cross-border investments, thereby allowing for greater understanding of potential policy and risk transmissions. Second, as capital flows take various forms (including direct, portfolio equity, portfolio debt, loans); and each sector may be active in all such transactions, the inclusion of all types of investments (including direct investments and portfolio equity) provides a complete picture of sectoral gross flows, which should sum up to total gross flows.<sup>3</sup> Consequently, this section aims to provide stylised facts on SEG sectoral capital flows using the Lepers and Mercado (2020) dataset.

## B. Sectoral Flows Data and Stylised Facts for SEG Economies

*Although the Financial Account Balance of the Balance of Payments Statistics (BoP) reports the sectoral breakdown for most types of flows, there are differences in available sectoral breakdown across economies.* Lepers and Mercado (2020) used the sectoral breakdown reported in the IMF's BoP Financial Account Balance as their primary data source. However, there are some economies which do not provide some or most sectoral breakdowns. In addition, resident direct investment and foreign direct investment flows do not have sectoral compositions. For these reasons, the authors made several data calculations to derive sectoral flows for a large group of economies including those that are SEG members.<sup>4</sup>

First, the authors filled-in missing values in cases where sectoral flows are reported for almost all sectors except one; and in cases where sectoral flows correspond to specific types of flows based on previously and commonly reported sectoral classifications. Second, they calculated missing values by multiplying the reported total or "Other Sector" flows by the average sectoral weight(s) of the missing sector(s). The average sectoral weights were computed as the share of reported sectoral holdings

to total holdings.<sup>5</sup> Lastly, the sectoral breakdown for direct investment flows was computed based on derived average weights for banking (BK) and other financial corporate (OFC) sectors to total direct investment of an economy. Data on sectoral weights were taken from direct investment flows by economic activity sourced from the OECD Foreign Direct Investment Database (FDI positions) and national sources accessed through the CEIC.

The Lepers and Mercado (2020) dataset includes reported and calculated non-resident sectoral flows data from 2000 to 2018 for selected SEG economies, including Australia, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines and Thailand; as well as resident sectoral flows for Australia, India, Japan, Korea, Malaysia, and Thailand. Based on the dataset, several stylised facts are observed.

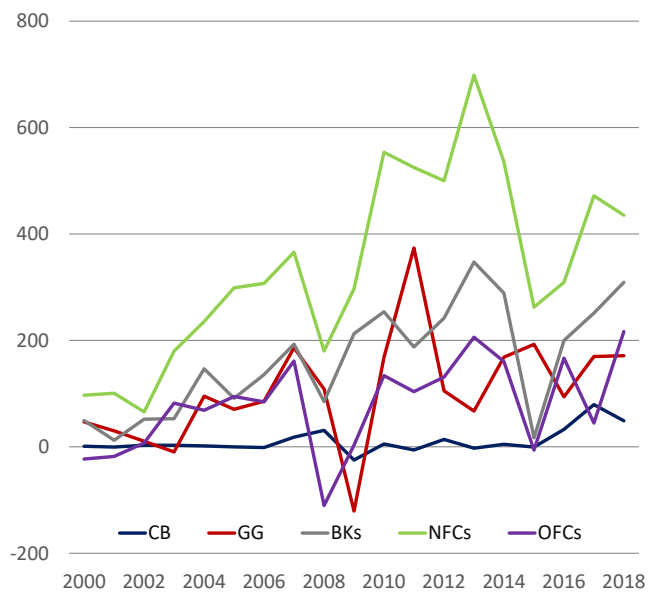
*Capital inflows to SEG economies mostly go to non-financial corporates.* This pattern is unsurprising given that the region attracts a large share of global foreign direct investment (Figure 1). However, such a pattern may give rise to financial stability concerns if these flows lead to more financial operations rather than real economic activities (Avdjiev et al., 2014). Banking, government, and other financial corporate flows are also considerably large, with marked periods of large increases and reversals. For selected SEG economies with available resident sectoral flows data, other financial corporate flows have overtaken other sectoral flows in recent years, notably in Australia, Japan, and Korea (Figure 2). But even for Malaysia and Thailand, resident other financial corporate flows have increased in recent years, although they remain smaller compared to resident non-financial corporate flows.

3. In contrast, Avdjiev et al. (2018) have considered sovereign, bank, and private corporate debt flows, defined as portfolio debt and loan flows.

4. See Lepers and Mercado (2020) "Section 2.1 Sectoral Capital Flows Dataset" for a detailed discussion on their data sources and computations.

5. Sectoral holdings data are taken from the IMF's International Investment Position, the IMF's Coordinated Portfolio Investment Survey, and the BIS' Locational Banking Statistics.

**Figure 1: Non-Resident Capital Flows - SEG Economies (USD billions)**

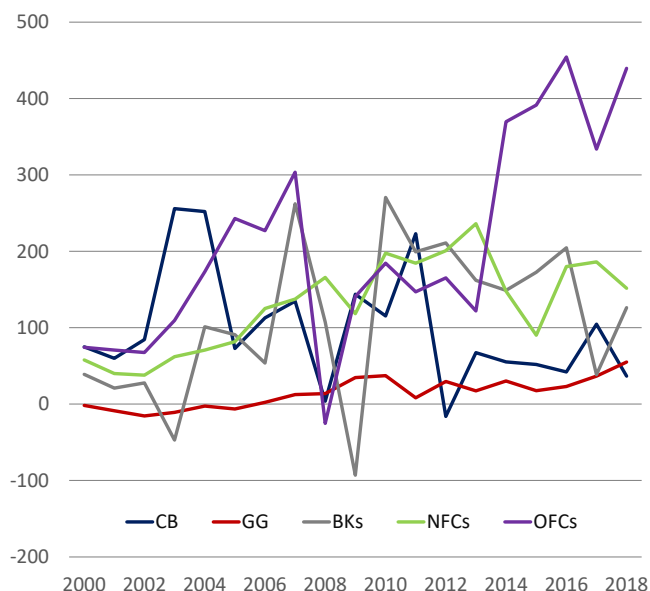


Notes: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. SEG economies include Australia, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines, and Thailand.

Source: Lepers and Mercado (2020).

*Although most non-resident capital flows go to non-financial corporates, there are considerable differences across SEG economies.* In the case of Japan, all sectors tend to receive a significant volume of non-resident flows, such that there is no one sector which dominates gross capital inflows (Figure 3a). For Korea, non-financial corporate flows dominate sectoral inflows (Figure 3b). For China, non-resident flow to non-financial corporate are significantly larger compared to other sectoral flows and have been rising since 2015 (Figure 3c). In fact, the huge scale of non-financial corporate inflows to China drives the regional pattern. In addition, non-resident banking sector flows to China are also large. For India, both non-resident banking and non-financial corporate flows are roughly the same size and have been rising in recent years (Figure 3d). For the ASEAN4, non-financial corporate flows dominate capital inflows, while general government and banking sector flows are also significant (Figure 3e).

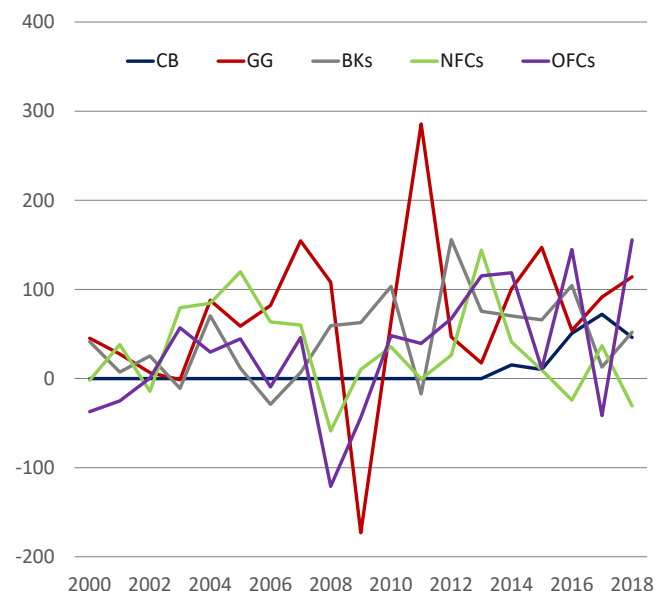
**Figure 2: Resident Capital Flows - SEG Economies (USD billions)**



Notes: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. SEG economies include Australia, India, Japan, Korea, Malaysia, and Thailand.

Source: Lepers and Mercado (2020).

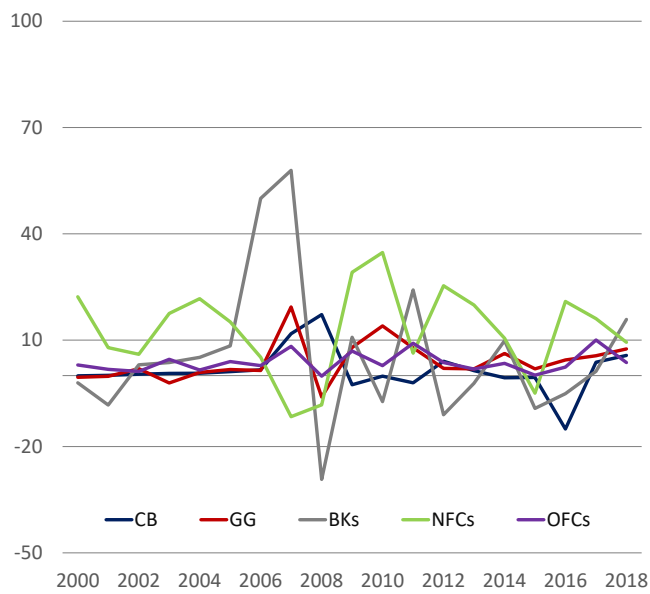
**Figure 3a: Non-Resident Capital Flows - Japan (USD billions)**



Note: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates.

Source: Lepers and Mercado (2020).

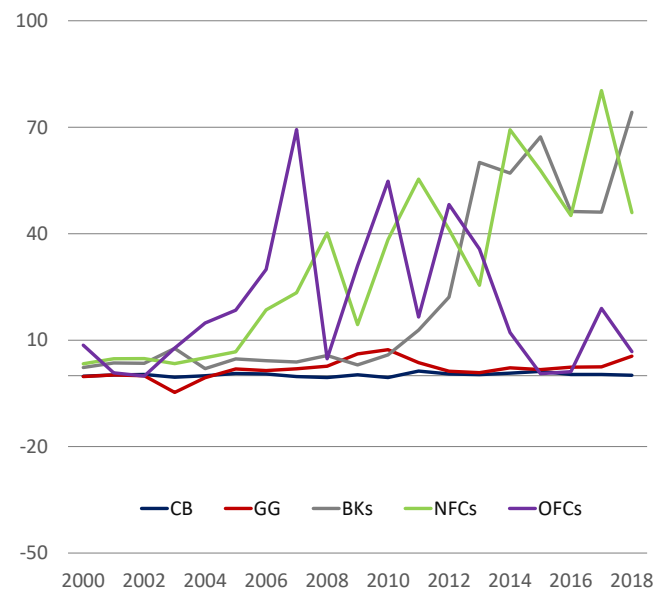
**Figure 3b: Non-Resident Capital Flows - Korea**  
(USD billions)



Note: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates.

Source: Lepers and Mercado (2020).

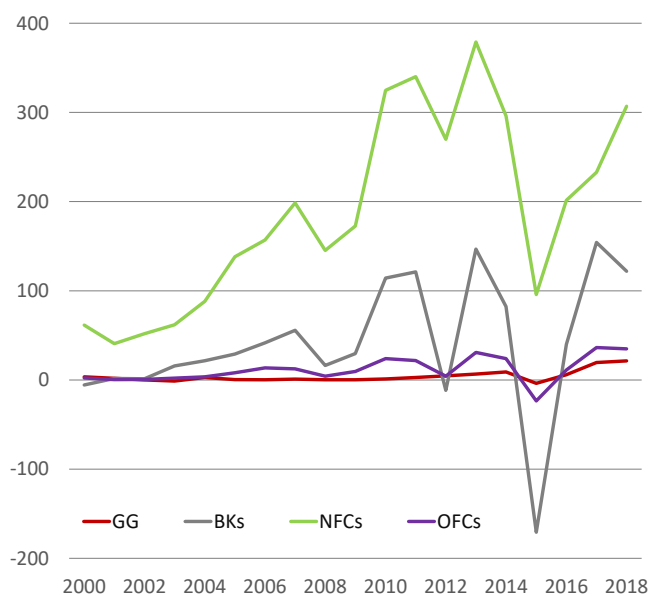
**Figure 3d: Non-Resident Capital Flows - India**  
(USD billions)



Note: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates.

Source: Lepers and Mercado (2020).

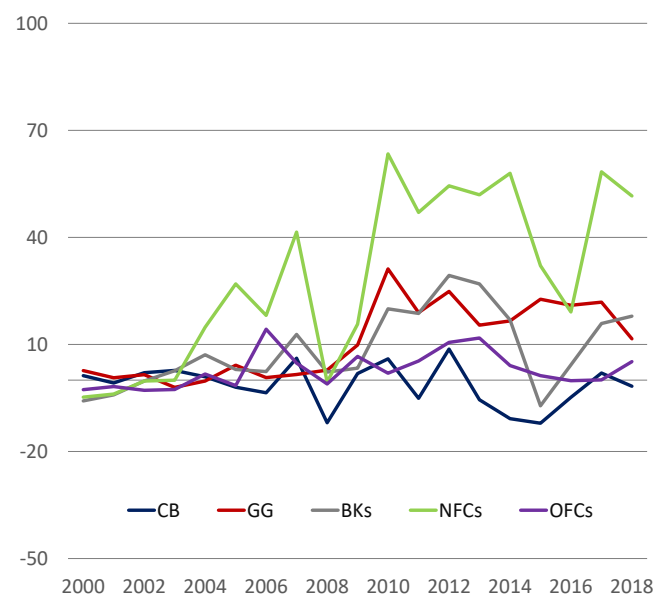
**Figure 3c: Non-Resident Capital Flows - China**  
(USD billions)



Note: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates.

Source: Lepers and Mercado (2020).

**Figure 3e: Non-Resident Capital Flows - ASEAN4**  
(USD billions)



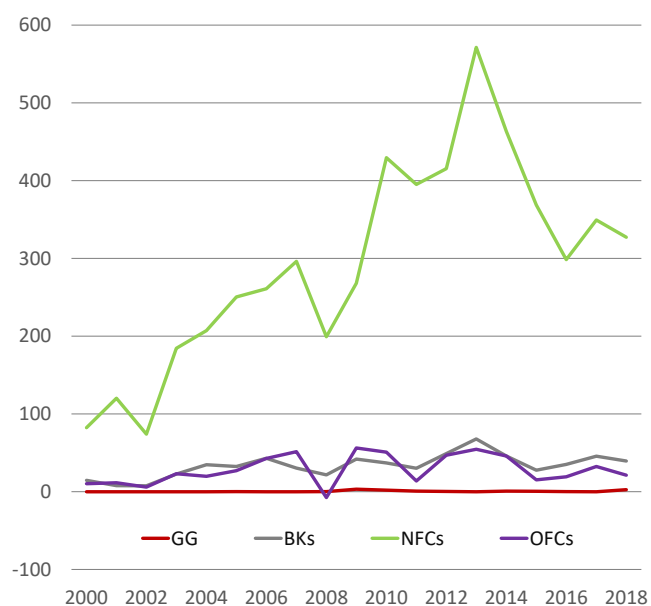
Note: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. ASEAN4 includes Indonesia, Malaysia, Philippines, and Thailand.

Source: Lepers and Mercado (2020).

**Most non-resident capital flows in SEG economies are equity-type investments to the private sector, although debt investments in the government sector has also risen over the past decade.**

Non-financial corporate inflows, accounting for the largest share of foreign capital inflows, are mostly in equity-type investments, including foreign direct and portfolio equity inflows (Figure 4a). In contrast, most foreign debt inflows are going to the general government sector (Figure 4b). Within debt inflows, there has been a notable shift towards portfolio debt inflows and away from loan inflows. The shift to portfolio debt reduces refinancing risks and offers more market instruments to investors. But within bond inflows, the share of foreign holdings of local currency denominated government bonds has been rising in recent years, including those of the ASEAN4 economies, minimizing the adverse effects of exchange rate risks.

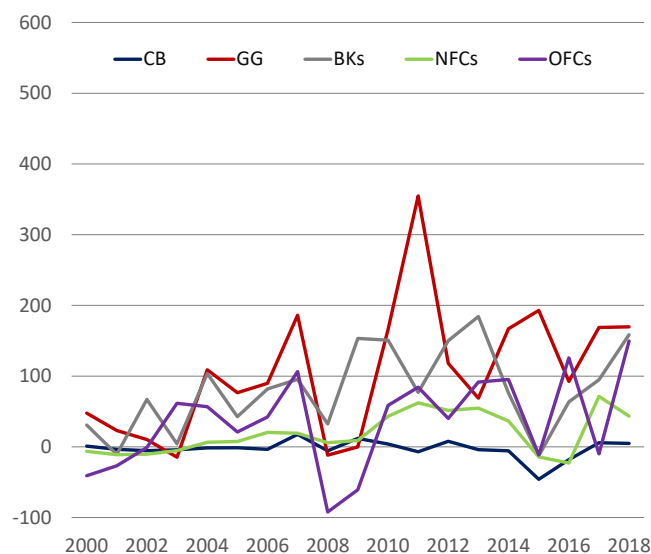
**Figure 4a: Non-Resident Equity Flows - SEG Economies**  
(USD billions)



Notes: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. SEG economies include Australia, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines, and Thailand. Equity flows include foreign direct investments and portfolio equity flows.

Source: Lepers and Mercado (2020).

**Figure 4b: Non-Resident Debt Flows - SEG Economies**  
(USD billions)



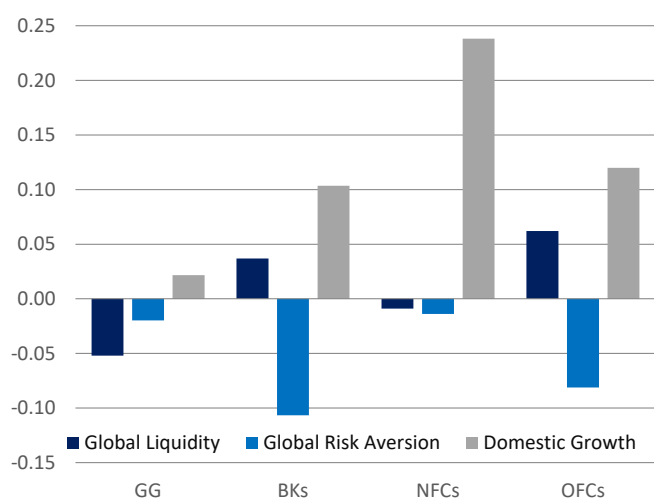
Notes: CB = central bank, GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. SEG economies include Australia, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines, and Thailand. Debt flows include portfolio debt and loans.

Source: Lepers and Mercado (2020).

**Non-resident sectoral inflows to SEG economies are correlated with global and domestic factors, and co-move across different sectoral inflows and outflows.**

Non-resident banking and other financial corporate inflows significantly correlate with global risk aversion and appetite (Figure 5a). This suggests that risk-on and risk-off scenarios may lead to sudden changes in banking and other financial corporate foreign flows. Meanwhile, banking sector, non-financial corporate, and other financial corporate inflows significantly correlate with domestic growth. Amongst these sectors, non-financial corporate inflows tend to correlate strongly with domestic output growth, implying cyclicity of NFC inflows. Non-financial corporate and general government inflows as well as non-financial corporate and other financial corporate inflows tend to co-move, suggesting that non-financial corporate inflows lead the co-movement across sectoral inflows in SEG economies (Figure 5b). For selected SEG economies with available resident and non-resident flows data, banking sector inflows strongly correlate with banking sector and non-financial corporate outflows, implying that the co-movement between sectoral inflows and outflows in the region are driven by the banking sector flows (Figure 5c).

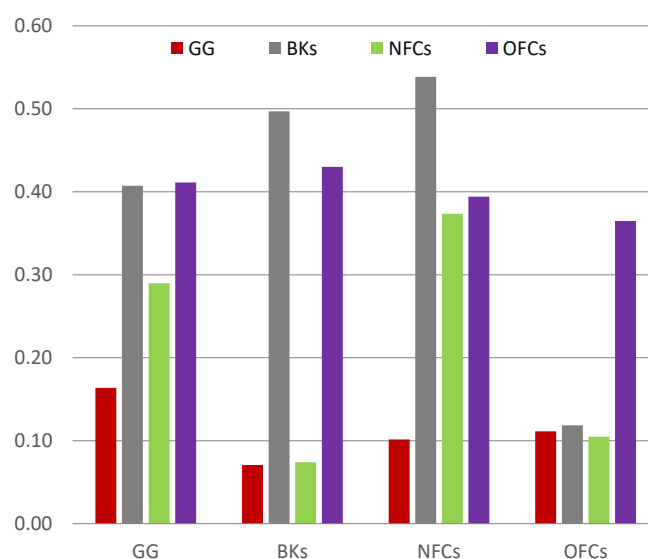
**Figure 5a: Unconditional Correlations Between Non-Resident Capital Flows and Covariates**



*Notes:* GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. The sample includes Australia, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines, and Thailand. Values refer to pairwise unconditional correlations between sectoral flows in percent to nominal GDP; and global liquidity index, global risk aversion, and domestic growth in percent.

*Source:* SEACEN staff calculations using data from Lepers and Mercado (2020).

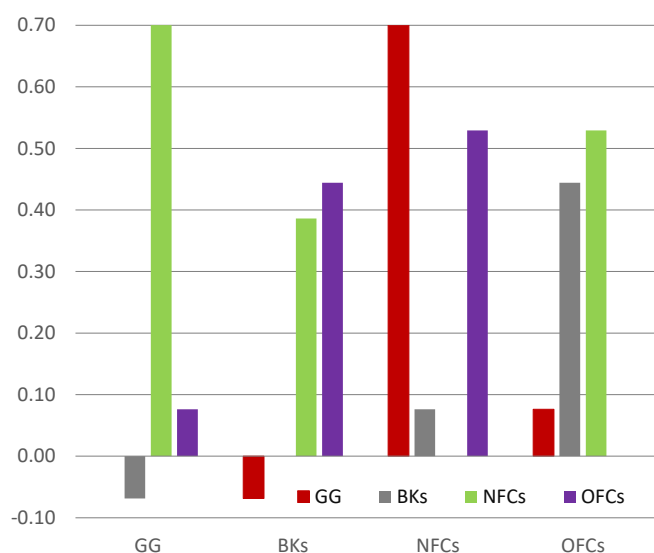
**Figure 5c: Unconditional Correlations Between Sectoral Non-Resident and Resident Capital Flows**



*Notes:* GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. The sample includes Australia, India, Japan, Korea, Malaysia, and Thailand. Values refer to pairwise unconditional correlations between sectoral inflows and sectoral outflows in percent to GDP.

*Source:* SEACEN staff calculations using data from Lepers and Mercado (2020).

**Figure 5b: Unconditional Correlations Across Sectoral Non-Resident Capital Flows**



*Notes:* GG = general government, BKs = banks, NFCs = non-financial corporates, and OFCs = other financial corporates. The sample includes Australia, China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Philippines, and Thailand. Values refer to pairwise unconditional correlations across sectoral inflows in percent to nominal GDP.

*Source:* SEACEN staff calculations using data from Lepers and Mercado (2020).

### C. Policy Consideration

The Lepers and Mercado (2020) dataset shows that sectoral inflows in SEG economies are dominated by non-financial corporate inflows. Most inflows to the non-financial sector are equity-type inflows while the government sector mainly constitutes debt inflows. Sectoral flows in SEG economies correlate with investor risk-taking as well as domestic output growth. The non-financial corporate sector accounts for the co-movement across sectoral inflows, while the banking sector drives the correlation between sectoral inflows and outflows. Given these stylised facts, several policy considerations are noted.

First, the Lepers and Mercado (2020) dataset uses both reported and calculated sectoral flows data. Reporting the sectoral breakdown of the Financial Account Balance of the BoP Statistics will greatly improve and validate the foregoing stylised facts presented in this section. Moreover, reporting the sectoral breakdown of the International Investment Position is, likewise, crucial. Currently, not all economies report the sectoral composition of cross-border flows and holdings. If they do, they are limited to specific types of investments. Moving



forward, reporting the sectoral breakdown of BoP and IIP statistics will aid macro-financial surveillance and external risk assessment by identifying sectoral international risk exposures and vulnerabilities.

Second, showing the finer sectoral breakdown between non-financial corporates and other financial corporates will reveal the growing importance of other financial corporates, which include pension and insurance funds, asset management, and money market funds, in cross-border financial transactions in the region. Moreover, reporting the sectoral breakdown of direct investment flows between banks, non-financial corporate and other financial corporate

will help track sectoral identities undertaking equity-type investment transactions, which account for the largest flows into SEG economies.

Lastly, considering the sectoral approach may aid policy responses in addressing the adverse impacts of capital inflows. For instance, capital flows management measures may be targeted along sectoral lines. In fact, Lepers and Mercado (2020) presented new evidence that tightening sectoral controls for non-financial and other financial corporates significantly reduce sectoral inflows going into these sectors for emerging economies, including some SEG economies.

## SECTION III: KEY INDICATORS

**Table 3.1: Net Resident Capital Flows**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	-39.7	-40.7	-35.2	5.5	-3.1	-2.9	-2.5	0.4
Brunei	6.5	1.2	0.0	0.3	57.3	9.7	0.3	2.4
Cambodia	-1.7	-1.8	-2.2	-3.7	-8.7	-7.9	-9.2	-13.9
China	-27.6	-18.0	-153.8	-57.0	-0.2	-0.1	-1.2	-0.4
Hong Kong, China	13.0	9.7	22.1	31.5	4.0	2.8	6.1	8.4
India	-11.8	-39.0	-64.5	-28.3	-0.5	-1.5	-2.4	-1.0
Indonesia	-17.2	-17.1	-32.3	-32.0	-1.8	-1.7	-3.2	-2.9
Japan	264.7	167.8	182.2	222.6	5.4	3.5	3.7	4.3
Korea	103.3	92.7	78.4	55.0	6.9	5.7	4.6	3.4
Lao PDR	-2.7	-2.0	-2.3	-1.9	-17.0	-11.6	-13.0	-10.1
Malaysia	1.3	4.9	-2.7	9.2	0.4	1.5	-0.7	2.5
Mongolia	-0.8	-1.1	-1.9	-2.2	-7.4	-9.9	-14.9	-16.3
Myanmar	-3.9	-4.8	-1.9	...	-6.4	-7.8	-2.8	...
Nepal	0.5	-0.3	-1.7	...	2.6	-1.1	-5.7	...
Papua New Guinea	5.2	5.1	4.1	...	24.9	23.0	17.6	...
Philippines	-0.9	-3.7	-11.6	1.6	-0.3	-1.2	-3.5	0.4
Singapore	54.4	58.4	61.7	61.3	17.1	17.2	16.9	16.9
Sri Lanka	-2.2	-2.1	-3.3	-2.4	-2.6	-2.4	-3.7	-2.8
Chinese Taipei	76.1	71.9	86.8	62.1	14.3	12.5	14.7	10.6
Thailand	33.7	38.5	22.2	26.5	8.2	8.4	4.4	5.0
Vietnam	-2.3	-7.5	-2.4	4.3	-1.2	-3.4	-1.0	1.6

*Notes:* ... data unavailable from the IMF. Positive (negative) values mean an increase (decrease) in net resident investment abroad. Net resident flows refer to financial account assets minus financial account liabilities. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Lao PDR, Malaysia, Sri Lanka and Vietnam are from national sources taken from CEIC dataset.

*Sources:* SEACEN staff calculations and estimates using data from IMF BOP Statistics and World Economic Outlook Database, and national sources.

**Table 3.2: Financial Account Assets (Resident Capital Flows)**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	-59.5	-0.9	-1.7	0.7	-4.7	-0.1	-0.1	0.1
Brunei	6.2	1.8	0.7	2.4	54.4	14.7	5.2	19.6
Cambodia	1.6	1.9	2.1	2.5	8.1	8.7	8.6	9.5
China	232.0	423.9	362.0	198.7	2.1	3.5	2.7	1.4
Hong Kong, China	91.5	250.8	167.1	-3.1	28.5	73.4	46.1	-0.8
India	107.0	128.3	88.2	155.0	4.7	4.8	3.2	5.3
Indonesia	-3.8	30.0	12.1	19.2	-0.4	3.0	1.2	1.7
Japan	106.5	-93.3	-29.1	-99.1	2.2	-1.9	-0.6	-1.9
Korea	110.9	129.4	119.1	91.8	7.4	8.0	6.9	5.6
Lao PDR	0.1	0.7	0.3	0.3	0.3	4.2	1.9	1.6
Malaysia	16.2	17.7	8.0	23.5	5.4	5.6	2.2	6.4
Mongolia	0.4	1.3	-0.1	0.6	3.7	10.9	-0.6	4.7
Myanmar	-1.1	-0.1	-0.1	...	-1.8	-0.2	-0.1	...
Nepal	1.2	0.7	-0.3	...	5.5	2.6	-1.2	...
Papua New Guinea	5.0	4.6	4.7	...	23.9	20.4	20.1	...
Philippines	4.6	5.9	5.2	16.3	1.5	1.9	1.6	4.6
Singapore	170.1	202.2	187.7	195.1	53.5	59.8	51.5	53.8
Sri Lanka	0.0	2.9	-0.6	0.5	0.0	3.3	-0.7	0.6
Chinese Taipei	98.9	94.3	82.7	67.8	18.6	16.4	14.0	11.6
Thailand	32.2	61.3	29.9	30.1	7.8	13.5	5.9	5.7
Vietnam	14.4	22.6	17.8	31.5	7.1	10.3	7.4	12.0

*Notes:* ... data unavailable from the IMF. Positive (negative) values refer to an increase (decrease) in resident investment abroad. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Lao PDR, Malaysia, Sri Lanka and Vietnam are from national sources taken from CEIC dataset.

*Sources:* SEACEN staff calculations and estimates using data from IMF BOP Statistics and World Economic Outlook Database, and national sources.

**Table 3.3: Financial Account Liabilities (Non-Resident Capital Flows)**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	-19.7	39.7	33.6	-4.8	-1.6	2.9	2.4	-0.3
Brunei	-0.3	0.6	0.7	2.1	-2.9	5.0	4.9	17.2
Cambodia	3.4	3.7	4.3	6.2	16.8	16.7	17.7	23.4
China	259.6	441.9	515.8	255.8	2.3	3.7	3.9	1.8
Hong Kong, China	78.5	241.1	144.9	-34.6	24.5	70.6	40.0	-9.3
India	118.8	167.3	152.7	183.3	5.2	6.3	5.6	6.2
Indonesia	13.4	47.1	44.3	51.2	1.4	4.6	4.3	4.6
Japan	-158.2	-261.1	-211.3	-321.7	-3.2	-5.4	-4.3	-6.2
Korea	7.6	36.8	40.6	36.8	0.5	2.3	2.4	2.3
Lao PDR	2.8	2.7	2.7	2.2	17.3	15.7	14.8	11.7
Malaysia	14.9	12.8	10.7	14.3	4.9	4.0	3.0	3.9
Mongolia	1.2	2.4	1.9	2.9	11.2	20.9	14.3	21.0
Myanmar	2.8	4.7	1.8	...	4.6	7.6	2.7	...
Nepal	0.6	0.9	1.3	...	2.9	3.7	4.5	...
Papua New Guinea	-0.2	-0.6	0.6	...	-1.0	-2.6	2.5	...
Philippines	5.5	9.5	16.9	14.7	1.8	3.0	5.1	4.1
Singapore	115.7	143.8	126.0	133.9	36.4	42.5	34.6	36.9
Sri Lanka	2.2	5.1	2.7	2.9	2.7	5.7	3.1	3.4
Chinese Taipei	22.8	22.4	-4.1	5.7	4.3	3.9	-0.7	1.0
Thailand	-1.5	22.9	7.7	3.6	-0.4	5.0	1.5	0.7
Vietnam	16.7	30.1	20.2	27.2	8.3	13.7	8.4	10.4

*Notes:* ... data unavailable from the IMF. Positive (negative) values mean an increase (decrease) in non-resident investment in the domestic economy. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Lao PDR, Malaysia, Sri Lanka and Vietnam are from national sources taken from CEIC dataset.

*Sources:* SEACEN staff calculations and estimates using data from IMF BOP Statistics and World Economic Outlook Database, and national sources.

**Table 3.4: Current Account Balance**

	USD Billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	-41.0	-35.8	-29.3	7.1	-3.2	-2.6	-2.1	0.5
Brunei	1.5	2.0	0.9	0.9	12.9	16.4	6.9	7.2
Cambodia	-1.7	-1.8	-3.0	-4.2	-8.6	-8.1	-12.2	-15.7
China	202.2	195.1	25.5	141.3	1.8	1.6	0.2	1.0
Hong Kong, China	12.7	15.6	13.5	22.7	4.0	4.6	3.7	6.1
India	-12.1	-38.2	-65.6	-26.9	-0.5	-1.4	-2.4	-0.9
Indonesia	-17.0	-16.2	-30.6	-30.4	-1.8	-1.6	-3.0	-2.7
Japan	197.0	203.2	176.1	184.5	4.0	4.2	3.5	3.6
Korea	97.9	75.2	77.5	60.0	6.5	4.6	4.5	3.7
Lao PDR	-1.4	-1.3	-1.4	-0.9	-8.7	-7.4	-7.9	-4.5
Malaysia	7.1	9.0	7.6	12.3	2.4	2.8	2.1	3.4
Mongolia	-0.7	-1.2	-1.9	-2.2	-6.3	-10.1	-14.6	-15.9
Myanmar	-1.8	-4.5	-2.1	...	-2.9	-7.3	-3.1	...
Nepal	-0.2	-1.0	-2.8	...	-0.8	-4.1	-9.6	...
Papua New Guinea	5.2	5.3	5.5	...	24.9	23.9	23.5	...
Philippines	-1.2	-2.1	-8.8	-0.5	-0.4	-0.7	-2.7	-0.1
Singapore	56.2	55.6	64.1	63.1	17.7	16.4	17.6	17.4
Sri Lanka	-1.7	-2.3	-2.8	-1.8	-2.1	-2.6	-3.2	-2.1
Chinese Taipei	71.3	83.1	70.8	65.1	13.4	14.5	12.0	11.1
Thailand	43.4	44.0	28.5	37.9	10.5	9.7	5.6	7.2
Vietnam	0.6	-1.6	5.9	13.1	0.3	-0.7	2.4	5.0

*Notes:* ... data unavailable from the IMF. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Lao PDR, Malaysia, Sri Lanka and Vietnam are from national sources taken from CEIC dataset.

*Sources:* SEACEN staff calculations and estimates using data from IMF BOP Statistics and World Economic Outlook Database, and national sources.

**Table 3.5: Net International Investment Position (Net IIP)**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	-701.2	-766.8	-718.4	-624.6	-55.3	-55.3	-50.6	-45.4
Brunei	...	...	...	...	...	...	...	...
Cambodia	-19.2	-22.7	-24.7	-26.3	-95.7	-102.3	-101.0	-98.5
China	1,950.4	2,100.7	2,146.1	2,124.0	17.4	17.4	16.1	15.0
Hong Kong, China	1,153.8	1,421.2	1,282.5	1,563.1	359.6	415.9	353.6	419.1
India	-367.3	-426.7	-433.7	-432.0	-16.0	-16.1	-16.0	-14.7
Indonesia	-333.8	-323.4	-317.3	-338.2	-35.8	-31.8	-31.0	-30.4
Japan	2,879.2	2,916.6	3,081.3	3,430.8	58.4	60.0	62.0	66.6
Korea	281.1	261.7	436.0	500.6	18.7	16.1	25.3	30.7
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	15.6	-7.5	-18.8	-10.7	5.2	-2.3	-5.2	-2.9
Mongolia	-29.3	-32.0	-33.6	-35.8	-263.0	-280.3	-258.5	-262.8
Myanmar	-25.2	-30.3	-31.8	...	-41.7	-49.3	-46.4	...
Nepal	4.3	3.8	...	...	20.3	14.9	...	...
Papua New Guinea	...	...	...	...	...	...	...	...
Philippines	-28.0	-42.7	-48.6	-34.8	-9.2	-13.6	-14.7	-9.8
Singapore	754.1	867.2	769.9	896.0	237.1	256.3	211.4	247.0
Sri Lanka	-44.6	-47.9	-50.4	-52.3	-54.1	-54.4	-56.7	-60.4
Chinese Taipei	1,108.6	1,182.8	1,280.5	...	208.6	205.7	217.1	...
Thailand	-32.4	-36.4	-11.3	-9.7	-7.8	-8.0	-2.2	-1.8
Vietnam	...	...	...	...	...	...	...	...

*Notes:* ... data unavailable from the IMF. Net IIP refers to total international investment assets minus total international investment liabilities. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Malaysia and Sri Lanka are from national sources taken from CEIC dataset.

*Sources:* SEACEN staff calculations using data from IMF International Investment Position and World Economic Outlook Database; and national sources.

**Table 3.6: Total International Investment Assets**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	1,689.7	1,897.0	1,837.5	2,110.4	133.3	136.8	129.4	153.3
Brunei	...	...	...	...	...	...	...	...
Cambodia	16.2	16.5	18.8	23.1	80.7	74.6	76.9	86.2
China	6,507.0	7,148.8	7,404.9	7,714.5	58.0	59.3	55.4	54.6
Hong Kong, China	4,609.1	5,478.6	5,431.2	5,619.6	1,436.4	1,603.3	1,497.3	1,506.6
India	543.1	614.3	606.0	697.3	23.7	23.2	22.3	23.8
Indonesia	300.5	338.4	346.7	373.3	32.2	33.3	33.9	33.6
Japan	8,444.1	8,975.7	9,185.2	10,112.7	171.4	184.7	184.7	196.2
Korea	1,245.1	1,461.6	1,546.2	1,699.4	83.0	90.0	89.9	104.3
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	385.7	418.3	407.0	429.8	128.0	131.1	113.5	117.7
Mongolia	4.3	5.6	6.2	7.1	38.7	48.7	47.4	52.4
Myanmar	9.5	9.6	9.6	...	15.7	15.6	13.9	...
Nepal	10.2	10.7	...	...	48.4	42.5	...	...
Papua New Guinea	...	...	...	...	...	...	...	...
Philippines	161.3	171.5	176.1	197.1	52.9	54.7	53.2	55.2
Singapore	3,250.5	3,806.5	3,867.6	4,223.7	1,022.0	1,124.8	1,062.1	1,164.1
Sri Lanka	10.3	12.7	12.1	13.0	12.5	14.4	13.6	15.0
Chinese Taipei	1,776.9	1,984.7	2,048.9	...	334.4	345.2	347.3	...
Thailand	382.4	461.4	482.7	530.6	92.7	101.3	95.6	100.3
Vietnam	...	...	...	...	...	...	...	...

*Notes:* ... data unavailable from the IMF. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Malaysia and Sri Lanka are taken from national sources accessed through CEIC dataset.

*Sources:* SEACEN staff calculations using data from IMF International Investment Position and World Economic Outlook Database; and national sources.

**Table 3.7: Total International Investment Liabilities**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	2,390.9	2,663.8	2,556.0	2,735.0	188.6	192.1	180.0	198.7
Brunei	...	...	...	...	...	...	...	...
Cambodia	35.4	39.2	43.5	49.4	176.4	176.8	177.9	184.7
China	4,556.7	5,048.1	5,258.8	5,590.5	40.6	41.9	39.3	39.5
Hong Kong, China	3,455.3	4,057.5	4,148.6	4,056.5	1,076.8	1,187.4	1,143.8	1,087.6
India	910.5	1,041.0	1,039.8	1,129.3	39.8	39.2	38.2	38.5
Indonesia	634.3	661.7	664.0	711.6	68.1	65.2	64.9	64.0
Japan	5,564.9	6,059.0	6,103.8	6,681.9	113.0	124.7	122.8	129.6
Korea	964.0	1,199.9	1,110.2	1,198.8	64.2	73.9	64.5	73.6
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	370.0	425.8	425.7	440.4	122.8	133.5	118.7	120.6
Mongolia	33.7	37.6	39.8	43.0	301.6	328.9	305.8	315.2
Myanmar	34.7	39.8	41.4	...	57.5	64.9	60.3	...
Nepal	5.9	6.9	...	...	28.0	27.5	...	...
Papua New Guinea	...	...	...	...	...	...	...	...
Philippines	189.3	214.2	224.7	231.9	62.1	68.3	67.9	65.0
Singapore	2,496.4	2,939.2	3,097.8	3,327.7	784.9	868.6	850.7	917.2
Sri Lanka	54.9	60.6	62.5	65.3	66.6	68.8	70.3	75.4
Chinese Taipei	668.3	801.9	768.4	...	125.8	139.5	130.3	...
Thailand	414.8	497.8	494.0	540.3	100.6	109.3	97.8	102.1
Vietnam	...	...	...	...	...	...	...	...

*Notes:* ... data unavailable from the IMF. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Malaysia and Sri Lanka are taken from national sources accessed through CEIC dataset.

*Sources:* SEACEN staff calculations using data from IMF International Investment Position and World Economic Outlook Database; and national sources.



**Table 3.8: Official Reserve Assets**

	USD billion				% of GDP			
	2016	2017	2018	2019	2016	2017	2018	2019
Australia	55.1	68.8	57.5	60.0	4.3	5.0	4.0	4.4
Brunei	...	...	...	...	...	...	...	...
Cambodia	6.8	8.8	10.2	13.1	33.7	39.6	41.6	48.9
China	3,097.8	3,235.9	3,168.0	3,222.9	27.6	26.8	23.7	22.8
Hong Kong, China	386.2	431.6	424.4	441.6	120.4	126.3	117.0	118.4
India	359.5	409.7	396.1	460.7	15.7	15.4	14.6	15.7
Indonesia	116.4	130.2	120.7	129.2	12.5	12.8	11.8	11.6
Japan	1,220.4	1,261.3	1,265.3	1,323.1	24.8	26.0	25.4	25.7
Korea	371.1	389.2	403.6	408.5	24.7	24.0	23.5	25.1
Lao PDR	...	...	...	...	...	...	...	...
Malaysia	94.5	102.1	101.4	102.4	31.4	32.0	28.3	28.0
Mongolia	1.3	3.0	3.5	4.3	11.7	26.4	27.3	31.9
Myanmar	4.9	5.2	5.6	...	8.1	8.5	8.2	...
Nepal	8.9	9.4	...	...	41.8	37.2	...	...
Papua New Guinea	...	...	...	...	...	...	...	...
Philippines	80.7	81.6	79.2	87.8	26.5	26.0	23.9	24.6
Singapore	246.3	279.8	287.3	278.9	77.4	82.7	78.9	76.9
Sri Lanka	6.0	8.0	6.9	7.6	7.3	9.0	7.8	8.8
Chinese Taipei	439.0	456.7	466.8	...	82.6	79.4	79.1	...
Thailand	171.9	202.6	205.6	224.3	41.7	44.5	40.7	42.4
Vietnam	...	...	...	...	...	...	...	...

*Notes:* ... data unavailable from the IMF. Data accessed through CEIC Dataset as of 1 June 2020. 2019 data for Malaysia and Sri Lanka are taken from national sources accessed through CEIC dataset.

*Sources:* SEACEN staff calculations using data from IMF International Investment Position and World Economic Outlook Database; and national sources.

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## **SEACEN Capital Flows Monitor 2020**

The SEACEN Capital Flows Monitor 2020 is a bi-annual report on cross-border capital flows of SEACEN member economies, including Australia and Japan which are members of the SEACEN Expert Group (SEG) on Capital Flows. The report discusses recent trends and outlook on capital flows and international investment positions; and includes a thematic chapter on sectoral capital flows. It also presents statistical tables on key external indicators related the Balance of Payments Statistics and International Investment Position.

## **The SEACEN Centre**

Since its inception in the early 1980's, The South East Asian Central Banks Research and Training Centre (the SEACEN Centre) has established its unique regional position in serving its membership of central banks in the Asia-Pacific region through its learning programmes in key central banking areas (including Macroeconomic and Monetary Policy Management; Financial Stability and Supervision, and Payment and Settlement System; and Leadership and Governance), research work, and networking and collaboration platforms for capability building in central banking knowledge.

