Chapter 1.

Macroeconomic Prospects and Challenges

Highlights

- The post-pandemic "recovery" year of 2022 was beset by new challenges as the region was buffeted by multiple external shocks. In early 2022, when most economies were battling the highly transmissible Omicron variant of COVID-19, the Russia-Ukraine conflict escalated into a crisis and sent global commodity prices soaring to multiyear highs. Record high inflation and the release of pent-up consumer demand forced faster and sharper monetary policy tightening in the United States. By the second half of the year, tighter financial market conditions had significantly slowed the growth momentum in advanced economies. Geopolitical tensions intensified throughout the year, while relentless waves of COVID-19 infections disrupted economic reopening efforts in some economies, especially China.

- Overall, the ASEAN+3 region grew at 3.2 percent in 2022. The lifting of COVID-19 containment measures led to a surge in consumer spending and investment, helping to offset the drag on exports in the second half of the year. Meanwhile, inflation in the region rose to 6.5 percent in 2022, due mainly to supply disruptions caused by the Ukraine crisis, the release of pent-up demand in advanced economies, and the lingering impact of supply chain bottlenecks. Timely administrative and policy measures helped to prevent inflation in the ASEAN+3 region from spiraling higher. In financial markets, the US Federal Reserve's aggressive rate hikes led to a sharp spike in risk aversion, currency depreciations, and large portfolio capital outflows from the region in the first three quarters of 2022. By October, the outlook for portfolio capital flows in the region had improved on market expectations that the US Federal Reserve would slow the pace of rate increases in 2023.

- Looking ahead, growth in ASEAN+3 is expected to be anchored by domestic demand as economic recovery gains traction. The region's goods export growth is projected to weaken as global demand slows. However, this will be counterbalanced to some extent by the strengthening of services exports (notably tourism) as border restrictions are lifted throughout the region. AMRO staff forecast the region to grow at a faster pace of 4.6 percent in 2023, driven by strong recovery in the Plus-3 economies, especially China. Headline inflation is forecast at 4.5 percent in 2023, lower than in 2022. In 2024, growth is expected to be sustained at 4.5 percent, and inflation to moderate to 3.0 percent.

- The growth outlook for ASEAN+3 is fraught with uncertainties. The most immediate risk is the possibility of another shock to global energy prices should the ongoing Ukraine crisis escalate. At the same time, if tightening financial conditions trigger a much sharper US economic slowdown than currently envisaged, spillovers to the rest of the world would be significant. A global energy shock in conjunction with a global economic slowdown would be a major blow to the region. In China, prolonged weakness in the real estate sector would weigh on consumer and investor confidence and could hinder the economy's recovery, dragging down regional growth. The possible emergence of more virulent COVID-19 variants is still a risk. In the medium term, further deepening of the strategic rivalry between the United States and China could fragment the global economy into ideological blocs and undermine the region's growth prospects.

- Policymakers in the region are largely ending the extraordinary stimulus measures introduced during the pandemic and shifting to restoring policy buffers. Rising inflation and a less supportive global economic landscape have compelled monetary policy tightening in some economies, while maintaining targeted fiscal support to safeguard growth. ASEAN+3 authorities will continue to face sharp policy tradeoffs and difficult policy decisions in the year ahead. A calibrated policy mix, drawing on a range of policy tools, will be essential to navigate the challenges of 2023.

I. Recent Developments and Outlook

A Bumpy Transition to the "New Normal"

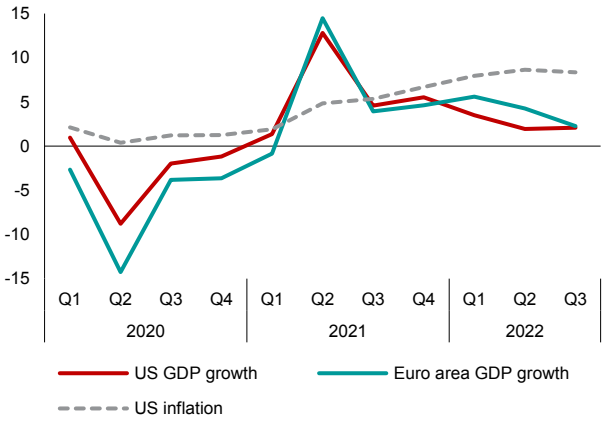
The post-pandemic "recovery" year of 2022 was fraught with challenges. The year began with most regions battling the highly contagious Omicron variant of COVID-19. Then, the Russia-Ukraine conflict broke out in February and escalated into a crisis, sending global commodity prices to multiyear highs. The confluence of record high inflation rates and the release of pent-up consumer demand forced faster and sharper monetary policy tightening in the United States, rattling global financial markets. By the second half of the year, tighter financial market conditions amid stubbornly high inflation slowed growth momentum in advanced economies (Figure 1.1). Geopolitical tensions intensified throughout the year, aggravating financial market volatility and deepening investor uncertainty. On top of these new challenges, relentless waves of COVID-19 infections continued to disrupt economic reopening efforts of some economies, notably China.

Growth in the Plus-3 economies in 2022 was impacted by recurring COVID-19 outbreaks, high inflation, and idiosyncratic domestic factors (Figure 1.2).

- Plus-3 economies faced three large waves of infections in 2022 (Figure 1.3). Economic activities in China and Hong Kong were constrained by stringent pandemic containment measures which lasted until early December. COVID-19 cases surged in both economies when the strict containment measures were lifted. Japan removed most domestic containment policies in March and Korea did so in April, despite both having high caseloads. However, border restrictions in Japan remained in place for most of the year (Box 1.1).
- The spike in global energy prices resulted in high inflation and weaker terms of trade for the net energy-importing Plus-3 economies. Fiscal support to dampen the passthrough of high energy prices to households and businesses weighed on government budgets that were already strained by more than two years of pandemic support.
- Growth in China was further weakened by a prolonged slowdown in the property sector and financial stability concerns. The Hong Kong economy was heavily affected by the continued border closure with mainland China and the resulting loss of goods and services export revenue. Meanwhile, Japan and Korea were confronted with sharp currency depreciations, in part due to the aggressive interest rate hikes by the US Federal Reserve and strengthening of the US dollar.

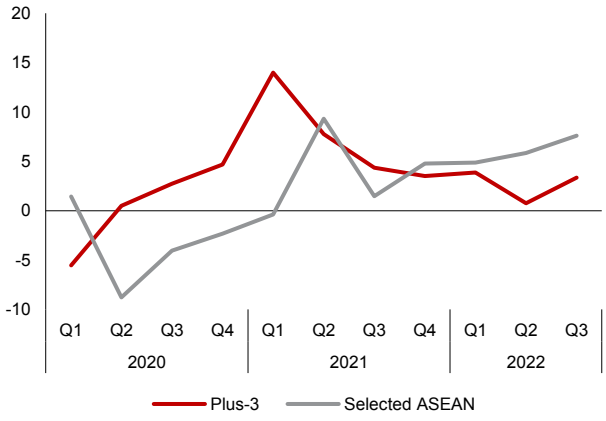
The ASEAN region grew more firmly than the Plus-3 in 2022, thanks to a strong rebound in domestic demand and net exports. High COVID-19 vaccination coverage (for both primary and booster doses) allowed ASEAN economies to stay on a reopening course despite the large wave of Omicron infections at the beginning of the year. COVID-19 infections declined significantly in the middle of the year (except in Singapore), with economies like Cambodia, Lao PDR, and Myanmar reporting fewer than 25 daily cases by the end of the year. The reopening of borders to international tourists also helped to boost growth in tourism-dependent economies.

Figure 1.1. United States and Euro Area: Real GDP Growth and Headline Inflation
(Percent, year-on-year)



Source: National authorities via Haver Analytics.
Note: US inflation refers to annual change in the personal consumption expenditure price index.

Figure 1.2. Selected ASEAN+3: Real GDP Growth
(Percent, year-on-year)



Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Aggregate GDP is calculated using purchasing power parity (PPP) weighted average. Selected ASEAN refers to Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Cambodia, Lao PDR, and Myanmar are excluded due to data unavailability.

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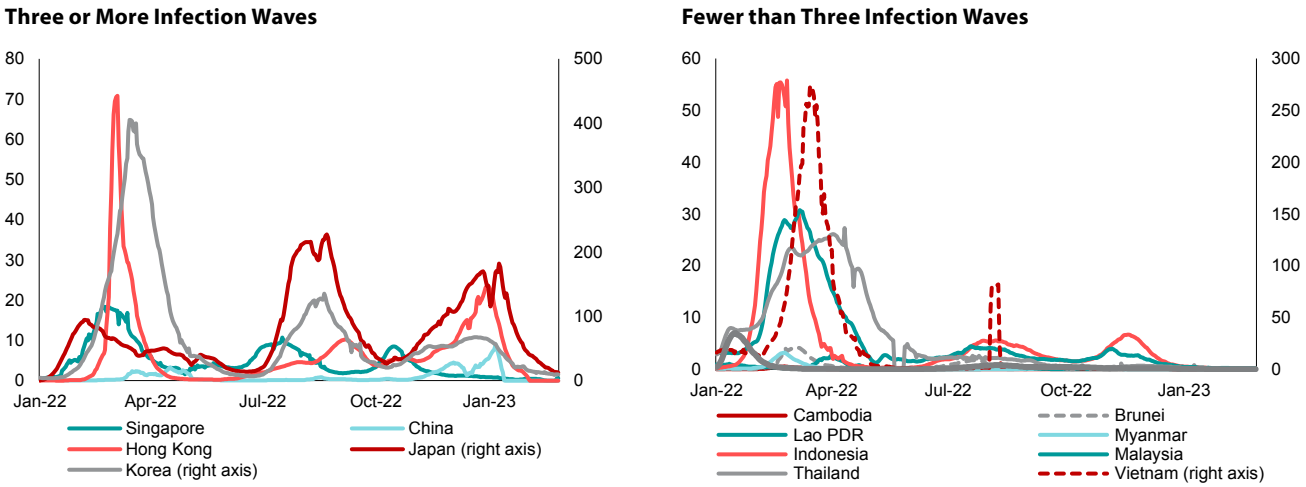
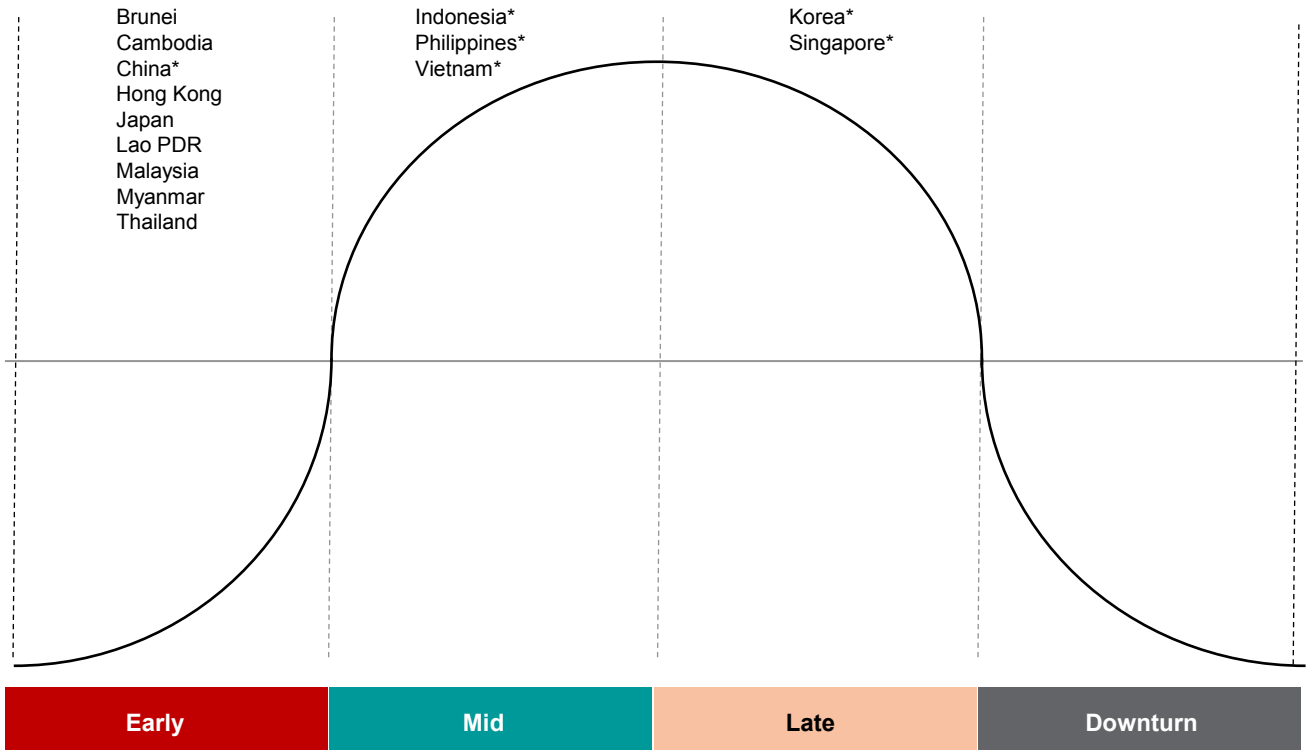
Figure 1.3. ASEAN+3: Daily COVID-19 Cases
(Thousand persons, seven-day average)



Source: Johns Hopkins University via Haver Analytics; AMRO staff calculations.
Note: Data as of 28 February 2023.

Most of ASEAN+3 is currently in the early phase of the business cycle. The negative output gap is narrowing in most of the region's economies, but real GDP remains below trend levels, reflecting some economic scarring from the pandemic. China is back in the early cycle position with a negative but narrowing output gap due to disruption caused by COVID-19 outbreaks and stresses in the property market. Indonesia and Vietnam transitioned from early cycle to mid-cycle on widening positive output gaps and tightening labor markets, supported by robust growth momentum continuing into 2023. The Philippines is assessed to be in mid-cycle with a widening positive output gap following continued growth on multiple fronts, including manufacturing and domestic tourism. Meanwhile, export-oriented Korea and Singapore, which rebounded strongly in 2021, have moved from mid-cycle in 2022 to late cycle as external demand slows down (Figure 1.4).

Figure 1.4. ASEAN+3: Business Cycle Positions, 2023



Source: AMRO staff estimates.
Note: "Early cycle" indicates that GDP growth is below trend and the output gap is negative and narrowing. "Mid-cycle" indicates that growth is around trend and the output gap is positive and widening. "Late cycle" indicates that growth is above trend and the output gap is positive and narrowing. "Downturn" indicates that growth is below trend and the output gap is negative and widening. Asterisk (*) indicate changes in position relative to 2022. China, Korea, and Singapore were assessed to be in mid-cycle in 2022; Indonesia, the Philippines, and Vietnam were assessed to be in early cycle in 2022.

Box 1.1:

Living with COVID-19: The Long and Winding Road for the Plus-3 Economies

Plus-3 economies transitioned to living with COVID-19 in different ways. The emergence of new subvariants led to two large new surges of Omicron-variant infections in 2022 after the initial wave of infections subsided in the previous year (Figure 1.1.1, top panel). Daily new cases in the Plus-3 in the second half of the year far surpassed those in ASEAN, even after adjusting for population size (Figure 1.1.1, bottom panel). Yet, Japan and Korea reopened earlier than China and Hong Kong despite having reported significantly higher numbers of cases and lower vaccination coverage (Figure 1.1.2).

Accelerated administration of booster doses was key to Japan's reopening. The spike in infections led to the declaration of a quasi-state of emergency in 34 of Japan's 47 prefectures in the first quarter of 2022. In response, the government accelerated its roll-out of booster doses, which began in December 2021. Within 100 days, 32.5 percent of the population had received a booster, compared to only 10.9 percent when the primary dose was rolled out (Figure 1.1.3). Japan's booster dose coverage is higher than elsewhere in the region (Figure 1.1.4). With the high vaccination rate, authorities were able to gradually relax containment measures, and all quasi-emergency measures were lifted by the end of the first quarter of 2022. Borders were opened to international travelers—first to a limited number of guided tour groups in June 2022, then to all travelers in October 2022.

Korea relied on its high vaccination rate and strong health care system in reopening. New cases surpassed 600,000 per day in March 2022—the highest in the world at the time—but death rates remained among the lowest globally, thanks in part to the country's high vaccine coverage: more than 80 percent of the population was vaccinated and more than half had received their booster doses by then (Cha 2022) (Figure 1.1.5). The health care system was reinforced in January 2022 with the addition of small hospitals to manage an expected surge in cases (CNA 2022). Korea scaled back social distancing measures in April 2022, allowing private gatherings, lengthening business hours of restaurants and cafes, and resuming public events. Outdoor mask mandates were lifted in September 2022 and an end to indoor ones followed in January 2023. Travel restrictions were also eased, with quarantine rules for international arrivals removed on 8 June and pre-departure test requirements for most inbound travelers lifted on 3 September.

China's COVID-19 cases were contained by stringent controls that remained in place until early December 2022. The dynamic zero-COVID approach in China was characterized by mass testing and city-wide lockdowns. Numerous cities, such as Chengdu, Guangzhou, Shanghai, and Zhengzhou, were placed under lockdown after cases were reported. With steadily rising testing and vaccination capacity, quarantine durations for close contacts and international travelers were shortened in November and removed completely the following month (Xinhua 2022). After the reopening of the economy on 7 December, there was an uptick in cases. However, the number of infections and COVID-related hospitalizations declined throughout January 2023, auguring well for the transition to a COVID-19 endemic state (The Straits Times 2023).

The same applied in Hong Kong. Hospitals were reportedly overwhelmed in the first quarter of 2022 as COVID-19 cases spiked (Agence France-Presse 2022). Vaccine hesitancy among the elderly—only a quarter of the population aged 80 and above were vaccinated as of January 2022—contributed to the high fatality ratio for this age group. Hong Kong authorities tightened border controls and increased mass community testing, sewage surveillance, and contact tracing in response. By September, more than 90 percent of the population was fully vaccinated—up from

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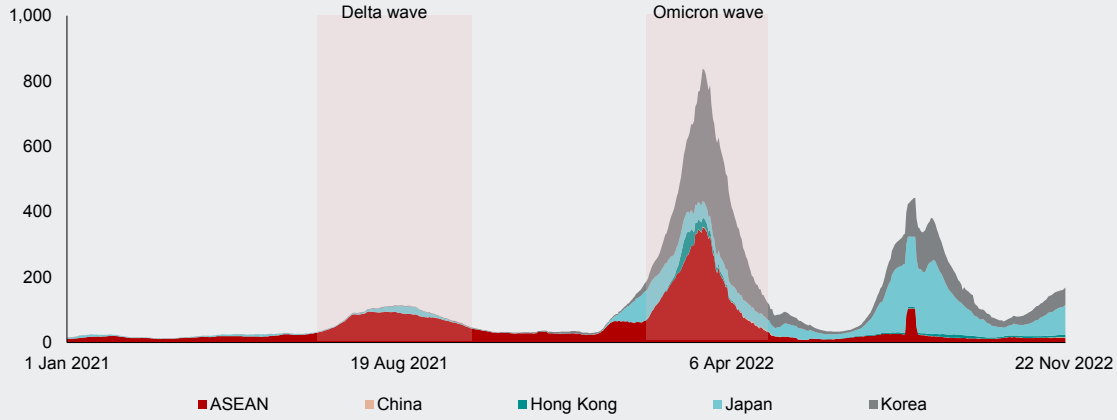
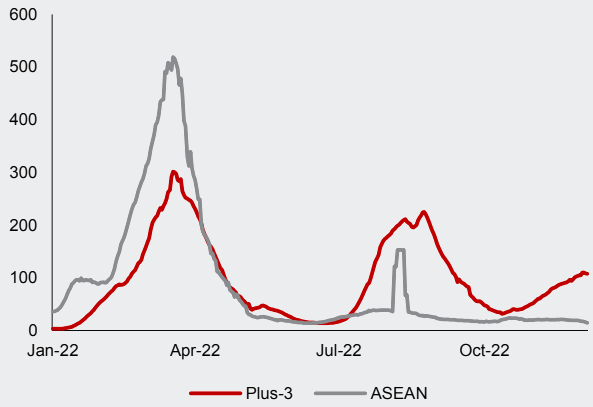
70 percent in March—and the health care system was no longer overstrained. On 14 December, Hong Kong relaxed its COVID-19 measures, including scrapping the use of its LeaveHomeSafe tracking app and removing social distancing requirements for restaurants and public gatherings. On- and post-arrival COVID-19 testing of international visitors was abolished on 29 December.

While all Plus-3 economies have now reopened, the challenge is to stay open. A negative pre-departure test remains necessary for entry to China and Hong Kong. Inbound visitors to Japan have to show proof of having received at least three vaccine doses, or a negative COVID-19 test within 72 hours of departure. Korea removed its indoor mask mandate on 30 January 2023, but maintains a seven-day isolation rule for those who have tested positive for COVID-19. High vaccination coverage and resilient health care systems should help the Plus-3 economies stay on the economic reopening path.

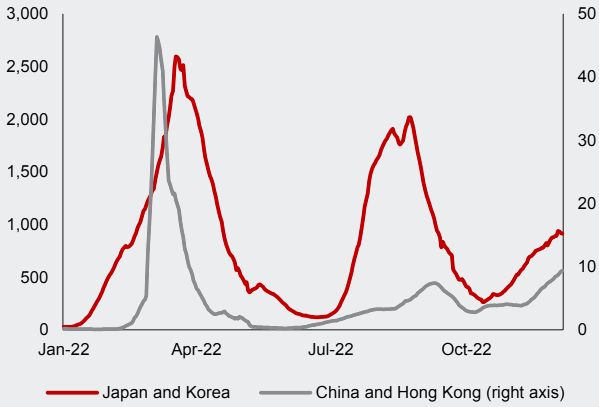
Figure 1.1.1. ASEAN+3: Daily COVID-19 Cases
(Thousand cases, seven-day average)



ASEAN+3
(New cases per million persons, seven-day average)

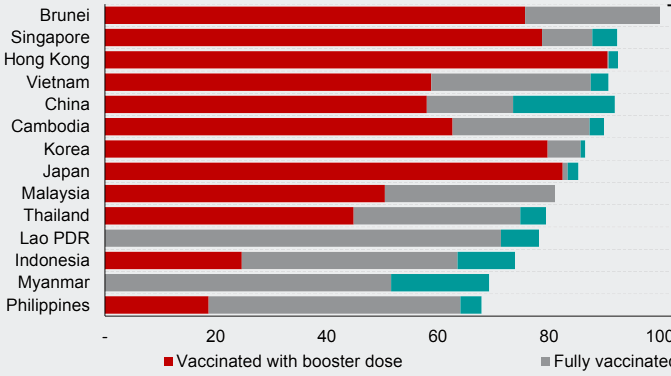


Plus-3
(New cases per million persons, seven-day average)



Source: Johns Hopkins University via Haver Analytics; AMRO staff calculations.
Note: ASEAN = Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam; Plus-3 = China, Hong Kong, Japan, and Korea.

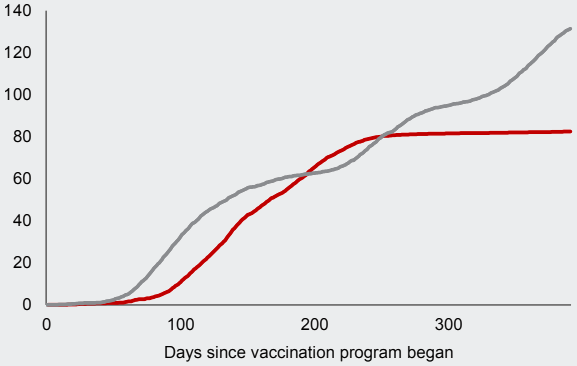
Figure 1.1.2. ASEAN+3: Vaccination Coverage Status
(Percent of population)



	Percentage of population: With booster doses	Fully vaccinated	With at least one dose
Brunei	75.7	100.0	100.0
Singapore	82.5	87.8	92.4
Hong Kong	90.6	90.8	92.3
Vietnam	58.8	87.5	92.1
China	58.0	73.5	91.9
Cambodia	62.6	87.3	91.1
Korea	79.8	85.7	86.5
Japan	82.5	83.4	84.4
Malaysia	50.4	81.2	82.9
Thailand	44.8	74.8	79.5
Lao PDR	-	71.4	78.2
Indonesia	24.7	63.5	73.9
Myanmar	-	51.6	69.3
Philippines	18.7	64.1	67.9

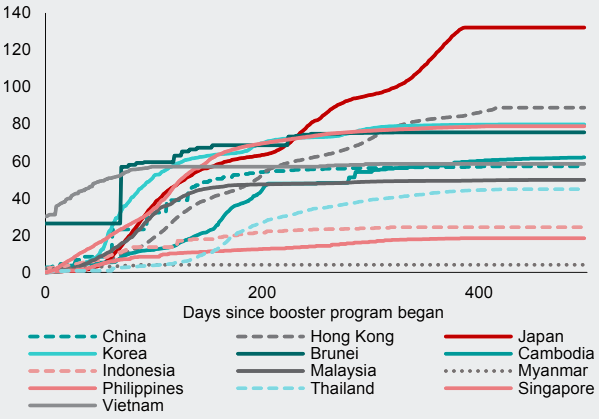
Source: Our World in Data via Haver Analytics; AMRO staff calculations.
Note: Data are up to 28 February 2023. Percent of fully vaccinated population shows the number of people who received all doses prescribed by the vaccination protocol (e.g., one dose of a single-dose vaccine, or two doses of a two-dose vaccine). In the event of discrepancy between data from Our World in Data and national authorities, data from national authorities take precedence.

Figure 1.1.3. Japan: COVID-19 Vaccination Coverage
(Cumulative doses per 100 persons)



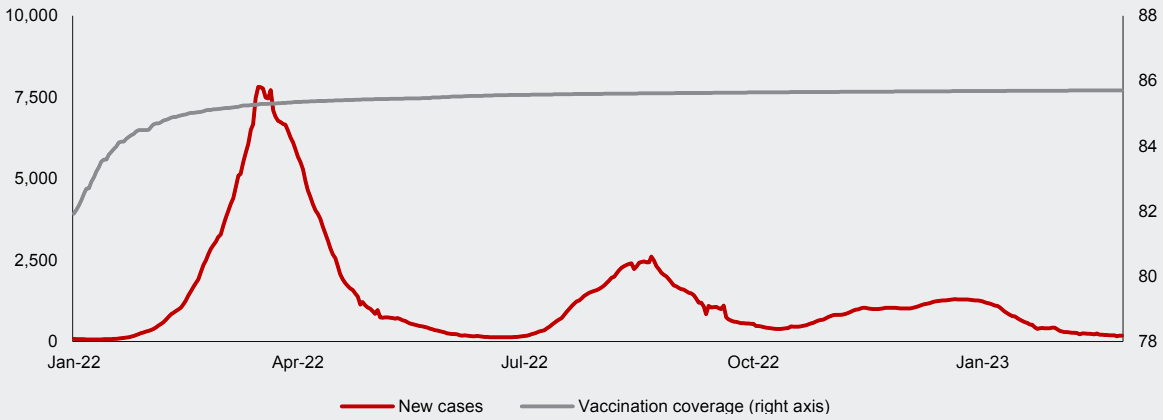
Source: Our World in Data via Haver Analytics; AMRO staff calculations.

Figure 1.1.4. ASEAN+3: COVID-19 Booster Dose Administration
(Cumulative doses per 100 persons)



Source: Our World in Data via Haver Analytics; AMRO staff calculations.
Note: Data for Lao PDR are unavailable.

Figure 1.1.5. Korea: COVID-19 Daily Cases and Vaccination Coverage
(New cases per million persons, seven-day average; cumulative doses per 100 persons)

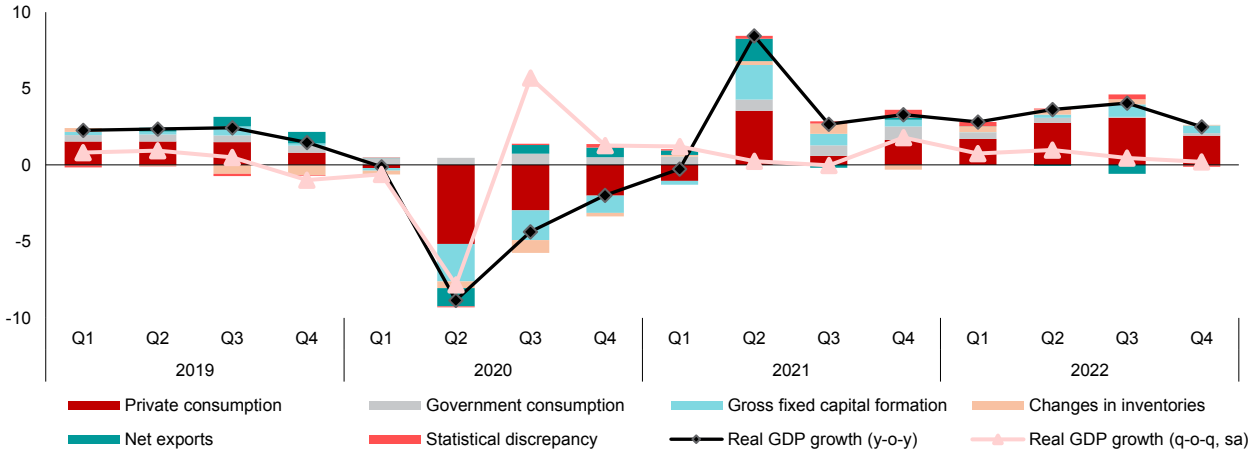


Source: Johns Hopkins University via Haver Analytics; AMRO staff calculations.

Domestic Demand Leads the Way

Domestic demand anchored the region's recovery in 2022. The lifting of COVID-19 containment measures released pent-up demand, which led to a surge in consumer spending and investment. Private sector spending was robust throughout 2022, offsetting the drag from net exports in the second half of the year (Figure 1.5). Growth momentum, measured by quarter-on-quarter growth of seasonally adjusted GDP growth, weakened toward the second half of the year, weighed down by the slowdown in external demand. The pace of recovery was also held back by recurring virus outbreaks, increased costs of living, and higher borrowing costs. Extension of policy measures such as cash vouchers and price subsidies for households and credit support for firms was crucial to maintaining consumer and investor confidence, supporting domestic demand.

Figure 1.5. Selected ASEAN+3: Aggregate Real GDP Growth, by Expenditure Category
(Percentage points, year-on-year)



Source: National authorities via Haver Analytics; AMRO staff estimates and calculation.
Note: Selected ASEAN+3 includes Brunei, Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, and Thailand. Data are unavailable for Cambodia, China, Lao PDR, Myanmar, and Vietnam. q-o-q, sa = quarter-on-quarter, seasonally adjusted; y-o-y = year-on-year. Q4 2022 data for Brunei are estimated by AMRO staff.

Private consumption has been the key driver of growth. ASEAN economies benefited from rapid progress in mass vaccinations which protected the population against severe illnesses, enabling authorities to loosen mobility restrictions and reopen borders (Figure 1.6). Mobility outside the residence—i.e., movements to groceries and pharmacies, retail and recreation facilities, transit stations, and workplaces—surpassed pre-pandemic levels in the region as retailers welcomed the return of consumer spending (Figure 1.7 and Figure 1.8). Hong Kong, Japan, and Korea allowed mobility to return close to pre-pandemic levels in 2022, even as they faced recurrent waves of infections throughout the year. Spending on services, which were heavily restricted during the pandemic, picked up too (Figure 1.9). Policy measures to stimulate the domestic economy—such as consumption vouchers in Hong Kong and domestic tourism subsidies in Japan and Thailand—also supported private consumption.

In China, private consumption is expected to recover with the economy having moved on from its dynamic zero-COVID policy and as its labor market improves. Consumption was subdued in the last three quarters of 2022 due to a slump in consumer confidence amid recurring COVID-19 outbreaks and the property market downturn. In early December, China reclassified COVID-19 as a mild disease and lifted some of its most stringent containment measures, such as mass testing and quarantine for those infected, contact tracing, differentiating high and low infection risk areas, and requiring asymptomatic and mild cases to isolate in medical facilities. A massive surge in infections across the country followed that relaxation and led to a sharp drop in consumer spending as people stayed home to avoid becoming infected. However, with the surge in cases having largely subsided, private consumption will likely rebound strongly in the second quarter in 2023. Robust holiday spending during this year's Spring Festival bodes well for the strength of the recovery.[1] An improvement in labor market conditions—purchasing managers' index (PMI) employment subindices picked up in December 2022 and January 2023—could further reinforce consumer confidence and contribute toward the revival of consumption domestically.

1/ According to figures from China's Ministry of Culture and Tourism, domestic tourism revenue for 21–27 January 2023 reached CNY 375.8 billion, almost three-quarters of the spending during the Spring Festival in 2019 (China Daily 2023).

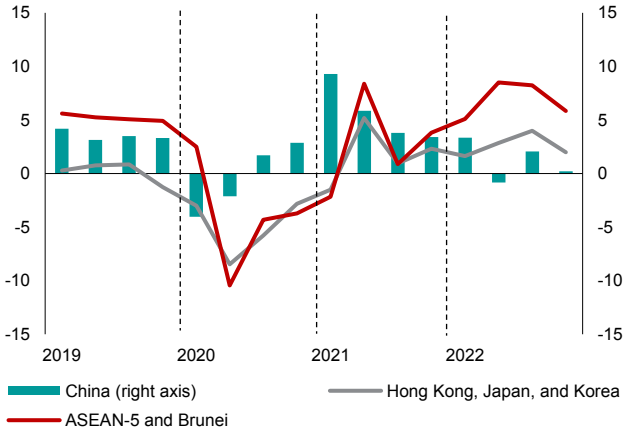
For the rest of the region, private consumption is expected to remain firm although inflation and household debt could weigh on consumer sentiment. The sharp rise in fuel and food prices has raised the cost of living in the rest of ASEAN+3. While price subsidies and import tariff cuts have partially contained rising prices, purchasing power continues to be eroded as wages have not kept up with inflation (Figure 1.10). Monetary policy normalization has also raised borrowing costs and increased the debt burden of households. The confluence of these headwinds could dampen consumer sentiment and reduce discretionary spending (Figure 1.11).

Domestic investment has continued to improve across most of the region, although at a slower pace. The resumption of economic activities and the easing of supply-side constraints have supported gross fixed capital formation, especially for ASEAN economies (Figure 1.12). While interest rates have increased in response to the US Federal Reserve's rate hikes and rising inflation pressures, credit conditions remain generally supportive (Figure 1.13). However, downcycles in the global semiconductor sector and global trade have cooled investment prospects for the region's electronics industry as pandemic-propelled demand for consumer electronics has wound down (Blanchard and Wu 2022) (Figure 1.14).

The exception is China, where real estate fixed asset investments contracted sharply in 2022 after regulatory measures were introduced to curb excessive leverage in the sector. The suspension of projects by distressed property developers has led to a decline in real estate investment (Figure 1.15). Uncertainty over the extent and severity of spillovers from the property sector to the broader economy also weighed on investor sentiment. However, the adjustment in the policy stance late last year should provide some relief to vulnerable developers and restore homebuyers' confidence and stability in the market. While real estate investment will likely take time to recover, the government is determined to increase spending on infrastructure and manufacturing assets in the next few years, especially in growth areas such as digital-economy infrastructure, renewable energy, and electric vehicles (Chapter 2). In addition, the reopening of China's borders could see more direct investment from overseas returning to the economy.

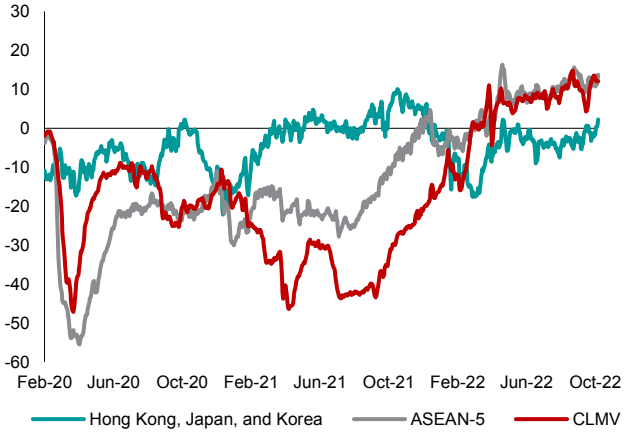
Looking ahead, a weaker global economy with higher borrowing costs could hinder investment recovery. Business confidence in the region deteriorated toward the second half of 2022 in tandem with increased concerns over recession in advanced economies (Figure 1.16). While investor sentiments in China improved significantly at the start of 2023, additional interest rate hikes in the region could exacerbate firms' already rising debt burdens and reduce credit demand. Slower credit growth and worsening debt servicing capacity for businesses could consequently limit the recovery in capital expenditure in the region.

Figure 1.6. Selected ASEAN+3: Real Private Consumption Growth and Contribution to GDP Growth
(Percent, year-on-year; percentage points, year-on-year)



Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Data for China refer to consumption's contribution to year-on-year GDP growth. Data are unavailable for Cambodia, Lao PDR, Myanmar, and Vietnam. ASEAN-5 = Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

Figure 1.7. Selected ASEAN+3: Mobility Outside the Residence
(Percentage change from baseline, five-day moving average)



Source: Google COVID-19 Community Mobility reports via Haver Analytics; AMRO staff calculations.
Note: Baseline refers to the median value of the corresponding day in the period 3 January to 6 February 2020. Mobility outside the residence refers to aggregated mobility data for places such as groceries and pharmacies, retail and recreation facilities, transit stations, and workplaces. Google discontinued the data after 15 October 2022. ASEAN-5 = Indonesia, Malaysia, the Philippines, Singapore and Thailand; CLMV = Cambodia, Lao PDR, Myanmar, and Vietnam.

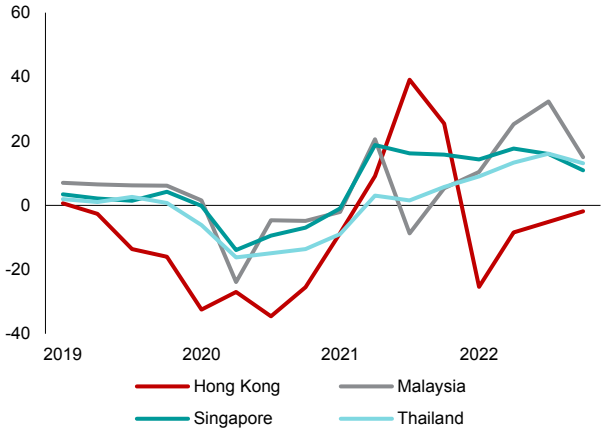
Figure 1.8. Selected ASEAN+3: Retail Sales Growth
(Percent, year-on-year, three-month moving average)

Economy	2020 Jan to Dec	2021 Jan to Dec	2022 Jan to Dec	2023 Jan to Feb	Latest monthly change from previous year
China					–2.7
Hong Kong					0.4
Indonesia					1.2
Japan					4.1
Korea					3.9
Malaysia					23.8
Philippines					21.4
Singapore					8.0
Thailand					1.2
Vietnam					16.7

<=–30 –20 –10 0 10 20 >=30

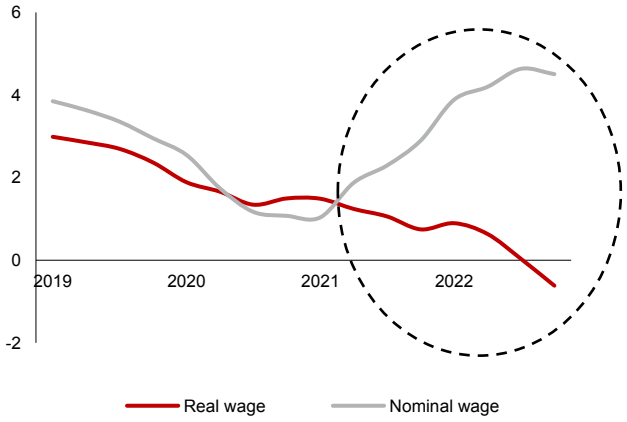
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Calculated based on local currency values for all economies except Indonesia and Thailand (volume). Colors indicate the size and direction of change: the deeper the shade of red, the larger the negative change, with the darkest shade indicating a decrease of more than 30 percent year-on-year; the deeper the shade of green, the larger the positive change, with the darkest shade indicating an increase of more than 30 percent year-on-year.

Figure 1.9. Selected ASEAN+3: Services Sales Growth
(Percent, year-on-year)



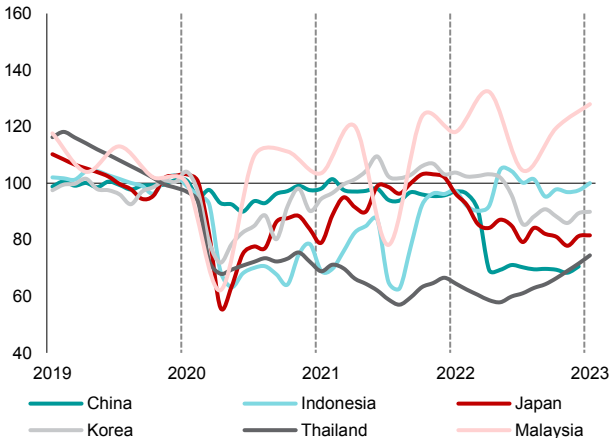
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Calculations are based on the volume of restaurant receipts (Hong Kong); services sector revenues (Malaysia); business receipts index for services (Singapore); and services production index (Thailand).

Figure 1.10. Selected ASEAN+3: Real and Nominal Wages
(Percent, year-on-year, four-quarter moving average)



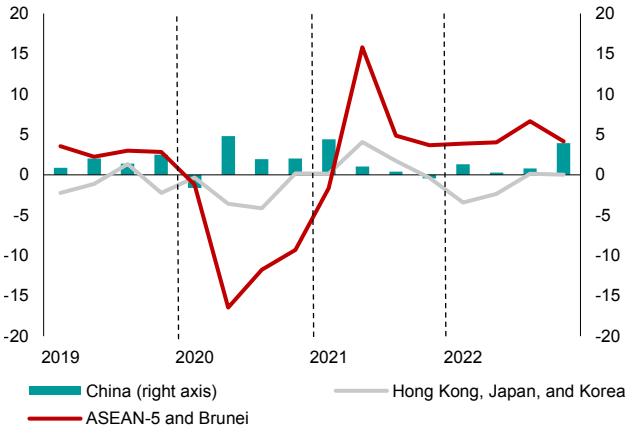
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Data refer to the average of wage growth in local currency terms for Korea, Malaysia, Singapore, and Thailand. Wages for Malaysia refer to those in the manufacturing sector only.

Figure 1.11. Selected ASEAN+3: Consumer Confidence
(Index, October–December 2019 = 100)



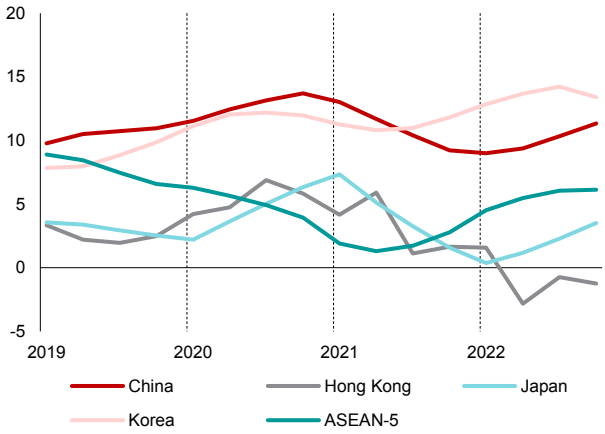
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Data are monthly for all economies except Malaysia (quarterly). Data for Malaysia are indexed to Q4 2019 = 100.

Figure 1.12. Selected ASEAN+3: Real Gross Fixed Capital Formation and Contribution to GDP Growth
(Percent, year-on-year; percentage points, year-on-year)



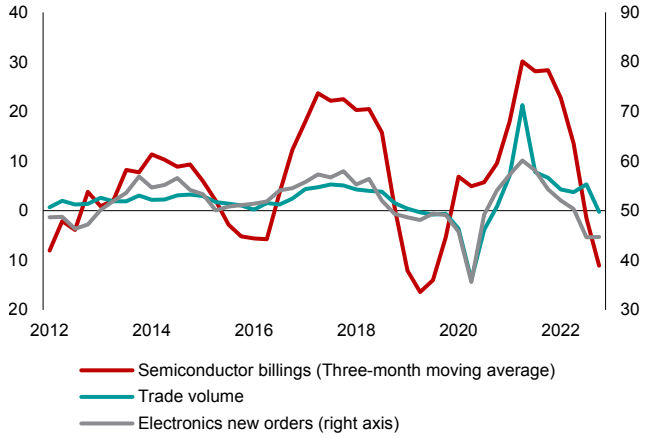
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Data for China refer to the contribution of gross fixed capital formation to year-on-year GDP growth. Data are unavailable for Cambodia, Lao PDR, Myanmar, and Vietnam. ASEAN-5 = Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

Figure 1.13. Selected ASEAN+3: Growth of Credit to Private Nonfinancial Corporations
(Percent, year-on-year, four-quarter moving average)



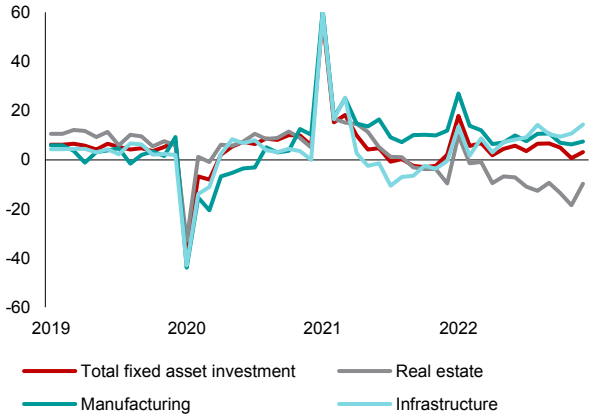
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Credit growth is calculated based on local currency terms. ASEAN-5 growth is calculated by taking the simple average of growth in individual economies. Data refer to claims on nonfinancial institutions by depository corporations other than the central bank (China); loans and advances by authorized institutions to nonfinancial sectors except household sector (Hong Kong); loans to corporations by domestic banks (Japan); claims on nonfinancial corporations by depository corporations other than the central bank (Korea); loans to private nonfinancial corporations by commercial and rural banks (Indonesia); loans by the banking system less household sector (Malaysia); all bank loans to nonfinancial production less household sector (the Philippines); credit to nonfinancial corporations (Singapore); and claims on private nonfinancial corporations by depository corporations other than the central bank (Thailand). ASEAN-5 = Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

Figure 1.14. World: Semiconductor Billings, Trade Volume, and Electronics New Orders
(Percent, year-on-year; index)



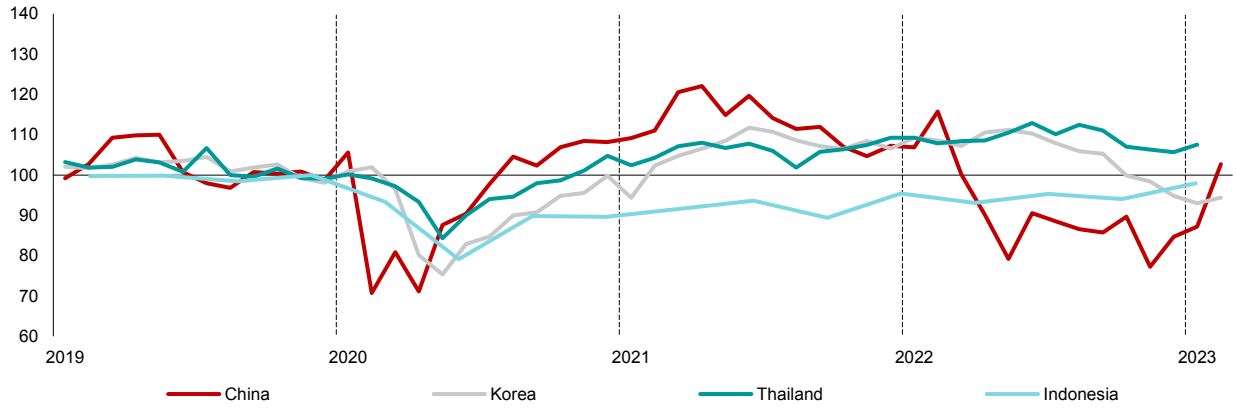
Source: World Semiconductor Trade Statistics, Inc.; Netherlands Bureau for Economic Policy Analysis ; S&P Global via Haver Analytics; AMRO staff calculations.
Note: Data are up to Q4 2022. Data on electronics new orders are seasonally adjusted and derived from the S&P Global Electronics Purchasing Managers' Index which indicate expansion if above 50 and contraction if below 50.

Figure 1.15. China: Fixed Asset Investment, by Sector
(Percent, year-on-year)



Source: China National Bureau of Statistics via Haver Analytics.

Figure 1.16. Selected ASEAN+3: Business Investment Prospects
(Index, October–December 2019 = 100, seasonally adjusted)



Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Data refer to the investment subindicator of the CKGSB Business Conditions Index (China); investment prospects in the Federation of Korean Industries' Business Survey Index (Korea); Bank of Thailand's Private Investment Index (Thailand); and investment realization in Bank Indonesia's Business Survey (Indonesia). Data are monthly for all economies except Indonesia (quarterly). Data for Indonesia are indexed to Q4 2019 = 100.

Exports Face Headwinds

ASEAN+3 exports grew moderately in 2022, amid softening global demand. Exports of the Plus-3 and ASEAN-6 started to contract in October as economic activity slowed in major trading partners—e.g., the United States and the euro area (Figure 1.17). For 2022 as a whole, exports of these economies grew by 6 percent in value, significantly less than in 2021 when the growth rate was 26 percent (Figure 1.18).

Exports were also beset by production challenges during the year. In early 2022, businesses in the region—particularly China and Hong Kong—were hampered by strict containment measures aimed at limiting the spread of COVID-19 infections (Omicron). Factories struggled through the year with recurring waves of infections and associated labor shortages, although they were able to manage capacity and production better than in 2021. Supply disruptions caused by the Ukraine crisis and lockdowns in China drove up raw material costs and impeded production in economies such as Japan and Korea. However, cost pressures likely peaked in the second half of 2022 and are expected to continue to ease in 2023 (Figure 1.19).

The region's export growth is projected to weaken in 2023 as global demand slows further. GDP growth in the euro area is expected to be subdued due to ongoing geopolitical tensions and monetary policy tightening (European Commission 2022). The US economy is also expected to grow at a slower pace in 2023, as continued monetary policy tightening keeps a lid on economic activity. All this will translate into softer external demand

for ASEAN+3 exports. In addition, export controls that the United States imposed on semiconductor firms in China in October 2022 could significantly weaken global trade in semiconductors because China is the largest importer in the sector (Box 1.2).

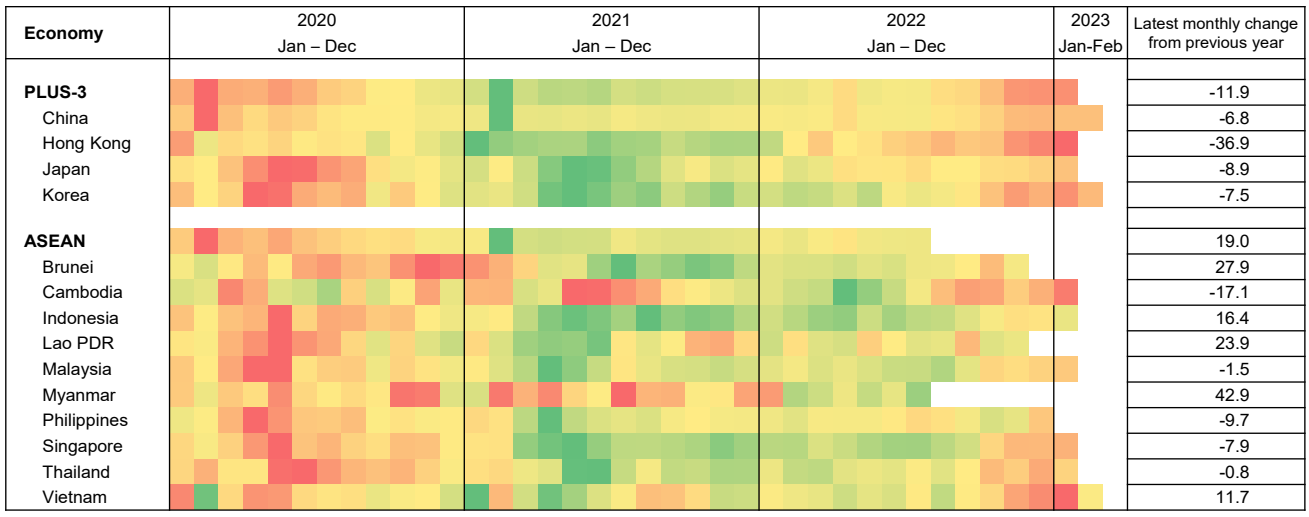
Leading indicators are already showing deteriorating business conditions in the region's manufacturing sector. The dimmer global outlook, which coincided with the semiconductor downcycle, has been reflected in weaker order books for firms in the region since the second half of 2022. Some firms have reportedly started curtailing production to reduce unsold inventories that were stockpiled during the global supply chain disruption in the middle of 2022 (Markit 2022). High-frequency manufacturing PMI data show a softening of activity in most economies in the three months ending February 2023, compared to the preceding three months (Figure 1.20 and Figure 1.21). PMI readings for China, Hong Kong, Korea, and Thailand improved slightly at the start of 2023 following the resumption of economic activities in China.

Services trade remained strong in 2022, thanks to borders reopening throughout the region, and is expected to strengthen further in 2023. Services exports grew by an average of 14 percent (year-on-year) in the first three quarters of 2022, higher than before the pandemic (Figure 1.22). Transport services growth was helped by the easing of shipping disruptions caused by COVID-19 containment measures. Meanwhile, travel services posted the strongest expansion, especially in Indonesia, Malaysia, Singapore, and Thailand as a result of border reopening (Box 1.3). Services trade is expected to strengthen in 2023 with China having reopened its borders in January after nearly three years of lockdown. The region's travel sector is poised to rebound strongly, with many economies benefitting from increased outbound tourism from China. This should help to offset the expected slower growth in transport services due to slower global trade.

Foreign direct investment (FDI) flows into the ASEAN+3 region remained robust in the first three quarters of 2022. Realized inward FDI flows amounted to USD 510 billion, slightly less than in the first three quarters of 2021 but more than in the same period in earlier years (Figure 1.23). China was the largest recipient, accounting for almost half of FDI inflows in the region. FDI inflows into China's manufacturing sector grew while FDI inflows into its services sector fell relative to the previous year due to the recurring outbreaks of and strict measures against COVID-19. FDI inflows in the other Plus-3 economies and ASEAN-5 remained strong, especially in Hong Kong and Malaysia (Figure 1.24).

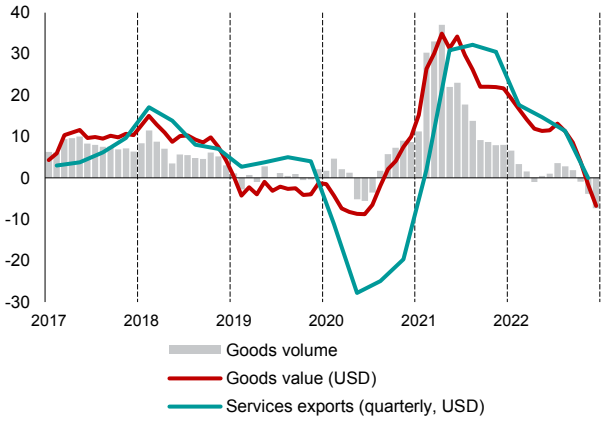
Data on announced projects present a mixed picture of the FDI outlook in the region. The number of announced FDI projects continued to hold up in 2022, although the capital expenditure of announced projects paled in comparison with pre-pandemic amounts, suggesting greater caution from foreign investors (Figure 1.25). After declining in early 2022, announced FDI projects in China picked up during the year, driven largely by retail-related investments in anticipation of a consumer spending rebound on the reopening of the economy (Xinhua 2023). In contrast, announced FDI projects destined for ASEAN have moderated since last July as rising interest rates and weakening global demand dampened investor interest in the region's manufacturing (Figure 1.26). In terms of sectors, retail continued to draw the most interest from overseas investors—accounting for the highest number of project announcements in China, Indonesia, Japan, and Malaysia in 2022—while investor interest for other sectors has yet to recover to pre-pandemic levels (Figure 1.27).

Figure 1.17. ASEAN+3: Goods Export Growth
(Percent, year-on-year, three-month moving average)



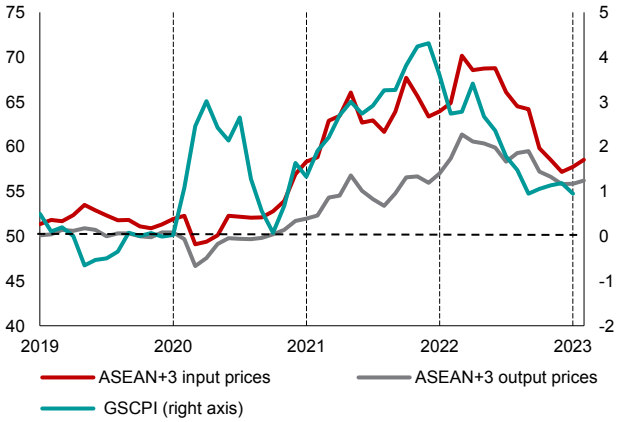
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Calculated based on merchandise exports in US dollars for all economies. Colors indicate the size and direction of change: the deeper the shade of red, the larger the negative change, with the darkest shade indicating a decrease of more than 30 percent year-on-year; the deeper the shade of green, the larger the positive change, with the darkest shade indicating an increase of more than 30 percent year-on-year.

Figure 1.18. Selected ASEAN+3: Goods and Services Export Growth
(Percent, year-on-year, three-month moving average)



Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Goods exports data are not available for Brunei, Cambodia, Lao PDR, and Myanmar. Services exports data are not available for Brunei and Myanmar.

Figure 1.19. World and Selected ASEAN+3: Global Supply Chain Pressure and Manufacturing Price Indices
(Index, seasonally adjusted; number of standard deviations)



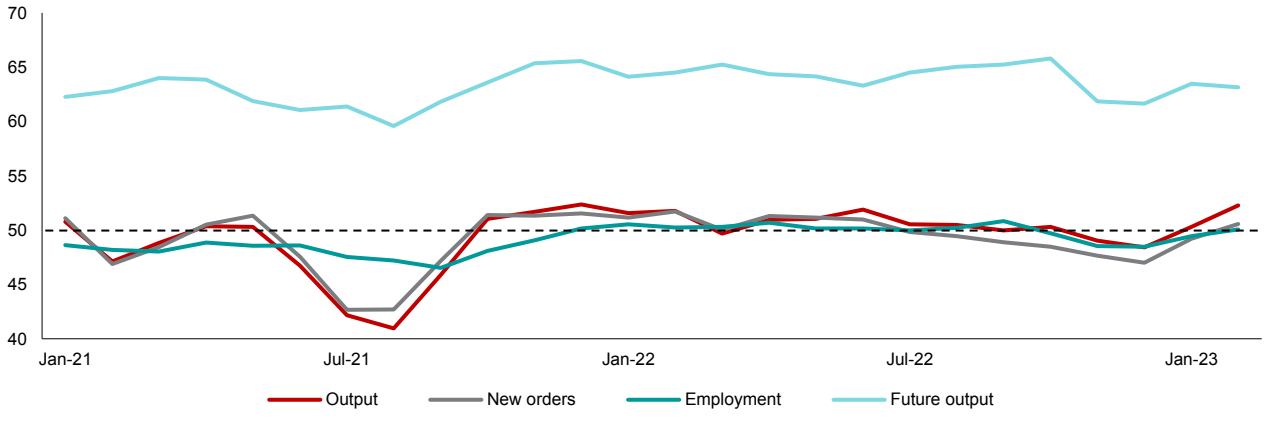
Source: S&P Global via Haver Analytics; Federal Reserve of New York; AMRO staff calculations.
Note: ASEAN+3 manufacturing prices are sourced from individual purchasing managers' index (PMI) surveys for China, Indonesia, Japan, Korea, Malaysia, Myanmar, the Philippines, Thailand, and Vietnam, and aggregated by simple averaging. A reading above 50 denotes an increase in price over the previous month, and a reading below 50 denotes otherwise. Global supply chain pressure index (GSCPI) data refer to standard deviations from the average value, where a higher deviation denotes higher supply chain pressure.

Figure 1.20. Selected ASEAN+3: Manufacturing Purchasing Managers' Index
(Seasonally adjusted)

Economy	2020 Jan to Dec	2021 Jan to Dec	2022 Jan to Dec	2023 Jan to Feb	Change in latest 3 months from preceding 3 months
PLUS-3					**0.2**
China					**1.1**
Hong Kong					**2.9**
Japan					**-1.6**
Korea					**0.3**
ASEAN					**-1.0**
Indonesia					**-0.8**
Malaysia					**-1.0**
Philippines					**0.4**
Singapore					**-7.2**
Thailand					**1.1**
Myanmar					**3.1**
Vietnam					**-1.9**

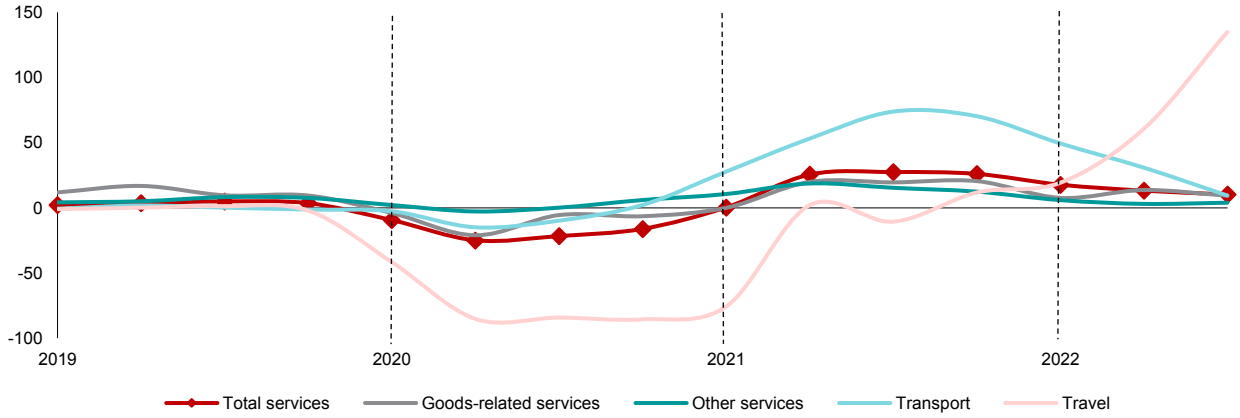
Source: S&P Global via Haver Analytics; AMRO staff calculations.
Note: The Purchasing Managers' Index (PMI) readings are coded by colors: the redder the shade, the lower the value from the diffusion level of 50; the greener the shade, the higher the value from 50. A PMI reading of above 50 denotes an increase in activity over the previous month, and a reading below 50 denotes otherwise. The PMIs of Hong Kong and Singapore denote private sector PMIs. Data in the last column are calculated by subtracting the average PMI of the latest three months from the average PMI of the preceding three months.

Figure 1.21. Selected ASEAN+3: Manufacturing Purchasing Managers' Indices, by Component
(Index, seasonally adjusted)



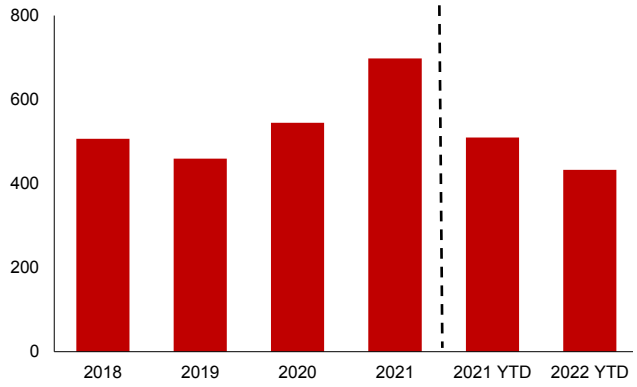
Source: S&P Global via Haver Analytics; AMRO staff calculations.
Note: A Purchasing Managers' Index (PMI) reading of above 50 denotes an increase in activity over the previous month, and a reading below 50 denotes a decrease. Data are calculated by taking a simple average of manufacturing PMI subindices for China, Indonesia, Japan, Korea, Malaysia, Myanmar, the Philippines, Thailand, and Vietnam.

Figure 1.22. ASEAN+3: Growth in Exports of Services, by Category
(Percent, year-on-year)



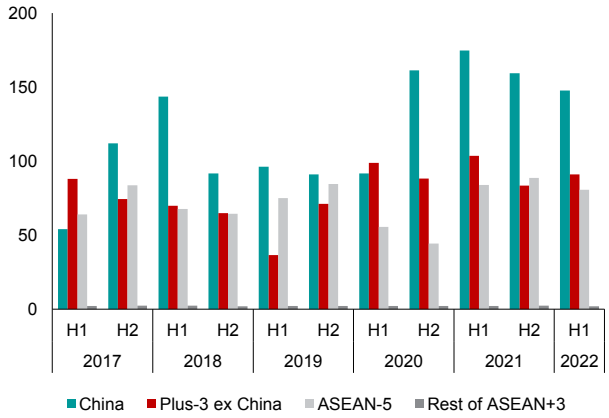
Source: UNCTADstat; AMRO staff calculations.
Note: Transport services comprise sea transport, air transport, other modes of transport, and postal and courier services. Exports of travel services cover goods and services (excluding transport services) that are acquired from an economy by nonresidents during visits to that economy. Data for Brunei, Cambodia, Myanmar, and Vietnam are not available.

Figure 1.23. Selected ASEAN+3: Foreign Direct Investment
(Millions of US dollars)



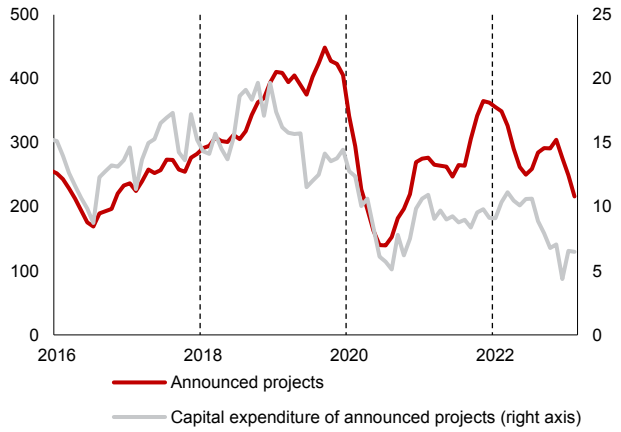
Source: Balance of Payments and International Investment Position Statistics database, IMF; AMRO staff calculations.
Note: Data refer to the direct investment liabilities item in the balance of payments. Data are up to Q3 2022, except for Lao PDR and Malaysia (up to Q2 2022). Brunei, Myanmar, and Vietnam are excluded due to unavailability of data. YTD = year-to-date.

Figure 1.24. Selected ASEAN+3: Foreign Direct Investment, by Regional Grouping
(Millions of US dollars)



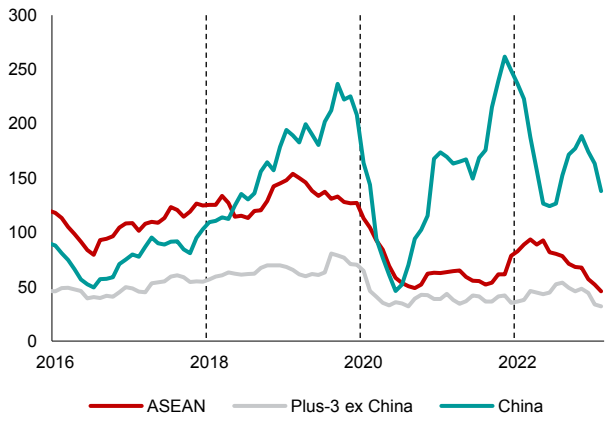
Source: International Financial Statistics database, IMF; AMRO staff calculations.
Note: Data refer to the direct investment liabilities item in the balance of payments. ASEAN-5 = Indonesia, Malaysia, the Philippines, Singapore, and Thailand; H = half; Plus-3 ex China = Hong Kong, Japan, and Korea.

Figure 1.25. ASEAN+3: Aggregate Inward FDI Announcements
(Number of projects; billions of US dollars)



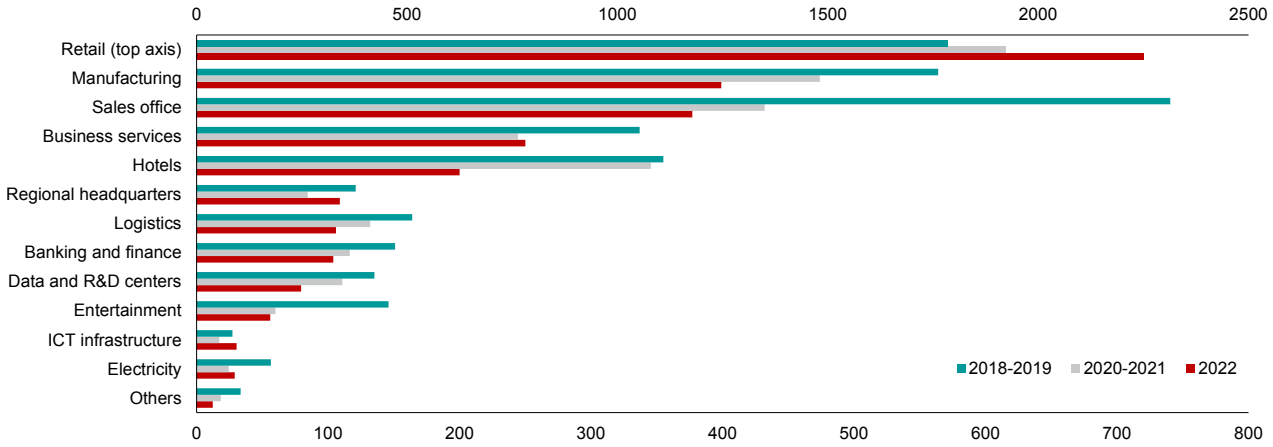
Source Orbis Crossborder; AMRO staff calculations.
Note: Data refer to the six-month moving average of the number and capital expenditure of announced projects for each month. There are four types of FDI project announcements: new projects, expansion projects, relocated projects and co-located projects (i.e., those that are moved to a location where the investor already has an existing business). An FDI project announced in a given year can start in that same year or in future years; in some instances, an announced project could be subsequently canceled.

Figure 1.26. ASEAN+3: Aggregate Inward FDI Announcements, by Regional Grouping
(Number of projects)



Source Orbis Crossborder; AMRO staff calculations.
Note: Data refer to the six-month moving average of the number and capital expenditure of announced projects for each month. There are four types of FDI project announcements: new projects, expansion projects, relocated projects and co-located projects (i.e., those that are moved to a location where the investor already has an existing business). An FDI project announced in a given year can start in that year or in future years; in some instances, an announced project could be subsequently canceled. Plus-3 ex China = Hong Kong, Japan, and Korea.

Figure 1.27. ASEAN+3: Aggregate Inward FDI Announcements, by Sector
(Average number of projects)



Source Orbis Crossborder; AMRO staff calculations.
Note: There are four types of FDI project announcements: new projects, expansion projects, relocated projects and co-located projects (i.e., those that are moved to a location where the investor already has an existing business). An FDI project announced in a given year can start in that same year or in future years; in some instances, an announced project could be subsequently canceled. ICT = information and communication technology; R&D = research and development. Others include agriculture, commercial real estate, construction, education and training, health, mining, recycling, resident real estate, technical support, testing center(s) and utilities.

Box 1.2:

Chipping Away at China's Advance: How Will US Trade Restrictions Affect ASEAN+3's Semiconductor Sector?

The United States in the past two and a half years has implemented various policy measures aimed at slowing China's ability to produce advanced semiconductors. In September 2020, the Trump administration notified some US firms that they would need a license to export to Semiconductor Manufacturing International Corporation (SMIC), China's largest chip manufacturer (Whalen 2020). Three months later, the US Commerce Department placed SMIC and 10 of its subsidiaries, together with dozens of other Chinese firms, on the so-called entity list, which blocks US firms from exporting technology to them without a government license (Whalen and Nakashima 2020). In August 2022, US President Biden signed into law the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act of 2022 which, among other things, aims to "counter China" by providing USD 52.7 billion in federal subsidies to bolster domestic chip manufacturing and prohibiting funding recipients from expanding chip manufacturing in China (The White House 2022).

The United States stepped up export controls on Chinese semiconductor firms late last year. In October 2022, the Biden administration prohibited US firms from exporting to China the technology, software, and equipment used in producing advanced (14-nanometer process) computing chips and supercomputers, and barred US citizens and green-card holders from activities that wholly or partly support the development or production of certain advanced chips without a license from the US government. The measures, some taking immediate effect, built on notifications sent earlier in the year to top US toolmakers, effectively requiring them to halt shipments of equipment to wholly Chinese-owned factories producing advanced (10-nanometer process) logic chips (Nellis, Freifeld, and Alper 2022). In December 2022, the US Department of Commerce added 35 Chinese firms, including chipmaker Yangtze Memory Technologies and other major Chinese players in the artificial intelligence chip sector, to the entity list, bringing the number of Chinese firms restricted from acquiring advanced US technology to more than 65 (Reuters 2022).

The export controls—if effective—are likely to slow down China's rapid advances in high-end technologies in the short term. China is a net importer of semiconductors and semiconductor manufacturing equipment. The United States is a key trading partner for semiconductor manufacturing equipment (Figure 1.2.1). Of the top five semiconductor capital equipment ("semicap") vendors, which take nearly 70 percent of the global market, three—Applied Materials, KLA, and Lam Research—are from the United States. At least 80 percent of SMIC's equipment comes from US vendors (Kharpal 2021). Some key Chinese semiconductor firms have begun asking core US employees to leave in order to comply with this latest round of restrictions (McMorrow, Liu, and Liu 2022). Moreover, many of the new US export controls also aim at preventing *third-country* firms from selling advanced chips to China or supplying Chinese firms with tools to make their own advanced chips. Those that use US equipment or employ US persons to produce specific high-end chips will need a license from the US government to sell to China. For example, Taiwan Province of China's TSMC and Korea's Samsung Electronics—the world's biggest foundries—rely heavily on equipment from US manufacturers, and would be barred from exporting certain chips to China (Kharpal 2021). If other economies join the United States in its export controls, China will lose access to high-end semiconductor manufacturing machines; without new or replacement supplies, its existing production cannot expand. Japan and the Netherlands, which have two of the world's top five semicap manufacturers—Tokyo Electron and ASML—have reportedly agreed to join the US in tightening controls on the export of advanced chipmaking machinery to China (Koc and Leonard 2023).

The export controls will have repercussions on global semiconductor trade. China is the single-largest importer of semiconductors, accounting for over a third of global imports in 2021, making it a key driver of global semiconductor trade patterns (Figure 1.2.2). China's semiconductor imports have declined since January 2022, reflecting weak domestic demand and the ongoing downturn in the global semiconductor market (Figure 1.2.3). This decline could continue, especially as Applied Materials, KLA, and Lam Research have already suspended sales and services to Chinese chipmakers.

This box was written by Marthe M. Hinojales and Hongyan Zhao.

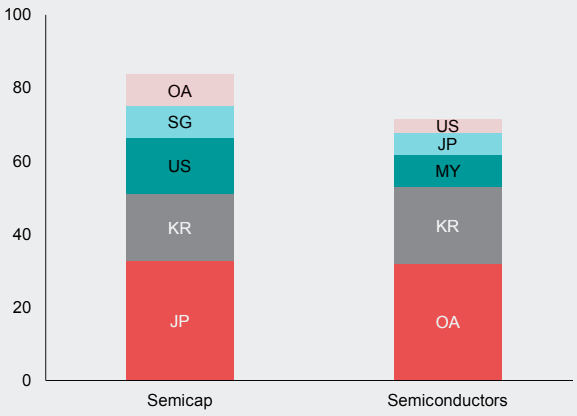
The export controls are anticipated to have negative repercussions on the revenue of US suppliers at a time when their profits are falling and input prices are high—China comprises about 31 percent of Lam Research's sales and 33 percent of Applied Materials' sales (Hufbauer and Hogan 2022). The United States' intention to widen its regulatory influence over the global semiconductor industry and its willingness to apply provisions with extraterritorial impact is also causing concern among its allies. In the European Union, for example, governments are still analyzing how their own semiconductor firms could be affected by US sanctions on China—some may need to fence off operations serving China from those that serve the United States, adding to costs and complexity in global semiconductor supply chains.

For the rest of ASEAN+3, the impact will vary but is hard to pin down. Semiconductor supply chains are highly complex and globalized. Many semiconductor firms operating in the region have manufacturing processes and products that rely on US technology, and thus may be subject to export controls imposed by the US government (Figure 1.2.4). Although the United States has framed the export controls as an attempt to curb Chinese military use of high-end chips, the dual-use nature and ubiquity of chips in daily life means the implications of its actions could run wider. A full-on, widespread decoupling between the United States and China could increase semiconductor prices by as much as 65 percent (Varas and others 2021), which would significantly affect demand, capital investment, as well as future economic growth in the ASEAN+3 region.

- Japan and Korea, which excel in certain high-end segments of the semiconductor industry—only Korea and Taiwan Province of China have the capacity to make the most cutting-edge 5-nanometer chips—are under pressure to join the US-proposed Chip 4 Alliance, a "democratic semiconductor supply chain" (EIU 2022). While Japan has signaled an alliance with the United States, Korea's chipmakers and assemblers would be hit hard as China remains a significant client and production base for them.

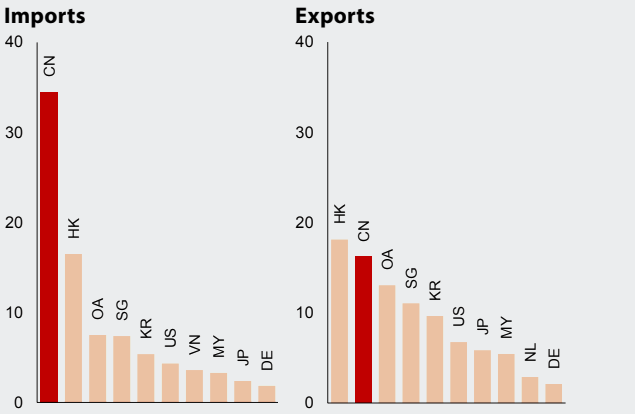
- Other economies in the region, which produce and export lower-end chips that are not the primary target of the US export controls, are unlikely to be severely impacted in the short term. These older-generation chips are used in a wide range of applications, including transport, communications, and medical equipment, among others, and demand for them remains large. Opportunities could even open up for established and emerging players in the region (e.g., Malaysia and Vietnam) to fill the void in supply caused by US efforts to isolate China from the market. In the long term, the US trade restrictions are likely to accelerate China's drive to achieve self-sufficiency in the advanced chip segment. This would have positive implications for the development of emerging growth drivers in the ASEAN region, like electric vehicles, green technologies, and renewable energy systems (Chapter 2).

Figure 1.2.1. China: Top Partners for Semiconductor Imports, 2017–21
(Percent of total semiconductor imports)



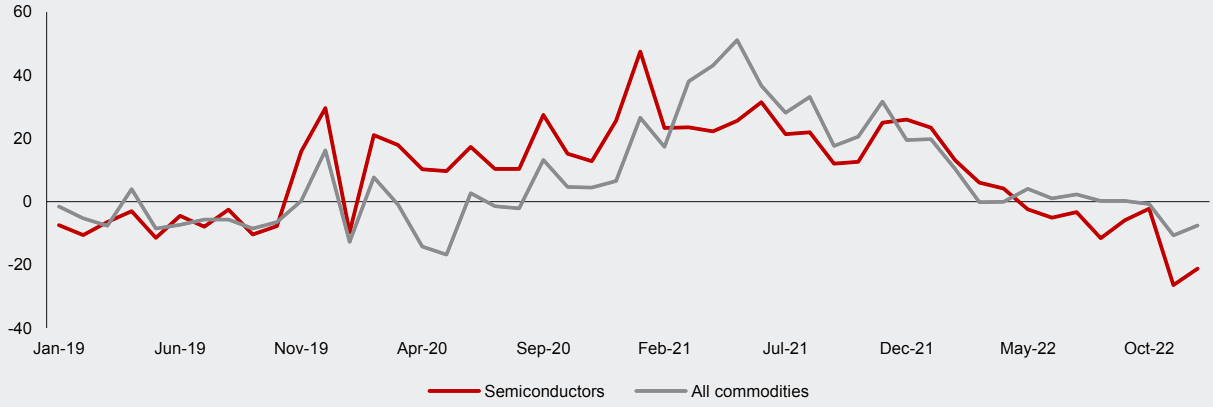
Source: UNComtrade; AMRO staff calculations.
Note: Shares are calculated using trade data in US dollars. Semiconductors refer to HS codes 8541-42. Semicap (semiconductor capital equipment) refers to HS code 8486. JP = Japan; KR = Korea; MY = Malaysia; OA = Other Asia (includes Taiwan Province of China); SG = Singapore; US = United States.

Figure 1.2.2. World: Top 10 Semiconductor Importers and Exporters, 2017–21
(Percent of global trade)



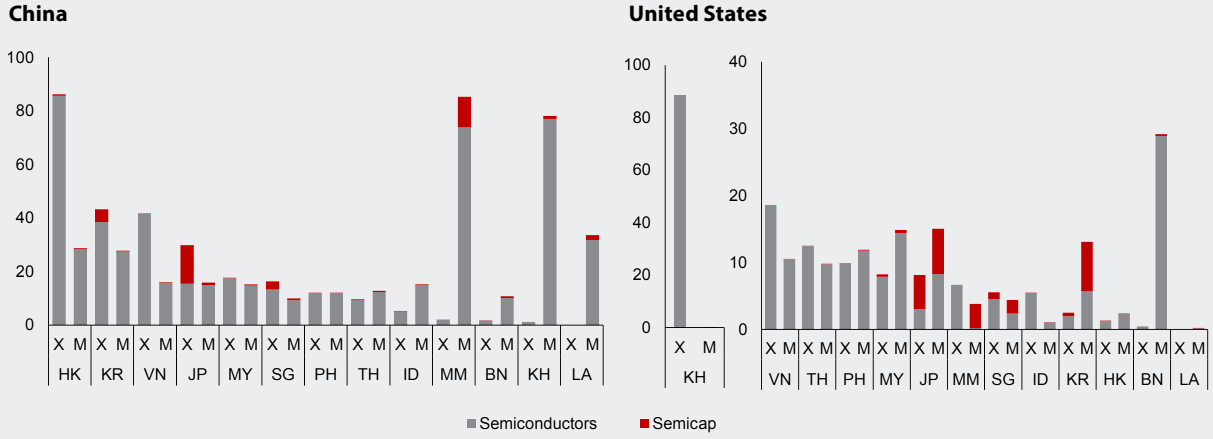
Source: UNComtrade; AMRO staff calculations.
Note: Data refer to HS codes 8541–2 (which includes diodes, transistors, similar semiconductor devices, photovoltaic cells assembled or not in modules or panels, light-emitting diodes, mounted piezo-electric crystals, and electronic integrated circuits) and 8486 (semiconductor capital equipment). Shares are calculated using trade data in US dollars. CN = China; DE = Germany; HK = Hong Kong; JP = Japan; KR = Korea; MY = Malaysia; OA = Other Asia (includes Taiwan Province of China); SG = Singapore; US = United States; VN = Vietnam.

Figure 1.2.3. China: Import Growth
(Percent, year-on-year)



Source: IHS Markit; CEIC; AMRO staff calculations.
Note: Growth rates are calculated using trade data in US dollars.

Figure 1.2.4. ASEAN, Hong Kong, Japan, and Korea: Semiconductor Trade with China and the United States, 2017–21
(Percent of each economy's total semiconductor and semicap exports, imports)



Source: UNComtrade; AMRO staff calculations.
Note: Data refer to HS codes 8541–2 (which includes diodes, transistors, similar semiconductor devices, photovoltaic cells assembled or not in modules or panels, light-emitting diodes, mounted piezo-electric crystals, and electronic integrated circuits) and 8486 (semiconductor capital equipment). Shares are calculated using trade data in US dollars. BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; M = imports; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam; X = exports.

Box 1.3:

The Return of Travel and Tourism

International travel has begun to recover in the region after more than two years of border closures. Borders in the region were progressively reopened throughout 2022 as vaccination rates increased and COVID infection rates declined. By the end of 2022, almost half of the region's 14 economies had fully removed all entry restrictions, including pre-departure and on-arrival COVID-19 testing and post-arrival quarantine and monitoring (Figure 1.3.1). International flights have resumed, with airports in Indonesia, Korea, the Philippines, Singapore, and Thailand seeing a resurgence to more than half of their pre-pandemic traffic (Figure 1.3.2).

The recovery in travel and tourism has been more pronounced in ASEAN than in the Plus-3. ASEAN economies saw more international tourist arrivals in 2022 than the Plus-3 economies, although arrivals were well below pre-pandemic numbers as the hoped-for resumption of outbound tourism from China did not materialize (Figure 1.3.3, left panel). ASEAN's travel receipts in the first three quarters of 2022 were higher than annual receipts in 2020 and 2021, and higher than the Plus-3's in the same period (Figure 1.3.4).

Monthly tourist arrivals have recovered to more than half their pre-pandemic levels in Cambodia, Indonesia, Malaysia, Singapore, the Philippines, Thailand and Vietnam (Figure 1.3.3, center panel).

- Cambodia—the most tourism-reliant economy in the region—saw tourist arrivals increase when it removed quarantine requirements in November 2021. Tourist arrivals to Cambodia in 2022 surpassed the government's target, as tourists from other ASEAN economies partially made up for the absence of Chinese visitors (Figure 1.3.5 and Figure 1.3.6).

- Indonesia's tourist arrivals and tourism receipts in the first 10 months of 2022 surpassed the government's targets for the full year, thanks to visitors from Malaysia, Australia, Singapore, Timor-Leste, and India (Antara News 2022).

- The sharp rebound in tourist arrivals in Malaysia and Singapore began in April 2022 when the land border crossing was reopened. Singapore accounted for 56 percent of tourists to Malaysia from April through October 2022. Singapore's visitor numbers were boosted by the resumption of so-called MICE events: meetings, incentives, conventions, and exhibitions (STB 2022).

- Thailand achieved its target of receiving at least 10 million foreign visitors in 2022, mainly due to tourists from other ASEAN economies, particularly Malaysia (Tanakasempipat 2022). Russian tourists—the second largest group of visitors to Thailand before the pandemic—also made a return after a six-month absence caused by the suspension of flights and financial transactions following the outbreak of the Ukraine crisis (Sangwongwanich 2022).

- The Philippines surpassed its (relatively modest) target of 2.4 million visitors before the end of 2022, although in the pace of tourism recovery lagged its ASEAN-5 peers because it removed travel restrictions later (Strangio 2022). As in the rest of ASEAN, the absence of Chinese tourists was deeply felt—the bulk of tourists in 2022 were from the United States, Korea, and Australia (Koumelis 2022).

- Vietnam was the first in the region to remove all travel restrictions in May 2022. Tourist arrivals were boosted by visitors from the rest of ASEAN, Korea, and the Americas.

In the Plus-3 economies, entry for foreign visitors remained restricted through most, if not all, of 2022. Only Korea had fully removed all entry restrictions by October. Japan took a phased approach and reopened its borders to small tour groups of vaccinated travelers from selected countries beginning in May; vaccinated travelers from all regions were allowed entry without mandatory quarantine in October, which facilitated a strong inflow of visitors. The number of tourist arrivals

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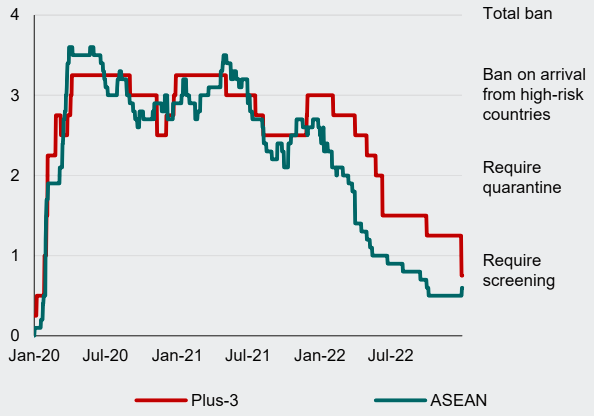
This box was written by Edmond Chiang Yong Choo and Catharine Tjing Yiing Kho.

surpassed 50 percent of the pre-pandemic level by December 2022 (Figure 1.3.3, right panel). China and Hong Kong began to relax domestic COVID-19 containment measures in December, but foreign visitors continue to face the need for pre-departure testing. Quarantine requirements were removed on 8 January 2023.

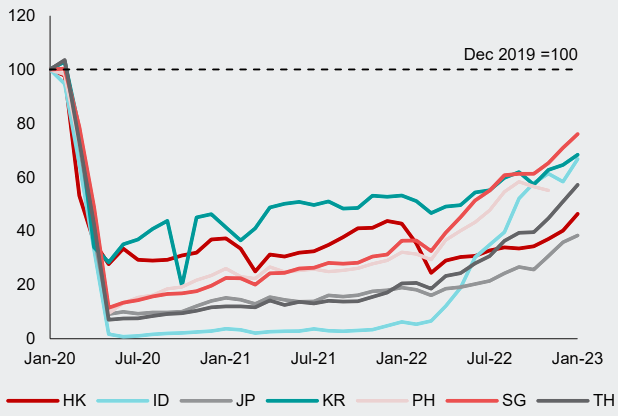
Tourism is expected to recover further in 2023 and return to pre-pandemic levels by 2024. "Revenge travel"—the urge to travel to compensate for lost time due to the pandemic—will be one of the key drivers of tourism demand in the near-term (Tan, M. 2022). The adoption of technology, such as digital travel portals to verify health entry requirements and digital payments across the region will also facilitate travel in the post-pandemic world. In addition, the region's advantages in hosting MICE events and promoting ecotourism could further improve its attractiveness as the world reopens further. The recovery in tourism receipts will be crucial in supporting current account balances and buttressing economic growth in the region as global demand for goods weakens. China holds the key as the largest source of tourists for most of the region's economies—a full regional tourism recovery will be highly dependent on the rate of resumption of outbound travel from China.

Figure 1.3.1. ASEAN+3: International Travel Restrictions
(Index)



Source: Oxford COVID-19 Government Response Tracker, Our World in Data via Haver Analytics; AMRO staff calculations.
Note: The Oxford COVID-19 Government Response Tracker has stopped publishing real-time updates for most jurisdictions on 31 December 2022. Of the ASEAN+3 economies covered, only data for China ends on 8 January 2023. Index ranges from 0 (no restrictions) to 4 (most stringent). ASEAN = Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam; Plus-3 = China, Hong Kong, Japan, and Korea.

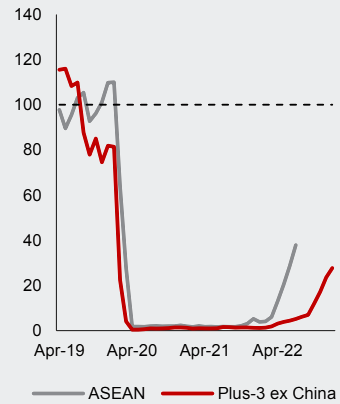
Figure 1.3.2. Selected ASEAN+3: International Flight Arrivals
(Index, December 2019 = 100)



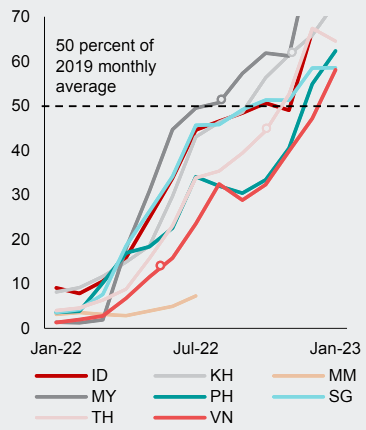
Source: National authorities via Haver Analytics, AMRO staff calculations.
Note: Brunei, Cambodia, China, Lao PDR, Malaysia, Myanmar, and Vietnam are excluded due to data unavailability. Data for Japan include both arrivals and departures. Data for Indonesia refer to departures only. HK = Hong Kong; ID = Indonesia; JP = Japan; KR = Korea; PH = Philippines; SG = Singapore; TH = Thailand.

Figure 1.3.3. Selected ASEAN+3: Tourist Arrivals
(Index, monthly average of 2019 = 100)

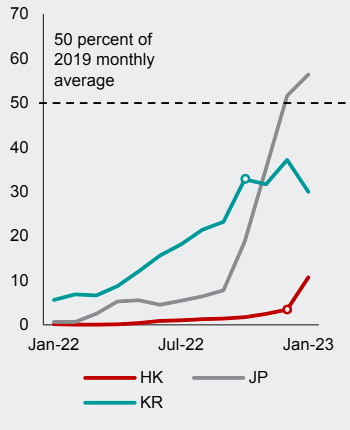
ASEAN+3 ex China



ASEAN

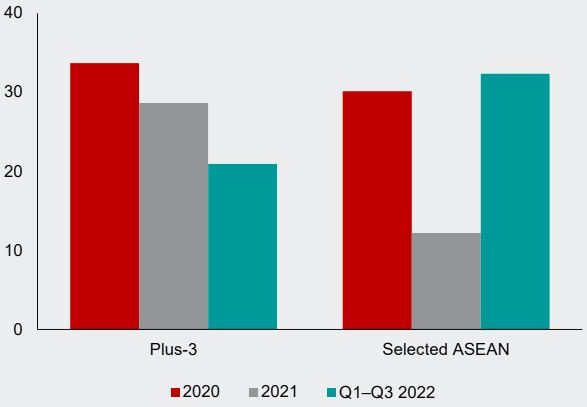


Plus-3 ex China



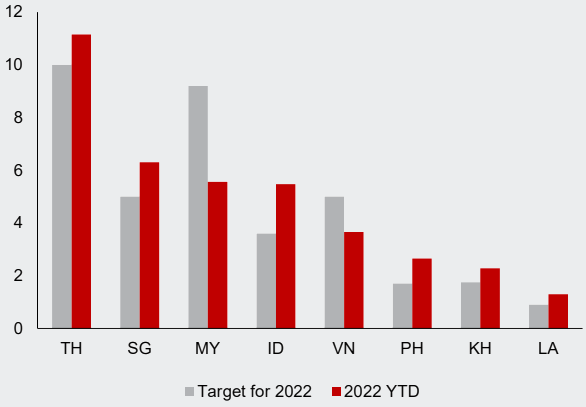
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Brunei, China, and Lao PDR are excluded due to data unavailability. Circle marker denotes the month of full removal of international travel restrictions for that economy. HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Figure 1.3.4. Selected ASEAN+3: Tourist Receipts
(Billions of US dollars)



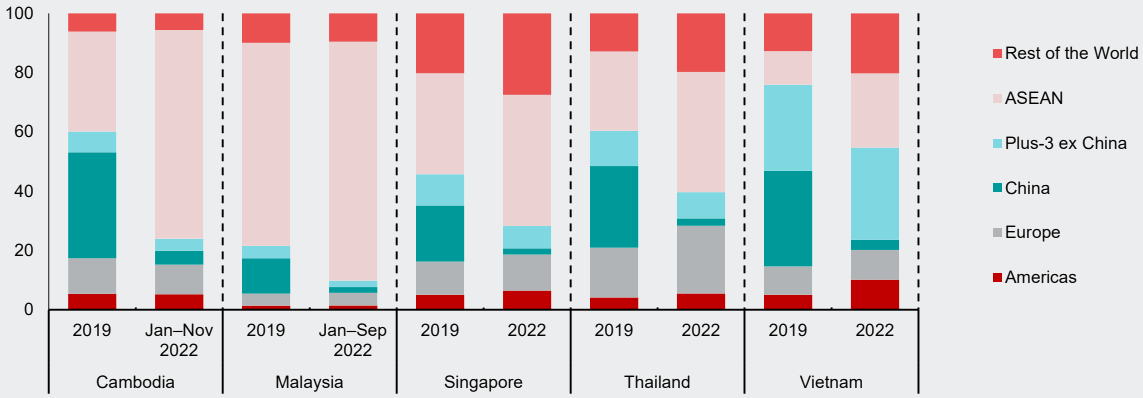
Source: National authorities via Haver Analytics, AMRO staff calculations.
Note: Selected ASEAN refers to Cambodia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Vietnam; Brunei, Lao PDR, and Myanmar are excluded due to data unavailability. Plus-3 = China, Hong Kong, Japan, and Korea.

Figure 1.3.5. Selected ASEAN: Target and Actual Tourist Arrivals
(Millions of inbound tourists)



Source: National authorities.
Note: Data on targets obtained through news flows. The average is used if the target is announced as a range. ID = Indonesia; KH = Cambodia; LA = Lao PDR; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam. YTD = year-to-date. Data are as of December 2022 except for Malaysia (September).

Figure 1.3.6. Selected ASEAN: Share of Tourist Arrivals, by Source Economy
(Percent of total arrivals)



Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: ASEAN = Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. Plus-3 (ex China) = Hong Kong, Japan, and Korea.

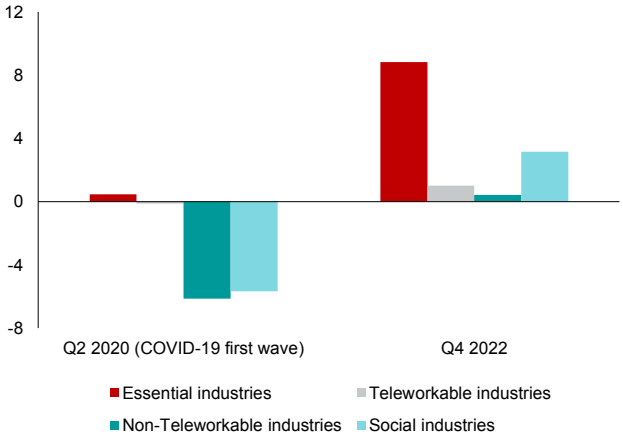
A Partial Labor Market Recovery

Labor market conditions in the region have generally improved, thanks to fuller economic reopening. With the lifting of containment measures and the resumption of cross-border travel, employment in so-called social (high-contact) industries such as travel and tourism—which were hit hardest by the pandemic—turned the corner in the fourth quarter of 2022, registering positive growth. Employment growth in essential industries such as utilities, health, and information and communication technology has continued to be robust (Figure 1.28). Nominal wage growth strengthened in 2022, supported by the resumption of hiring by businesses (Figure 1.29). Targeted fiscal support and active labor market policies such as retraining programs have helped support the jobs recovery. Labor force participation rates in the region have mostly recovered to, and even exceeded, precrisis levels in most economies (Figure 1.30).

However, total employment remains lower than pre-pandemic, particularly in industries where remote working is not possible, such as mining and construction (Figure 1.31). The "employment gap" is estimated to be about 12 million jobs (or 3.5 percent of total employment in the counterfactual situation where the pandemic did not occur). Part of this gap reflects jobs that had been filled by foreign workers who returned home during the pandemic and have not (yet) returned to the host economy. With employment growth still nascent, headline unemployment remains above pre-pandemic rates in some economies, even though sharply down from pandemic peaks in 2020. Korea and Singapore are notable exceptions where the labor market seems to have fully recovered (Figure 1.32).

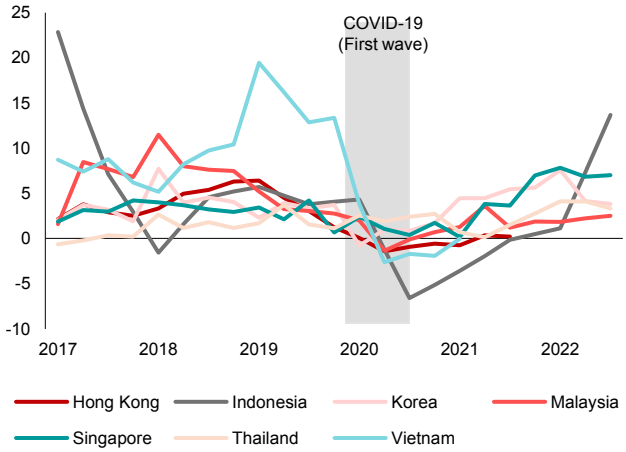
The outlook for the region's labor markets remains challenging. Although employment trends are positive, prospects are uneven across industries. Slowing global trade could dampen manufacturing employment prospects as businesses turn more cautious. But the lifting of cross-border travel restrictions in 2022 should facilitate a fuller return of foreign workers this year. In the medium term, labor market scarring from prolonged unemployment during the pandemic remains a significant risk, particularly for low-skilled and informal sector workers, who are unable to take advantage of policies for upskilling and reskilling (Silva, Weber, and Pela 2022).

Figure 1.28. Selected ASEAN+3: Change in Employment from Q4 2019, by Industry
(Percentage points)



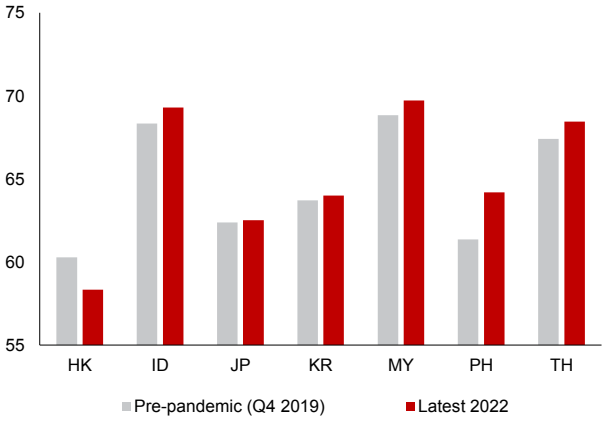
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Selected ASEAN+3 refers to Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Calculations are based on seasonally adjusted employment data by industry, with series starting from Q1 2005 to Q4 2022. Essential industries refer to utilities, transport, information and communication technology, and health and public administration. Social industries refer to wholesale and retail, hotels and restaurants, and arts and entertainment. Industries where remote working arrangement is possible (i.e., teleworkable) refer to finance, professional services and education. Nonteleworkable industries refer to mining, manufacturing, and construction. Given the volatile nature of agricultural employment data, agriculture is excluded from the analysis.

Figure 1.29. Selected ASEAN+3: Nominal Wages, by Economy
(Percent, year-on-year)



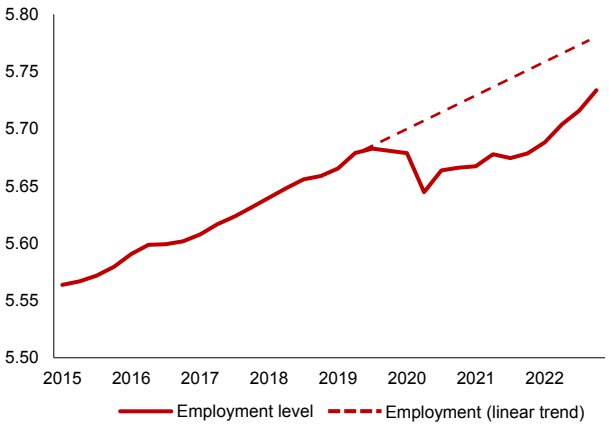
Source: National authorities via Haver Analytics.
Note: Data for Malaysia refer only to manufacturing wages. Data are up to Q3 2022 for Hong Kong, Indonesia and Singapore, and up to Q1 2021 for Vietnam.

Figure 1.30. Selected ASEAN+3: Labor Force Participation Rate
(Percent of working-age population, seasonally adjusted)



Source: National authorities via Haver Analytics.
Note: Latest 2022 data are for Q4, except Indonesia (up to Q3 2022). HK = Hong Kong; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = Philippines; TH = Thailand.

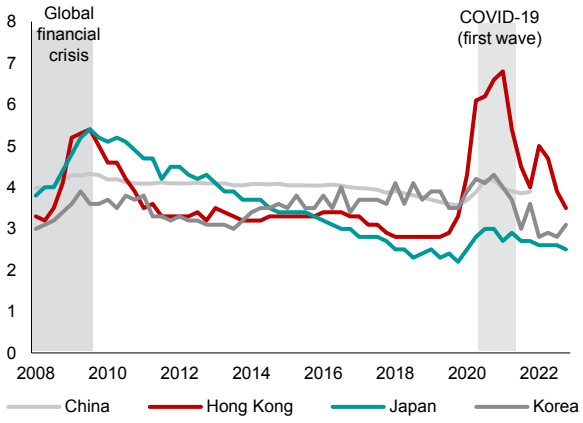
Figure 1.31. Selected ASEAN+3: Employment Level
(Log of employment, seasonally adjusted)



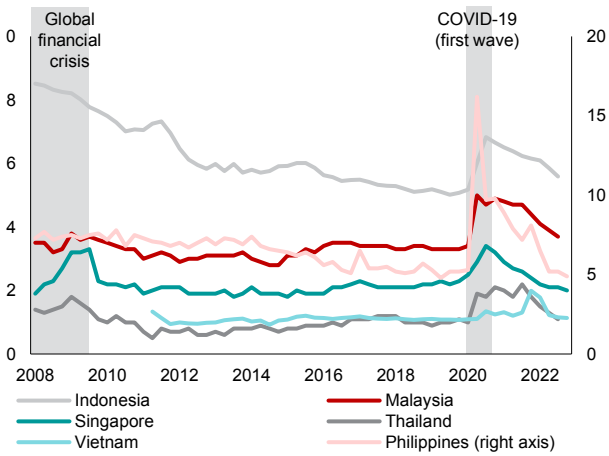
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Selected ASEAN+3 refers to Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Data are up to Q4 2022.

Figure 1.32. Selected ASEAN+3: Unemployment Rate
(Percent of labor force, seasonally adjusted)

Plus-3



ASEAN-6



Source: National authorities via Haver Analytics.
Note: Data are up to Q4 2022, except for China (Q4 2021) and Indonesia (Q3 2022).

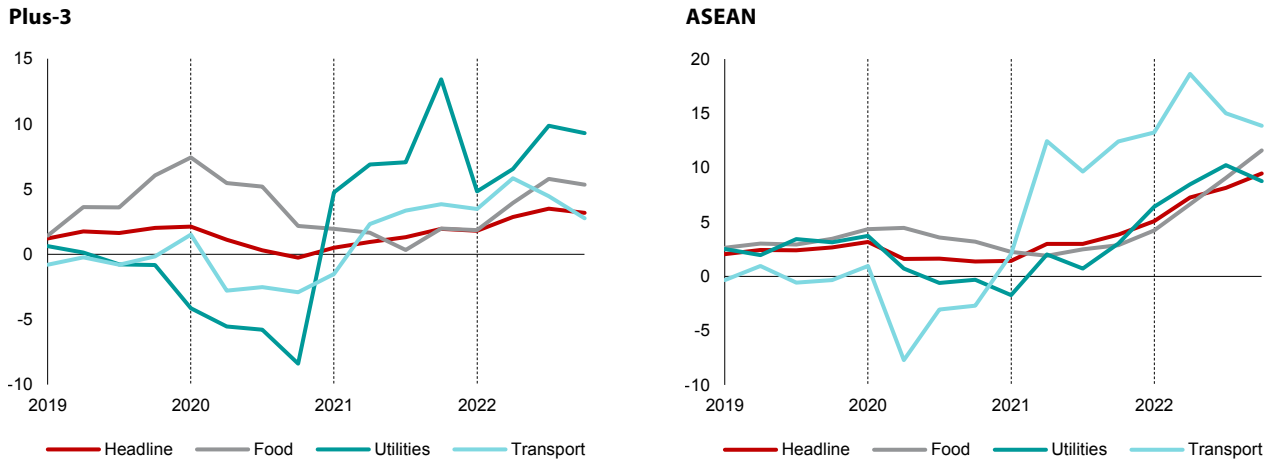
High(er) Inflation—Here to Stay?

Global and regional inflation reached historical highs in 2022. Inflation surged globally in early 2022 due to disruptions in supplies of fuel, grains, and other commodities caused by the Ukraine crisis, the release of pent-up demand in advanced economies, and the lingering impact of supply chain bottlenecks. Headline inflation in ASEAN+3 rose to a nine-year high as the price of food, utilities, and transport goods and services climbed (Figure 1.33). The depreciation of most currencies in the region, following aggressive monetary policy tightening in advanced economies, compounded the increase in domestic prices.

Timely administrative and policy measures prevented inflation in the ASEAN+3 region from spiraling up. Energy importers Japan and Korea reduced fuel import taxes and subsidized fuel products for consumers and businesses. Korea also tightened monetary policy to temper demand-pull inflation. Fuel subsidies were extended in almost all ASEAN economies as well (Kho and Zhao 2022). Indonesia and Malaysia temporarily banned the export of key food products such as crude palm oil, cooking oil, and poultry to ensure sufficient supply for the domestic market in an effort to contain increases in food prices (Tan, Choo, and Chong 2022). In China, high agricultural production kept food prices low and inflation in check.

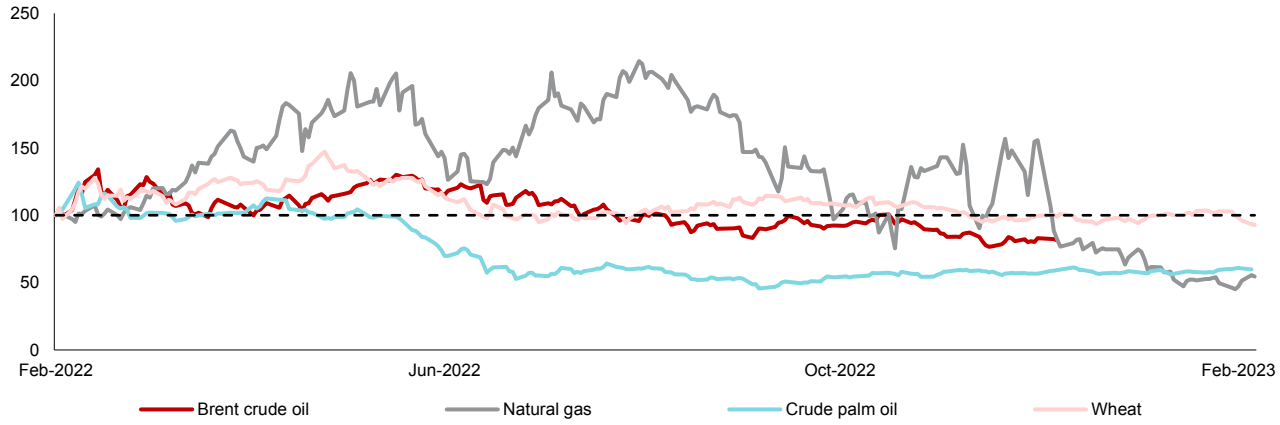
Headline inflation is expected to moderate but remain elevated. Since the third quarter of 2022, commodity prices have declined to levels before the Ukraine crisis because of weaker demand from major importers like China and Europe and some resumption in grain shipments from Ukraine (Figure 1.34). Imported inflation is likely to be lower going forward as global commodity prices are expected to decline further, led by weakening global demand. In the region, strengthening demand from the recovering economies could contribute to inflation pressure.

Figure 1.33. ASEAN+3: Consumer Price Inflation
(Percent, year-on-year)



Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: Aggregate consumer price inflation is calculated as a simple average of individual economies' data series. Data for ASEAN are up to Q4 2022, except for Cambodia (Q3 2022) and Myanmar (Q2 2022).

Figure 1.34. World: Commodity Prices
(Index, 23 February 2022 = 100)



Source: Energy Information Administration; Wall Street Journal; Malaysian Palm Oil Board via Haver Analytics; AMRO staff calculations.
Note: Wheat prices refer to the cash price of wheat quoted in the Kansas City Board of Trade. Prices are indexed to 23 February 2022, a day before the Ukraine crisis began.

Credit Growth Slows

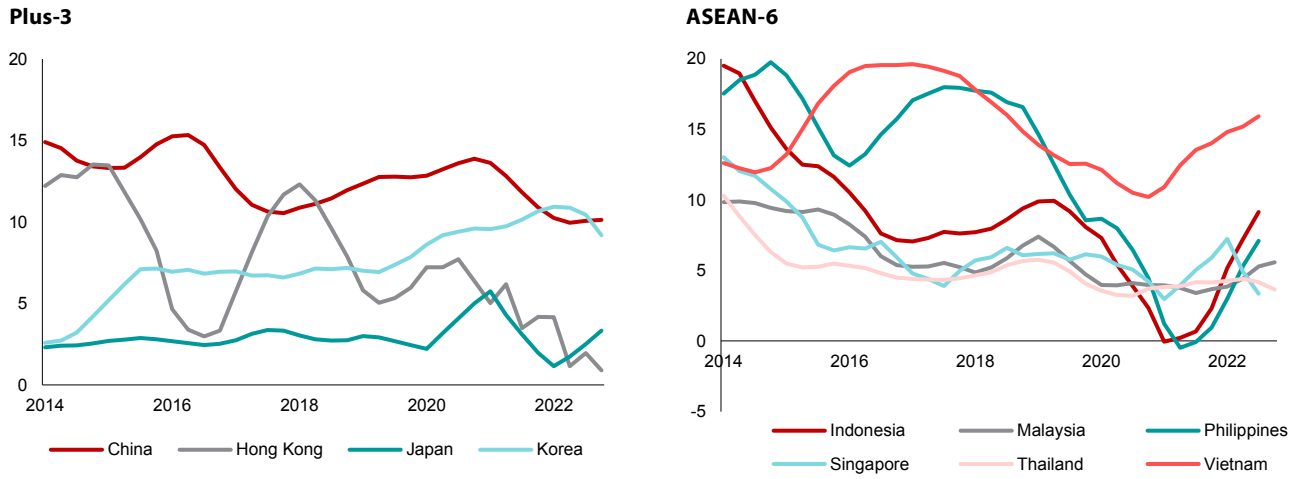
Bank lending activities in ASEAN+3 presented a mixed picture in 2022. Credit growth remained largely subdued in China and Hong Kong, as the stringent pandemic containment measures significantly curtailed loan demand due to deteriorating businesses earnings. On the supply side, banks have also been wary of extending credit to businesses, particularly in sectors hard hit by the pandemic and containment measures, as well as property developers and businesses exposed to the real estate market. In Japan, credit growth is returning to pre-pandemic levels, as the government's zero-interest rate policy helped support the recovery. In Korea, rapid credit growth reflects strong demand for credit from nonfinancial firms. In ASEAN, demand for bank credit not only recovered but strengthened going into the third quarter of 2022—notably in Indonesia, Malaysia, the Philippines, and Vietnam (Figure 1.35).

Credit growth is generally expected to slow in 2023, mainly on account of the softer economic outlook. In the Plus-3, the relatively weaker growth outlook in Japan and Korea could weigh on demand for bank financing in these two economies, whereas in China and Hong Kong, economic reopening should support a recovery in credit demand. In ASEAN-6, the rate of credit expansion is expected to come down from its strong pace in 2022, reflecting moderating domestic demand alongside concerns about the potential weakening of credit fundamentals and higher borrowing costs.

The tightening of the regional interest rate cycle over 2022–23 could weaken asset quality in some ASEAN+3 banking systems. In ASEAN-6, nonperforming loans (NPLs) could increase as businesses (mainly small and medium-sized enterprises) are hurt by slowing economic activity, while expiration of pandemic-era loan

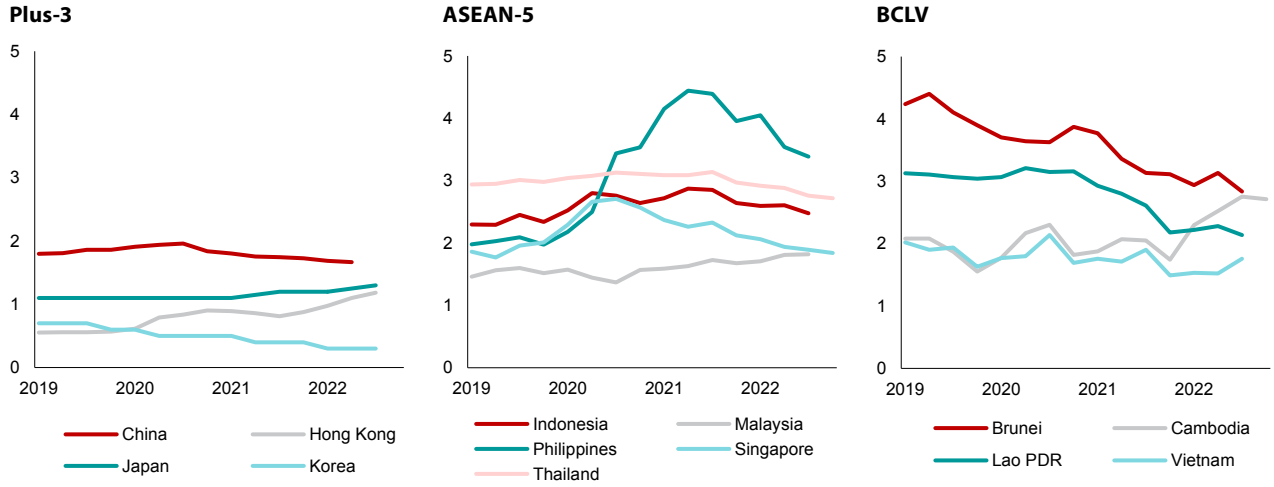
moratoriums would further weigh on asset quality metrics at a time when the lagged effects of policy rate hikes are being felt. In China, continuing property sector weakness could be a drag on the debt servicing capacity of real estate developers (particularly the highly leveraged ones), despite multiple interest rate cuts and other policy measures to ease their (re)financing strains. This could dampen banking sector loan soundness. So far, banks' asset quality remains sound, as reflected in relatively low NPL ratios (Figure 1.36). However, the low NPL ratios do not include NPLs which are suppressed ("hidden") by forbearance measures introduced during the pandemic. Based on estimates from the AMRO Global Macro-Financial Model, "hidden" NPLs could increase reported ratios in the region by up to 5 percentage points for firms and 7.5 percentage points for households (Figure 1.37).

Figure 1.35. Selected ASEAN+3: Growth in Credit to Private Nonfinancial Sector
(Percent, year-on-year, 4-quarter moving average)



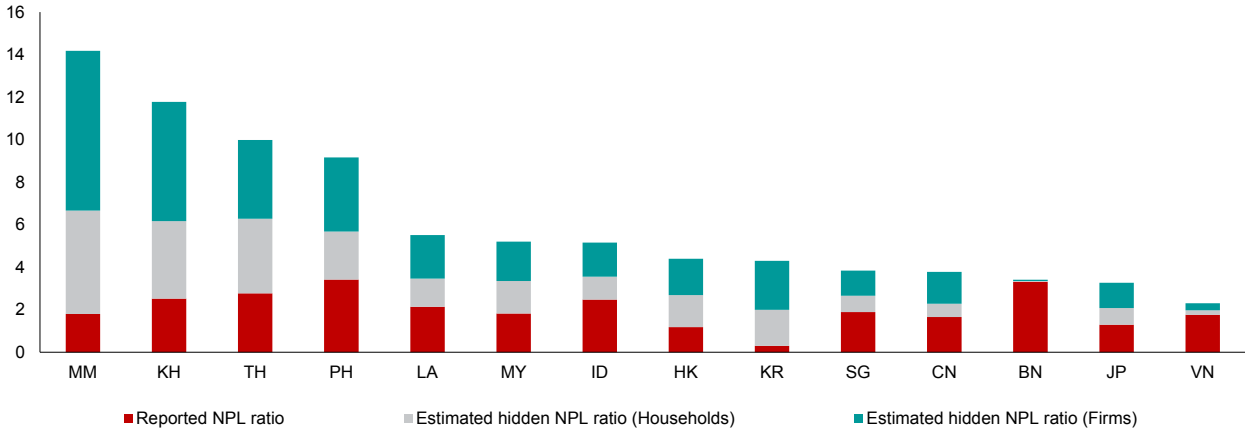
Source: National authorities via Haver Analytics; AMRO staff calculations.
Note: The private nonfinancial sector includes nonfinancial firms and households. Data refer to: claims on nonfinancial institutions and other resident sectors by depository corporations other than the central bank (China); loans and advances by authorized institutions to nonfinancial sectors (Hong Kong); loans to corporations and households by domestic banks (Japan); claims on nonfinancial corporations and households by depository corporations other than the central bank (Korea); claims on the private sector by commercial and rural banks (Indonesia); loans by the banking system (Malaysia); claims on private sector by depository corporations other than the central bank (the Philippines); the sum of household liabilities and credit to nonfinancial corporations (Singapore); and claims on private nonfinancial corporations and other resident sectors by depository corporations other than the central bank (Thailand). Credit growth is calculated based on local currency terms.

Figure 1.36. Selected ASEAN+3: Banking Sector Nonperforming Loan Ratios
(Percent)



Source: National authorities via CEIC.
Note: Data are up to Q4 2022, except for Brunei, Hong Kong, Japan, Korea, Lao PDR, Malaysia, Philippines, Vietnam (Q3 2022), and China (Q2 2022). Data for Myanmar are not publicly available.

Figure 1.37. ASEAN+3: Reported and Estimated "Hidden" Corporate and Household Nonperforming Loan Ratios, as of Q3 2022
(Percent)



Source: National authorities via Haver Analytics; AMRO staff estimates.
Note: The estimates are based on the AMRO Global Macro-Financial Model (Tang 2022). Estimates are based on information as of Q3 2022, except for Japan (Q1 2022) and Myanmar (Q4 2020).
BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; NPL = nonperforming loan;
PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

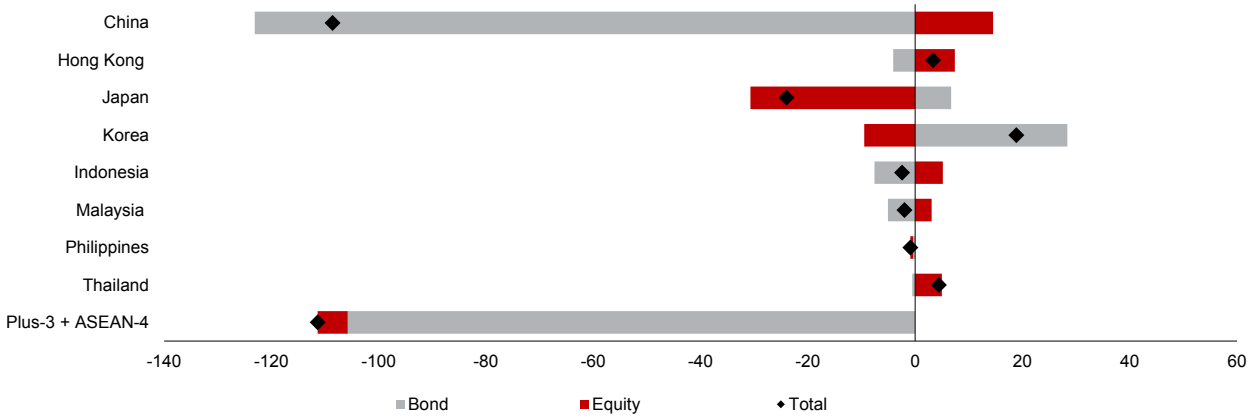
Financial Markets Seesaw

Global financial conditions have tightened since the first half of 2022, reflecting policy rate hikes to bring inflation under control in the United States and the euro area. Since March 2022, the US Federal Reserve has raised its policy rate by 450 basis points (as of February 2023), with markets pricing in further rate hikes in the first half of 2023.

The aggressive monetary tightening in the United States led to a sharp spike in risk aversion and large portfolio outflows from the region during 2022, although risk sentiments improved by the end of the year. The Plus-3 and ASEAN-4 economies posted a total of USD 112 billion in net nonresident portfolio investment outflows in the first three quarters of 2022—predominantly from China's bond market and Japan's equity market (Figure 1.38). While substantial, these gross outflows represented only 0.7 percent of China's outstanding bonds and 0.5 percent of Japan's equity market capitalization at the end of 2021. By October, the outlook for portfolio capital flows in the region had improved on market expectations that the US Federal Reserve would ease the pace of rate increases in 2023. Indonesia, Korea, the Philippines, and Thailand recorded net nonresident purchases in their local equity and bond markets in October and November 2022.

The US monetary policy stance put considerable depreciation pressure on most ASEAN+3 currencies against the US dollar in 2022. Plus-3 and ASEAN-5 currencies reached multiyear lows against the US dollar in the third quarter of 2022 as markets priced in higher terminal rates for the Federal Reserve's tightening cycle. However, regional currencies rebounded and appreciated against the US dollar in the fourth quarter of 2022 on expectations of a slower pace of rate hikes following indications that inflation in the United States had peaked and started to trend down. Trade-weighted nominal and real exchange rates were largely unchanged in 2022, except for Singapore and Thailand, which recorded notable appreciations in 2022 (Figure 1.39).

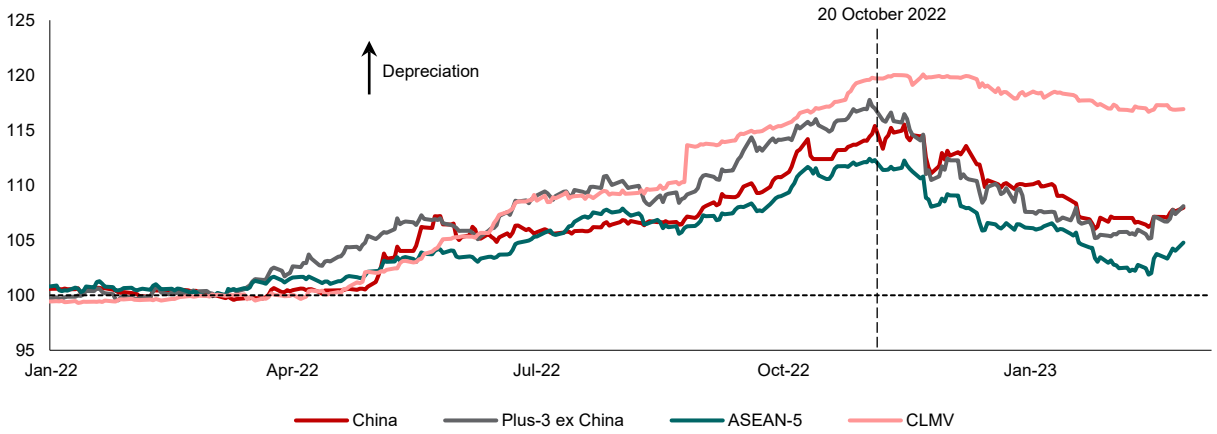
Figure 1.38. Selected ASEAN+3: Nonresident Portfolio Investment, Q1–Q3 2022
(Billions of US dollars)



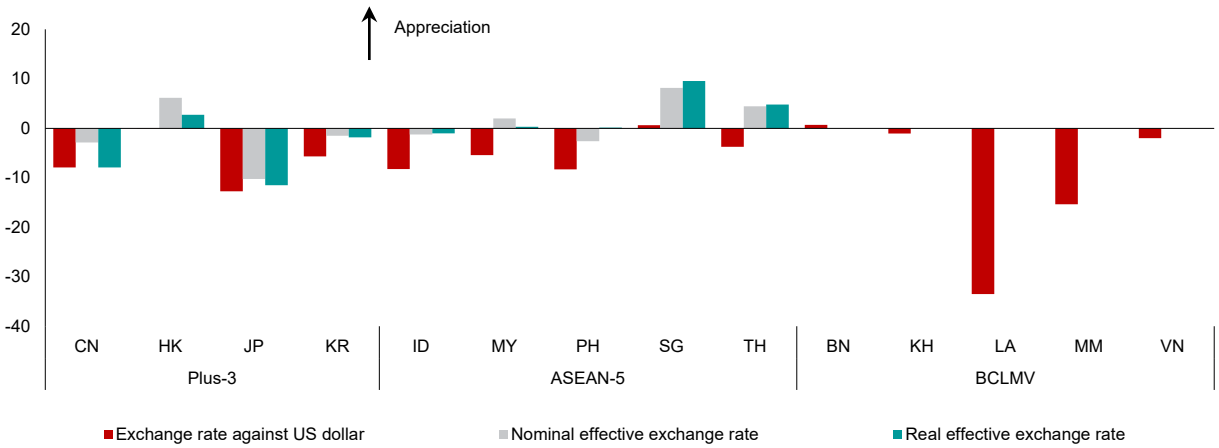
Source: Balance of Payments and International Investment Position Statistics database, IMF; national authorities via Haver Analytics; AMRO staff calculations.

Figure 1.39. ASEAN+3: Exchange Rates

Exchange Rate against US Dollar
(Index, 31 December 2021 = 100)



Currency Performance, 2022
(Percent)



Source: Haver Analytics; Bloomberg L.P; Bank for International Settlements via Haver Analytics; AMRO staff calculations.
Note: Exchange rate data are up to 28 February 2023. For both nominal effective exchange rate and real effective exchange rate, data refer to the changes from the end of December 2021 to the end of December 2022. For bilateral exchange rates against the US dollar, data refer to changes from 2 January to 31 December 2022. Effective exchange rate data are not available for Brunei, Cambodia, Lao PDR, Myanmar, and Vietnam (BCLMV). BN = Brunei; CLMV = Cambodia, Lao PDR, Myanmar, and Vietnam; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

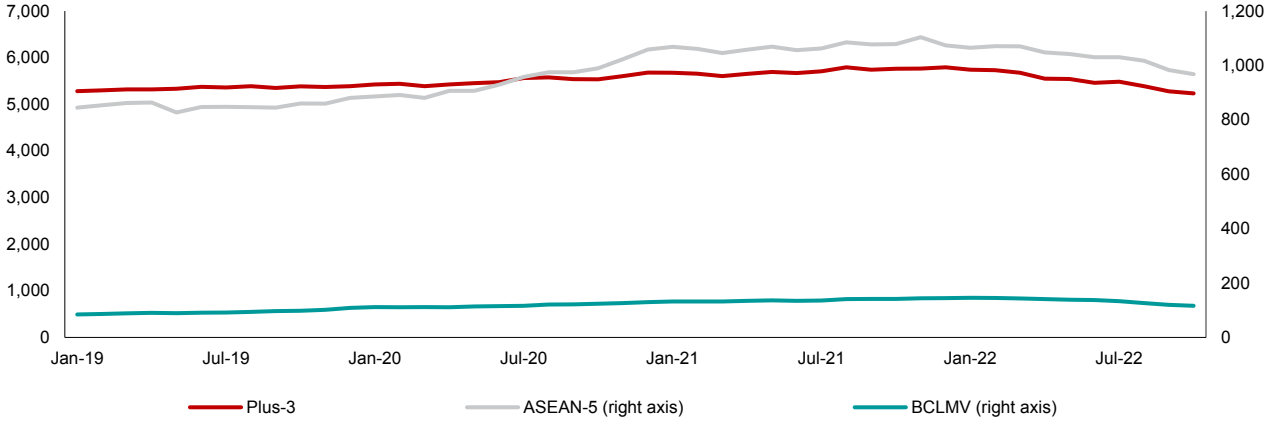
ASEAN+3 central bank reserves have fallen sharply as a result of foreign currency interventions and valuation effects. The region's foreign exchange reserves declined by USD 710 billion (or 10 percent) in 2022 (Figure 1.40). About half of the decline can be attributed to interventions by the authorities in foreign exchange markets to stem sharp currency depreciation pressures against the US dollar. Currency valuation effects—given the considerable proportion of reserves held in other major currencies such as the euro, the pound, and the Japanese yen—also contributed to the drop in the value of foreign currency reserves held by ASEAN+3 central banks.[2]

Despite the decline, foreign currency reserves generally remain ample, exceeding 100 percent of short-term external debt and three months of imports (Figure 1.41). Hong Kong, Japan, Malaysia, and Singapore have substantially larger short-term external debt than foreign currency reserves, but these economies also have a larger proportion of external assets held by public institutions and private business that could be used to cover their foreign currency liabilities without making a claim on central bank reserves (Figure 1.42).

Absent new shocks, the outlook for capital flows in the region is sanguine. The short-term (six months ahead) outlook for nonresident portfolio capital flows has improved, based on the capital flows at risk (CfaR) methodology outlined in Tan, A. (2022) (Figure 1.43). Economic reopening in China is also helping to bolster confidence in the region's outlook. However, a sharper slowdown in the US economy than currently expected and/or a weaker economic recovery in China could heighten global risk aversion and result in a sharp re-pricing of risk assets in emerging-market economies, including in the ASEAN+3 region. A larger divergence from US monetary policy, reflected in interest rate differentials, could translate into weaker currencies and possibly fuel capital outflows from the region. Stagflation in the region would hurt investor confidence and likely lead to capital outflows.

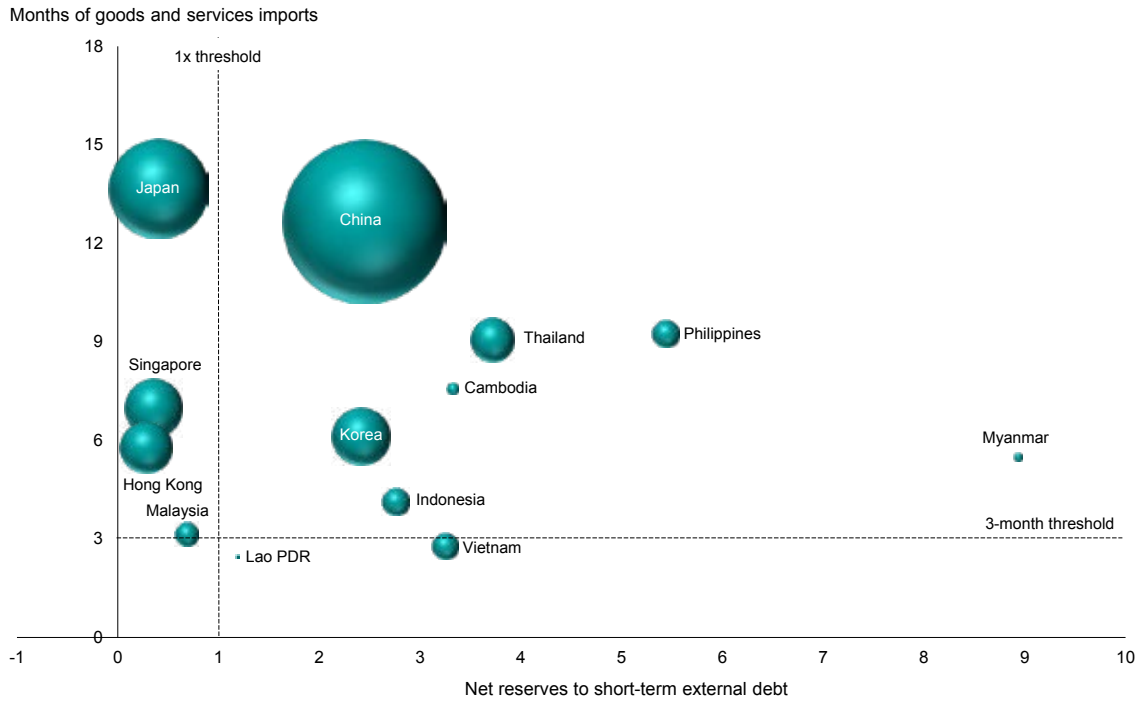
2/ Based on aggregate data in the IMF's Currency Composition of Official Foreign Exchange Reserves database, the estimated fall in foreign exchange reserves after stripping out currency valuation effects is USD 338 billion in 2022. The actual fall in the value of foreign exchange reserves could be smaller since the calculations do not take into account the decline in asset price valuations.

Figure 1.40. ASEAN+3: Net International Reserves
(Billions of US dollars)



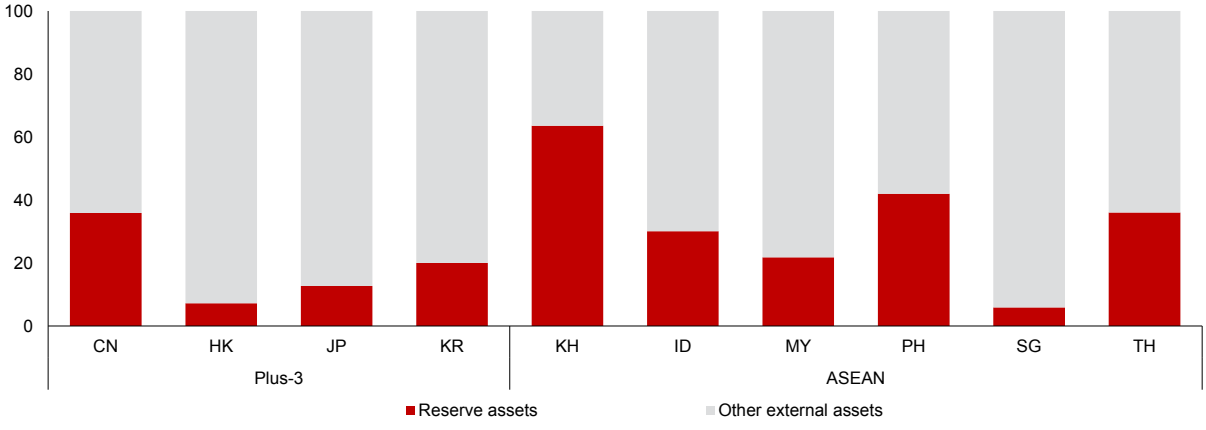
Source: IMF via Haver Analytics; AMRO staff calculations.
Note: Data exclude scheduled contractual commitments in foreign currencies. Data are up to December 2022 except for Vietnam (October 2022), Lao PDR (September 2022), Brunei and Cambodia (November 2022), and Myanmar (March 2021). Singapore's foreign exchange reserves have been adjusted for transfers to its sovereign wealth fund. ASEAN-5 = Indonesia, Malaysia, the Philippines, Singapore, and Thailand; BCLMV = Brunei, Cambodia, Lao PDR, Myanmar, and Vietnam; Plus-3 = China, Hong Kong, Japan, and Korea.

Figure 1.41. ASEAN+3: Adequacy of Net International Reserves



Source: IMF; national authorities; World Bank; AMRO staff calculations.
Note: Data are as of December 2022 for reserves. For short-term external debt, data are as of Q3 2022, except for China (Q2 2022). The size of the bubble denotes the relative amount of each economy's net international reserves in US dollars.

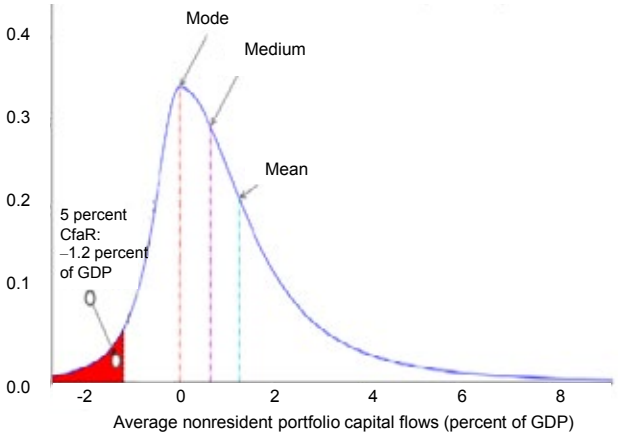
Figure 1.42. ASEAN+3: Reserve Assets
(Percent of total external assets)



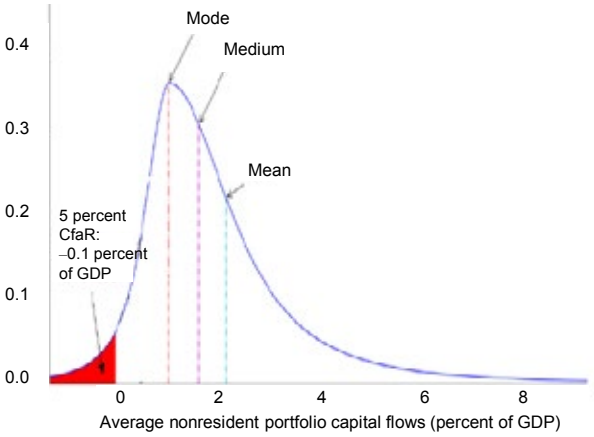
Source: IMF via Haver Analytics.
Note: Data are up to Q3 2022 except for Myanmar (Q3 2020). Data for Brunei, Lao PDR, and Vietnam are not available. CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand.

Figure 1.43. ASEAN-4 and Korea: Capital Flows at Risk
(Probability density)

As of June 2022



As of December 2022



Source: AMRO staff estimates.
Note: The predicted probability density of capital flows six months forward (based on information up to the end of December 2022) suggests an average volume of capital inflows in ASEAN-4 and Korea of 2.4 percent of GDP. Using the 5 percent capital flows at risk (CfaR) threshold, the average volume of capital outflows in ASEAN-4 and Korea is forecast to be at least 0.1 percent of GDP (down from the forecast based on information up to the end of June 2022 of 1.2 percent of GDP).

II. Risks to the Outlook

The outlook for the ASEAN+3 region is beset by uncertainty. The key risk factors confronting the region are summarized in AMRO's Regional Risk Map (Figure 1.44).

Fallout from the Ukraine crisis on global energy prices poses the most immediate risk to the outlook for ASEAN+3 growth. In particular, there could be temporary supply shortages which could trigger another global energy price shock. Although ASEAN+3 generally fared better than other regions during the energy price shock in early 2022, another shock to global energy prices—in conjunction with a global economic slowdown—would be a major blow. As most economies in the region are net energy importers, a sustained hike in energy prices would exacerbate the current cost-of-living crisis and drag down private consumption, which is an important domestic growth engine.

The US economy could experience a hard(er) landing. With inflation in the United States still well above its 2 percent target, the US Federal Reserve is committed to maintaining a tight(er) monetary policy stance for as long as is necessary to bring inflation down—which may induce a recession in the process. Sustained high borrowing costs and tighter financial conditions could trigger a much sharper US slowdown than currently envisaged. Should this come to pass, spillovers to the global economy will be significant. ASEAN+3 would face much lower external demand and higher asset price/capital flow volatility due to increased uncertainty about the US monetary policy stance.

New and more virulent COVID-19 variants could emerge in the short term. New virus variants or subvariants are continuously being discovered, such as the fast-spreading Omicron subvariants XBB1.5 (Kraken) and BQ.1.1 (Cerberus), which account for most of current COVID-19 cases in the United States. While available COVID-19 vaccines have remained effective at preventing severe illnesses, hospitalizations, and death, a wave of new vaccine-resistant infections could prompt a reintroduction of containment measures, strain the region's health care capacity, and derail its prospects for full economic recovery.

The pace of recovery in China will also bear close attention. While the infection surge following the lifting of COVID-19 restrictions at the end of last year has largely subsided, voluntary mobility restrictions to avoid contracting the virus could constrain the recovery in domestic demand, particularly private consumption. An extended period of weakness in the real estate sector would weigh on consumer and investor confidence and potentially hinder the economy's recovery, dragging down regional growth.

The increasingly acrimonious strategic rivalry between the United States and China is the biggest threat to the region's growth over the medium term. As the United States has set out to contain China's rise and technological development, regional—especially ASEAN—economies are caught in between the two global superpowers and are under pressure to choose sides. If tensions boil over,

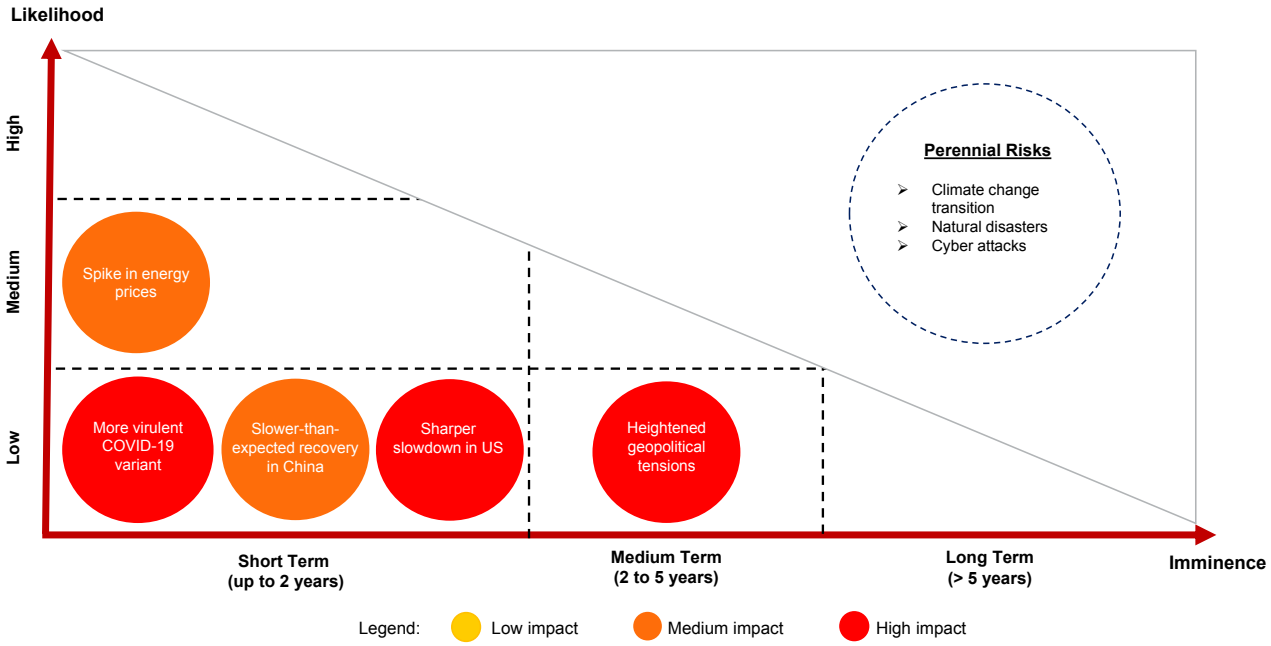
the result could be global fragmentation into ideological blocs, which will have ramifications for regional trade and investment. There could be further segmentation of trade, with far-reaching consequences for global supply chains. This could hurt the region's long-term growth prospects (Box 1.4).

Climate change, natural disasters and cyberattacks are perennial risks:

- Like the rest of the world, the region faces the risk of more frequent and/or extreme weather events due to climate change. Responding to climate-related (and non-climate related) natural disasters entails a direct fiscal burden. National commitments to adapt to and mitigate climate change will also have huge economic impacts and long-lasting, multigenerational consequences (Chapter 2).

- As the region is increasingly interconnected through digital platforms, risks of cyberattacks on critical infrastructure such as health systems, government agencies, and educational institutions, are increasing in frequency and severity. According to Check Point (2023), the global volume of cyberattacks increased by almost 40 percent in 2022 relative to the previous year, with the Asia-Pacific region experiencing almost 1,700 weekly attacks per organization. Absent sufficient safeguards, a backlash against digitalization could occur, with negative implications for productivity gains and longer term growth.

Figure 1.44. Regional Risk Map, March 2023



Source: AMRO staff.
Note: The Regional Risk Map characterizes the key risk factors facing the ASEAN+3 region in three dimensions: (1) the likelihood of the risk materializing—low, medium, or high—along the vertical axis; (2) the imminence of the risk—short term (up to two years), medium term (two to five years), or long term (more than five years)—along the horizontal axis; and (3) the growth impact should the risk materialize—low, medium, or high—denoted by the color of the circle. Perennial risks—i.e., recurring risks, the impact of which are not easily gauged—are identified in the dotted circle on the top right corner.

Box 1.4:

Tug of War: Rising Geopolitical Risks and ASEAN+3

The Ukraine crisis has highlighted the significant role of geopolitical risks in shaping economic growth. While the main impact of the conflict has centered on Europe, its consequences have rippled around the world—in the form of rising commodity prices, supply chain bottlenecks, and disruption to people movement, financial flows, and cross-border investment. Although ASEAN+3 has relatively few direct trade and investment links with Russia and Ukraine, and the conflict's initial impacts on global inflation and supply chains appear to have eased somewhat (Figure 1.19), a prolonged conflict lasting well beyond this year could shave about 1 percentage point off the region's GDP growth in 2023 (AMRO 2022a).

Geopolitical risks are higher now than in the last decade and will increasingly be a factor in the region's growth outlook (Figure 1.4.1). ASEAN+3 economies, with their deep cross-border linkages, are particularly exposed to geopolitical tensions that disrupt global trade and supply chains. The repeated escalation in the US-China trade conflict during the Trump administration, which saw tariffs imposed on over USD 500 billion worth of goods in both economies, is one example (AMRO 2020). Between September 2018 and December 2019—before the so-called Phase One deal was announced—total exports from the region contracted significantly in value, after growing at an average rate of 10 percent (year-on-year) in the previous eight months. Recent policies by the US Biden administration—including the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act and the Inflation Reduction Act, both passed last year, as well as expanded export controls on Chinese high-tech firms—have ratcheted up tensions, creating negative spillovers to other ASEAN+3 exporters and forcing "like-minded allies" to announce similar policies.[1] Intensifying tensions in the Middle East, or an escalation of the Ukraine crisis that involves more parties could cause prices of key commodities to spike once again. Increased or threatened military action elsewhere could also upend ASEAN+3 cross-border trade and economic activity, especially if they lead to prolonged or severe disruptions to major shipping lanes or airspaces (Figure 1.4.2).

Geopolitical tensions lead to economic fragmentation and heightened policy uncertainty, which erodes market confidence, lowers investment, and hurts the region's long-term growth prospects. While silver linings could emerge from the Ukraine crisis and US-China strategic rivalry in the long-term—in the form of reinvigorating the global shift away from fossil fuel dependence and fast-tracking China's climb toward self-sufficiency in critical technologies—the costs of geopolitical tensions far outweigh any perceived benefits, especially for the ASEAN+3 region. Reconfiguration of existing supply chains is complex, costly, and time-consuming, and it increases trade and logistics costs for all parties involved (AMRO 2021). Uncertainty about trade policy induces a "wait-and-see" approach that postpones new investment or expansion plans, leading to lower FDI flows and employment creation that can stagnate for years, as shown in Figure 1.4.3 and Figure 1.4.4 (Cerdeiro, Kothari, and Redl 2022). Geopolitical tensions and their attendant uncertainty also stifle innovation, reducing knowledge exchange and productivity (Astvansh, Deng, and Habib 2022). The 2022 US export controls have already slowed down the pace of new semiconductor plant construction and expansions in China, and are impeding access to a deep pool of highly skilled Chinese-American researchers, engineers, and scientists, with advanced expertise obtained from years of working in the United States (Box 1.2) (Bloomberg News 2022).

In the current geopolitical context, ASEAN+3 needs to remain committed to free trade and closer regional integration now more than ever. Economic resilience for the ASEAN+3 means strengthening—rather than shying away from—linkages with one

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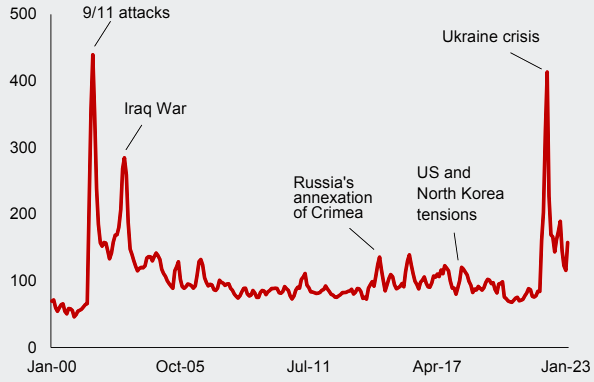
This box was written by Marthe M. Hinojales and Hongyan Zhao.

1/ The Inflation Reduction Act includes an electric vehicle (EV) tax credit of up to USD 7,500 per purchase, provided final assembly is done in North America—which weakens the competitiveness of EV makers in other countries, notably Korea. The Act also places restrictions on sourcing minerals used in batteries from China and other "foreign entities of concern" and requires qualifying EV batteries to have 100 percent North American content by 2028 (Forbes 2022).

another and the rest of the world. The threat of climate change requires a coordinated global and regional approach (Chapter 2), while increased regional cooperation and coordination is needed to make the most of many of the ASEAN+3's post-pandemic growth drivers and opportunities: digitalization, modern services, cross-border payments and settlements, as well as regional supply chain security (AMRO 2022b). Strong policy signals that reaffirm the region's deep and long-standing commitment to free trade and openness will help decrease market uncertainty, reduce new sources of tension, and ensure that all—especially emerging and developing economies—can continue to reap the economic and social benefits of globalization.

Figure 1.4.1. World: Geopolitical Risk
(Index, 100 = 1985–2019)

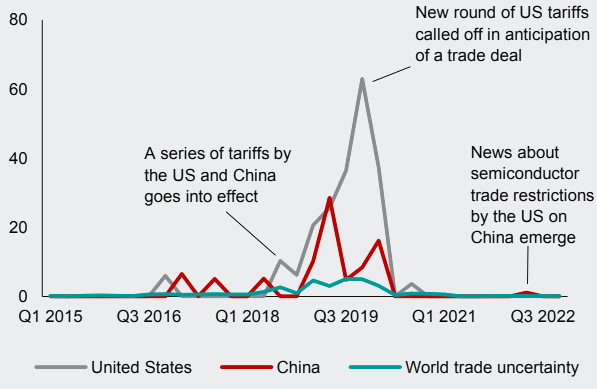


Source: Caldara and Iacoviello (2022).
Note: Data refer to the three-month moving average of the index, which is based on a count of newspaper articles that discuss geopolitical tensions. The higher the index, the higher the measure of geopolitical risk.

Figure 1.4.2. ASEAN+3: Sources of Geopolitical Risks and Key Channels of Impact to Growth

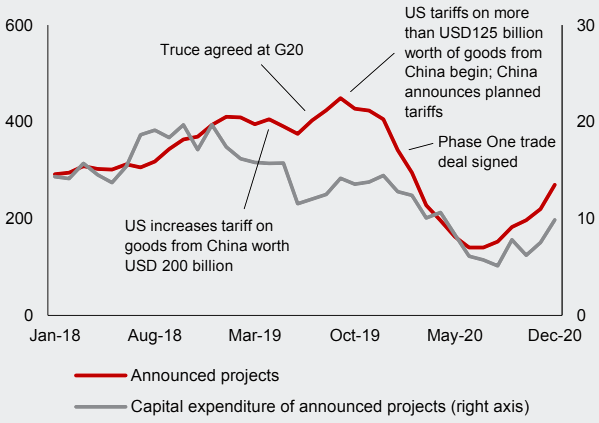
Source: AMRO staff.

Figure 1.4.3. World: Trade Uncertainty
(Index)



Source: Ahir, Bloom, and Furceri (2022).
Note: Q = quarter. The world trade uncertainty index is constructed by counting the number of times "uncertainty" is mentioned in proximity to a word related to trade in Economist Intelligence Unit (EIU) country reports. It is equally weighted average and scaled by total number of words in the EIU country reports, multiplied by 100,000.

Figure 1.4.4. ASEAN+3: Monthly FDI Announcements
(Number; billions of US dollars)



Source: Orbis Crossborder; AMRO staff calculations.
Note: Data refer to six-month moving averages.

III. AMRO Staff Macroeconomic Forecasts for 2023–24

The global economy is projected to expand at a more moderate pace in 2023 as growth slows in the United States and the euro area. Tighter financial conditions following successive monetary policy tightening rounds in 2022 will weigh on consumption and investment in the advanced economies. While global food and commodity prices have peaked, inflation remains high. The US Federal Reserve is therefore likely to continue raising the federal funds rate in 2023, albeit by smaller amounts and at a slower pace. The Ukraine crisis is expected to persist. On the positive side, global supply chain pressures eased considerably in the second half of 2022 and are likely to improve in 2023.

The relaxation of COVID-19 containment policies, including the removal of cross-border travel restrictions by China in January 2023, should stimulate regional travel and tourism activity. However, outbound tourism from China will not recover immediately as cautious tourists may opt not to leave the country for now. The pace of recovery will also be affected by capacity constraints in international air travel and in the hospitality and tourism sectors of receiving economies. Travel and tourism activity is consequently projected to remain below pre-pandemic levels until 2024.

AMRO staff expect the ASEAN+3 region to grow at a faster pace of 4.6 percent in 2023, despite the challenging global environment. The improvement in the region's growth mainly reflects the expected economic recovery in the Plus-3 economies, where growth is forecast to pick up from 2.6 percent in 2022 to 4.5 percent in 2023. Growth in the ASEAN region is expected to moderate from 5.6 percent in 2022 to 4.9 percent in 2023 (Table 1.1).

- **Plus-3**. China and Hong Kong are expected to lead the rebound with the removal of COVID-19 containment measures and the full reopening of their economies. The surge in infections across China following the removal of containment measures will subside and the economy is expected to rebound strongly by the second quarter. The reopening of the land border between mainland China and Hong Kong will provide a strong boost to Hong Kong's exports of goods and services. GDP growth in Japan is expected to improve slightly, while GDP growth in Korea is expected to come down, mainly due to weaker external demand.

- **ASEAN**. GDP in Indonesia, Malaysia, the Philippines, Singapore, and Vietnam is forecast to grow at a slower pace due to weaker external demand as a result of the economic slowdown in the United States and Europe. The negative outlook for merchandise exports will be partially counterbalanced by the recovery of travel and tourism. The return of Chinese tourists is expected to give regional tourism a major boost in 2023, particularly in Cambodia and Thailand. Growth in Brunei and Myanmar will be driven mainly by domestic consumption and a revival of investment spending.

The region's GDP growth is forecast to be sustained at 4.5 percent in 2024. Growth in the Plus-3 economies is likely to be slower than in 2023, at 4.3 percent, mainly on account of the normalization of growth in China and Hong Kong. However, ASEAN is projected to expand at a faster rate of 5.2 percent, compared to 4.9 percent in 2023, as continued strengthening of domestic demand is supplemented by an expected recovery in external demand, which should provide a boost to the region's manufacturing exports and tourism earnings.

To complement the baseline forecast, AMRO staff simulated adverse and upside scenarios to illustrate the potential impact of the risk factors presented in the Regional Risk Map (Figure 1.44). The simulations were run using Oxford Economics' Global Economic Model (GEM), which covers all ASEAN+3 economies with an underlying data set that is updated every month.[3]

AMRO staff's adverse scenario puts the region's GDP growth at 3.9 percent in 2023 and 3.6 percent in 2024 (Figure 1.45 and Figure 1.46). This is premised on a rise in global inflation, a sharp growth slowdown in the United States and weaker-than-expected recovery in China, and the emergence of a more virulent COVID-19 strain in the region. If the Ukraine crisis escalates, global energy prices could surge in the second half of 2023. The rise in energy prices would spill over to other commodities through increased transportation and production costs, leading to higher inflation globally. In the United States, an inflation

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3/ The model consists of a system of equations with macroeconomic variables that include GDP and its components, prices, exchange rates, and interest rates. The GEM is essentially an error-correction model that estimates how quickly a variable returns to its equilibrium state after a shock; hence, it estimates both the short-term and long-term effects of the shock on the variable. In the short term, the model assumes sticky factor prices and aggregate demand-determined output. In the long term, the model assumes that prices adjust fully, and the equilibrium is determined by supply factors such as productivity, labor, and capital. For this exercise, only the short-term estimates are presented.

spike could prompt the Federal Reserve to hike interest rates further, causing an even sharper slowdown in the economy and further depressing export demand for ASEAN+3 goods and services. The emergence of a more virulent COVID-19 variant in the region would lead to greater caution among households and businesses and discourage private sector spending. This could also impact outbound tourism from China, an important source of revenue for the rest of the ASEAN+3 region.

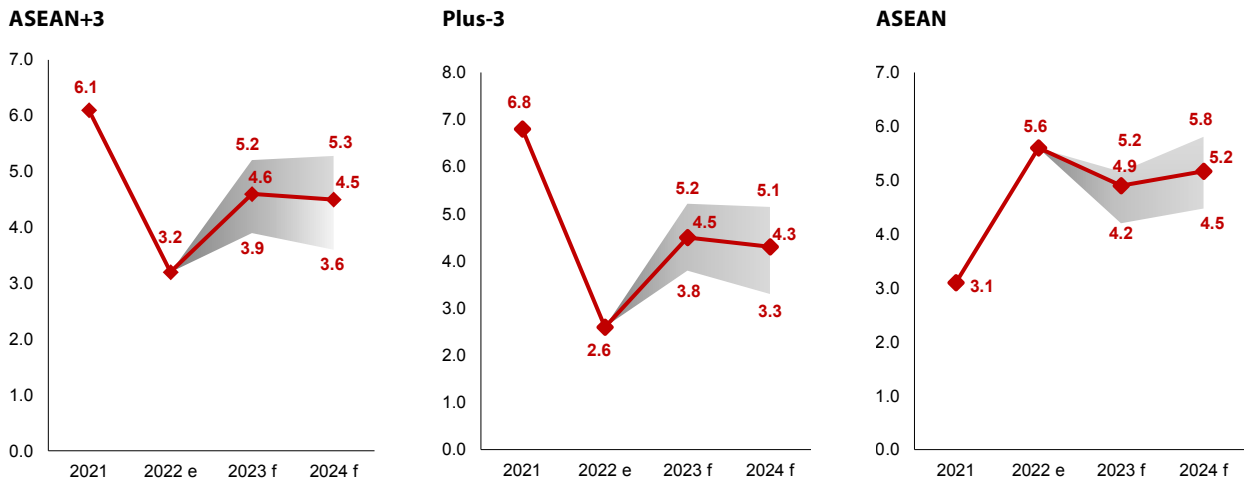
AMRO staff's upside scenario puts the region's GDP growth at 5.2 percent in 2023 and 5.3 percent in 2024. In this scenario, global inflation continues to moderate. Dissipating inflation pressure, alongside firm wage growth and a still-high stock of savings, allows US consumers to increase spending, providing a boost to exports of goods and services from ASEAN+3. Existing vaccines remain effective against new subvariants of COVID-19, supporting a stable resumption of economic activities within the region.

Table 1.1. ASEAN+3: AMRO Staff Growth and Inflation Estimates and Forecasts, 2023–24
(Percent, year-on-year)

Economy	GDP Growth			Inflation		
	2022e	2023f	2024f	2022e	2023f	2024f
ASEAN+3	**3.2**	**4.6**	**4.5**	**6.5**	**4.7**	**3.0**
Plus-3	**2.6**	**4.5**	**4.3**	**2.9**	**2.3**	**2.1**
China	3.0	5.5	5.2	2.0	2.0	2.5
Hong Kong	-3.5	4.3	3.0	1.9	2.3	2.5
Japan	1.0	1.2	1.1	2.5	1.5	1.1
Korea	2.6	1.7	2.3	5.1	3.3	2.2
ASEAN	**5.6**	**4.9**	**5.2**	**7.9**	**5.7**	**3.4**
Brunei	-1.2	2.8	2.6	3.7	2.5	1.7
Cambodia	5.0	5.9	6.7	5.4	3.3	3.1
Indonesia	5.3	5.0	5.3	4.2	4.6	3.0
Lao PDR	4.0	4.1	5.0	23.0	11.4	4.2
Malaysia	8.7	4.2	5.2	3.3	3.2	1.9
Myanmar	1.2	2.2	2.8	18.2	14.0	8.0
Philippines	7.6	6.2	6.5	5.8	5.9	3.8
Singapore	3.6	2.0	2.6	6.1	5.8	3.7
Thailand	2.6	4.1	4.3	6.1	2.8	2.1
Vietnam	8.0	6.8	7.1	3.2	3.0	2.5

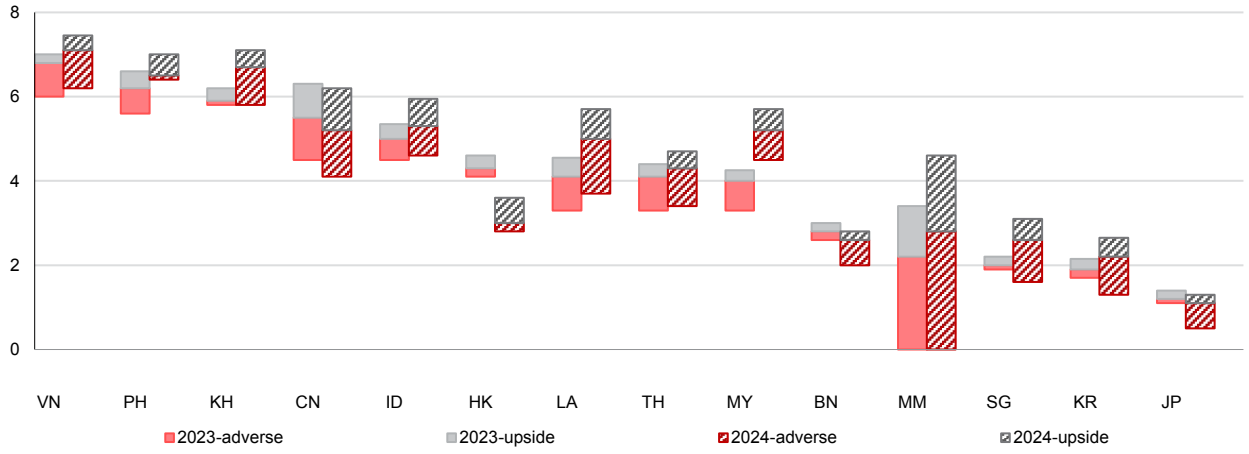
Source: National authorities via CEIC and Haver Analytics; and AMRO staff estimates and forecasts.
Note: Myanmar's growth numbers are based on its fiscal year, which runs from 1 October to 30 September. e = estimates; f = forecast.

Figure 1.45. ASEAN+3: GDP Growth Forecasts under AMRO Staff Scenarios
(Percent, year-on-year)



Source: National authorities via Haver Analytics; Oxford Economics Global Model; AMRO staff estimates.
Note: e = estimates; f = forecast.

Figure 1.46. ASEAN+3: Projected GDP Growth Ranges, 2023–24
(Percent, year-on-year)



Source: Oxford Economics; AMRO staff estimates.
Note: BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; MM = Myanmar; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Headline inflation in ASEAN+3 is projected to be 4.7 percent in 2023, lower than in 2022. Excluding Lao PDR and Myanmar—which are likely to continue experiencing high inflation on account of currency depreciation—inflation in the rest of the region is expected to be a more moderate 3.4 percent in 2023 (Table 1.1). Most economies in the region should see lower inflation compared to last year, as global commodity and food prices come down with softer global demand. Only Hong Kong, Indonesia, and Myanmar are expected to see higher inflation in 2023, due to stronger demand pressures (Hong Kong); price increases for several types of subsidized fuel (Indonesia); and sustained currency depreciation (Myanmar).

Inflation is expected to normalize toward its long-term trend in 2024 given that global energy and food prices are projected to stabilize. Supply bottlenecks are likely to ease as production activity resumes following the full reopening of economies. Cost-push inflation pressures are therefore likely to dissipate by 2024. Looking ahead, climate change mitigation commitments, such as carbon pricing and efforts to shift away from fossil fuels, may place more upward pressure on inflation in the medium term (Chapter 2).

IV. Policy Considerations

As economic recovery in ASEAN+3 gains traction, the region's policymakers have largely ended the extraordinary stimulus measures introduced during the pandemic and are shifting to restoring policy buffers. Rising inflation and a less supportive global economic landscape have compelled the authorities in some economies to tighten monetary policy while maintaining targeted fiscal support to safeguard growth. ASEAN+3 authorities will continue to face sharp policy tradeoffs and difficult policy decisions in the year ahead. A calibrated policy mix drawing on a range of policy tools will be essential to fulfill multiple policy objectives.

Policy Space

Fiscal space in ASEAN+3 has generally narrowed. Public debt-to-GDP ratios have risen across the region, as authorities in some economies raised the public debt ceiling (Malaysia and Thailand) or temporarily suspended the budget deficit ceiling (Indonesia) in order to accommodate additional fiscal outlays in 2020–22. Although growth improved in 2022, the higher debt burden—reflecting higher interest payments and amortization—translated into higher gross financing needs (Box 1.5). AMRO staff's assessment is that fiscal space remains moderate to ample in most ASEAN+3 economies, but continues to be limited in Japan, Lao PDR, and Myanmar (Table 1.2).

In light of rising inflation, most central banks in the region started to rebuild monetary policy space by raising policy interest rates in 2022. Some central banks (Korea and the Philippines) went further to tighten monetary policy—raising the policy rate above its neutral level—to rein in inflation and anchor inflation expectations. In other economies (Indonesia, Malaysia, and Thailand), policy interest rates have been raised but overall monetary conditions remain accommodative, given existing economic slack. AMRO staff's assessment is that at the end of 2022, monetary policy space was moderate in most ASEAN+3 economies and limited in Cambodia, Japan, Lao PDR, and Myanmar (Box 1.6).

Table 1.2. ASEAN+3: Assessment of Policy Space, 2023

Policy space		Fiscal		
		Ample	Moderate	Limited
Monetary	Ample			
	Moderate	Singapore	China Indonesia Korea Malaysia Philippines Thailand Vietnam	
	Limited	Brunei Hong Kong	Cambodia	Japan Lao PDR Myanmar

Source: AMRO staff, based on Poonpatpibul and others (2020).
Note: This framework does not take into account the ability and capacity of monetary authorities to undertake unconventional monetary policy.

Box 1.5:

Fiscal Stress in ASEAN+3

Government debt-to-GDP ratios jumped during the pandemic and have continued to rise in most of the region's economies (Figure 1.5.1). Debt accumulation over the past three years was driven mainly by sizeable primary deficits. Off-budget stimulus spending also contributed to increasing government debt in Thailand, while exchange rate depreciation inflated the debt ratio in local currency terms in economies with high external debt exposure such as Lao PDR (Figure 1.5.2). In some economies, substantial fiscal adjustments would be needed to stabilize the debt ratio (Figure 1.5.3).

Gross financing needs have correspondingly increased. The sum of budget deficits and funds required to roll over debt maturing in 2023 have risen (Figure 1.5.4 and Figure 1.5.5). Interest rate increases would further add to existing debt burdens (Figure 1.5.6), while depreciation against creditor currencies such as the US dollar would increase the cost burden for economies with large external obligations.

These developments have brought to the fore the importance of assessing fiscal sustainability risks across the region. Various factors can affect fiscal sustainability risks, including:

- Fiscal vulnerabilities. Large fiscal deficits and high government debt may raise concerns about fiscal sustainability. Sizeable financing needs may cause financing stress, especially when market conditions are not favorable. Suboptimal debt structure (e.g., a high share of external debt and short-term debt) would increase vulnerability to rollover, exchange rate, and interest rate risks.

- External sector vulnerabilities. External shocks could propagate to fiscal sustainability risks in economies with weak current accounts, high external debt, and narrow external buffers.

- Domestic macroeconomic and financial conditions. Economic recession may widen the real interest rate-growth rate differential and jeopardize debt sustainability. A sharp depreciation of the local currency would inflate the nominal value of external debt and increase the debt service burden for economies with high external debt obligations.

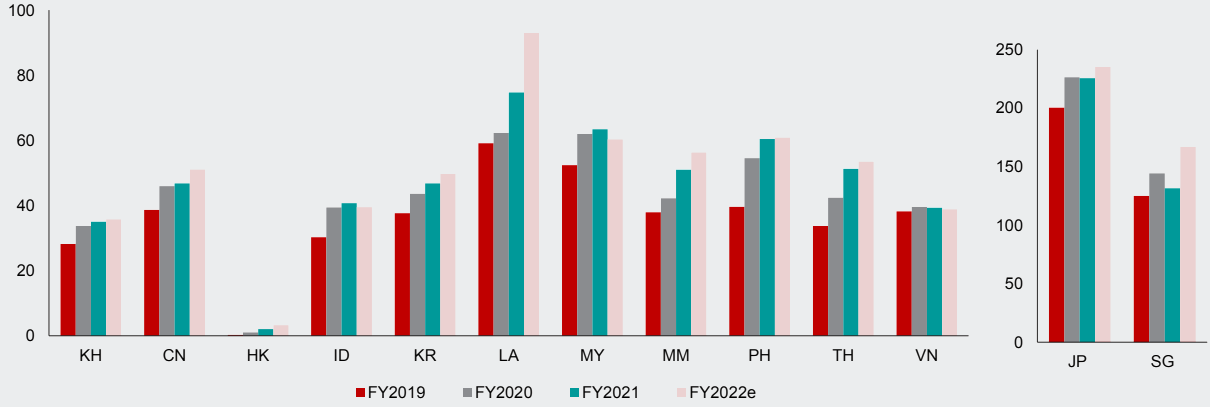
- Global economic situation. Global economic and financial market developments could trigger fiscal sustainability risks in economies that are exposed to the global economy through real and financial channels.

The degree of fiscal stress in ASEAN+3 economies can be assessed using the short-term fiscal sustainability (FSS) indicator. Following Baldacci and others (2011), fiscal crisis events are defined as episodes of outright fiscal distress (e.g., public debt default or restructuring, need for large-scale IMF support, hyperinflation) and extreme financing problems (e.g., spikes in sovereign bond spreads). In these cases, fiscal solvency is endangered and the government is forced to alter its policies to regain fiscal sustainability. The FSS indicator is based on a set of 27 indicators that have been proven to perform well in detecting upcoming situations of fiscal stress, including the fiscal balance, government debt, gross financing needs, external debt, real GDP growth, inflation, exchange rate depreciation, commodity price index, and the Chicago Board Options Exchange volatility index (AMRO, forthcoming).

AMRO staff assessment using the FSS indicator suggests that fiscal stress has risen in more than half of ASEAN+3 economies since the onset of the pandemic. The FSS indicators for Brunei, Cambodia, China, Hong Kong, Japan, Korea, Lao PDR, and Singapore rose above the threshold in 2022. This does not necessarily mean that a fiscal stress event is imminent, only that close monitoring and careful macro-fiscal management are required to reduce the risk of one in 2023 (Figure 1.5.7). Reasons for the increase in fiscal stress can be traced to unfavorable global conditions in 2022, which included economic slowdown, commodity price hikes, and volatile financial market conditions (Hong Kong, Japan, Korea, and Singapore); large fiscal deficits (China); domestic macroeconomic weakness (Brunei); and weak external positions (Cambodia and Lao PDR).

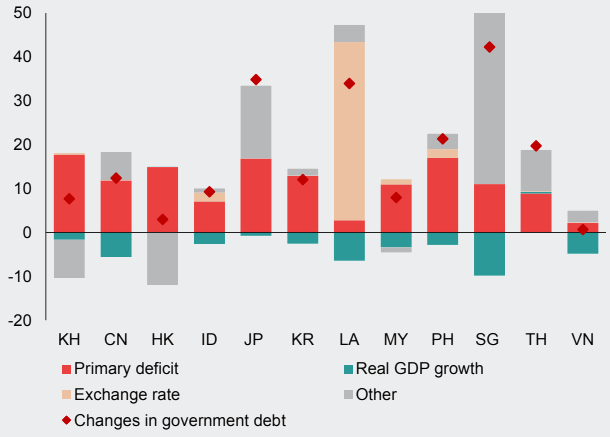
This box was written by Byunghoon Nam.

Figure 1.5.1. ASEAN+3: Government Debt
(Percent of GDP)



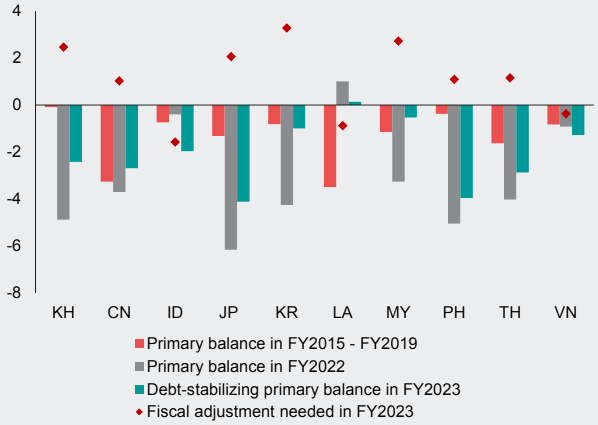
Source: National Authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: Brunei is not shown as it has virtually zero government debt. CN = China; e = estimate; FY = fiscal year; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Figure 1.5.2. ASEAN+3: Contribution to Change in Government Debt Ratio, FY2019–22
(Percent of GDP)



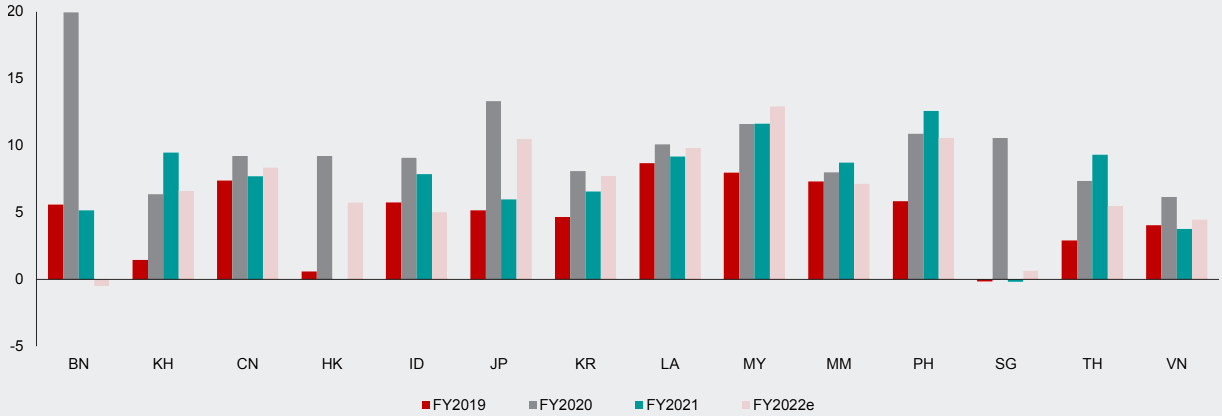
Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: Brunei is excluded as there is virtually zero government debt. CN = China; FY = fiscal year; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Figure 1.5.3. Selected ASEAN+3: Primary Balance and Needed Fiscal Adjustment
(Percent of GDP)



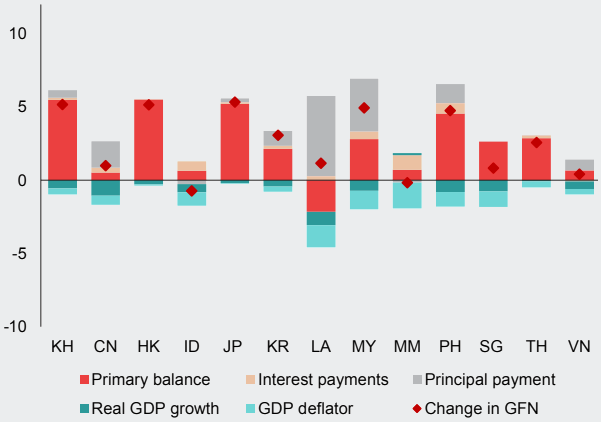
Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: The debt-stabilizing primary balance in FY2023 is the primary balance that would maintain the debt ratio at the end of FY2022. The fiscal adjustment needed in FY2023 is defined as the difference between the actual primary balance in FY2022 and the debt-stabilizing primary balance in FY2023, which captures how much the primary balance should change in FY2023 compared to FY2022 to stabilize the debt ratio. CN = China; FY = fiscal year; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; PH = Philippines; TH = Thailand; VN = Vietnam.

Figure 1.5.4. ASEAN+3: Gross Financing Needs
(Percent of GDP)



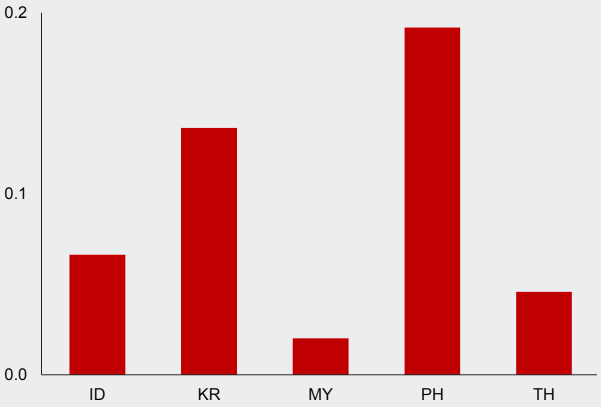
Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: Gross financing needs for Lao PDR (LA) include its original debt service amount without debt restructuring (the government has been in debt restructuring negotiations with bilateral creditors since 2021). BN = Brunei; CN = China; e= estimate; FY = fiscal year; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR: MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Figure 1.5.5. ASEAN+3: Contribution to Change in Gross Financing Needs from FY2019–22
(Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates
Note: For Brunei, there is no issuance of debt to finance fiscal needs; CN = China; GFN = gross financing needs; HK = Hong Kong; FY = fiscal year; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

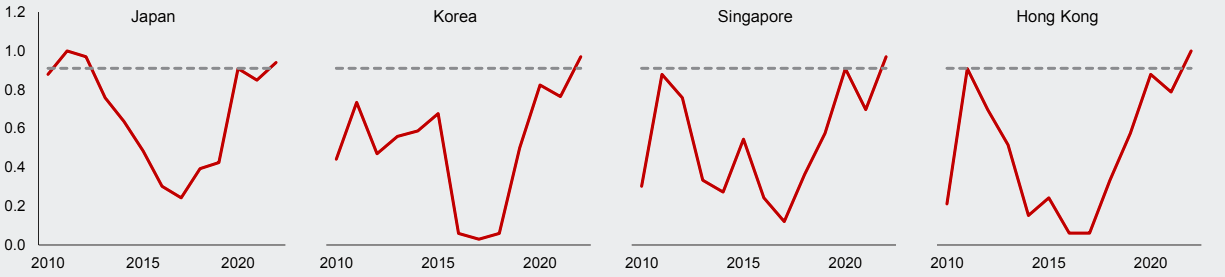
Figure 1.5.6. Selected ASEAN+3: Additional Interest Payments due to 2022 Policy Rate Hikes, FY2023
(Percent of GDP)



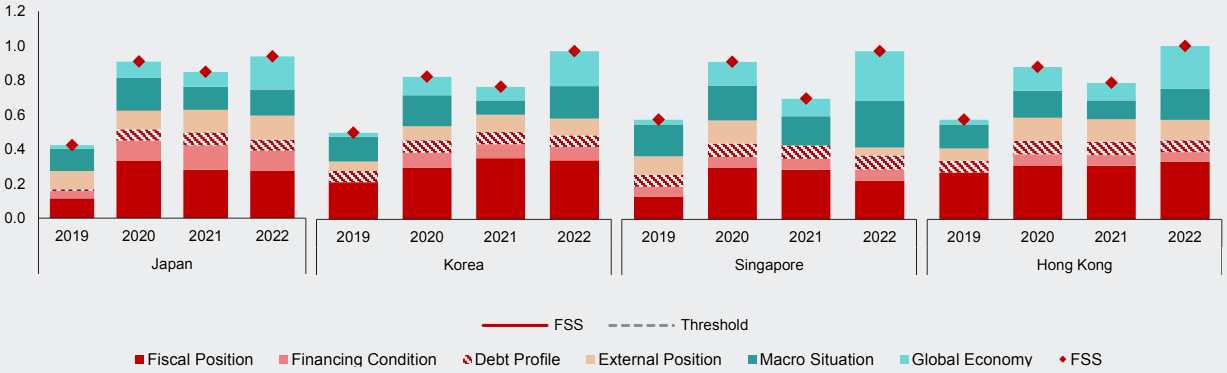
Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: For simulation purposes, the policy rates in 2023 are assumed to remain the same as in January 2023. Bond coupon rates are assumed to move in parallel with the policy rates. FY = fiscal year; ID = Indonesia; KR = Korea; MY = Malaysia; PH = Philippines; TH = Thailand.

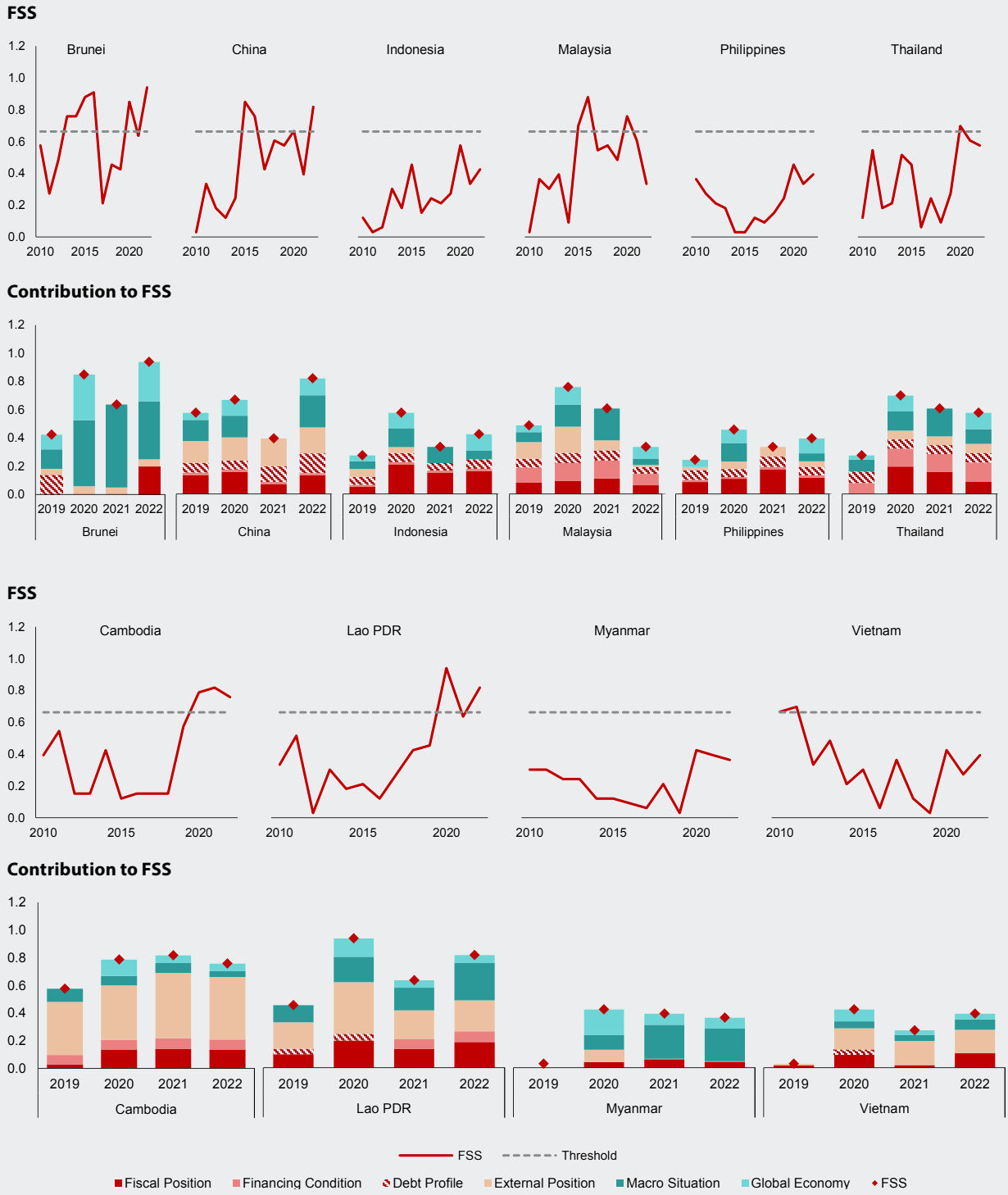
Figure 1.5.7. ASEAN+3: Short-Term Fiscal Sustainability Indicator

FSS



Contribution to FSS





Source: National authorities, IMF, World Bank via Haver Analytics; AMRO staff estimates.
Note: The short-term fiscal sustainability indicator (FSS) is a composite indicator based on 27 indicators reflecting the fiscal position, external position, macroeconomic and financial market conditions, as well as global economic conditions. The optimal thresholds are indicated by the horizontal dotted lines. A higher (lower) value of FSS (relative to the threshold) implies higher (lower) short-term risk of a fiscal stress event. BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Box 1.6:

Monetary Policy Frameworks in ASEAN+3

ASEAN+3 economies have adopted a wide range of monetary policy frameworks to achieve their price, financial, and external stability objectives (Table 1.6.1). Brunei and Hong Kong have a hard exchange rate peg similar to a currency board system; hence, they have no monetary policy autonomy. Cambodia, China, Lao PDR, and Vietnam have de facto soft exchange rate pegs, with an explicit or implicit exchange rate anchor for monetary policy. Singapore centers its monetary policy on the Singapore dollar nominal effective exchange rate. Cambodia and Lao PDR are highly dollarized economies. Five economies—Indonesia, Japan, Korea, the Philippines, and Thailand—have an inflation-targeting framework for monetary policy, while Malaysia has no explicitly stated nominal anchor and monitors various indicators in conducting monetary policy.

Monetary policy space is assessed by AMRO staff based on a four-block approach that accounts for: (1) the degree of monetary policy autonomy; (2) the distance of the prevailing monetary policy rate from the zero lower bound; (3) external sustainability and reserve buffers to deal with shocks; and (4) financial imbalances and the ability to address them using macroprudential tools (Poonpatpibul and others 2020). For Cambodia, Lao PDR, Myanmar, and Vietnam, the assessment of monetary policy space also takes into account the level of dollarization and data limitations in key financial stability indicators.

Table 1.6.1. ASEAN+3: Monetary Policy Frameworks

Economy	De Facto Exchange Rate Classification	Monetary Policy Framework	Policy Interest Rate(s)
Brunei	Currency board	Exchange rate anchor against the Singapore dollar	n.a.
Hong Kong	Currency board	Exchange rate anchor against the US dollar	n.a.
Cambodia	Stabilized arrangement	Exchange rate anchor against the US dollar	n.a.
Singapore	Stabilized arrangement	Exchange rate anchor against a basket of currencies	n.a.
Vietnam	Crawl-like arrangement	Exchange rate anchor against the US dollar	State Bank of Vietnam refinancing rate, discount rate, overnight lending interest rate in interbank electronic payment.
Lao PDR	Crawl-like arrangement	Other monetary framework (de facto exchange rate anchor against the US dollar)	
Philippines	Floating	Inflation targeting	Bangko Sentral ng Pilipinas overnight reverse repurchase rate
China	Other managed arrangement	Monetary aggregate target (de facto exchange rate anchor against a basket of currencies)	People's Bank of China repo rate, reverse repo rate, loan prime rate, standing lending facility, and medium-term lending facility rates.
Myanmar	Other managed arrangement	Monetary aggregate target (reserve money)	
Indonesia	Floating	Flexible inflation targeting	Bank Indonesia seven-day reverse repo rate
Korea	Floating	Inflation targeting	Bank of Korea base rate
Malaysia	Floating	Other monetary framework	Bank Negara Malaysia overnight policy rate
Thailand	Floating	Flexible inflation targeting	Bank of Thailand one-day bilateral repurchase transaction rate
Japan	Free floating	Inflation targeting	Bank of Japan short-term policy interest rate and 10-year Japan Government Bond yield

Source: IMF Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) database; Poonpatpibul and others (2020); AMRO staff compilation.
Note: n.a. = not applicable. "Other managed arrangement" (Myanmar) refers to an exchange rate arrangement that does not meet the criteria for any of the AREAR categories; arrangements characterized by frequent shifts in policies may fall into this category.

This box was written by Anthony Chia Kiat Tan.

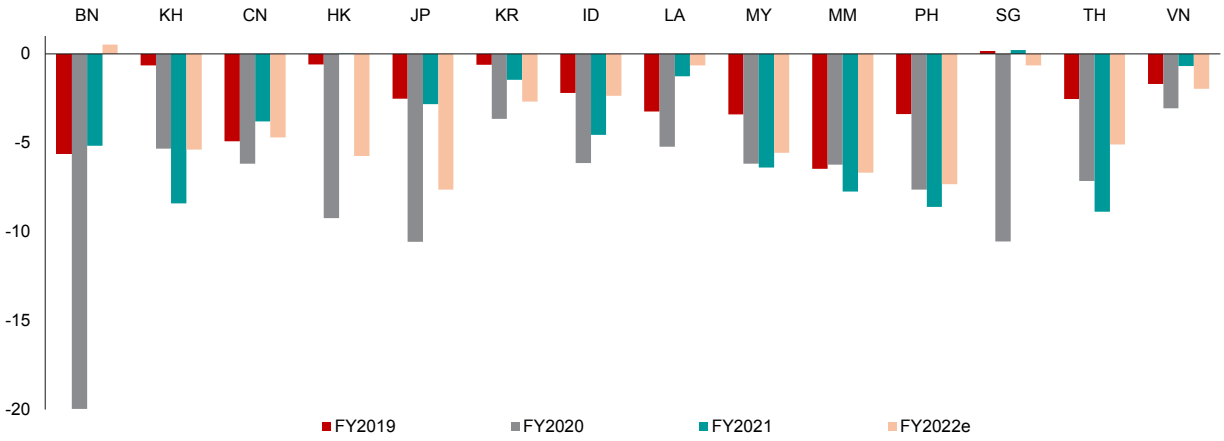
Policy Positions

Table 1.3 summarizes AMRO staff assessments and recommendations regarding the policy stance in ASEAN+3 economies.

Fiscal policy

With fiscal space significantly smaller, most authorities in the region are planning to shift toward fiscal consolidation in 2023. Fiscal deficits widened in half of the region's economies in 2022 and narrowed in the other half (Figure 1.47). The variation largely reflected differences in the speed of economic recovery, unwinding of spending on pandemic support, and restructuring of spending programs, as well as idiosyncratic factors such as commodity price windfalls (Brunei and Indonesia). Fiscal balances are budgeted to improve in most economies in 2023, in anticipation of robust revenue growth and withdrawal of pandemic-related spending (Figure 1.48). As a result, the fiscal stance in 2023 is assessed to be contractionary in half of the region's economies. (Figure 1.49).

Figure 1.47. ASEAN+3: Fiscal Balances

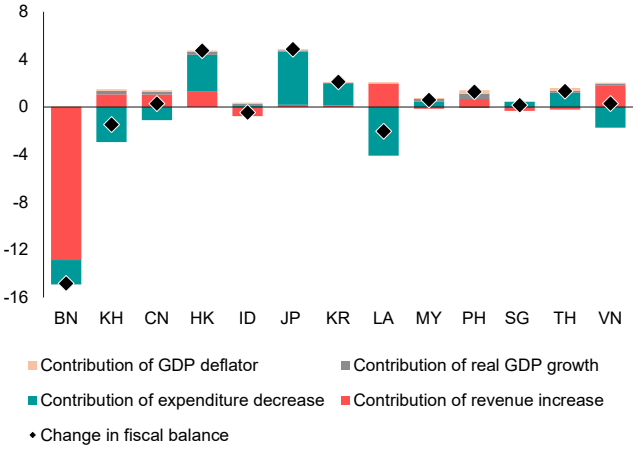


Source: National Authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: Fiscal year (FY) is April to March for Brunei, Hong Kong, Japan, and Singapore; October to September for Thailand and Myanmar; January to December for the other economies. BN = Brunei; CN = China; e = estimate; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

The speed and magnitude of fiscal consolidation would depend on country-specific economic circumstances, policy priorities, and constraints. In the near term, some economies still need continued fiscal support, especially where rising inflation has substantially increased the cost of living or where there has been a resurgence of COVID-19 and economic recovery has not fully taken hold. Economic recovery is often uneven, and vulnerable groups and sectors may still require support. At the same time, although some fiscal policy space remains in most economies, it is crucial to rebuild fiscal buffers to prepare for future shocks and to address medium- and longer-term challenges (Box 1.7). For non-reserve currency economies heavily reliant on external financing, a sound fiscal position is especially critical for their sovereign credit rating, which affects financing costs of not only the government but also the private sector.

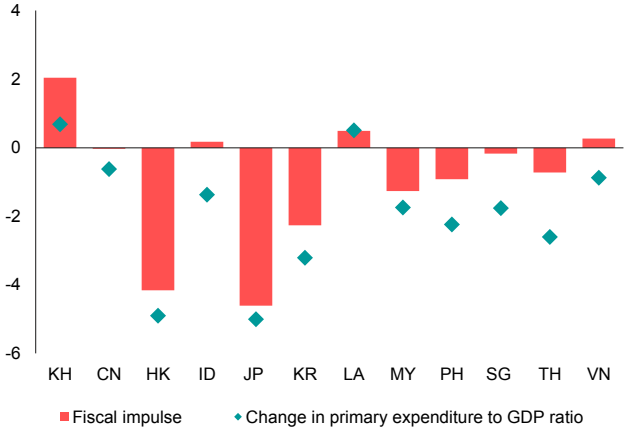
Fiscal consolidation should be addressed first through resource reallocation and supported by fiscal reform. Fiscal adjustment should start by tapering broad-based emergency measures based on the strength of the economic recovery and the abatement of the pandemic. Expanded social safety nets should provide continued support to vulnerable groups and sectors lagging in the recovery, while time-bound, targeted support could be employed to fill gaps in social protection coverage. Fiscal policy should stand ready to take the lead in dealing with economic difficulties if downside risks materialize, especially where limitations on monetary policy apply. In any case, the support should be temporary and selective, and efforts to rebuild the fiscal buffer should be resumed once the risk factors subside.

Figure 1.48. Selected ASEAN+3: Contribution to the Change in Fiscal Balance, FY2023
(Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: Budget data are unavailable for Myanmar. The fiscal balance for Singapore is based on the overall budget surplus/deficit, excluding capitalization and depreciation of nationally significant infrastructure from the overall fiscal position. BN = Brunei; CN = China; FY = fiscal year; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR, MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Figure 1.49. Selected ASEAN+3: Fiscal Impulse, FY2023
(Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimate.
Note: AMRO defines fiscal impulse as the estimated change in the structural primary balance. A negative fiscal impulse implies a contractionary fiscal stance. The change in primary expenditure is defined as the annual difference in expenditure excluding interest payments, as a percentage of GDP. A negative sign implies that primary expenditure grows slower than nominal GDP. Budget data are unavailable for Myanmar. BN = Brunei; CN = China; FY = fiscal year; HK = Hong Kong; JP = Japan; KH = Cambodia; KR = Korea; ID = Indonesia; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Box 1.7:

Fiscal Policy in the Medium Term

Across the region, fiscal deficits are envisaged to gradually return to pre-pandemic levels in the medium term (Figure 1.7.1). Government debt-to-GDP ratios will plateau or slightly decline over time (Figure 1.7.2). The planned restoration of fiscal space will enable fiscal policy to play a bigger role in supporting growth against shocks, minimizing the scarring effects of the pandemic, and addressing existing and emerging structural challenges—e.g., population aging, infrastructure gaps, climate change, and digitalization.

- In the next 10 years, several ASEAN+3 economies are projected to become so-called post-aged (or super-aged) societies, with more than 20 percent of the population above the age of 65 (Figure 1.7.3). The additional fiscal costs for health care spending in 2032 compared to 2022 are estimated to range from under 1 percent of GDP (in China, Japan, and Thailand) to over 2 percent of GDP (in Hong Kong, Korea, and Singapore).

- As noted in the thematic chapter of the *ASEAN+3 Regional Economic Outlook 2022,* the region's emerging and developing economies face sizeable investment needs for both traditional and new infrastructure (AMRO 2022b). The infrastructure gap is estimated to be 0.3–0.9 percent of GDP in emerging-market economies, and 1.1–4.2 percent of GDP in low-income economies, on average, in 2023–40 (Figure 1.7.4).

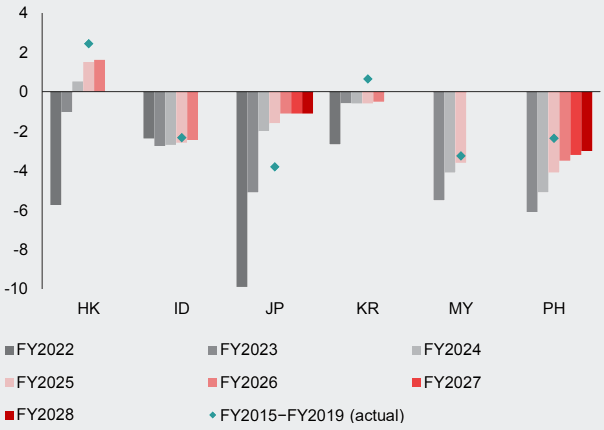
ASEAN+3 authorities should prepare clear medium-term fiscal consolidation plans. For accountability and credibility, specific targets—for the fiscal deficit and/or the government debt ratio—should be presented together with realistic macroeconomic projections and feasible policy measures to achieve them. The targets and measures should be aligned with country-specific economic and fiscal circumstances. For example, economies with low tax-to-GDP ratios may put more emphasis on improving revenue collection in their medium-term consolidation plan. To safeguard growth momentum, revenue-enhancing measures should prioritize strengthening tax administration and compliance before introducing new taxes or raising tax rates. Expenditure measures, such as rationalizing distortionary subsidies and improving the efficiency of spending programs, would also be important aspects of fiscal adjustment (Andriansyah and Hong 2022). Governments should also consider reinstating fiscal rules relaxed during the pandemic or introducing new fiscal rules to guide the fiscal consolidation targets.[1]

Post-pandemic fiscal policy normalization will provide the opportunity to revisit overall resource allocation across diverse policy priorities. Restructuring of spending programs should be based on rigorous assessment of existing and new programs, which would help redirect resources toward high-priority programs while strengthening role-sharing between the public and private sectors to better mobilize available resources.

This box was written by Byunghoon Nam.

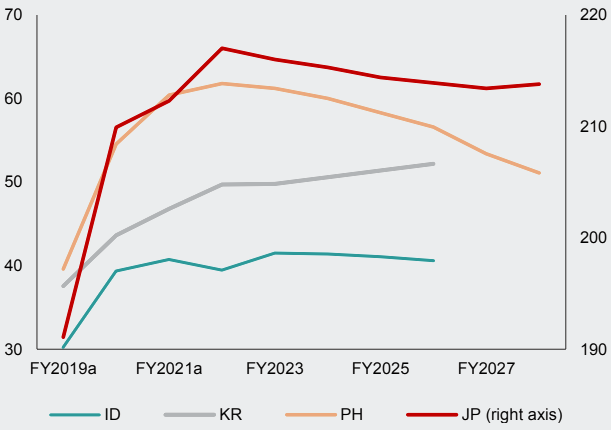
1/ Indonesia has reinstated its budget deficit ceiling of 3 percent of GDP after relaxing it for three years from 2020 to 2022. Thailand increased its public debt ceiling from 60 percent of GDP to 70 percent in 2021. Malaysia increased its public debt ceiling from 55 percent of GDP to 60 percent in 2020, and 65 percent in 2021; in addition, the Malaysian government has created a special account for the COVID-19 fund, which allows it to bypass the golden rule of government spending and borrow for this account. Meanwhile, Korea has proposed a fiscal rule limiting the fiscal deficit excluding social security funds to below 3 percent of GDP.

Figure 1.7.1. Selected ASEAN+3: Medium-Term Fiscal Balance Projections
(Percent of GDP)



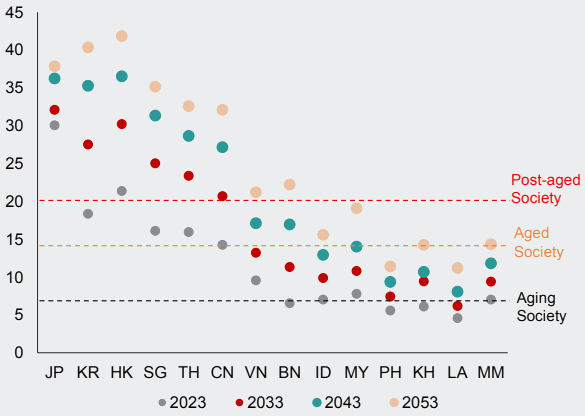
Source: National authorities; AMRO staff estimates.
Note: Fiscal balance projections are as announced by authorities. FY = fiscal year; HK = Hong Kong; ID = Indonesia; JP = Japan; KR = Korea; MY = Malaysia; PH = Philippines. Data for FY2022–28 are AMRO staff estimates.

Figure 1.7.2. Selected ASEAN+3: Medium-Term Government Debt Projections
(Percent of GDP)



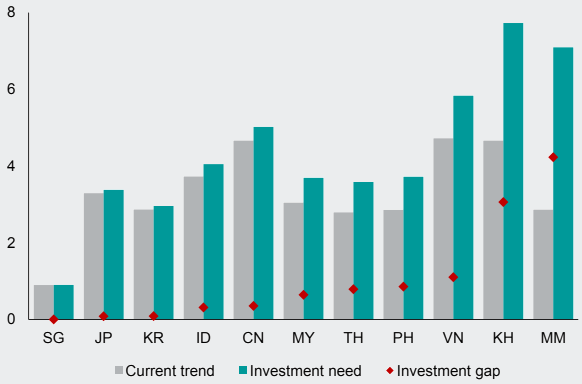
Source: National authorities; AMRO staff estimates.
Note: Debt ratio projections are as announced by authorities. a = actual; FY = fiscal year; ID = Indonesia; JP = Japan; KR = Korea; PH = Philippines.

Figure 1.7.3. ASEAN+3: Old-age Population
(Percent of total population)



Source: United Nations; AMRO staff estimates.
Note: Old-age population refers to those of ages 65 years and above. An economy is classified as an aging society if the share of old-age population in the total population is 7 percent to 14 percent, an aged society if the share is 15 percent to 19 percent, and a post-aged society if the share is 20 percent and above.
BN = Brunei; CN = China; HK = Hong Kong; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Figure 1.7.4. Selected ASEAN+3: Infrastructure Investment Gap, 2023–40
(Percent of GDP)



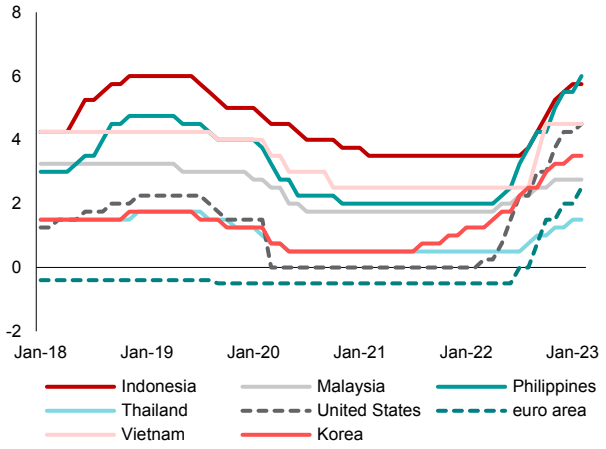
Source: Global Infrastructure Outlook; AMRO staff calculations.
Note: The investment gap is defined as the difference between the infrastructure investment projected for 2023–40, based on current trends and the infrastructure investment needed to match the performance of the best-performing peers.
CN = China; ID = Indonesia; JP = Japan; KH = Cambodia; KR = Korea; MM = Myanmar; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Monetary policy

Monetary policy should remain tight in economies where inflation is above-target. In Korea and Singapore, a rapidly narrowing output gap and firming labor market prompted more preemptive monetary policy tightening to rein in inflation pressures in 2022. The Bank of Korea tightened policy at a more aggressive pace, raising its policy ("base") rate well above pre-pandemic levels (Figure 1.50). The Monetary Authority of Singapore acted preemptively and has progressively recentered the mid-point and raised the slope of the Singapore dollar nominal effective exchange rate policy band since October 2021. While inflation pressures have largely eased, headline inflation remains higher than the pre-pandemic average in these two economies (Figure 1.51). In the Philippines, the central bank raised its policy rate to curb rising inflation and the emergence of second-round effects. Given these three economies' mid- and late-cycle positions (as shown in Section I), AMRO staff recommends that their central banks maintain a tight monetary policy stance until inflation pressures subside.

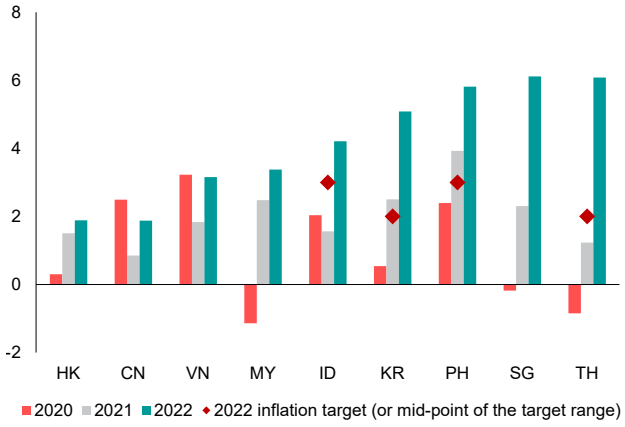
Monetary conditions can remain accommodative in economies with negative output gaps. As noted earlier, Indonesia, Malaysia, and Thailand have raised their policy interest rates, but with inflation generally under control and in light of the slack in their economies, the authorities have been able to keep monetary conditions supportive of growth, i.e., the policy interest rate is below the neutral rate. AMRO staff recommends that the authorities stand ready to further normalize monetary policy in tandem with the improvement in the growth trajectory and/or if upside risks to inflation materialize.

Figure 1.50. Selected ASEAN+3, United States and Euro Area: Policy Interest Rates
(Percent)



Source: National authorities via Haver Analytics.
Note: Data are up to February 2023. Policy rates refer to seven-day reverse repo rate (Indonesia); base rate (Korea); overnight policy rate (Malaysia); overnight reverse repo rate (the Philippines); one-day repurchase rate (Thailand); refinancing rate (Vietnam); federal funds rate (upper range) (United States); and deposit facility rate (euro area).

Figure 1.51. Selected ASEAN+3: Headline Consumer Price Inflation
(Percent, year-on-year)



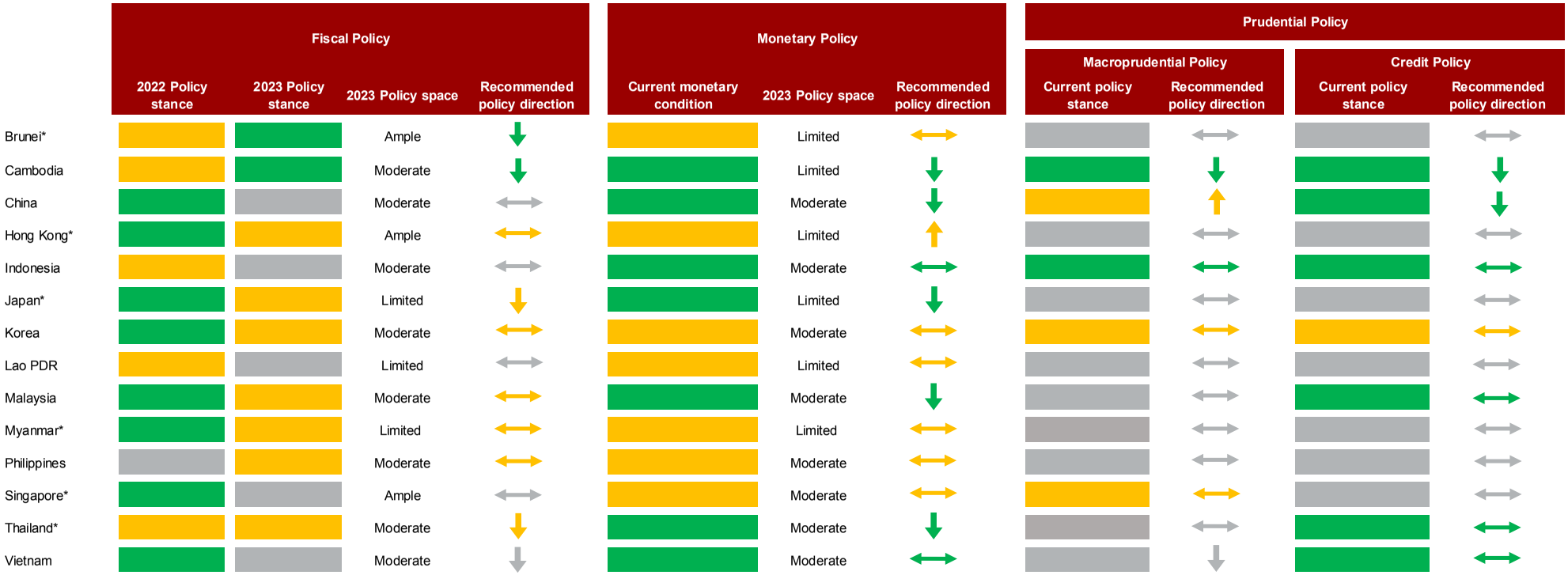
Source: National authorities via Haver Analytics.
Note: China, Malaysia, Singapore, and Vietnam are not inflation-targeting economies. CN = China; HK = Hong Kong; ID = Indonesia; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; VN = Vietnam.

Macroprudential and credit policies

Macroprudential policies remain largely neutral—which is appropriate to support growth. As the pandemic recedes and economic activities resume, most economies have begun to taper macroprudential accommodation, but not to the extent of tightening policies. Measures aimed at increasing the space for banks to support borrowers—such as temporary suspension of minimum liquidity coverage ratios (Malaysia) and temporary reduction in reserve requirement ratios (Indonesia)—are being allowed to expire. Korea and Singapore, which both saw a robust property market recovery, tightened rules for housing loans to ensure prudent borrowing amid rising interest rates (although Korea subsequently lifted property-related regulations in December 2022 amid falling home prices).

Credit policies should continue to be normalized. Emergency debt moratoriums, which were rolled out to give struggling households and businesses a reprieve from meeting their debt obligations during the pandemic, are gradually being lifted in many economies. Banks in the region have also been closely monitoring their loan quality and building up provisions in anticipation of the unwinding of regulatory forbearance. Given sectoral disparities in the economic recovery, however, targeted support for hard-hit but viable businesses in lagging sectors should remain, alongside careful monitoring.

Table 1.3. ASEAN+3 Policy Matrix: AMRO Staff Assessment of Current Policy Stance and Recommendations



Legend:

AMRO's assessment of current policy stance

- Expansionary/Accommodative
- Neutral
- Contractionary/Tight

AMRO's recommendation

Expand

- Expand more/ more accomodative
- Expand less/ less accomodative
- Maintain current expansion

Tighten

- Tighten more
- Tighten less
- Maintain tightening

Neutral

- Easing bias
- Tightening bias
- Maintain neutral

Source: AMRO staff estimates.
Note: Asterisk (*) denotes fiscal year from 1 April to 31 March. Fiscal policy stance is assessed by the fiscal impulse based on structural primary balance. The fiscal policy stance in 2022 is based on 2022 estimates, while the fiscal stance in 2023 is based on the 2023 budget. For Brunei and Hong Kong, which have a currency board arrangement, the current monetary stance refers to current monetary conditions. "Credit policy" refers to policies relating to credit extended to the real and property sectors, as well as to regulatory forbearance for banks.

Appendix: Selected Key Macroeconomic and Financial Indicators

	2021	2022e	2023f	2024f
Brunei Darussalam				
Real GDP growth (percent, year-on-year)	–1.6	–1.2	2.8	2.6
Headline inflation (period average, percent, year-on-year)	1.7	3.7	2.5	1.7
Current account balance (percent of GDP)	11.2	12.8	9.9	7.1
Government fiscal balance (percent of GDP)	–5.2	0.5	–1.3	–1.6
Cambodia				
Real GDP growth (percent, year-on-year)	3.0	5.0	5.9	6.7
Headline inflation (period average, percent, year-on-year)	2.9	5.4	3.3	3.1
Current account balance (percent of GDP)	–45.7	–32.7	–18.2	–11.0
Government fiscal balance (percent of GDP)	–8.5	–5.4	–5.2	–3.4
China				
Real GDP growth (percent, year-on-year)	8.4	3.0	5.5	5.2
Headline inflation (period average, percent, year-on-year)	0.9	2.0	2.0	2.5
Current account balance (percent of GDP)	1.8	2.3	1.2	0.8
Government fiscal balance (percent of GDP)	–3.8	–4.9	–5.2	–4.5
Hong Kong, China				
Real GDP growth (percent, year-on-year)	6.4	–3.5	4.3	3.0
Headline inflation (period average, percent, year-on-year)	1.6	1.9	2.3	2.5
Current account balance (percent of GDP)	11.8	6.6	6.0	5.2
Government fiscal balance (percent of GDP)	0.0	–7.3	–3.9	–1.0
Indonesia				
Real GDP growth (percent, year-on-year)	3.7	5.3	5.0	5.3
Headline inflation (period average, percent, year-on-year)	1.6	4.2	4.6	3.0
Current account balance (percent of GDP)	0.3	1.0	–0.5	–1.3
Government fiscal balance (percent of GDP)	–4.7	–2.4	–2.2	–3.0
Japan				
Real GDP growth (percent, year-on-year)	2.1	1.0	1.2	1.1
Headline inflation (period average, percent, year-on-year)	–0.3	2.5	1.5	1.1
Current account balance (percent of GDP)	3.9	2.1	1.8	2.0
Government fiscal balance (percent of GDP)	–5.9	–9.4	–4.7	–4.4
Korea				
Real GDP growth (percent, year-on-year)	4.1	2.6	1.7	2.3
Headline inflation (period average, percent, year-on-year)	2.5	5.1	3.3	2.2
Current account balance (percent of GDP)	4.7	1.5	1.8	2.0
Government fiscal balance (percent of GDP)	–4.4	–5.1	–2.6	–2.6

Appendix: Selected Key Macroeconomic and Financial Indicators

	2021	2022e	2023f	2024f
Lao PDR				
Real GDP growth (percent, year-on-year)	3.5	4.0	4.1	5.0
Headline inflation (period average, percent, year-on-year)	3.8	23.0	11.4	4.2
Current account balance (percent of GDP)	2.7	–0.3	–0.8	1.3
Government fiscal balance (percent of GDP)	–1.3	–1.0	–2.2	–1.8
Malaysia				
Real GDP growth (percent, year-on-year)	3.1	8.7	4.2	5.2
Headline inflation (period average, percent, year-on-year)	2.5	3.3	3.2	1.9
Current account balance (percent of GDP)	3.8	2.6	3.6	4.4
Government fiscal balance (percent of GDP)	–6.4	–5.6	–5.1	–4.2
Myanmar[1]				
Real GDP growth (percent, year-on-year)	–18.7	1.2	2.2	2.8
Headline inflation (period average, percent, year-on-year)	3.6	18.2	14.0	8.0
Current account balance (percent of GDP)	–0.2	–4.3	–2.3	–1.2
Government fiscal balance (percent of GDP)	–7.7	–6.7	–6.2	–5.8
Philippines				
Real GDP growth (percent, year-on-year)	5.7	7.6	6.2	6.5
Headline inflation (period average, percent, year-on-year)	3.9	5.8	5.9	3.8
Current account balance (percent of GDP)	–1.5	–5.3	–3.8	–2.5
Government fiscal balance (percent of GDP)	–8.6	–7.3	–6.1	–5.5
Singapore				
Real GDP growth (percent, year-on-year)	8.9	3.6	2.0	2.6
Headline inflation (period average, percent, year-on-year)	2.3	6.1	5.8	3.7
Current account balance (percent of GDP)	18.0	19.3	15.5	15.7
Government fiscal balance (percent of GDP)	0.3	–0.3	–0.1	0.2
Thailand				
Real GDP growth (percent, year-on-year)	1.5	2.6	4.1	4.3
Headline inflation (period average, percent, year-on-year)	1.2	6.1	2.8	2.1
Current account balance (percent of GDP)	–2.1	–3.4	0.2	2.0
Government fiscal balance (percent of GDP)	–5.2	–3.6	–3.1	–2.9
Vietnam				
Real GDP growth (percent, year-on-year)	2.6	8.0	6.8	7.1
Headline inflation (period average, percent, year-on-year)	1.8	3.2	3.0	2.5
Current account balance (percent of GDP)	–1.1	0.3	2.9	4.0
Government fiscal balance (percent of GDP)	–3.4	–4.4	–2.6	–2.3

Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates.
Note: Numbers in red are AMRO staff estimates and forecasts. Data refer to calendar year, except for government fiscal balances, and Myanmar. Data for 2022 refer to AMRO staff estimates, for data releases that are not yet available. Government fiscal balance refers to balance of the central and local governments for Cambodia; general government for Japan; and central government for all other economies. e = estimates; f = forecasts.

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