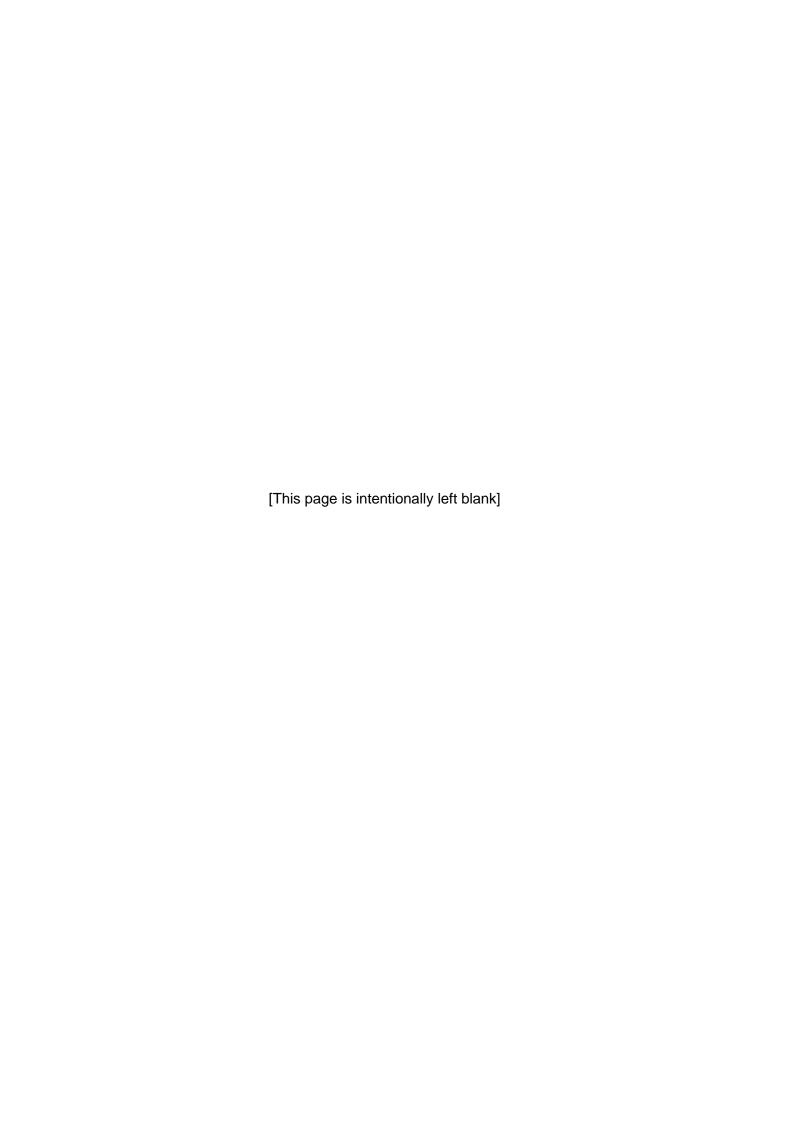


Policy Perspectives Paper (PP/23-01)

ASEAN+3 Fiscal Developments, Outlook, and Policy Considerations

May 2023

Disclaimer: The findings, interpretations, and conclusions expressed in this material represent the views of the author(s) and are not necessarily those of the ASEAN+3 Macroeconomic Research Office (AMRO) or its member authorities. Neither AMRO nor its member authorities shall be held responsible for any consequence of the use of the information contained therein.



ASEAN+3 Fiscal Developments, Outlook, and Policy Considerations

Prepared under the supervision of Seung Hyun (Luke) Hong by Fiscal Surveillance Team led by Byunghoon Nam, and comprising Andriansyah, Ravisara Hataiseree, and Abigail.¹²

Approved by Hoe Ee Khor (Chief Economist)

May 2023

Executive Summary

Multiple external shocks and a bumpy economic recovery led to diverse fiscal developments in 2022. Fiscal deficits narrowed in half of the region's economies and widened in the other half in FY2022. Revenue collection was generally buoyed by the economic recovery and commodity price hikes, especially in commodity-exporting countries. On the expenditure side, most member economies continued fiscal support for the economic recovery by rolling out stimulus packages and targeted support programs. While countries that successfully transitioned to the endemic phase started to unwind the pandemic measures, some economies experiencing outbreaks of a highly transmissible Omicron variant, including China and Hong Kong, had to increase spending related to stringent containment measures. Meanwhile, surging energy and food prices compelled authorities to adopt fiscal support measures to mitigate their impact on businesses and households.

ASEAN+3 member authorities seek to improve their fiscal balance in FY2023, shifting their fiscal stance from expansionary/neutral to neutral/contractionary. Revenue is expected to continue its robust growth, but countries that benefited from the commodity booms in FY2022 are likely to collect less revenue in FY2023, given moderating commodity prices. More than half of the member economies aim to reduce expenditure by withdrawing or unwinding the pandemic-related spending, while the other economies will increase their expenditure to support their recovery and meet development needs. The fiscal stance of most member economies is assessed to be neutral or contractionary in FY2023, which is deemed broadly appropriate, given the narrowing negative output gap and growing concerns about fiscal sustainability.

The government debt is forecast to continue to rise in FY2023, and the gross financing needs are expected to remain high. After a sharp increase during the pandemic, the debt/GDP ratio climbed further in most economies in FY2022 due to the sustained fiscal deficits and some country-specific factors, including off-budget support and currency depreciation. Despite the tightening bias in fiscal stance in FY2023, the debt ratio is expected to rise in most ASEAN+3 economies as the budgeted primary balance in FY2023 remains lower than the debt-stabilizing level. In the medium term, it will be challenging to lower the debt ratio quickly to the pre-pandemic level, as the real interest rate-growth differential remains unfavorable. Gross financing needs are expected to remain elevated in the medium term as the accumulated debt will feed into the high debt service burden, and the interest burden will increase steadily with the rising financing costs amid global financial tightening.

¹ Authors' e-mails: <u>Luke.Hong@amro-asia.org</u>, <u>Byunghoon.nam@amro-asia.org</u>, <u>Andriansyah@amro-asia.org</u>, <u>Ravisara.Hataiseree@amro-asia.org</u>; <u>Abigail@amro-asia.org</u>.

² The authors would like to thank the AMRO county teams, for their inputs and comments; and Kouqing Li and Hoe Ee Khor for their invaluable advice and guidance. All remaining mistakes are the responsibility of the authors.

Member economies are faced with a trade-off between restoring fiscal buffer and providing adequate support. Given the deteriorated fiscal position during the pandemic, it is critical to restore the fiscal buffer to enhance fiscal sustainability and ensure sufficient policy room to tackle future shocks. Fiscal consolidation is also important for an effective macroeconomic policy mix with the tightening monetary policy to control the high inflation. However, uneven recovery and high uncertainty require the continued support of fiscal policy, especially with the constrained monetary policy under the global financial tightening cycle. In the longer-term perspective, fiscal policy should also focus on enhancing growth potential while minimizing the scarring effects caused by the pandemic, and addressing existing and emerging structural challenges, such as population aging, infrastructure gap, and climate change.

The ASEAN+3 member authorities should focus on keeping a good balance between restoring fiscal buffer and responding to evolving fiscal policy needs. Fiscal policy should aim for medium-term consolidation with strong commitment and specific targets/measures, while allowing for targeted responses to evolving near-term fiscal policy needs. Amid elevated uncertainties, fiscal responses should be flexible and agile in response to rapidly evolving economic situations, without completely deviating from the overall direction of fiscal consolidation and in line with other macroeconomic policies. In the post-pandemic policy adjustments, resource reallocation supported by fiscal reforms should be prioritized in addressing both continuing and emerging fiscal needs, considering the limited fiscal resources during consolidation. In addition, given the potential negative impact on growth, the medium-term fiscal consolidation plan should be accompanied by growth-promoting structural reform measures.

Contents

| I. Introduction | 1 |
|--|----|
| II. Recent Fiscal Developments and Outlook | 2 |
| A. Fiscal Balance | 2 |
| B. Fiscal Stance | 7 |
| C. Government Debt and Gross Financing Needs | 9 |
| III. Policy Discussion | 12 |
| A. Key Factors for Consideration | 12 |
| B. Fiscal Policy Discussion | 18 |
| Appendix I. Key Fiscal Indicators | 24 |
| Appendix II. Fiscal Stance and Fiscal Position | 26 |
| Appendix III. Fiscal Year, Coverage, Classification | 29 |
| References | 30 |
| | |
| Boxes | |
| Box A. Fiscal Policy Measures to Mitigate the Impact of Rising Energy Prices on Head Inflation in Selected ASEAN+3 Economies | |
| Box B. AMRO's Fiscal Stance Assessment Framework | 8 |
| Box C. Short-term Fiscal Risk in ASEAN+3 Economies | 13 |
| Box D. Revenue-enhancing Measures in ASEAN+3 Economies | 20 |
| Figure 6 | |
| Figures Figure 1. ASEAN+3 Economic Growth Outlook: AMRO Forecasts | 1 |
| Figure 2. ASEAN+3: Fiscal Balance, FY2019-2022 | |
| Figure 3. ASEAN+3: Contribution to the Change in Fiscal Balance, FY2022 | |
| Figure 4. ASEAN+3: Contribution to the Change in Revenue, FY2022 | |
| Figure 5. ASEAN+3: Contribution to the Change in Expenditure, FY2022 | |
| Figure 6. Selected ASEAN+3: Budgeted Fiscal Balance, FY2023 | |
| Figure 7. Selected ASEAN+3: Contribution to the Change in Fiscal Balance, FY2023. | |
| Figure 8. Selected ASEAN+3: Fiscal Impulse and | |
| Change in the Primary Expenditure, FY2023 | |
| Figure 9. Selected ASEAN+3: Fiscal Impulse and Automatic Stabilizers, FY2023 | |
| Figure 10. Selected ASEAN+3: Fiscal Impulse and Output Gap, FY2023 | |
| Figure 11. Selected ASEAN+3: Government Debt-to-GDP ratio, FY2019-2022 | 10 |
| Figure 12. Selected ASEAN+3: Contribution to the Cumulative Change in | 40 |
| Debt-to-GDP ratio from end-FY2019 to end-FY2022 | 10 |
| Figure 13. Selected ASEAN+3: Debt Stabilizing Primary Balance and Fiscal Adjustment Needs | 10 |

| Figure 14. Selected ASEAN+3: Exchange Rates against USD | 10 |
|---|----|
| Figure 15. Selected ASEAN+3: Gross Financing Needs-to-GDP ratio, FY2015-2022 | 11 |
| Figure 16. Selected ASEAN+3: Contribution to the Change in GFN-to-GDP ratio | |
| from FY2019 to FY2022 | 11 |
| Figure 17. Selected ASEAN+3: 10-year Government Bond Yields | |
| Figure 18. Selected ASEAN+3: Share of Government External Debt, FY2022 | 11 |
| Figure 19. ASEAN+3, Emerging Economies, US, and EU: Headline Inflation | 13 |
| Figure 20. Selected ASEAN+3, US, and Euro: Policy Rates | 13 |
| Figure 21. Selected ASEAN+3: Credit to Private Nonfinancial Sector | 13 |
| Figure 22. Selected ASEAN+3: Banks' Claim on Central Government | 13 |
| Figure 23. ASEAN+3 Regional Risk Map, March 2023 | 17 |
| Figure 24. ASEAN+3: Old-age Ratio | 18 |
| Figure 25. Selected ASEAN+3: Infrastructure Gap | 18 |
| Figure 26. Fiscal Policy Considerations in the Post-pandemic Era | 19 |
| Figure 27. Selected ASEAN+3: Fiscal Balance Projection of the Authorities | |
| in the Medium-term | 20 |
| Figure 28. Selected ASEAN+3: Government Debt Projection of the Authorities | 00 |
| in the Medium-term | |
| Figure 29. ASEAN+3: Tax Revenue and its Components, FY2022 | |
| Figure 30. ASEAN+3: Efficiency of Government Spending | 20 |
| | |
| Box Figure C.1. FSS Indicators and their Contributors | 15 |
| | |
| | |
| Tables | _ |
| Table 1. Selected ASEAN+3: Highlights of FY2023 Budget | |
| Table 2. ASEAN+3: Fiscal Stance, FY2022-2023 | |
| Table 3. ASEAN+3: Fiscal Space, FY2019 and FY2023 | 12 |
| | |
| Box Table A.1. Selected ASEAN+3: Fiscal Policy Measures to Mitigate the Impact of | 4 |
| Energy Prices | |
| Box Table C.1. Selected Economic Indicators for Constructing FSS | |
| Box Table D.1. ASEAN+3: Paying Taxes Score and Rank | 21 |

Abbreviations

AE advanced economy

ASEAN Association of South-East Asian Nations

ASEAN+3 ASEAN plus China; Hong Kong, China; Japan; Korea ASEAN-5 Indonesia, Malaysia, the Philippines, Singapore, Thailand

BCLMV Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Vietnam

CDS credit default swap
CIT corporate income tax
COVID-19 coronavirus disease 2019
CPI consumer price index

EME emerging market economy

ERPD Economic Review and Policy Dialogue FSS fiscal sustainability in the short-term

FX foreign exchange

FY fiscal year

GDP gross domestic product GFN gross financing needs GST goods and services tax

IMF International Monetary Fund

LCY local currency

LIDC low-income developing country

MNE multinational enterprise

MSME micro, small and medium enterprises

OECD Organisation for Economic Co-operation and Development

OECD/G20 Organisation for Economic Co-operation and Development and Group of Twenty

PIT personal income tax

Plus-3 China; Hong Kong, China; Japan; Korea

TME total misclassified error

US United States
USD US dollar

VAT value-added tax

VIX Chicago Board Options Exchange (CBOE) volatility index

BN Brunei Darussalam

KH Cambodia CN China

HK Hong Kong, China

ID Indonesia
JP Japan
KR Korea

LA Lao People's Democratic Republic

MM Myanmar MY Malaysia

PH the Philippines
SG Singapore
TH Thailand
VN Vietnam

BND Brunei dollar Cambodian riel KHR CNY Chinese yuan HKD Hong Kong dollar IDR Indonesian rupiah JPY Japanese yen KRW Korean won LAK Lao kip

MMK Myanmar kyat
MYR Malaysian ringgit
PHP Philippine peso
SGD Singapore dollar

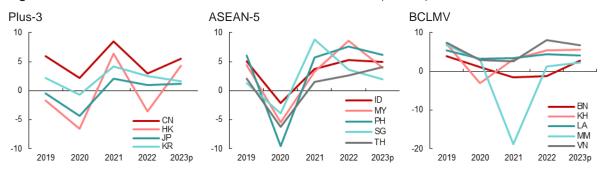
THB Thai baht

VND Vietnam dong

I. Introduction

- 1. Multiple external shocks and a bumpy economic recovery led to diverse fiscal developments in 2022. Most ASEAN+3 economies were able to maintain solid economic growth, but faced a series of challenges throughout the year, which drove different fiscal developments across economies. While most member economies continued to support the economic recovery from the pandemic, a highly transmissible variant of the coronavirus, Omicron, compelled stringent containment measures in some countries, necessitating continued pandemic-related spending. Supply disruptions caused by the Russia-Ukraine conflict lifted commodity prices and headline inflations of member economies, which contributed to revenue increases particularly in commodity-exporting countries. Aggressive monetary tightening by the Federal Reserves and ECB to fight against soaring inflation resulted in higher global interest rates, which in turn pressured the financing costs of both government as well as the private sector.
- 2. Amid the global headwinds, most ASEAN+3 member economies are forecast to grow at a slower pace in 2023. China's reopening is timely, and is expected to provide the needed growth impetus, particularly for regional economies highly dependent on inbound Chinese tourists, such as Cambodia and Thailand. However, slower global trade and the continuing monetary policy tightening amid still high inflation, could weigh on regional growth prospects via softer exports and tighter financial conditions. ASEAN economies are expected to moderate from 5.6 percent in 2022 to 4.8 percent in 2023. In contrast, the Plus-3 economies are forecast to grow at a faster pace of 4.6 percent, mainly reflecting the strong rebound of the Chinese economy. However, the outlook for the region is beset by risks and uncertainties, including fallouts from the Russia-Ukraine conflict on energy prices; sharper slowdown of the US economy with the prolonged tight monetary policy stance; slower recovery of China potentially due to delayed mobility recovery and weak real estate market; more virulent COVID-19 variants; and heightened geopolitical tensions, especially the rivalry between the US and China.
- 3. Member economies will face trade-offs between restoring fiscal buffer and providing adequate support. Given the deteriorated fiscal position during the pandemic, it is critical to restore the fiscal buffer to enhance fiscal sustainability and ensure sufficient policy room to tackle future shocks. At the same time, uneven recovery and high uncertainty require the continued support of fiscal policy, especially with the constrained monetary policy under the global financial tightening cycle. Existing and emerging structural challenges, including population aging, infrastructure gap, and climate change, also need immediate policy attention. Key challenges for fiscal policy in the post-pandemic era would be how to balance these multiple objectives with conflicting implications on fiscal resource management.

Figure 1. ASEAN+3 Economic Growth Outlook: AMRO Forecasts (Percent)



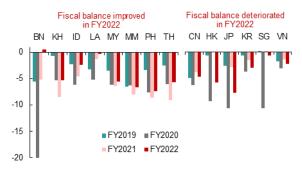
Source: AMRO (2023)

II. Recent Fiscal Developments and Outlook

A. Fiscal Balance

4. After the broad improvement of fiscal positions in FY2021, fiscal developments of member economies have been more divergent in FY2022. Fiscal deficits narrowed in half of the region's economies in FY2022 and widened in the other half (Figure 2). The variation largely reflected differences in the speed of economic recovery, restructuring of pandemic-related spending, and some idiosyncratic factors such as commodity revenue windfalls. Decomposing the changes in fiscal balance shows the general improvement in revenue collection, which was mostly offset by spending expansion. Meanwhile, economic recovery and high inflation reduced the fiscal deficit as a percentage of nominal GDP, especially in Brunei, Indonesia, Malaysia, Myanmar, and the Philippines (Figure 3).

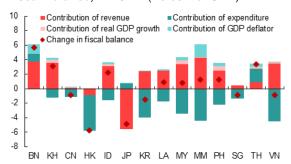
Figure 2. ASEAN+3: Fiscal Balance, FY2019-2022 (Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Fiscal balance for Korea represents the fiscal balance including social security funds; 2) 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.

Figure 3. ASEAN+3: Contribution to the Change in Fiscal Balance. FY2022³ (Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

- 5. Revenue collection was buoyed by the economic recovery and commodity price hikes, while expenditure changes were mainly driven by COVID-19 developments and policy measures (Figures 4 and 5).
 - Strong performance of income-based tax reflected the economic rebound in 2021 and continued growth in 2022 in line with the relaxation of COVID-19 containment measures and the reopening of the economy. Commodity price hikes in 2022 generally contributed positively to the revenue collection directly or indirectly. Commodity-exporting countries, such as Brunei, Indonesia, Lao PDR, and Malaysia, enjoyed sizeable resource-related revenue, while commodity-importing countries, especially Cambodia and the Philippines, also collected more trade taxes due to high imported prices. Rising headline inflation helped raise the consumption-based taxes, but with limited impact partly due to energy tax cuts. In case of nontax revenue, Japan saw a large drop as massive carry-over revenue in FY2021 was not repeated in FY2022. Nontax revenue in Myanmar increased substantially in FY2022 as public services normalized in line with the economic reopening.

³ Contribution to the change in fiscal balance is calculated, based on the following decomposition:

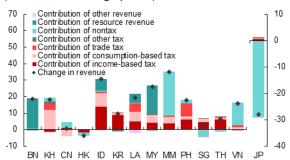
$$fb_t - fb_{t-1} = \underbrace{\Delta r_t}_{\substack{\text{contribution of revenue}}} \underbrace{-\underbrace{\Delta e_t}_{\substack{\text{contribution of expenditure}}}_{\substack{\text{contribution of real GDP growth}}} \underbrace{-\underbrace{\frac{fb_{t-1}}{(1+g_t)(1+\pi_t)}g_t}_{\substack{\text{contribution of real GDP growth}}} \underbrace{-\underbrace{\frac{(1+g_t)fb_{t-1}}{(1+g_t)(1+\pi_t)}\pi_t}_{\substack{\text{CDP deflator inflation}}}$$

where $\Delta r_t = \frac{R_t - R_{t-1}}{P_t Y_t}$, $\Delta e_t = \frac{E_t - E_{t-1}}{P_t Y_t}$, and fb=fiscal balance as a percentage of GDP, R=revenue, E=expenditure, P=GDP deflator, Y=real GDP, g=real GDP growth, π =GDP deflator inflation.

On the expenditure side, most member economies continued fiscal support for the economic recovery by rolling out stimulus packages and targeted support programs. While countries that successfully transitioned to the endemic phase started to unwind the pandemic measures, some economies experiencing outbreaks of a highly transmissible Omicron variant, including China and Hong Kong, had to increase spending related to stringent containment measures.⁴ Meanwhile, surging energy and food prices compelled authorities to adopt fiscal support measures to mitigate their impact on businesses and households (Box A). Capital spending increased in many economies, reflecting the pick-up in public infrastructure investments to boost the economy and support sustainable developments.

Figure 4. ASEAN+3: Contribution to the Change in Revenue, FY2022

(Percent, Percentage points)

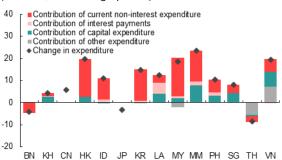


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Revenue details in FY2022 are unavailable for Brunei; 2) Income-based tax includes corporate income tax (CIT), personal income tax (PIT), and capital gains tax; 3) Consumption-based tax includes value-added tax (VAT), excise tax, and taxes on goods and services; 4) Trade tax includes customs duties, export and import taxes; 5). Resource revenue refers to oil and gas revenue in Brunei; income tax from oil and gas + nontax from oil, gas and mining in Indonesia; royalty from mining and hydropower sector in Lao PDR; income tax from petroleum + export duties from crude oil + petroleum royalty + Petronas dividend in Malaysia.

Figure 5. ASEAN+3: Contribution to the Change in Expenditure, FY2022

(Percent, Percentage points)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Expenditure classification is unavailable for China and Japan; 2) Other expenditure includes net-lending, carry-over spending, COVID-19 fund in Malaysia, and emergency loans in Thailand.

Box A. Fiscal Policy Measures to Mitigate the Impact of Rising Energy Prices on Headline Inflation in Selected ASEAN+3 economies⁵

Fiscal policy, mainly through income and price support measures, has been playing an essential role in easing the impact of rising living costs, primarily driven by higher food and energy prices. Income support measures are usually in the form of direct fiscal transfers to or reduction of tax liabilities of households and businesses, to compensate for the loss of purchasing power amid higher prices. These income support programs are financed mostly by the government budget (either budget spending or loss of revenue). For fair and effective support programs using limited budget resources, income support programs are usually designed to target only specific groups of households and businesses, such as lower-income households, vulnerable groups, and micro, small, and medium enterprises (MSMEs).

Alternatively, price support measures aim to protect people's purchasing power by controlling the prices that consumers pay. To ensure the affordability of specific goods and services to the public or certain target groups, authorities often set the maximum prices of such goods and services. For example, surging global energy prices prompted many governments to adjust excise taxes, import duties, and VAT, and provide rebates, to limit their impact on domestic energy prices.

⁴ For example, Thailand and Malaysia reduced the size of emergency loans and COVID-19 Fund spending, respectively.

⁵ Prepared by Andriansyah.

In response to the recent hike in energy prices, most countries adopted at least one new support measure to contain the pass-through of higher energy prices. According to the IMF's 2022 survey, income support measures were most frequently used in advanced economies, with other price support measures also being used widely (Amaglobeli *et al.*, 2022).⁶ On the other hand, emerging and developing economies tended to rely more on price control measures and income support measures were seldom used.⁷ OECD (2022) also reports how high-income countries and low- and middle-income countries differ in their support policy choices. The nontax measures, such as subsidies and transfers, were more widely used in high-income countries, supported by the more advanced and well-established social protection system. Meanwhile, tax measures were more frequent in low- and middle-income countries, such as adjusting tax rates on energy products to directly control their consumer prices and modifying deductions or exemptions from the PIT and CIT.

In the ASEAN+3 region, both price support measures and income support measures were used selectively (Table A.1). China, Korea, and Vietnam adopted tax measures, while Cambodia, Indonesia, Japan, Korea, Malaysia, and Singapore provided subsidies and social assistance. The Philippines and Thailand adopted both tax and nontax measures.

Table A.1. Selected ASEAN+3: Fiscal Policy Measures to Mitigate the Impact of Energy Prices

| | Fiscal Policy Measures |
|-----------------|---|
| Cambodia | • [Social benefit] Expanded the cash transfer program to the nearly-poor (2 nd lowest quintile of income) |
| China | • [Tax policy] Cut import tariffs for all types of coal to zero in May 2022-Mar 2023 |
| Indonesia | [Subsidy] Increased energy subsidy and compensation to state energy firms in 2022 [Social benefit] Increased subsidized fuel prices, accompanied by providing benefit schemes (e.g., cash transfer, wage subsidy, and support to local governments in 2022) |
| Japan | [Subsidy] Provided temporary energy subsidy to oil wholesalers in Jan-Sep 2022 [Social benefit] Provided JPY50,000 cash payouts per child for low-income families |
| Korea | [Tax Policy] Cut excise tax on fuel products by 30 percent in May-Jun 2022 followed by 37 percent cut in another 6 months, which extended to Aug 2023 [Tax Policy] Provided customs VAT rebate for selected imported items [Social benefit] Increased energy vouchers, discount coupons for agricultural and fishery products, voucher for daily necessities for the selected low-income households |
| Malaysia | [Subsidy] Increased energy subsidy for petrol, diesel, LPG, and electricity [Social benefit] Provided additional fiscal support, such as cash assistance to low-income groups |
| The Philippines | [Tax Policy] Suspended import duty on coals from countries outside the ASEAN-India Free Trade Agreement (AIFTA) [Social benefit] Provided unconditional cash transfers to the bottom 50 percent of households (about 12 million families) for Apr-Sep 2022 |
| Singapore | [Social benefit] Enhanced Assurance Package (e.g., one-off cash payment and additional community development council vouchers) [Social benefit] Enhanced the permanent GST voucher scheme |
| Thailand | [Tax Policy] Cut excise tax on diesel, and levy on gasohol 91 and gasohol 95 [Subsidy] Increased subsidy for gasohol E20 [Subsidy] Increased cooking gas subsidy from THB80 to THB100 per welfare cardholder every three months for Apr-Jun 2023. [Subsidy] Rolled out quasi-fiscal operations by the State Oil Fund to stabilize fuel prices. |
| Vietnam | • [Tax Policy] Cut environmental protection tax on petroleum products in Apr-Dec 2022. |

Source: Various media; AMRO staff compilation

References:

Amaglobeli, David, Emine Hanedar, Gee Hee Hong, and Céline Thévenot. 2022. "Fiscal Policy for Mitigating the Social Impact of High Energy and Food Prices." IMF Note 2022/001, International Monetary Fund, Washington, DC. Organisation for Economic Co-operation and Development (OECD). 2022. Tax Policy Reforms 2022: OECD and Selected Partner Economies, OECD Publishing, Paris.

⁶ 26 out of 31 developed economies adopted at least one measure, and 15 of them adopted cash transfers and semi cash (such as vouchers and utility bill discounts).

⁷ Many emerging and developing economies have existing energy subsidy program so that less countries announced new measures (only 45 out of 103 economies surveyed). Reductions in VAT and excise taxes were implemented in 25 of 103 developing economies.

6. **ASEAN+3** member authorities seek to improve their fiscal balance in FY2023. According to the budget for 2023, the fiscal deficit is expected to narrow in most member economies (Figures 6 and 7). Revenue is expected to continue its robust growth, albeit at a slower pace in line with the slowing economic growth outlook. Countries that enjoyed the windfall revenue from the commodity booms in FY2022, such as Brunei, Indonesia, and Malaysia, are likely to collect less revenue in FY2023, given moderating commodity prices. More than half of the member economies aim to reduce expenditure by withdrawing or unwinding the pandemic-related spending, while the other economies will increase their expenditure to support their recovery and meet the development needs (Figure 7).

Figure 6. Selected ASEAN+3: Budgeted Fiscal Balance, FY2023

(Percent of GDP) 40 Revenue ■Expenditure (reversed sign) 15 • Fiscal Balance (RHS) Primary Balance (RHS) 12 30 9 20 6 10 3 ٥ 0 -3 -10 -6 -20 -9 -30 -12 -40 -15 BN KH CN HK ID JP KR LA MY PH SG TH VN

Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Fiscal balance for Korea represents the fiscal balance including social security funds; 2) 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; 3) 2023 budget for Myanmar is unavailable.

Figure 7. Selected ASEAN+3: Contribution to the Change in Fiscal Balance, FY2023 (Percent of GDP)

8 Contribution of GDP deflator 5 Contribution of real GDP growth 6 Contribution of expenditure 0 Contribution of revenue 4 Change in fiscal balance -5 2 0 -10 -2 -15 -4

Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

KH CN HK ID JP KR LA MY PH SG TH VN BN

-20

Note: 1) Change and contribution are computed by comparing the 2023 budget with the estimated or realized 2022 budget; 2) 2023 budget for Myanmar is unavailable.

7. **FY2023** budget focuses on restoring fiscal buffer and supporting the national developments in the post-pandemic era (Table 1). With the transition to the endemic phase and the economic growth back on track, most ASEAN+3 economies plan to undertake fiscal consolidation to improve the fiscal position through revenue mobilization or spending restructuring or both. At the same time, FY2023 budget aims to promote growth potential and support the national development strategies and plans in the post-pandemic era. In addition to accelerating infrastructure investments (Indonesia, Malaysia, the Philippines, and Singapore), digitalization and green growth/investment (Cambodia, Hong Kong, Indonesia, Japan, Malaysia, and the Philippines) are also highlighted in the FY2023 budget. In prioritizing economic growth, many member economies set the budget to tackle the pandemic-scarring problems by improving human capital and education (Indonesia and the Philippines). Some economies focused on strengthening the social safety nets and reducing poverty for inclusive growth (Cambodia, Korea, Malaysia, the Philippines, and Singapore).

-6

Table 1. Selected ASEAN+3: Highlights of FY2023 Budget

| | Key Objectives | Budget Priorities |
|--------------|--|--|
| Cambodia | Stabilizing the economy Stimulating economic growth Improving social protection system | Strengthening public health services Expanding cash transfer program Reviving key sectors of the economy Accelerating green and digital infrastructure development |
| Hong Kong | Gearing up toward speedy recovery on the path to normalcy Promoting high-quality development Aligning with national development strategies | Issuing consumption vouchers, supporting enterprises and the general public Developing digital economy and infrastructure Keeping zero growth in the civil service establishment |

| | Key Objectives | Budget Priorities |
|-------------|--|---|
| Indonesia | Continuing fiscal consolidation to ensure fiscal sustainability through: Revenue mobilization; Quality spending; Innovative financing | Improving human resource quality Accelerating infrastructure development Reforming bureaucracy Revitalizing industry/manufacturing Supporting green economy |
| Japan | Improvement of quality of the budget through: Improving efficiency by promoting digitalization; Introducing incentive system for each objective of policies; Fiscal consolidation of the local government | Efficiency and rationalization of defense force development Boosting local allocation tax grants for the digitalization of local governments Enhancing support for children and child-rearing Issuing GX (Green Economy Transition Bonds) to support private green investment |
| Korea | Shifting fiscal stance from expansion to consolidation. Restructuring spending programs Supporting the national agenda | Expanding protection of low-income and vulnerable households Buttressing the private-sector-led economy Improving national safety and security as well as international status |
| Lao PDR | Strengthening and increasing revenue collection by creating new revenue bases and stopping revenue leakage Moving local governments toward self-reliance in terms of finance Ensuring the stability of public debt management by reducing new borrowing and debt restructuring | |
| Malaysia | Inclusive and sustainable economic growth Institutional reforms and good governance Combating inequality | Achieving fiscal sustainability and high-impact investments Public sector reform, empower public-private partnership and prioritize digital agenda Eradicating hardcore poor, minimizing the cost of living, providing basic quality amenities |
| Philippines | Strengthening the purchasing power Reducing vulnerability and mitigating scarring from the COVID-19 pandemic Ensuring sound macroeconomic fundamentals Supporting local governments | Supporting socio-economic Agenda; Food security; Improved transportation; Affordable and clean energy; Health care; Social protection; Improved and face-to-face education; Bureaucratic efficiency; Sound fiscal management |
| Singapore | Promoting economic growth Strengthening social safety nets Enhancing national resilience | Building capabilities and anchoring quality investments Nurturing and sustaining innovation Developing local enterprises Equipping and empowering workers Broad-based support for families and additional support for seniors as well as vulnerable groups Ensuring economic and infrastructure resilience |
| Thailand | Stimulating the economy while increasing the revenue collection Allocating the budget according to the spending potentials of each agency Encouraging public participation in budget allocation | Carrying out national development plans and strategies Supporting continuous economic growth and mitigating COVID-19 impacts Providing local-level public services, reducing fiscal disparities among localities |
| Vietnam | Strengthening socio-economic recovery and development Restructuring state budget and public debt to achieve national targets Tightening financial and fiscal discipline | Maintaining robust macroeconomic fundamentals, especially inflation and sustainable economic growth Adopting measures for revenue increase Restructuring and boosting the performance of state-owned enterprises Improving legal corridors for checks and balances, as well as accelerating administrative reforms |

Source: National authorities websites; AMRO staff compilation.

B. Fiscal Stance

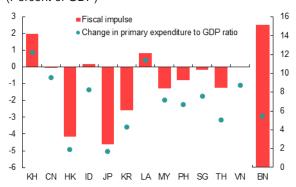
- 8. **Most member economies plan to tighten the fiscal policy in FY2023** (Table 2). The fiscal impulse, measured by the change in structural primary balance, reveals that the fiscal stance shifts from expansionary in FY2022 to neutral or contractionary in FY2023 in China, Hong Kong, Japan, Korea, Malaysia, Myanmar, Singapore, and Vietnam; from neutral in FY2022 to contractionary in FY2023 in the Philippines, and remains contractionary both in FY2022 and FY2023 in Thailand. ^{8 9} The tightening bias of these economies is confirmed by the fall in primary expenditure in percent of GDP (Figure 8). In contrast, the fiscal stance in Brunei, Cambodia, and Indonesia moves in the opposite direction, which is attributable to the increase in spending in Cambodia, the fall in revenue in Indonesia, and both in Brunei. ¹⁰ Meanwhile, automatic stabilizers generally contribute to improving the fiscal balance in FY2023, reflecting overall economic recovery (Figure 9).
- 9. Considering the macroeconomic conditions, the fiscal stance in FY2023 is assessed to be broadly appropriate (Figure 10). As the output gap is estimated to narrow or turn positive in most member economies, tightening fiscal policy bias helps restore the fiscal buffer, which has been shrunk during the pandemic, and stabilize the economy, especially in a high inflation environment. On the other hand, the countries with still large negative output gaps, such as Cambodia and Lao PDR, require continued fiscal support for economic recovery and development.

Table 2. ASEAN+3: Fiscal Stance, FY2022-2023

| | | FY2023 | | | | | | |
|--------|----------------|------------------------------------|---------------|-----------------------|--|--|--|--|
| | | Expansionary Neutral Contractionar | | | | | | |
| | Expansionary | | CN, SG, VN | HK, JP, KR, MY, MM | | | | |
| FY2022 | Neutral | | | PH | | | | |
| | Contractionary | BN, KH | ID, LA | TH | | | | |

Source: AMRO staff assessment

Figure 8. Selected ASEAN+3: Fiscal Impulse and Change in Primary Expenditure, FY2023 (Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Fiscal impulse is based on the estimated change in the structural primary balance in a percentage of GDP. A negative fiscal impulse implies a contractionary fiscal stance; 2) The change in primary expenditure is defined as the yearly difference in primary expenditure (excluding interest payments) to GDP ratio. A negative change implies primary expenditure grows slower than nominal GDP.

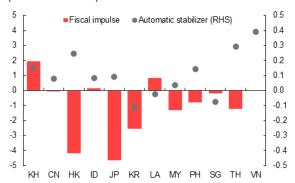
⁸ The fiscal stance of Brunei is assessed by the change in primary expenditure as its revenue is heavily dependent on oil and gas prices, and the fiscal impulse, adjusting only the business cycle, may mislead the fiscal stance assessment. The fiscal stance assessment of Myanmar is based on AMRO staff judgment as its 2023 budget is not available.
⁹ In the case of Malaysia, the fiscal stance is assessed to be tighter than what the change in overall fiscal balance suggests

⁹ In the case of Malaysia, the fiscal stance is assessed to be tighter than what the change in overall fiscal balance suggests because the government's repayment of bonds issued by 1MDB (MYR14 billion) is excluded as a one-off factor.

¹⁰ The fiscal impulse of Indonesia is assessed to be neutral despite the spending consolidation as the revenue is expected to normalize mainly due to the base effects of strong revenue performance in FY2022 from commodity windfall revenue and one-off factor of Voluntary Disclosure Program, which allowed taxpayers to report unpaid taxes on undisclosed assets in the past.

Figure 9. Selected ASEAN+3: Fiscal Impulse and Automatic Stabilizers, FY2023

(Percent of GDP)

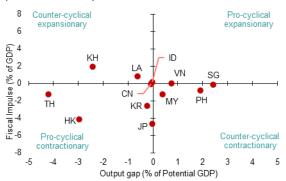


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Fiscal impulse is based on the estimated change in the structural primary balance in a percentage of GDP. A negative fiscal impulse implies a contractionary fiscal stance; 2) Automatic stabilizers are defined as the estimated change in the cyclical primary balance, assuming the elasticity of revenue to output as one and the elasticity of expenditure to output as zero for simplicity.

Figure 10. Selected ASEAN+3: Fiscal Impulse and Output Gap, FY2023

(Percent of GDP)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 2023 budget for Myanmar is unavailable

Box B. AMRO's Fiscal Stance Assessment Framework¹¹

AMRO assesses the fiscal stance mainly by fiscal impulse, measured by the change in structural primary balance. The structural primary balance filters out the impact of interest payments, cyclical movements, and one-off factors from the overall fiscal balance to capture the underlying stance of discretionary fiscal policy.

Specifically, the structural primary balance (SPB) is computed as follows:

$$SPB = \underbrace{R\left(\frac{Y^{P}}{Y}\right)^{\varepsilon_{R}} - G\left(\frac{Y^{P}}{Y}\right)^{\varepsilon_{G}}}_{CAPB} - OOB$$

where SPB = structural primary balance; CAPB = cyclically-adjusted primary balance; R = total revenue; G = primary expenditure (total expenditure less interest payments); OOB = one-off factors (one-off revenue minus one-off expenditure); Y = actual GDP; Y^P = potential GDP; ε_R = elasticity of revenue with respect to output gap; ε_G = elasticity of expenditure with respect to output gap.

For simplicity, assuming $\varepsilon_R = 1$ and $\varepsilon_G = 0$,

$$SPB = \underbrace{R\left(\frac{Y^P}{Y}\right) - G - OOB}_{CAPB}$$

Then, the cyclical primary balance (CPB) is expressed as:

$$CPB = R\left(1 - \frac{Y^P}{Y}\right)$$

_

¹¹ Prepared by Byunghoon Nam.

Next, the fiscal impulse is defined as the change in structural primary balance normalized by nominal GDP:

$$fi_t = -\frac{SPB_t - SPB_{t-1}}{Y_t}$$

With a negative sign in front, a positive fiscal impulse implies an expansionary fiscal stance and a negative fiscal impulse implies a contractionary fiscal stance.

Meanwhile, the automatic stabilizer is defined as the change in cyclical primary balance normalized by nominal GDP:

$$as_t = \frac{CPB_t - CPB_{t-1}}{Y_t}$$

In addition to the fiscal impulse, AMRO employs the change in primary expenditure in percentage points of GDP as a supplementary measure, given that the revenue, especially in commodity-exporting countries, tends to be volatile and often overshadows the government's control over the fiscal balance. ¹² If the change is positive, the fiscal stance is expansionary, and vice versa. In Figure 8, the contractionary fiscal policy bias in FY2023 becomes clearer with this supplementary measure.

References:

Abigail and Nam Byunghoon. Forthcoming. "Cyclical adjustment of fiscal balance beyond business cycle." AMRO Working Paper, AMRO, Singapore.

Fedelino, A., Horton, M. A., and Ivanova, A. 2009. "Computing cyclically-adjusted balances and automatic stabilizers." IMF Technical Notes and Manuals, 2009(005), International Monetary Fund, Washington, DC.

C. Government Debt and Gross Financing Needs

10. The government debt ratio continued to rise in FY2022. After a sharp increase during the pandemic, the debt ratio climbed up further in most economies due to the still-elevated fiscal deficit compared to the pre-pandemic level (Figure 11). From FY2019 to FY2022, the debt ratio increased by 17.4 percent of GDP on average, ranging from 0.7 to 42.2 percent of GDP. The surging debt ratio was driven mainly by the sizeable primary deficit, while the effects of the growth collapse in FY2020 have been more than offset by rapid recoveries since FY2021 (Figure 12). Off-budget emergency loans from FY2020 to FY2022 in Thailand and unused proceeds from bond issuance in FY2020 in Japan also contributed to debt accumulation.¹³ ¹⁴ Currency depreciation also inflated the debt ratio in local currency terms, especially in economies with high exposure to foreign-currency-denominated debt and sharp local currency depreciation. Depreciation of Lao Kip and Myanmar Kyat pushed up the debt ratio by 41 percent of GDP in Lao PDR and 6 percent of GDP in Myanmar from FY2019 to FY2022.

¹² For the economies whose revenue is affected substantially by global commodity prices and real estate prices, such as Brunei, Indonesia, Malaysia, and Hong Kong, additional adjustments beyond the business cycle are required to properly measure the fiscal impulse (under development).

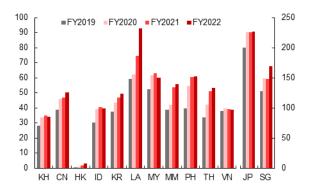
¹³ The Japanese authorities issued sizeable JGB in FY2020 to roll out the stimulus packages, but could not disburse the full amount in the same fiscal year. The remaining proceeds were carried over to the pext fiscal year.

amount in the same fiscal year. The remaining proceeds were carried over to the next fiscal year.

14 In Singapore, the government debt increased not to finance the budget deficit, but mainly to develop the domestic debt market and provide the public with investment options.

Figure 11. Selected ASEAN+3: Government Debt, FY2019-2022

(Percent of GDP)

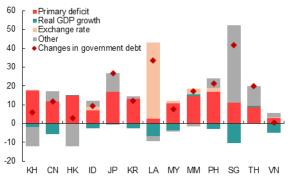


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: Brunei is not shown as it has virtually zero government debt.

Figure 12. Selected ASEAN+3: Contribution to the Cumulative Change in Debt-to-GDP Ratio from end-FY2019 to end-FY2022 ¹⁵

(Percent of GDP)

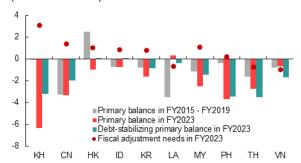


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: Brunei is not shown as it has virtually zero government debt.

11. **Debt ratio is forecast to rise further in FY2023**. Despite the tightening bias of fiscal stance in FY2023, the debt ratio will inch up in most ASEAN+3 economies as the budgeted primary balance in FY2023 remains lower than the debt-stabilizing level (Figure 13). In the medium term, it will be challenging to lower the debt ratio quickly to the pre-pandemic level, as the unfavorable real interest rate—growth differential will augment the snowball effects. In addition, currency depreciation against creditor currencies, especially the USD, may keep the debt ratio inflated in countries with large external obligations (Figure 14).

Figure 13. Selected ASEAN+3: Debt Stabilizing Primary Balance and Fiscal Adjustment Needs (Percent of GDP)

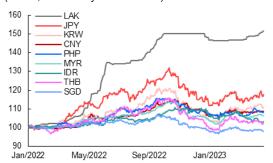


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: The debt-stabilizing primary balance in FY2023 is the primary balance to maintain the debt ratio at the end of FY2022 level. The fiscal adjustment need in FY2023 is defined as the difference between the budgeted primary balance in FY2023 and the debt-stabilizing primary balance in FY2023, which captures how much the primary balance should be improved additionally compared to the budgeted primary balance in FY2023 to stabilize the debt ratio.

Figure 14. Selected ASEAN+3: Exchange Rates against USD

(Index, 1 January 2022 = 100)



Source: BIS and National authorities via Haver Analytics; AMRO staff estimates

Note: Exchange rates on January 3 or 4, 2022, were indexed to 100.

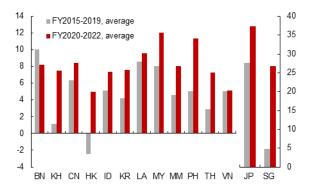
where d=debt-to-GDP ratio, pb=primary deficit, o=other flows, i^w =effective interest rate of total debt, i^f =effective interest rate of external debt, g=real GDP growth, π =GDP deflator inflation, ε =exchange rate against USD, and α =share of external debt. ¹⁶ The snowball effects refer to the automatic debt changes driven by the existing debt stock and the macroeconomic developments, and can be measured by the sum of the first three components of RHS of the equation in the footnote 15.

Decomposition: $d_t - d_{t-1} = \underbrace{\begin{bmatrix} i_t^w - \pi_t(1+g_t) \\ (1+g_t)(1+\pi_t) \end{bmatrix}}_{contribution \ of real \ interest \ rate} \underbrace{d_{t-1} - \begin{bmatrix} g_t \\ (1+g_t)(1+\pi_t) \end{bmatrix}}_{contribution \ of real \ GDP \ growth} \underbrace{d_{t-1} + \begin{bmatrix} \varepsilon_t \alpha_{t-1}(1+i_t^f) \\ (1+g_t)(1+\pi_t) \end{bmatrix}}_{contribution \ of exchange \ rate} \underbrace{d_{t-1} - pb_t}_{contribution \ of \ other \ flows}$

12. Gross financing needs (GFNs) are expected to remain high, compared to the prepandemic level (Figure 15). In addition to the larger primary deficits, the debt service burden also increased, following government debt accumulation (Figure 16). Although the increase in GFNs was relatively small compared to the sharp rise in the debt ratio due to the diversified maturity structure, the elevated level of GFNs will continue over the medium term with a higher debt rollover need despite the reduction of fiscal deficit. In addition, the interest burden is expected to increase steadily, given the rise in the government bond yields amid higher global interest rates (Figure 17). Furthermore, countries with a large share of debt held by non-residents and in foreign currency tend to be more exposed to rollover and exchange rate risks (Figure 18).

Figure 15. Selected ASEAN+3: Gross Financing Needs, FY2015-2022

(Percent of GDP)

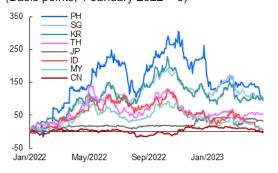


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Debt service in Lao PDR is based on its original amount, including debt services under negotiation; 2) Amortization in the Philippines includes the redemption by the bond sinking fund; 3) Amortization in Singapore includes the redemption of publicly-held Singapore government securities and Treasury bills; 4) For Brunei, there is no issuance of debt to finance fiscal needs.

Figure 17. Selected ASEAN+3: 10-year Government Bond Yields

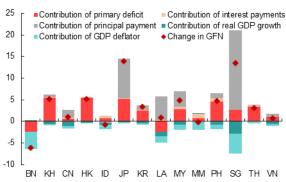
(Basis points, 1 January 2022 = 0)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Figure 16. Selected ASEAN+3: Contribution to the Change in GFN-to-GDP Ratio from FY2019 to FY2022 ¹⁷

(Percent of GDP)

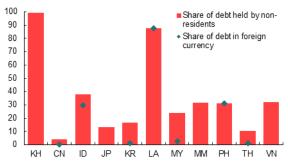


Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: 1) Debt service in Lao PDR is based on its original amount, including debt services under negotiation; 2) For Brunei, there is no issuance of debt to finance fiscal needs.

Figure 18. Selected ASEAN+3: Share of Government External Debt, FY2022

(Percent of Total)



Source: National authorities via CEIC and Haver Analytics; AMRO staff estimates

Note: The share of debt in foreign currency is not available for Cambodia, Japan, Myanmar, and Vietnam.

Decomposition:
$$gfn_t - gfn_{t-1} = \underbrace{\Delta pd_t}_{contribution\ of\ contribution\ of\ primary\ deficit\ interest\ payment\ principal\ payment} \underbrace{+\Delta pp_t}_{contribution\ of\ contribution\ of\ contribution\ of\ contribution\ of\ real\ GDP\ growth} \underbrace{-\frac{(1+g_t)gfn_{t-1}}{(1+g_t)(1+\pi_t)}g_t}_{contribution\ of\ contribution\ of\ contribution$$

where $\Delta p d_t = \frac{PD_t - PD_{t-1}}{P_t Y_t}$, $\Delta i p_t = \frac{IP_t - IP_{t-1}}{P_t Y_t}$, $\Delta p p_t = \frac{PP_t - PP_{t-1}}{P_t Y_t}$, and gfn=gross financing needs as a percentage of GDP, PD=primary deficit, IP=interest payment, P=principal payment, P=GDP deflator, Y=real GDP, g=real GDP growth, π =GDP deflator inflation.

III. Policy Discussion

A. Key Factors for Consideration

13. Fiscal consolidation is warranted for macroeconomic and financial stability.

• Amid elevated uncertainties, rebuilding the fiscal buffer is crucial to ensure fiscal sustainability and prepare for unforeseen risk events. The rapidly accumulated government debt and widened fiscal deficit have increased concerns about fiscal sustainability in the face of uncertain global economic and financial environments (Box C). Additionally, the fiscal space of the ASEAN+3 economies narrowed substantially during the pandemic, reducing the policy room for additional fiscal policy measures (Table 3). As proven during the recent COVID-19 crisis, a sufficient fiscal buffer is crucial in stabilizing the economy and providing needed support. Therefore, a medium-term fiscal consolidation to rebuild a sufficient fiscal buffer should be the key policy priority in the post-pandemic era.

Table 3. ASEAN+3: Fiscal Space, FY2019 and FY2023

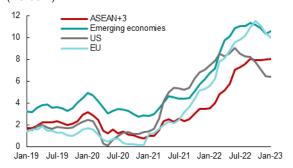
| | | FY2023 | | | | | |
|--------|----------|------------------------|-----------------------|--------|--|--|--|
| | | Ample Moderate Limited | | | | | |
| | Ample | BN, HK, SG | KH, KR, TH | | | | |
| FY2019 | Moderate | | CN, ID, MY, PH, VN | MM | | | |
| | Limited | | | JP, LA | | | |

Source: AMRO staff assessment

- With monetary policy tightening directed to control high inflationary pressure, fiscal consolidation will provide an effective macroeconomic policy mix (Figure 19). The role of fiscal tightening in containing the aggregate demand is particularly crucial at the current juncture, as the room for further policy rate hikes by central banks in the region is likely to become limited, due to the adverse effects on financing costs and financial market stability, in light of high levels of private sector debt (Figures 20 and 21).
- Sovereign bonds held by banks, which increased substantially during the pandemic, may crowd out the credit available to the private sector (Figure 22). Without reducing the government's financing needs, especially with ongoing liquidity absorption by central banks, the credit flows to private economic activities may slow down, dampening the growth momentum in the post-pandemic recovery.
- Sound and credible fiscal management is also critical in maintaining a good sovereign
 credit rating, especially for countries with non-reserve currency and high reliance on
 external financing. Maintaining a good credit rating is particularly important amid
 globally rising policy rates and financial tightening, as it affects the financing costs of
 not only the government but also private sector borrowings, and eventually access to
 international capital markets.

Figure 19. ASEAN+3, Emerging Economies, US, and EU: Headline Inflation

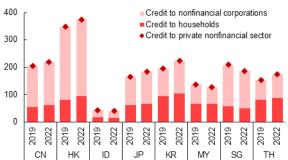
(Percent)



Source: National authorities via Haver Analytics; AMRO staff estimates

Figure 21. Selected ASEAN+3, Credit to Private Nonfinancial Sector

(Percent of GDP)



Source: BIS via Haver Analytics Note: 2019 as of Q4, and 2022 as of Q3.

Figure 20. Selected ASEAN+3, US and Euro: Policy Rates

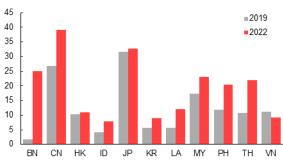
(Percent)



Source: National authorities via Haver Analytics Note: For the US, data refers to the upper range of the Fed funds rate. For the Euro Area, data refers to the deposit facility rate.

Figure 22. Selected ASEAN+3: Banks' Claim on Central Government

(Percent of GDP)



Source: National authorities and IMF vis CEIC and Haver Analytics Note: 2019 as of Q4, and 2022 as of Q4, except for Brunei, Japan, Malaysia. and Vietnam. where Q3 data are used instead.

Box C. Short-term Fiscal Risk in ASEAN+3 Economies¹⁸

The short-term fiscal risk is assessed by the AMRO's FSS (Fiscal Sustainability in the Short-term) indicator, ¹⁹ which is designed to detect the fiscal stress situation over a one-year horizon using the signaling approach widely used in the early warning system literature. ²⁰ FSS is a composite indicator based on the selected key economic indicators reflecting various sources and channels of fiscal risk, including fiscal position, external position, macroeconomic and financial market conditions, as well as global economic situation.

- First, large fiscal deficit and high government debt may raise concerns about fiscal sustainability, while sizeable financing needs both for deficit and redemption may cause financing stress, especially when the market condition is not favorable. In addition, the debt structure, such as the share of external debt and short-term debt, would increase its vulnerability to the rollover, exchange rate, and interest rate risks.
- Second, external headwinds may pass through to the short-term fiscal risks of the economies with weak current account balance, high external debt, and low external buffer.

¹⁸ Prepared by Byunghoon Nam.

¹⁹ FSS is based on the indicator-based debt sustainability analysis framework that AMRO has been developing. See Nam and Hong (forthcoming) for the details.

²⁰ For example, Baldacci et al (2011), Berti et al (2012), EC (2016).

14

- Third, the macroeconomic and financial market conditions may affect fiscal risk. Economic
 recession may trigger fiscal fallouts and widen the real interest rate and growth rate differential,
 which in turn exacerbates debt sustainability. A sharp depreciation of the local currency would
 also inflate the nominal value of external debt and increase the debt service burden for countries
 with high external debt obligations.
- Lastly, the global economic situation is closely linked to the domestic economic and financial market developments for the countries highly exposed to the global economy through real and financial channels.

Out of various economic indicators tested, 27 variables that have proven to perform well in detecting upcoming fiscal stress events are selected to construct the FSS indicator (Table C.1). Specifically, the optimal thresholds are estimated to minimize the total misclassification errors (TME) for individual variables with pre-defined fiscal crisis events.²¹ Different sets of thresholds are estimated for three country groups – advanced economy (AE), emerging market economy (EME), and low-income developing country (LIDC) – which are similar to the benchmark groups of AMRO's ERPD Matrix Scorecard.²² The value of the composite indicator FSS for each country and year is then calculated by averaging the indicator functions of 27 variables, taking value 1 if the optimal threshold is breached, with the weights given by the signaling power of the individual variables.

Sector Variable Fiscal Balance, Primary Balance, Cyclically Adjusted Fiscal Balance, Basic Fiscal General Government Gross Debt, Change in General Government Gross Debt, **Position** Change in General Government Expenditure, Real Interest Rate and Growth Rate Differential Fiscal **Position** Financing and Gross Financing Needs, Market Risk CDS spread, Sovereign Credit Rating Debt Profile General Government Debt Held by Nonresidents, Vulnerability Short-term Central Government Debt Current Account Balance, Net International Investment Position, **External Position** Gross External Debt Stock, Shot-term External Debt Stock Macroeconomic and Real GDP growth, CPI inflation, GDP per capita, **Financial Market Condition** Domestic Credit to Private Sector, Depreciation of LCY against USD **Global Economic Condition** World Economic Growth, Oil Price, Commodity Price, VIX index

Table C.1. Selected Economic Indicators for Constructing FSS

ARMO staff assessment using the FSS indicator suggests that fiscal stress has risen across all member economies since the onset of the pandemic due to the substantially deteriorated fiscal position (fiscal balance and government debt) and the resulting financing stress (gross financing needs, short-term debt based on the remaining maturity). In addition, the economic slowdown (real GDP growth, real interest rate and growth rate differential) and unfavorable global economic conditions (VIX and commodity price) also contributed to the short-term fiscal stress. However, a divergence in FSS was observed in 2022 across and within country groups.

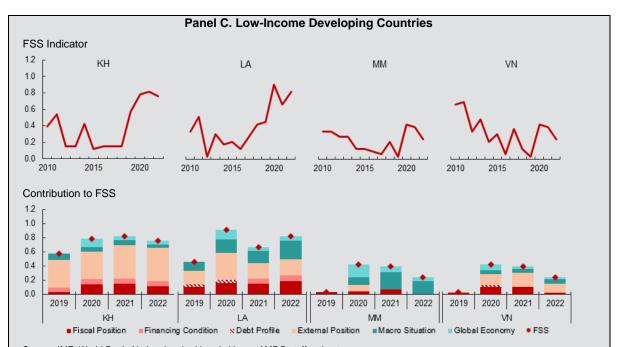
- For the advanced economies group, FSS remained high in 2022, indicating high short-term fiscal stress in 2023 (Figure C.1-Panel A). Given the close linkage between domestic and global economies in the advanced economies through supply chains and financial markets, global economic slowdown, commodity price hikes, and volatile financial market conditions contributed to the rebound in FSS in 2022 after moderation in 2021.
- For the emerging market economies group, FSS rebounded in Brunei and China, but fell in other countries (Figure C.2-Panel B). The recovery of economic growth or the improvement in fiscal position brought down the FSS in Indonesia, Malaysia, the Philippines, and Thailand. In contrast, the economic slowdown due to the prolonged lockdown and the widened fiscal deficit raised the

²¹ Total misclassified errors (TME) is the weighted sum of type I error (false crisis signal) and type II error (false non-crisis signal) divided by the number of crisis and non-crisis events respectively. Following Baldacci et. al. (2011), four different categories of fiscal crisis events are identified: (i) public debt default or restructuring (S&P definition); (ii) large financing through IMF supported program (100% of quota or more); (iii) implicit/internal public debt default with very high inflation rate (35%/500% per annum); (iv) Extreme financing constraint/pressure excessive sovereign spread (1000bp or 2 standard deviations).
²² ASEAN+3 member economies are assigned to three benchmark groups as follows: Japan, Korea, Hong Kong, Singapore are AEs; Brunei, China, Indonesia, Malaysia, Philippines, Thailand are EMEs; Cambodia, Lao PDR, Myanmar, Vietnam are LIDCs.

- FSS in China. In Brunei, the macroeconomic and global economic situation relative to the historical trend has driven the movement of FSS.
- For the low-income developing countries group, FSS rose sharply, while remaining low in Myanmar and Vietnam (Figure C.3-Panel C). FSS in Cambodia has been driven mainly by the external position, which has deteriorated due to widened current account deficit and large external debt with a relatively high share of short-term maturity. In Lao PDR, the continued depreciation of Lao kip and the rapid rise in government debt, together with unfavorable financing conditions, led to a credit rating downgrade amid the already weak external position, adding pressure on the short-term fiscal risk. Meanwhile, the macroeconomic and fiscal conditions in Vietnam have been relatively stable, resulting in low FSS.²³

Figure C.1. FSS Indicators and their Contributors Panel A. Advanced Economies **FSS Indicator** 1.2 KR НΚ JE SG 1.0 8.0 0.6 0.4 0.2 0.0 2015 2010 2010 2015 2010 2020 2015 2020 2010 2015 2020 2020 Contribution to FSS 1.2 1.0 0.8 0.6 0.4 0.2 0.0 2019 2020 2021 2022 2019 | 2020 | 2021 | 2022 2019 2020 2021 2022 2019 2020 2021 2022 JΡ KR SG ΗK Global Economy ■ Fiscal Position Financing Condition N Debt Profile External Position ■ Macro Situation Panel B. Emerging Market Economies **FSS Indicator** 1.2 CN ID PH ΤН 1.0 0.8 0.6 0.4 0.2 0.0 2010 2015 2020 2010 2015 2020 2010 2015 2020 2010 2015 2020 2010 2015 2020 2010 2015 2020 Contribution to FSS 1.2 1.0 8.0 0.6 0.4 0.2 0.0 2019 2020 2021 2022 2019 2020 2021 2022 2019 2020 2021 2022 2019 2020 2021 2022 2019 2020 2021 2022 2019 2020 2021 2022 CN BN PH ID MY TH Financing Condition N Debt Profile ■Macro Situation • FSS

²³ Although FSS in Myanmar remained low, it was mainly due to the lack of data availability.



Source: IMF, World Bank, National authorities vis Haver; 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. A higher (lower) value of FSS (relative to the threshold) implies higher (lower) short-term risk of a fiscal stress event.

Given the rising short-term fiscal risk in many countries in 2023, indicated by FSS, the authorities should carefully monitor the economic developments amid high uncertainties. Although the high value of FSS does not necessarily mean imminent fiscal stress events in 2023, close monitoring and careful macro-fiscal management are required to better manage the heightened risks in the typical sources of fiscal stress events and prevent undesirable developments. Going forward, the fiscal consolidation planned in most member economies is expected to improve the fiscal indicators, but the short-term fiscal risk may rise further due to the global and domestic macroeconomic and financial market conditions. Annual assessment of FSS can be complemented by careful monitoring of available high-frequency and in-year data updates for FSS, such as CDS spread, sovereign credit rating, growth, inflation, and global economic and financial indicators.

References:

Baldacci, E., I. Petrova, N. Belhocine, G. Dobrescu, and S. Mazraani. 2011. "Assessing fiscal stress", IMF Working Paper, No. 11/100.

Berti, K., M. Salto and M. Lequien. 2012, "An Early-Detection Index of Fiscal Stress for EU Countries", European Economy Economic Paper, No. 475.

European Commission. 2016. "Fiscal Sustainability Report 2015", European Economy Institutional Paper, No. 018, January.

Nam, B. and S.H. Hong. Forthcoming, "Indicator-based Debt Sustainability Analysis for ASEAN+3 Member Economies." AMRO Working Paper.

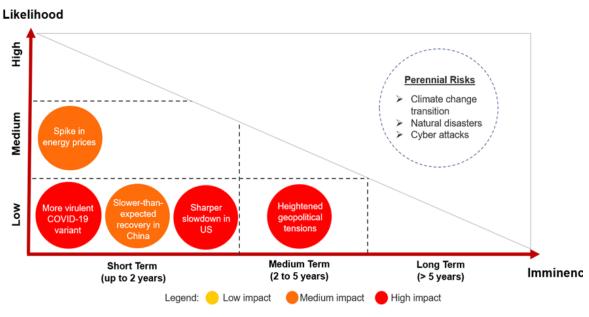
14. At the same time, uneven economic recovery with high uncertainty in the economy demands the continued role of fiscal policy.

Despite most economies transitioning to endemic, the economic recovery from the
pandemic turned out to be uneven across sectors and groups, including manufacturing
and service sectors, low- and high-contact services, regular and irregular workers,
large firms and MSMEs, and high- and low-income households. Moreover, those slowrecovering sectors and groups tend to suffer more from the prolonged high inflation.
Thus, fiscal support for these vulnerable sectors and groups should continue by
revamping the pandemic-related supportive measures toward more targeted support

for those in need. In addition, with the resurgence of the pandemic and extended containment measures, the economic recovery was delayed in some economies in 2022, which necessitated sustained fiscal support.

ASEAN+3 economies are facing significant uncertainties in 2023, including fallouts from the Russia-Ukraine conflict on energy prices; a sharper slowdown of the US economy with the prolonged tight monetary policy; slower recovery of China potentially due to delayed mobility recovery and weak real estate market; more virulent COVID-19 variants; and heightened geopolitical tensions, especially the rivalry between the US and China (Figure 23). Given that central banks need to maintain monetary policy tightening to manage high inflation and support their currencies in the midst of the global financial tightening cycle, the fiscal policy should take the lead in addressing the economic difficulties if the downside risks materialize.

Figure 23. ASEAN+3 Regional Risk Map, March 2023



Source: AMRO (2023).

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.

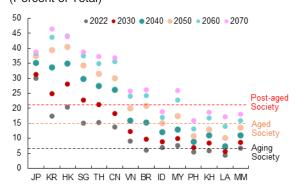
15. Addressing structural challenges requires additional fiscal resources.

• In the longer-term perspective, fiscal policy should also focus on enhancing growth potential while minimizing the scarring effects caused by the pandemic.²⁴ At the same time, the health-triggered economic crisis and the supply chain disruptions called for policy actions, including fiscal policy, to transform the economic structure to make it more resilient and strengthen social safety nets.

²⁴ As noted in the thematic chapter of the *ASEAN+3 Regional Economic Outlook 2022*, the scarring takes various forms in different economies: labor supply affected by declined labor force participation and discouraged immigration by border closures; capital formation due to delayed infrastructure investments; and productivity constrained by school closure and prolonged unemployment (AMRO, 2022).

Properly addressing emerging and existing structural challenges, such as population aging, infrastructure gap, climate change, and digitalization, is essential for sustainable growth and development, while ensuring fiscal sustainability. Over the next ten to twenty years, half of the member economies are projected to become the aged or postaged societies, implying growing fiscal costs related to social protection such as pension and healthcare (Figure 24). The infrastructure gap is estimated to be 0.3 – 0.9 percent of GDP in the emerging economies, and 1.1 – 4.2 percent of GDP in the LIDCs, on average, from 2023 – 2040 (Figure 25). Climate change is a common challenge for all member economies, especially for countries experiencing frequent natural disasters. As demonstrated during the pandemic, digitalization has a great potential to improve the resilience, efficiency, and productivity of the economy, and provide opportunities to boost new industries in many economies, but it also requires substantial investments.

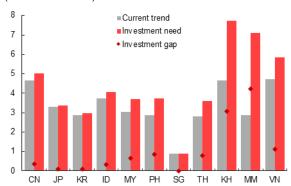
Figure 24. ASEAN+3: Old-age Ratio (Percent of Total)



Source: United Nations; AMRO staff estimates.

Note: Old-age population refers to those aged 65 and above. An economy is classified as an aging society if the share of the old-age population in the total population is between 7 percent to 14 percent, an aged society if the share is between 15 percent to 20 percent, and a post-aged society if the share is 21 percent and above.

Figure 25. Selected ASEAN+3: Infrastructure Gap (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.

B. Fiscal Policy Discussion

16. In the post-pandemic era, the member authorities should focus on keeping a good balance between restoring fiscal buffer and responding to evolving fiscal policy needs. Accommodating the two seemingly conflicting objectives shouldn't be one of sacrificing one for the other. Fiscal policy should aim for medium-term consolidation with strong commitment and specific targets/measures, while allowing for targeted response to evolving short-term fiscal policy needs. Amid elevated uncertainties, fiscal responses should be flexible and agile in response to rapidly evolving economic situations without completely deviating from the overall direction of fiscal consolidation and in line with other macroeconomic policies. In the post-pandemic policy adjustments, resource reallocation supported by fiscal reforms should be prioritized in addressing both continuing and emerging fiscal policy needs, considering the limited fiscal resources during consolidation. In addition, given the potential negative impact on growth, the medium-term fiscal consolidation plan should be accompanied by growth-promoting structural reform measures.

Rising Existing and Constrained Deteriorated concerns on prepare for recovery and emerging structural monetary policy fiscal position unforeseen sustainability uncertainty challenges Rebuilding Fiscal Buffer Providing Adequate Support

Well-planned fiscal consolidation
Flexible and targeted fiscal responses

Figure 26. Fiscal Policy Considerations in the Post-pandemic Era

Source: AMRO staff illustration

17. Fiscal consolidation should be well-planned with specific targets and measures.

Resource reallocation, fiscal and structural reforms

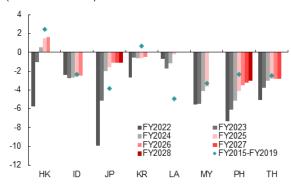
- Specific consolidation targets in terms of fiscal deficit and debt ratios, with realistic macroeconomic projections and feasible measures, will improve the credibility and accountability of the fiscal consolidation plan. The speed and magnitude of consolidation should consider the economic environment and policy priorities. For example, some countries that reopened their economies early and recovered to their long-term trends may accelerate the consolidation process, while others experiencing delayed recovery and facing sizeable development needs, may plan for more gradual consolidation (Figures 27 and 28). In either case, the plan should clearly articulate the consolidation targets and schedules.
- Fiscal consolidation measures should be tailored to country-specific economic and fiscal circumstances.²⁵ One common post-pandemic fiscal adjustment is tapering the broad-based emergency measures as growth momentum strengthens. Whether to focus on spending cuts or revenue increases in the medium term should take into account the fiscal situation of the country. In advanced economies with high levels of public spending, sustained spending cuts tend to be more effective than tax increases in reducing the fiscal deficit and debt ratio. On the other hand, in emerging and developing countries with a low tax-to-GDP ratios, revenue-enhancing measures may be more desirable, given the constraints of reducing already low spending while addressing growing spending needs for development (Figure 29). 26 Nevertheless. expenditure restructuring is still a valid option for all countries, such as rationalizing distortionary subsidies and less productive programs, and improving the efficiency of public spending (Figure 30). For revenue-enhancing measures, strengthening tax administration and compliance should be prioritized in broadening tax bases and improving the efficiency of tax collection, where many countries benefited from enhancing the tax information and payment systems (Box D). While raising tax rates and introducing new taxes are also options, they should be carefully implemented with proper assessment of their potential impact on the economy.
- <u>Fiscal rules can serve as an anchor and guide for fiscal consolidation</u>. Fiscal rules built
 upon public consensus and legally binding are an important element for good fiscal
 disciplines and prudent fiscal management. During the pandemic, several ASEAN+3

²⁵ Andriansyah and Hong (2022)

²⁶ IMF (2023) and references therein

economies relaxed their fiscal rules to allow for large-scale fiscal responses to the unprecedented pandemic crisis. With the transition from pandemic to endemic, however, fiscal authorities should consider reinstating them to ensure the fiscal position returns to the pre-pandemic state. 27 Also, some members may consider introducing fiscal rules to supplement their post-pandemic fiscal adjustment plans and strengthen fiscal policy frameworks in the medium term. 28

Figure 27. Selected ASEAN+3: Fiscal Balance Projection by the Authorities in the Medium-term (Percent of GDP)

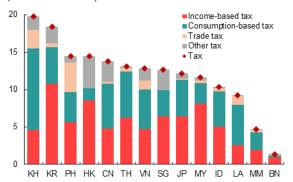


Source: National authorities: AMRO staff estimates Note: Fiscal balance projections are as announced by authorities.

Figure 29. ASEAN+3: Tax Revenue and its

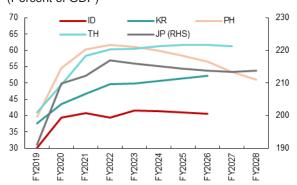
(Percent of GDP)

Components, FY2022



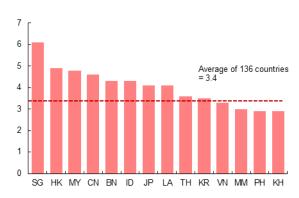
Source: National authorities; AMRO staff estimates.

Figure 28. Selected ASEAN+3: Government Debt Projection by the Authorities in the Medium-term (Percent of GDP)



Source: National authorities; AMRO staff estimates. Note: Debt ratio projections are as announced by authorities.

Figure 30. Efficiency of Government Spending (Score: 0-7)



Source: World Economic Forum, Global Competitiveness Index 2017-

Box D. Revenue-enhancing Measures in ASEAN+3 Economies²⁹

The ASEAN+3 member economies have been making continuous efforts to improve tax administration and refine policy measures to enhance their revenues. Even prior to the pandemic, domestic resource mobilization has always been a key fiscal challenge, with narrow tax bases often being the root cause of insufficient revenues. In order to broaden tax bases, tax authorities have utilized advancements in digital technology to upgrade tax administration and reduce compliance

²⁷ Indonesia relaxed its budget deficit ceiling of 3 percent of GDP 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.

²⁸ Korea has proposed a fiscal rule limiting the fiscal deficit excluding social security funds to below 3 percent of GDP. In the government debt-to-GDP exceeds 60 percent of GDP, the fiscal deficit should be reduced to below 2 percent of GDP.

29 Prepared by Ravisara Hataiseree and Abigail.

costs for both existing and new taxpayers. Tax authorities have simplified tax registration and introduced integrated electronic tax systems such as e-filing, e-payment, e-services, and e-tax invoice, which have also contributed to their transparency. According to the World Bank, Singapore ranked at the top in the Paying Tax Scores among our member economies, with the most extensively prepopulated e-filing system. Thailand was ranked second in ASEAN with its effort in promoting e-tax invoice and e-withholding tax, which helped streamline the tax filing and auditing processes. Malaysia has been encouraging electronic filing and payment for companies since 2008 and made electronic filing mandatory in 2016. By upgrading the IT infrastructure of the General Department of Taxation, Vietnam no longer requires businesses to submit hard copies of VAT returns. Indonesia and Philippines also introduced online filing and payment systems for major taxes and certain contributions from 2018 to 2022, making paying taxes more convenient. Lao PDR has experienced a significant improvement in its road tax and land tax collection after introducing the e-payment system in collaboration with the country's biggest state-owned commercial bank, Banque Pour Le Commerce Exterieur Lao Public (BCEL).

Table D.1. ASEAN+3: Paying Taxes Score and Rank

| | SG | KR | JP | TH | MY | ID | BN | PH | CN | VN | MM | KH | LA |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Score | 91.6 | 87.4 | 81.6 | 77.7 | 76.0 | 75.8 | 74.0 | 72.6 | 70.1 | 69.0 | 63.9 | 61.3 | 54.2 |
| Rank | 7 | 21 | 51 | 68 | 80 | 81 | 90 | 95 | 105 | 109 | 129 | 138 | 157 |

Source: World Bank, Ease of Doing Business Report 2020; AMRO staff compilation

Note: Paying Taxes Score and Rank are based on the records of various compliance burdens related to taxes and mandatory contributions that a local medium-size company must pay in a given year. The higher score and rank indicate that the tax authorities have offered a relatively more simplified tax system and effective tax administration and audits.

The medium- to long-term socio-economic challenges have highlighted the importance of tax reform strategies for a sustained tax revenue increase. In response to these challenges, some countries have raised tax rates to boost their revenue collections. For instance, Singapore has begun implementing a plan to raise GST rate from seven percent to nine percent in two stages from 2023 to 2024. Similarly, Indonesia raised VAT rate by one percentage point in 2022, and plans to raise it another one percentage point to 12 percent in 2025. Meanwhile, some other countries have introduced (or plan to introduce) new taxes and improved tax administration systems. Thailand, for example, has increased its revenue collection by linking its financial database with tax database to better capture revenues from e-commerce and digital transactions. Thailand also plans to impose a carbon tax to help the country achieve its goal of carbon neutrality by 2050. To address inequality issues, Malaysia is considering increasing Personal Income Tax (PIT) rates for the country's top 20 percent earners. Singapore has announced plans to increase the progressivity of its PIT system in FY2024. Additionally, the Singapore government intends to revise property tax rates for owner-occupied residential properties to make tax rates more progressive.

The OECD/G20 global tax reform initiatives, scheduled to be implemented in coming years, will bring substantial changes in the Corporate Income Tax (CIT) systems of member economies. It is expected that the competition in CIT rates will decline as more countries adopt the two pillar solutions of OECD/G20. Korea was the first country to incorporate the global minimum tax rules into its domestic legislation with the passage of the 2022 Tax Revision Bill, introducing the global minimum tax on inscope MNEs. Other members are following suit, with Hong Kong pledging to implement the international tax reform proposals drawn up by the OECD, and Japan already submitting the tax reform bill to the national legislature. Singapore and Indonesia have announced their commitment to apply the minimum CIT of 15 percent from 2024.

Given the various revenue enhancing initiatives, continued efforts to strengthen tax administration capacity have become increasingly important. In particular, the collection of new revenues often requires a proportional increase in administration capacity including expanded tax valuation functions. Countries with limited administration capacities, such as inadequate database, insufficient IT systems, and lack of staff capacity, may not be able to fully exploit the benefits of tax reforms due to institutional limitations.

18. Near-term fiscal policy needs should be addressed by flexible and targeted fiscal responses. While unwinding broad-based emergency measures rolled out during the pandemic, the member authorities need to continue supporting vulnerable groups and sectors lagging behind in the recovery and suffering from rising living costs, primarily through the social safety nets. Countries with insufficient social protection coverage may implement discretionary support programs, which should be time-bound and clearly targeted. In addition, policy efforts to enhance institutional capacity for identifying target groups and delivering benefits, should accompany such policy transition to ensure the targeted support and/or social protection system is efficient and effective. Meanwhile, the authorities should be agile in recalibrating fiscal policy in response to different risks with varying economic and policy implications, in the context of the macroeconomic policy mix.

19. Resource reallocation should serve the growing spending priorities, taking into account fiscal sustainability, with support from fiscal reforms.

- The need for fiscal adjustments in the post-pandemic era naturally provides an opportunity to revisit overall resource allocation. Given the unprecedented pandemic policy responses, the post-pandemic policy will require equally large-scale policy adjustments. Taking this opportunity, the authorities should undertake a rigorous assessment of both existing fiscal programs and new policy initiatives to set the priorities and accommodate the growing spending needs without derailing the consolidation path. For example, some countries facing rapid population aging with low fertility rates would prioritize improving fertility rates and enhancing labor productivity alongside the demographic transition, while countries with low public capital may focus on infrastructure investments among other spending needs.³⁰
- Fiscal reforms can help reallocate resources and ensure fiscal sustainability. Firstly, for an effective expenditure restructuring, an extensive review of all existing spending programs should be done on a zero basis, asking a set of fundamental questions on objectives, characteristics, and design of programs. This will help to save resources for consolidation or redirect them toward other priority programs. Secondly, the governments could strengthen role-sharing between the public and private sectors to better mobilize available resources. The public-private partnership for infrastructure investments is a good example. While inviting private capital to economically viable infrastructure projects, the government can focus its resources on other projects better provided by the public sector, such as education and social protection. Lastly, fiscal reforms to address long-term challenges, such as pension reforms for population aging, should be tackled as early as possible to avoid sharper and more painful adjustments later.³²

20. Growth-promoting structural reforms should be an essential part of a successful consolidation plan and in addressing the long-term challenges.

 Addressing long-term challenges requires a mix of various policy measures to lessen the fiscal burden and achieve structural reforms effectively. For example, the old-age poverty issues are linked not only to pension and income support but also to financial

³⁰ In the FY2023 budget, Japan and Singapore increased the amount of lump sum allowance for families with newborns to ease the burden of child-bearing costs, aiming to raise the fast-declining fertility rate. Both countries continued to provide assurance for senior citizens by increasing the total amount of subsidies for elderly care—including health care. On the other hand, Indonesia, Malaysia, and the Philippines highlighted the acceleration of infrastructure investments.

³¹ For example, "why the specific program is needed?"; "Is it related to the national agenda, or does it have the characteristics of public goods?"; "if it is needed, should it be provided by the government or the private sector?"; "if the government should provide it, which measures of tax or expenditure will be suitable?"; and "what is the most effective and efficient design of the program to meet the objectives (government agencies, local governments, subsidy to SOEs, subsidy to private sector and households, policy loans, etc.)?"

³² In the countries facing rapid population aging, the fiscal adjustment needs to maintain fiscal sustainability tend to increase over time due to slowing potential growth and sharply rising aging-related fiscal spendings.

vehicles (e.g., reverse mortgage), institutional/regulatory reforms (e.g., retirement age), and labor market policy (e.g., job opportunities for seniors). Climate change issues should be approached from a combination of tax policy (e.g., carbon tax), spending programs (e.g., renewable energy subsidy), institutions (e.g., emission trading), and regulations (e.g., vehicle emission standards).

• Structural reforms promoting growth potential are critical, especially during fiscal consolidation. Fiscal consolidation is likely to slow down economic growth in the short term, although the size of the fiscal consolidation multiplier may be small. 33 Slow growth will, in turn, limit the effectiveness of fiscal consolidation in reducing the debt-to-GDP ratio through both revenue and nominal GDP channels. Thus, fiscal consolidation should be accompanied by growth-friendly policy measures to minimize its negative impact on growth and, at the same time, achieve fiscal consolidation targets.

³³ Given that the fiscal consolidation multipliers may be less sensitive to business cycle (Cugnasca and Rother, 2015), the post-pandemic fiscal adjustment plan should properly reflect the economic policy and structural environments that influence the extent of macroeconomic impacts of fiscal policy adjustments. In addition, Giavazzi and Pagano (1990) argue that fiscal consolidation could be even expansionary in some cases. Recently, Nie (2020) also found that tax-based fiscal consolidation measures could be expansionary especially for highly indebted economies.

Appendix I. Key Fiscal Indicators

(Percent of GDP)

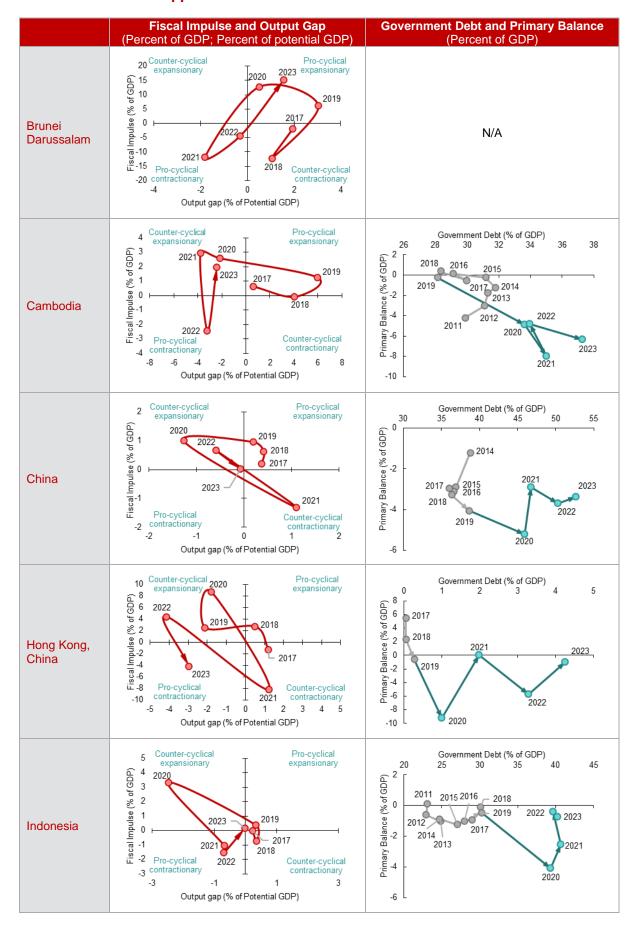
| | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 ¹⁾ | FY2023 ²⁾ |
|-----------------------|--------|--------|--------|--------|--------|----------------------|----------------------|
| Brunei Darussalam | | | | | | | |
| Revenue | 22.7 | 32.7 | 26.4 | 12.6 | 24.3 | 23.7 | 14.4 |
| Expenditure | 35.7 | 32.5 | 31.9 | 32.6 | 29.5 | 23.2 | 28.7 |
| Fiscal balance | -12.9 | 0.2 | -5.6 | -20.0 | -5.2 | 0.5 | -14.3 |
| Government debt | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gross financing needs | 12.9 | -0.2 | 5.6 | 20.0 | 5.2 | -0.5 | 14.3 |
| Cambodia | | - | | | | | |
| Revenue | 21.9 | 23.8 | 26.2 | 23.4 | 21.4 | 23.1 | 22.5 |
| Expenditure | 22.8 | 23.8 | 26.9 | 28.8 | 29.9 | 28.5 | 29.4 |
| Fiscal balance | -0.9 | 0.0 | -0.6 | -5.3 | -8.4 | -5.3 | -6.9 |
| Government debt | 30.0 | 28.4 | 28.1 | 33.7 | 35.0 | 34.0 | 37.3 |
| Gross financing needs | 1.5 | 0.7 | 1.5 | 6.4 | 9.5 | 6.6 | 8.2 |
| China | | | | | | | |
| Revenue | 20.7 | 19.9 | 19.3 | 18.0 | 17.6 | 16.8 | 16.6 |
| Expenditure | 24.4 | 24.0 | 24.2 | 24.2 | 21.4 | 21.5 | 21.0 |
| Fiscal balance | -3.7 | -4.1 | -4.9 | -6.2 | -3.8 | -4.7 | -4.4 |
| Government debt | 36.0 | 36.4 | 38.6 | 45.9 | 46.8 | 50.4 | 52.7 |
| Gross financing needs | 6.7 | 6.5 | 7.4 | 9.2 | 7.7 | 8.4 | 8.2 |
| Hong Kong, China | | | | | | | |
| Revenue | 22.8 | 21.0 | 21.1 | 20.7 | 24.4 | 23.9 | 23.8 |
| Expenditure | 17.4 | 18.6 | 21.7 | 29.9 | 24.3 | 29.7 | 24.8 |
| Fiscal balance | 5.5 | 2.4 | -0.6 | -9.2 | 0.0 | -5.8 | -1.0 |
| Government debt | 0.1 | 0.1 | 0.3 | 1.0 | 2.0 | 3.3 | 4.3 |
| Gross financing needs | -5.5 | -2.4 | 0.6 | 9.2 | 0.0 | 5.8 | 1.0 |
| Indonesia | | | | | | | |
| Revenue | 12.3 | 13.1 | 12.4 | 10.7 | 11.8 | 13.4 | 11.7 |
| Expenditure | 14.8 | 14.9 | 14.6 | 16.8 | 16.4 | 15.8 | 14.5 |
| Fiscal balance | -2.5 | -1.8 | -2.2 | -6.1 | -4.6 | -2.4 | -2.8 |
| Government debt | 29.0 | 30.1 | 30.2 | 39.4 | 40.7 | 39.7 | 40.3 |
| Gross financing needs | 5.1 | 5.2 | 5.8 | 9.1 | 7.9 | 5.0 | 5.7 |
| Japan | | | | | | | |
| Revenue | 12.6 | 12.8 | 13.0 | 14.1 | 20.3 | 14.4 | 14.2 |
| Expenditure | 15.0 | 15.1 | 15.6 | 24.7 | 23.1 | 22.0 | 17.0 |
| Fiscal balance | -2.4 | -2.3 | -2.5 | -10.6 | -2.8 | -7.7 | -2.8 |
| Government debt | 195.8 | 198.2 | 200.2 | 226.3 | 225.5 | 226.9 | 240.7 |
| Gross financing needs | 26.7 | 25.7 | 26.2 | 35.5 | 36.4 | 40.1 | 33.9 |
| Korea ³⁾ | | | | | | | |
| Revenue | 22.0 | 23.1 | 23.1 | 23.0 | 26.0 | 27.4 | 26.3 |
| Expenditure | 20.7 | 21.4 | 23.7 | 26.7 | 27.4 | 30.4 | 26.9 |
| Fiscal balance | 1.3 | 1.6 | -0.6 | -3.7 | -1.5 | -3.0 | -0.6 |
| Government debt | 36.1 | 35.8 | 37.6 | 43.6 | 46.9 | 49.6 | 50.4 |
| Gross financing needs | 3.8 | 3.1 | 4.7 | 8.1 | 6.6 | 8.0 | 6.5 |
| Lao PDR ⁶⁾ | | | | | | | |
| Revenue | 16.3 | 15.7 | 15.6 | 12.7 | 14.7 | 15.1 | 14.5 |
| Expenditure | 21.8 | 20.3 | 18.8 | 17.9 | 16.0 | 15.5 | 17.2 |
| Fiscal balance | -5.6 | -4.6 | -3.2 | -5.2 | -1.3 | -0.3 | -2.7 |
| Government debt | 55.8 | 59.4 | 59.1 | 62.3 | 74.7 | 92.7 | 83.9 |
| Gross financing needs | 9.2 | 9.6 | 8.7 | 10.1 | 9.2 | 9.5 | 12.2 |

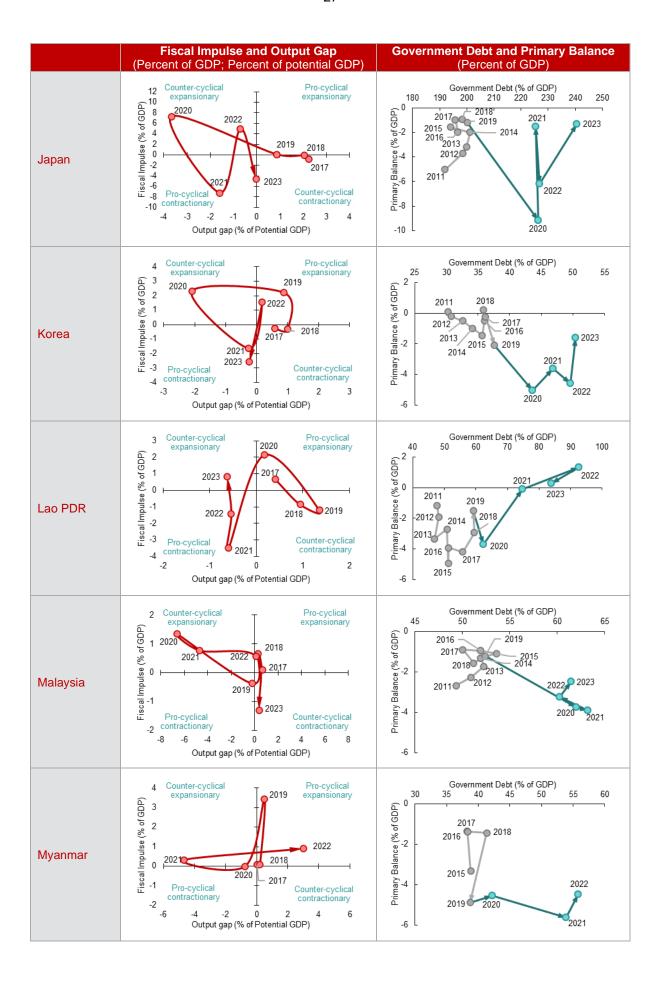
| | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 ¹⁾ | FY2023 ²⁾ |
|-------------------------------|--------|--------|--------|--------|--------|----------------------|----------------------|
| Malaysia | | | | | | | |
| Revenue | 16.1 | 16.1 | 17.5 | 15.9 | 15.1 | 16.4 | 15.2 |
| Expenditure | 19.0 | 19.8 | 20.9 | 22.0 | 21.5 | 22.0 | 20.1 |
| Fiscal balance | -2.9 | -3.7 | -3.4 | -6.2 | -6.4 | -5.6 | -4.9 |
| Government debt | 50.0 | 51.2 | 52.4 | 62.0 | 63.4 | 60.3 | 61.5 |
| Gross financing needs | 8.3 | 8.1 | 8.0 | 11.6 | 11.6 | 12.9 | 9.1 |
| Myanmar | | | | | | | |
| Revenue | 18.5 | 18.6 | 18.4 | 20.5 | 13.5 | 16.4 | |
| Expenditure | 21.1 | 21.6 | 24.8 | 26.8 | 21.3 | 23.1 | |
| Fiscal balance | -2.6 | -2.9 | -6.5 | -6.2 | -7.7 | -6.7 | |
| Government debt | 38.3 | 41.4 | 37.9 | 42.2 | 51.0 | 55.8 | |
| Gross financing needs | 3.3 | 3.7 | 7.3 | 8.0 | 8.7 | 7.2 | |
| Philippines ⁶⁾ | | | | | | | |
| Revenue | 14.9 | 15.6 | 16.1 | 15.9 | 15.5 | 16.1 | 15.3 |
| Expenditure | 17.1 | 18.7 | 19.5 | 23.5 | 24.1 | 23.4 | 21.3 |
| Fiscal balance | -2.1 | -3.1 | -3.4 | -7.6 | -8.6 | -7.3 | -6.1 |
| Government debt | 40.2 | 39.9 | 39.6 | 54.6 | 60.4 | 60.9 | 61.1 |
| Gross financing needs | 4.4 | 5.1 | 5.9 | 10.9 | 12.6 | 10.6 | 10.2 |
| Singapore ^{3) 5) 6)} | | | | | | | |
| Revenue | 18.0 | 16.1 | 15.1 | 14.0 | 17.4 | 16.3 | 14.7 |
| Expenditure | 15.8 | 15.5 | 15.0 | 24.5 | 17.2 | 17.0 | 15.2 |
| Fiscal balance | 2.3 | 0.7 | 0.2 | -10.5 | 0.2 | -0.7 | -0.5 |
| Government debt | 107.8 | 109.4 | 127.8 | 149.0 | 147.7 | 169.4 | 164.6 |
| Gross financing needs | 2.2 | 3.9 | 10.0 | 35.2 | 21.8 | 23.5 | 26.9 |
| Thailand ⁴⁾ | | | | | | | |
| Revenue | 15.5 | 15.7 | 15.3 | 15.0 | 14.9 | 14.8 | 13.5 |
| Expenditure | 18.4 | 17.9 | 17.8 | 21.1 | 23.9 | 20.4 | 17.2 |
| Fiscal balance | -3.0 | -2.2 | -2.5 | -6.0 | -9.0 | -5.6 | -3.8 |
| Government debt | 32.5 | 33.7 | 33.7 | 42.4 | 51.3 | 53.5 | 52.7 |
| Gross financing needs | 3.4 | 2.7 | 2.9 | 6.2 | 9.5 | 6.0 | 4.3 |
| Vietnam ⁴⁾ | | | | | | | |
| Revenue | 26.7 | 25.1 | 25.8 | 26.2 | 24.8 | 25.6 | 25.0 |
| Expenditure | 28.9 | 26.7 | 27.5 | 29.2 | 26.1 | 27.8 | 26.7 |
| Fiscal balance | -2.2 | -1.6 | -1.7 | -3.1 | -1.3 | -2.2 | -1.7 |
| Government debt | 42.0 | 40.2 | 38.2 | 39.6 | 39.3 | 38.9 | 37.9 |
| Gross financing needs | 4.6 | 3.5 | 4.1 | 6.2 | 4.4 | 4.7 | 4.2 |

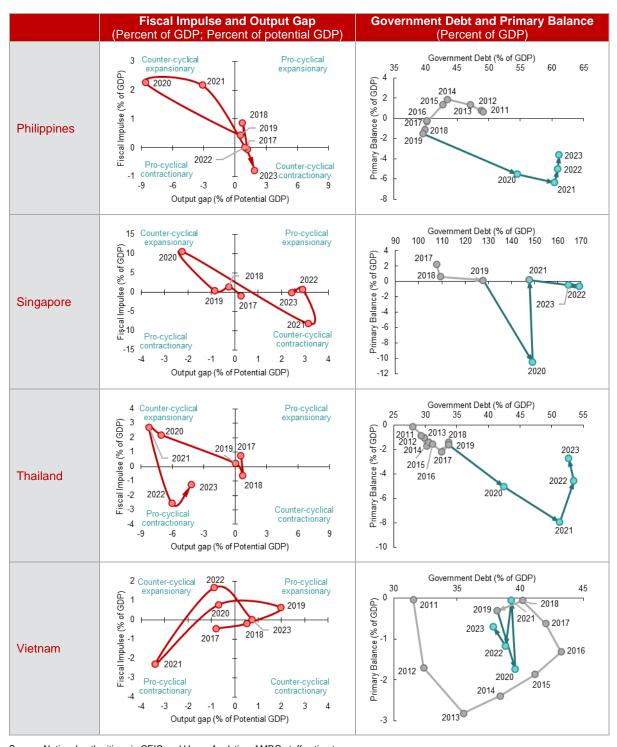
Source: National authorities via CEIC and Haver Analytics; AMRO staff estimate

Note: 1) Indicators for FY2022 are based on AMRO staff estimates for Brunei, Hong Kong, Japan, Lao PDR, Myanmar, and Singapore; 2) Revenue, expenditure, and fiscal balance for FY2023 are based on the authorities' budgets, scaled by nominal GDP projected by AMRO staff. Government debt and gross financing needs for FY2023 are AMRO staff projections; 3) Fiscal balance for Korea represents the fiscal balance including social security funds. 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; 4) For Vietnam, revenue includes the revenue from Financial Reserve Fund and broughtforward revenue, and expenditure includes the brought-forward expenditure. For Thailand, expenditure includes off-budget emergency loans; 5) Government debt for Singapore includes the special Singapore Government Securities issued to the Central Provident Fund (CPF) Board, which was 109.2 percent of GDP at the end of FY2021; 6) Gross financing needs for Lao PDR include debt services under negotiation. Gross financing needs for the Philippines include the redemption by the bond sinking fund. Gross financing needs for Singapore include the redemption of publicly-held Singapore government securities and Treasury bills; 7) For fiscal year and coverage, please see Appendix III.

Appendix II. Fiscal Stance and Fiscal Position







Source: National authorities via CEIC and Haver Analytics; AMRO staff estimate
Note: 1) Fiscal impulse is based on the estimated change in the structural primary balance in a percentage of GDP. A negative fiscal impulse implies
a contractionary fiscal stance; 2) Output gap is computed based on the potential GDP estimated by the Hodrick-Prescott filter; 3) Government debt
for Brunei is not shown as it has virtually zero government debt; 4) Indicators for FY2022 are based on AMRO staff estimates for Brunei, Hong
Kong, Japan, Lao PDR, Myanmar, and Singapore; 5) Fiscal impulse and primary balance for FY2023 is based on the authorities' budgets, scaled
by nominal GDP projected by AMRO staff. Government debt for FY2023 is AMRO staff projections; 6) The fiscal impulse of Brunei is for the
consistency in presentation. Its fiscal stance assessment in AMRO's analysis relies more on the change in primary expenditure, as its revenue is
heavily dependent on oil and gas prices, and the fiscal impulse, adjusting only the business cycle, may mislead the fiscal stance assessment. 7)
For fiscal year and coverage, please see appendix III.

Appendix III. Fiscal Year, Coverage, Classification

| | Figure Vector | Cov | erage | |
|----------------------|---|---|---------------------------------------|--|
| | Fiscal Year | Budget | Government Debt | |
| Brunei Darussalam | April-March | Central government | Central government | |
| Cambodia | January-December | Central government + Local government | Central government + Local government | |
| China | January-December | Central government + Local government | Central government + Local government | |
| Hong Kong, China | April-March | Central government | Central government | |
| Indonesia | January-December | Central government | Central government | |
| Japan | April-March | Central government | Central government | |
| Korea | January-December | Central government + Social security funds | Central government + Local government | |
| Lao PDR | January-December | Central government | Central government | |
| Malaysia | January-December | Central government | Central government | |
| Myanmar | (~FY2017) April-March (FY2018-2022) October-September (FY2023~) April-March | Central government | Central government | |
| Philippines | January-December | Central government | Central government | |
| Singapore | April-March | Central government | Central government | |
| Thailand | October-September | Central government | Central government | |
| Vietnam | January-December | Central government + Local government | Central government + Local government | |

Source: National authorities; AMRO staff compilation

References

- Abigail and Nam Byunghoon. Forthcoming. "Cyclical adjustment of fiscal balance beyond business cycle." AMRO Working Paper, ASEAN+3 Macroeconomic Research Office, Singapore.
- Andriansyah and Seung Hyun (Luke) Hong. 2022. "Rebuilding Fiscal Buffers in the Post-Pandemic Era: Fiscal Normalization, Consolidation, and Structural Reform." AMRO Policy Perspective Paper 22-02. ASEAN+3 Macroeconomic Research Office, Singapore. https://www.amro-asia.org/download/20742/?tmstv=1682411314
- Amaglobeli, David, Emine Hanedar, Gee Hee Hong, and Céline Thévenot. 2022. "Fiscal Policy for Mitigating the Social Impact of High Energy and Food Prices." IMF Note 2022/001, International Monetary Fund, Washington, DC. https://www.elibrary.imf.org/downloadpdf/journals/068/2022/001/article-A001-en.pdf
- ASEAN+3 Macroeconomic Research Office (AMRO). 2022. "ASEAN+3 Growth Strategy in the Pandemic's Wake." Chapter 2. ASEAN+3 Regional Economic Outlook. Singapore, April.

https://www.amro-asia.org/download/20240/?tmstv=1682411206

______(AMRO). 2023. "Macroeconomic Prospects and Challenges." Chapter 1. ASEAN+3 Regional Economic Outlook. Singapore, April. https://www.amro-asia.org/download/23515/?tmstv=1682409311

- Baldacci, E., I. Petrova, N. Belhocine, G. Dobrescu, and S. Mazraani. 2011. "Assessing fiscal stress," IMF Working Paper, No. 11/100. https://www.imf.org/external/pubs/ft/wp/2011/wp11100.pdf
- Berti, K., M. Salto and M. Lequien. 2012, "An Early-Detection Index of Fiscal Stress for EU Countries," European Economy Economic Paper, No. 475.

 https://ec.europa.eu/economy_finance/publications/economic_paper/2012/pdf/ecp475_en.pdf
- Cugnasca, A., and Rother, P. 2015. "Fiscal multipliers during consolidation: evidence from the European Union." No. 1863. ECB Working Paper. https://ideas.repec.org/p/ecb/ecbwps/20151863.html#download
- European Commission. 2016. "Fiscal Sustainability Report 2015," European Economy Institutional Paper." No. 018, January. https://economy-finance.ec.europa.eu/document/download/47c67be3-4cae-4fd0-bd3b-4c83a516a075 en?filename=ip018_en.pdf
- Fedelino, A., Horton, M. A., and Ivanova, A. 2009. "Computing cyclically-adjusted balances and automatic stabilizers." IMF Technical Notes and Manuals, 2009(005), International Monetary Fund, Washington, DC. https://www.elibrary.imf.org/downloadpdf/journals/005/2009/005/article-A001-en.xml
- Giavazzi, F. and M. Pagano. (1990). "Can Severe Fiscal Contractions Be Expansionary? Tales of Two Small European Countries." NBER Macroeconomics Annual 1990, Vol. 5, pp. 75-111
 https://www.journals.uchicago.edu/doi/epdf/10.1086/654131

- International Monetary Fund. 2023. "Coming Down to Earth: How to Tackle Soaring Public Debt." Chapter 3. IMF World Economic Outlook, International Monetary Fund, Washington, DC.
 - https://www.imf.org/-/media/Files/Publications/WEO/2023/April/English/text.ashx
- Nam Byunghoon and Seung Hyung (Luke) Hong. Forthcoming, "Indicator-based Debt Sustainability Analysis for ASEAN+3 Member Economies." AMRO Working Paper. ASEAN+3 Macroeconomic Research Office, Singapore.
- Nie, O. (2020). "Expansionary Fiscal Austerity: New International Evidence." Policy Research Working Paper No. 9344. World Bank, Washington, DC. https://documents1.worldbank.org/curated/en/430691596113581519/pdf/Expansionary-Fiscal-Austerity-New-International-Evidence.pdf
- Organisation for Economic Co-operation and Development (OECD). 2022. "Tax Policy Reforms 2022: OECD and Selected Partner Economies." OECD Publishing, Paris. https://read.oecd.org/10.1787/067c593d-en?format=pdf
- Poonpatpibul, Chaipat, Hong Seung Hyun (Luke), Choi Jinho, Han Lim Ming (Justin), Vorranikulkij Wanwisa May, Jiao Zhiwen, Gabriella Laura Grace and LiuXinyi (Simon). 2020. "A Framework for Assessing Policy Space in ASEAN+3 Economies and the Combat against COVID-19 Pandemic." AMRO Working Paper 20-03, ASEAN+3 Macroeconomic Research Office, Singapore. https://www.amro-asia.org/download/14926/?tmstv=1682410703
- Tang, H.C., P. Liu, and E.C. Cheung. 2010. "Changing Impact of Fiscal Policy on Selected ASEAN Countries." ADB Working Paper Series on Regional Economic Integration No 70, Manila.
 - https://www.adb.org/sites/default/files/publication/28556/wp70-tang-changing-impact-fiscal-policy.pdf
- World Bank. 2020. "Doing Business 2020." World Bank, Washington, DC. https://openknowledge.worldbank.org/bitstream/handle/10986/32436/9781464814402.pdf
- World Economic Forum. 2017. "The Global Competitiveness Report 2017—2018." World Economic Forum.

http://www3.weforum.org/docs/GCR2017-

2018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf



Address: 10 Shenton Way, #15-08 MAS Building, Singapore 079117 Website: www.amro-asia.org Tel: +65 6323 9844

Email: enquiry@amro-asia.org

<u>LinkedIn</u> | <u>Twitter</u> | <u>Facebook</u> | <u>YouTube</u>