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RESPONSES TO FACILITATE POST-COVID-19 ECONOMIC RECOVERY: A REGIONAL PERSPECTIVE

TUAN YUEN KONG, YAO LI, AND SARAH Y. TONG



Working Paper on COVID-19 Series No. 04
MARCH 2023

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Responses to Facilitate Post-Covid-19 Economic Recovery: a Regional Perspective

Tuan Yuen Kong, Yao Li, and Sarah Y. Tong



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ISBN-13: 978-9924-500-43-8

Citation:

Tuan Yuen Kong, Yao Li, and Sarah Y. Tong. 2023. *Responses to Facilitate Post-Covid-19 Economic Recovery: A Regional Perspective*. CDRI Working Paper on COVID-19 Series No. 04. Phnom Penh: CDRI.

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Acknowledgements

This report is part of a CDRI research project on Strengthening Cambodia's Post-Pandemic Recovery and Competitiveness Pathways. The authors would like to express their gratitude to Swedish International Development Cooperation Agency for its financial support. The authors are also grateful to East Asian Institute, National University of Singapore, for supporting the research. In particular, Professor Hofman Bert, Director of the Institute provided valuable comments on previous drafts for the research project. The authors also appreciated the many useful feedbacks received from CDRI colleagues in the process. Finally, the author thanks individuals whose names are not listed here but who provided direct and indirect assistance for the project.

Acronyms and abbreviations

| | |
|--------|--|
| ADB | Asian Development Bank |
| AEI | American Enterprise Institute |
| AIDS | Acquired Immunodeficiency Syndrome |
| ASEAN | The Association of Southeast Asian Nations |
| CDC | Centers for Disease Control and Prevention |
| CLMV | Cambodia, Laos, Myanmar, and Vietnam |
| CT | Computerized Tomography |
| DPT | Diphtheria, Tetanus, and Pertussis |
| EAP | East Asia and Pacific |
| EU | The European Union |
| GDP | Gross Domestic Product |
| GHS | Global Health Security Database |
| HIV | Human Immunodeficiency Virus |
| IMF | International Monetary Fund |
| OECD | The Organisation for Economic Co-operation and Development |
| OxCGRT | The Oxford COVID-19 Government Response Tracker |
| SG | Singapore |
| SMEs | Small and Medium Enterprises |
| UN | United Nations |
| US | The United States |
| WB | World Bank |
| WDI | World Development Indicators |
| WHO | The World Health Organization |
| YOY | Year-on-year |

Key findings

The Covid-19 pandemic has devastated many developing countries, particularly those in East and Southeast Asia due to their heavy reliance on global economic connections and low public health capacity. Although many have managed a respectful rebound since early 2021, uncertainties in world economic recovery have left many economies in unstable positions. Our study on developing Southeast Asia has several main findings. First, government expenditure on health and economic stimulus packages to mitigate the impact of Covid-19 pandemic in developing ASEAN countries has been considerably lower than the world average due to each country's poor fiscal conditions. Second, financial assistance from external sources is essential to enhance public health capabilities and to facilitate economic recovery. Third, most ASEAN members are receivers of international financial assistance while China, Japan, and Korea are providers, among which China has contributed the most. International organisations and major advanced economies are also important sources of financial assistance. Fourth, while international loans focused on emergency needs during the early days of the pandemic, they have since turned to long-term objectives, such as supporting vulnerable groups and improving health-related and other institutions. Finally, we believe developing countries' governments, including Cambodia's, should implement policies to further strengthen their emergency preparedness in dealing with future health emergencies and natural disasters. Externally, governments need to broaden sources of international assistance by increasing bilateral and multilateral government-to-government projects and enhancing long-term public-private partnerships. Domestically, governments also need to improve transparency, accountability, and other aspects of governance in order to facilitate greater cooperation and attract private investment in health-related sectors.

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1. Introduction

Since early 2020, the Covid-19 pandemic has caused serious disruption to the world economy, and the East and Southeast Asia region is no exception. Developing countries in the region were hit particularly badly due to their heavy reliance on global economic connections and low public health capacity domestically. As a result, economic recovery has been highly uneven globally. Supply chain disturbances and energy-related price hikes added further difficulties to economic recovery in developing countries within the region. For example, recovery in consumer consumption has slowed since the second half of 2021. Business confidence in investment weakened again in 2022 after a brief rebound in 2021. Growth in trade also slowed for most developing ASEAN countries in 2022.

Developing ASEAN countries face many challenges financing the fiscal stimuli needed for economic recovery since public finance deteriorated during the pandemic. The pandemic also worsened problems such as insufficient sanitation and other health-related facilities as well as making clear the danger from low government expenditures on health. Some long-standing problems, such as a low immunisation ratio for children, have worsened during the pandemic. In most developing ASEAN countries, per capita health expenditure is considerably lower than the world average and relies heavily on private contributions resulting in high levels of inequality in health expenditure and low capacity in public health provisions.

The Covid-19 pandemic has brought about devastating shocks to East and Southeast Asian countries¹ not only their healthcare systems but also to their economies. Developing ASEAN countries were particularly ill-prepared for the public health emergency.² Developing ASEAN member states, especially Cambodia, Laos, Myanmar, and Vietnam (hereafter referred to as CLMV), belong to the middle income bracket but lack resources, including adequate budget, advanced health knowledge, and sufficient medical workforce, to uphold their national healthcare systems.

Like other countries in the world, developing ASEAN countries have also adopted policies to control the pandemic and to stimulate the economy with a wide range of targets, including virus containment, public health improvement, economic relief and recovery, and medical and vaccination support. Due to variations in the spread of the virus, gaps in their levels of development and fiscal capability, different ASEAN member states have dealt with the challenges differently. Importantly, international

1 In the context of this chapter, the region, East and Southeast Asia, refers to ASEAN plus three, namely ten ASEAN member states plus People's Republic of China, Japan, and South Korea.

2 For example, Cambodia, Laos, and Myanmar are the lowest among ASEAN members in global health security index, ranked 126th, 99th, and 85th, respectively, among the 195 countries reported. All three countries are weak in the sub-categories of "Overall risk Environment and country vulnerability to biological threats" and Cambodia also scored poorly in both "Rapid response to and mitigation of the spread of an epidemic" and "sufficient and robust health system to treat the sick and protect health workers."

assistance has been vital in supporting host countries to reinforce their response to the pandemic and alleviate its negative impacts.

We aim to explore and compare East and Southeast Asian countries' performances in their economy, health security, and levels of international assistance. More specifically, we begin by reviewing each country's economic performance and public health conditions before and after Covid-19 pandemic, focusing especially on CLMV. Second, we compare each country's policy response to the Covid-19 pandemic. Third, we examine the role of international assistance measured in loans and swaps. Fourth, we consider the contents of international loans received by Southeast Asian countries. Lastly, based on the above assessment, we provide some preliminary policy suggestions that can be implemented at the government level.

2. Economic and Health Performance during the Pandemic

Since the outbreak of COVID-19 in Wuhan, China in late 2019, the world has fought the virus for over two and a half years.³ In early 2020, as infectious cases start to rise sharply in various countries, governments took unprecedented measures, like implementing community lockdowns, to try to contain the spread by reducing interpersonal activities. The result was a disruption to the global economy. Government responses to the pandemic were remarkable in terms of the speed with which they took place, the broad scope of the fiscal and monetary policies they adopted, and the number of countries that implemented them. However, economists have come to the consensus⁴, which is clearly reflected by the data, that the pandemic has had serious negative impacts on the global economy.

According to the International Monetary Fund (IMF, 2021), global economic growth fell to an annual rate of roughly -3.2% in 2020. In addition, the impacts have been long-lasting. According to OECD (2021) calculations, output may remain around 5% below pre-pandemic expectations in many countries in 2022. OECD (2021) has also warned that the pandemic is fragmenting the global economy through a growing number of trade and investment restrictions and diverging policy approaches implemented on a country-by-country basis, which can have far-ranging impacts on the global economy.

Country level data also shows evidence that the pandemic hit most countries heavily in 2020 (see Table 1). According to the World Bank's WDI, there were just nine countries with negative year-on-year differences of quarterly real GDP among the 104 recorded countries in the second quarter of 2019 (see Appendix 1a). However, this number

3 As of 27 September 2022, a total of over 610 million confirmed cases and 6.5 million deaths have been reported across almost all countries involved, according to the World Health Organisation (WHO). Source: <https://covid19.who.int/> (accessed on 28 September 2022)

4 Statista Research Department (2022). Impact of the coronavirus pandemic on the global economy - Statistics & Facts. <https://www.statista.com/topics/6139/covid-19-impact-on-the-global-economy/> (accessed 9 August 2022).

dramatically increased to 94 countries in the second quarter of 2020 (see Appendix 1b), which represents a record high so far in the new millennium. Most economies reported economic rebounds in 2021. In fact, the year-on-year change of quarterly real GDP was positive for 97 countries in the second quarter of 2021 (see Appendix 1c). Among those reporting positive changes, 88 countries had a growth rate higher than 5%. However, economic recovery has been slowing down since the beginning of 2022 in most regions. For the first quarter of 2022, the number of countries with positive year-on-year change of quarterly real GDP decreased to 84 with only 44 countries reporting a growth rate greater than 5% (see Appendix 1d).

The rebound or recovery of economic growth is quite uneven within Southeast Asia in particular. In 2021, three of the nine reporting ASEAN countries had annual real GDP growth higher than world average level (6%), including Vietnam (33.3%), Singapore (10.5%), and Philippines (6.5%). However, there were also two countries that had negative annual real GDP growth (Laos with -3.5% and Thailand with -0.7%).

Table 1: Annual growth of real GDP for selected regions 2019-2021 (%)

| Region | 2019 | 2020 | 2021 | Region | 2019 | 2020 | 2021 |
|-----------------------------|-------------|-------------|------|-------------|-------------|-------------|-------------|
| World | 3 | -3 | 6 | Brunei | 2.7 | 0.0 | 1.0 |
| East Asia and Pacific (EAP) | 4 | 0 | 6 | Cambodia | 6.9 | -3.3 | 2.6 |
| EAP (Excl. High Income) | 6 | 1 | 7 | Indonesia | 5.7 | -5.0 | 5.7 |
| ASEAN(CLMV) | 3 | 2 | | Laos | 2.1 | -0.9 | -3.5 |
| ASEAN | 4 | -2 | | Malaysia | 1.7 | -6.9 | 4.5 |
| ASEAN5(SG) | 4 | -6 | 5 | Myanmar | -0.9 | 11.5 | |
| ASEAN4 | 5 | -6 | 4 | Philippines | 7.9 | -5.6 | 6.5 |
| China | 6.0 | 2.2 | 8.1 | Singapore | 0.0 | -5.2 | 10.5 |
| Japan | -0.4 | -4.6 | 1.7 | Thailand | 6.3 | -7.0 | -0.7 |
| South Korea | 2.2 | -0.7 | 4.1 | Vietnam | 4.9 | 2.2 | 33.3 |

Source: CEIC Data Manager.

Breakdown of pandemic impacts on developing ASEAN economies

The impacts of the pandemic are also uneven for different sectors of the economy. Due limited available data, we focus our analysis on five developing ASEAN countries: Indonesia, Malaysia, Philippines, Thailand, and Vietnam.

Except for Vietnam, all countries in this group had negative year-on-year changes for the quarterly real household consumption in the second quarter of 2020. Household consumption dropped the most in Malaysia (by more than 20%) and the Philippines (by more than 10%).

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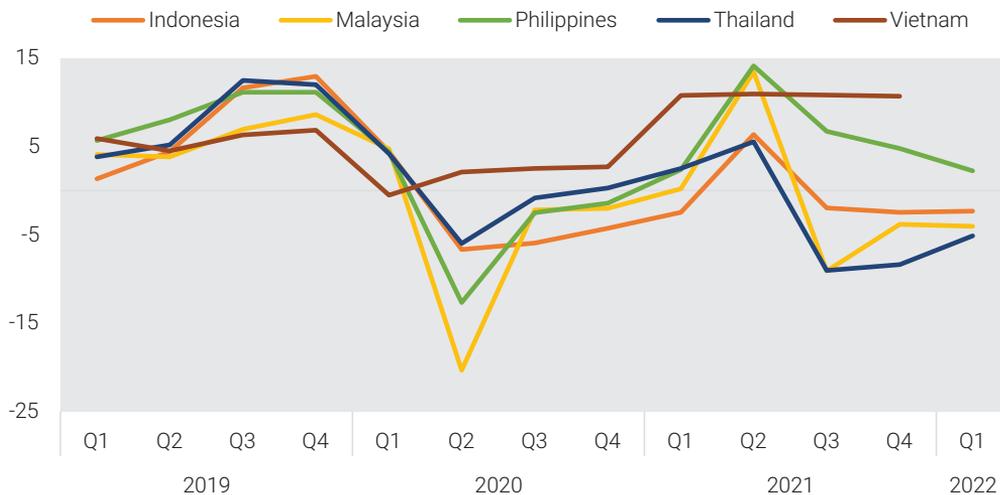
Recovery of household consumption has been uneven across ASEAN countries. The rate of household consumption recovered quickly to be less than 3% in the third quarter of 2020 in Malaysia and the Philippines. Furthermore, the year-on-year rebound of quarterly real household consumption growth for these two countries was also the highest in the second quarter of 2021 (see Figure 1a). The decline and subsequent rebound has been relatively less drastic for Indonesia and Thailand. The quarterly real consumption for Vietnam only dropped a little bit in the first quarter of 2020 and then steadily recovered during 2021.

Meanwhile, except for Vietnam, consumption recovery has been slowing down for the remaining countries since the second half of 2021 (see Figure 1a). Three countries—Thailand, Malaysia, and Indonesia—even experienced negative quarterly real household consumption growth again in the third quarter of 2021. The growth of consumption has also been decreasing for the Philippines since the third quarter of 2021.

Increasing government contributions to consumption is typically an important fiscal policy tool to strengthen economic performance in a downturn. However, due to the virus containment measures, government expenditures in Indonesia and Malaysia decreased in the second quarter of 2020. Except Vietnam, there has been no significant increase in government expenditure growth for the other four countries since the first quarter of 2020. For Malaysia, Indonesia, and Thailand, the year-on-year growth rates of quarterly real government expenditure has been negative since the third quarter of 2021 (see Figure 1b). Weak government revenue might be a crucial reason for this negative growth. Additionally, although Vietnam has significantly increased its government expenditure since the first quarter of 2021, the share of its government expenditure in national consumption is relatively low (see Appendix 2). For Indonesia and Malaysia, the share of government expenditure in total national consumption has even decreased since the outbreak of the pandemic.

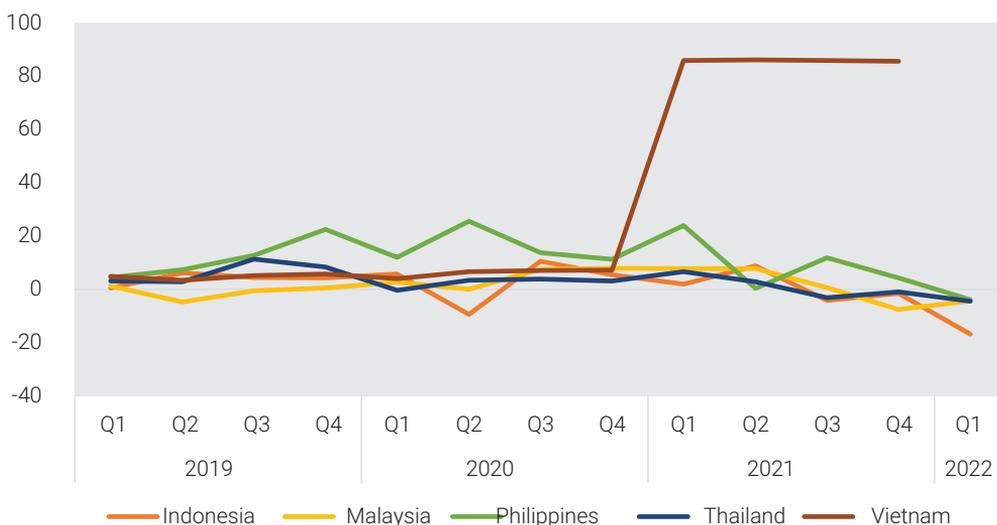
Rising inflation rates in some countries, like Indonesia, Malaysia, and Indonesia (see Appendix 3), have further diminished both household consumption and government expenditure since the second half of 2021. Alongside domestic factors, the causes of high inflation rates include global supply chain disturbances and rapid rise in global energy prices, which has made the independent recovery of these economies even harder.

Figure 1a: Quarterly growth in household consumption, YOY, price adjusted



Source: CEIC Data Manager. Note: GDP deflator is used for price adjustment.

Figure 1b: Quarterly growth in government expenditure, YOY, price adjusted



Source: CEIC Data Manager. Note: GDP deflator is used for price adjustment.

However, the total capital formation growth rates were even higher for the Philippines, Thailand, and Malaysia during the same period (see Appendix 4a). This implies that inventories are increasing as demand is still weak. As a result, fixed capital formation growth has been slowing down since the second half of 2021 for these countries. Fixed capital formation growth became negative again for Thailand, Malaysia, and Indonesia in the first quarter of 2022, which indicates weakened investment confidence returned in 2022.

Similar to metrics on consumption, the fixed capital formation for investment also dropped significantly in the second quarter of 2020 in Indonesia, Malaysia, and the Philippines. Again, Vietnam was an exception due to spill over demand from China and its successful antivirus performance in 2020 (see Appendix 4b). Then, all five countries recorded positive year-on-year growth of quarterly real fixed capital formation in the second quarter of 2021, which indicates a recovery of investment confidence.

Due to interruptions in logistics associated with virus containment measures, international trade has been one of the sectors that has suffered the most during the pandemic. Yet, the effects of the pandemic on trade were felt very unevenly for developing ASEAN countries. Due to limited data availability, we focus our analysis of trade on seven developing ASEAN countries: Cambodia, Indonesia, Laos, Malaysia, the Philippines, Thailand, and Vietnam. In the second quarter of 2020, all countries but Cambodia experienced a significant decrease in exports (see Appendix 5a) and all seven ASEAN developing countries reported negative growth in imports (see Appendix 5b). In the second quarter of 2021, exports within all countries except Cambodia rebounded, and all seven countries' import rebounded. However, the growth of trade has been slowing down for all seven countries in 2022. An important reason for this slowdown is weakening demand from the US and EU, which is overshadowing global economic recovery.

Deteriorating public finance of developing ASEAN countries

The pandemic also caused a sharp drop in governments' fiscal balances all over the world in 2020. The median value of consolidated fiscal deficit per capita increased from \$112.7 US per person in 2019 to \$754.1 US per person in 2020, a 573% increase (see Table 2). The median value for the share of fiscal deficit over GDP increased from 1.9% to 6.7% during the same period. As many economies experienced rebound growth in 2021, the world median fiscal deficit per capita decreased to \$367.30 US per person, which is less than half of the 2020 deficit. The world median share of deficit over GDP also decreased to 4.6%.

Due to the large public health expenditure increases during the pandemic and the implementation of economic rescue policies in response to the pandemic, fiscal balances for most ASEAN countries also dropped between 2019 and 2020 though not as significantly as the rest of the world (see Table 2). Some countries' fiscal balance, like Cambodia and Singapore, turned from surplus to deficit. The deficit continued to expand in 2021 for some ASEAN countries, like Cambodia and the Philippines, or stayed near the high 2020 level for countries like Indonesia and Thailand. This indicates that there was a less sustainable fiscal stimulus for economic recovery.

As a result of the weak fiscal balance, most developing ASEAN countries' government debt over GDP ratio increased rapidly in 2020 and kept increasing in 2021. For example, the share of Cambodia's government debt over GDP increased from

28.11% in 2019 to 33.93% and 35.21% in 2020 and 2021 (see Table 3). The share of government debt over GDP also increased for Indonesia, Malaysia, the Philippines, and Thailand. Meanwhile, the share of tax revenue over GDP decreased in 2020 for ASEAN countries. Considering the negative growth rate of GDP in the same year for most of these countries, the income of developing ASEAN countries' governments was much less during the pandemic compared to prior, more typical years. As we mentioned earlier, consumption and investment confidence were still weak in 2021 for developing ASEAN countries. Most developing countries tried to help firms and households by lowering their tax burden. As a result, the share of tax revenue over GDP did not rebound as strongly as GDP for most developing ASEAN countries (see Table 3). It even decreased further for Cambodia: from 17.78% in 2020 to 16.26% in 2021. Therefore, it is quite challenging for developing ASEAN countries to raise large-scale fiscal stimulus necessary for economic recovery with current deteriorating public finance.

Public health development of developing ASEAN countries being left behind

The pandemic shock has also revealed the extent of the problems developing ASEAN countries face in the field of public health, including the insufficient sanitization and health facilities and the low contributions to the health expenditure from the government.

In 2020, seven of the eight developing ASEAN countries reported still having a portion of the population without access to basic drinking water (see Appendix 6). The shares of the population with basic drinking water access for Cambodia (71.2%), Laos (85.2%), and Myanmar (83.7%) in 2020 were even lower than the world average level (90.04%) and as a result were ranked 165th, 148th, and 151st, respectively, among the 196 countries recorded in World Bank's WDI. The conditions in rural areas of these countries were particularly bad. The share of the population with safely managed drinking water services in Cambodia and Laos were just 27.8% and 17.7%, respectively. Both percentages are much lower than the world average level (74.3%) and resulted in Cambodia ranking 113th and Laos ranking 120th among the 127 countries recorded in World Bank's WDI. Regarding hand washing facilities, all seven developing ASEAN countries with reported data still had a portion of the population without access to basic hand washing facilities. Laos (55.6%), Cambodia (73.9%), and Myanmar (74.5%) had the lowest percentages of the population with basic hand washing facilities (see Appendix 7).

The availability of public health resources was also low in many developing ASEAN countries, compared to the rest of the world (see Appendix 8). The number of hospital beds per 1,000 people in 2017 for all ASEAN countries were lower than the world average level (2.89). In Cambodia (0.9), the Philippines (0.99), Indonesia (1.04), and Myanmar (1.04) the numbers of hospital beds per 1,000 people were less than half

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of the world average level. Additionally, the number of nurses and midwives per 1,000 people in 2018 in all eight developing ASEAN countries were less than the world average level (3.96). Among them, Cambodia had the lowest number (0.69) again and ranked 143rd among the 165 countries recorded.

The children immunisation ratios of some developing ASEAN countries have also been left behind. The Philippines, Indonesia, and Cambodia are the three developing ASEAN countries with the lowest DPT and measles immunisation ratios in 2019. The pandemic has caused the decrease of the overall children immunisation ratio of the world. Especially, some developing ASEAN countries, like Indonesia (DPT and measles) and the Philippines (DPT), experienced a particularly steep decline in their children immunisation ratios in 2020.

In terms of Covid vaccination progress, most ASEAN countries performed well (see Appendix 9). Except Myanmar, all other ASEAN countries have a higher number of persons vaccinated 1-plus dose per 100 persons than the world average level. There are still countries, such as Myanmar, Indonesia and the Philippines with lower numbers of total vaccinations per 100 persons than the world average level. Four of the eight developing ASEAN countries (Indonesia, Laos, Myanmar, and the Philippines) have lower than average numbers of people with a booster dose.

Meanwhile, the health expenditures of most developing ASEAN countries is still lower than the world average level and heavily reliant on private contributions (see Table 4). With the exception of Singapore, in 2019, all other ASEAN countries' health expenditures per capita and shares of health expenditure over GDP were lower than the world level. There were six developing ASEAN countries with shares of external health expenditures over total health expenditures greater than the world level. At the same time, eight of the ASEAN countries had shares of domestic private health expenditures over total health expenditures greater than the world level. Among them, Myanmar (76%), Cambodia (69%), and the Philippines (59%) are the three countries with the highest shares.

At the same time, the shares of government health expenditure over GDP were lower than the world average level in 2019 for all ASEAN countries. The shares of health expenditure in total government expenditure were also relatively low for most developing ASEAN countries at that time (see Table 5). Myanmar, Laos, Brunei, and Cambodia ranked 178th, 164th, 137th, and 135th, respectively, among the 186 countries recorded by WDI in 2019.

A high reliance on private contributions to health expenditure indicates a greater inequality in health welfare and a low capability of public health services. Considering the challenging fiscal conditions of most developing ASEAN countries, more external help would be needed for these countries to improve their public health performance.

Table 2: Fiscal balance of selected countries, 2019-2021

| | Consolidated fiscal balance per capita (US\$/person) | | | | | | Consolidated Fiscal Balance: % of Nominal GDP | | | | | |
|--------------|--|------------|----------------|-----------|----------------|-----------|---|-----------|--------------|-----------|--------------|-----------|
| | 2019 | | 2020 | | 2021 | | 2019 | | 2020 | | 2021 | |
| | Value | Rank | Value | Rank | Value | Rank | Value | Rank | Value | Rank | Value | Rank |
| World Median | -112.7 | | -754.1 | | -367.3 | | -1.9 | | -6.7 | | -4.6 | |
| Brunei | -1728.5 | 102 | -5422.2 | 94 | | | -5.59 | 95 | -19.57 | 98 | | |
| Cambodia | 38.1 | 28 | -62.7 | 7 | -103.3 | 21 | 2.31 | 9 | -4.05 | 27 | -6.37 | 55 |
| Indonesia | -93.3 | 48 | -246 | 24 | -207.3 | 29 | -2.2 | 60 | -6.14 | 49 | -4.62 | 38 |
| Laos | -85.5 | 47 | -137.8 | 18 | -32.7 | 11 | -3.25 | 76 | -5.22 | 37 | -1.26 | 13 |
| Malaysia | -384 | 78 | -726.9 | 50 | | | -3.42 | 80 | -7.02 | 55 | | |
| Myanmar | -38.7 | 41 | | | | | -3.04 | 71 | | | | |
| Philippines | -119 | 59 | -253.6 | 26 | -308.8 | 36 | -3.38 | 79 | -7.64 | 62 | -8.6 | 69 |
| Singapore | 3494 | 3 | -3984.3 | 88 | -185 | 25 | 2.96 | 4 | 6.3 | 1 | -8.2 | 67 |
| Thailand | -32.2 | 38 | 78 | 4 | -61.2 | 15 | -1.87 | 54 | -6.79 | 52 | -5.49 | 47 |
| Vietnam | -157.2 | 66 | -193.7 | 20 | | | -5.79 | 98 | -6.97 | 54 | | |
| China | -553 | 87 | -685.9 | 48 | -550.7 | 49 | -2.8 | 68 | -3.71 | 21 | -3.12 | 27 |
| Japan | -2588.9 | 103 | -5958.7 | 95 | -5097.7 | 79 | -6.4 | 99 | -14.8 | 94 | -13.2 | 74 |
| South Korea | -216.6 | 71 | -1134.6 | 59 | -526.6 | 47 | -0.62 | 40 | -3.67 | 18 | -1.47 | 15 |
| No. of obs | 105 | | 100 | | 81 | | 106 | | 99 | | 76 | |

Source: CEIC

Table 3: Government debt and revenue of selected countries, 2019-2021

| Region | Government Debt: % of Nominal GDP | | | | | | Tax Revenue: % of Nominal GDP | | | | | |
|--------------|-----------------------------------|-----------|---------------|-----------|---------------|-----------|-------------------------------|-----------|--------------|-----------|--------------|-----------|
| | 2019 | | 2020 | | 2021 | | 2019 | | 2020 | | 2021 | |
| | Value | Rank | Value | Rank | Value | Rank | Value | Rank | Value | Rank | Value | Rank |
| World Median | 47.3 | | 56.9 | | 56.4 | | 19.4 | | 17.8 | | 19.3 | |
| Brunei | | | | | | | 1.93 | 99 | 2.06 | 95 | | |
| Cambodia | 28.11 | 77 | 33.93 | 75 | 35.21 | 63 | 19.36 | 50 | 17.78 | 50 | 16.26 | 49 |
| Indonesia | 30.18 | 75 | 39.35 | 67 | 40.71 | 58 | 9.77 | 86 | 8.32 | 83 | 9.11 | 70 |
| Laos | | | | | | | 10.91 | 82 | 9.13 | 82 | 10.02 | 68 |
| Malaysia | 52.42 | 42 | 62.03 | 41 | 63.4 | 34 | 11.94 | 81 | 10.89 | 80 | 11.24 | 67 |
| Myanmar | | | | | | | 6.68 | 91 | 6.08 | 89 | 4.47 | 76 |
| Philippines | 39.61 | 61 | 54.56 | 50 | 60.42 | 36 | 14.49 | 71 | 13.95 | 68 | 14.13 | 58 |
| Singapore | 125.16 | 5 | 147.92 | 5 | 145.86 | 4 | 13.19 | 75 | 12.01 | 73 | 14.13 | 57 |
| Thailand | 33.99 | 70 | 45.12 | 60 | 52.76 | 44 | 13.7 | 73 | 13.47 | 69 | 13.27 | 61 |
| Vietnam | 48 | 49 | 49.9 | 55 | 39.1 | 59 | 18.62 | 54 | 16.86 | 55 | 13.92 | 60 |
| China | 17.03 | 92 | 20.61 | 87 | 20.35 | 76 | 16.02 | 62 | 15.22 | 63 | 15.1 | 54 |
| Japan | 199.01 | 1 | 225.68 | 1 | 225.06 | 1 | 10.85 | 84 | 11.01 | 78 | 12.19 | 66 |
| South Korea | 36.32 | 63 | 42.21 | 64 | 45.33 | 51 | 15.25 | 66 | 14.71 | 64 | 16.61 | 47 |
| No. of obs | 100 | | 94 | | 81 | | 101 | | 97 | | 77 | |

Source: CEIC

Table 4: Health expenditure of selected countries in 2019

| Regions | Current health expenditure per capita (current US\$) | | Current health expenditure (% of GDP) | | External health expenditure (% of current health expenditure) | | Domestic private health expenditure (% of current health expenditure) | |
|-------------|--|------|---------------------------------------|------|---|------|---|------|
| | Value | Rank | Value | Rank | Value | Rank | Value | Rank |
| World | 1122.0 | | 9.8 | | 0.24 | | 39.99 | |
| Brunei | 671.6 | 67 | 2.2 | 183 | 0.0 | 147 | 5.7 | 181 |
| Cambodia | 113.3 | 133 | 7.0 | 74 | 6.5 | 61 | 69.2 | 13 |
| Indonesia | 120.1 | 131 | 2.9 | 175 | 0.6 | 102 | 50.5 | 54 |
| Lao PDR | 68.2 | 147 | 2.6 | 178 | 21.2 | 34 | 41.9 | 78 |
| Malaysia | 436.6 | 89 | 3.8 | 156 | 0.0 | 158 | 47.8 | 65 |
| Myanmar | 60.0 | 155 | 4.7 | 133 | 8.3 | 55 | 76.0 | 6 |
| Philippines | 142.1 | 129 | 4.1 | 148 | 0.4 | 106 | 59.0 | 28 |
| Singapore | 2632.7 | 26 | 4.1 | 146 | 0.0 | 163 | 49.8 | 58 |
| Thailand | 296.2 | 102 | 3.8 | 159 | 0.1 | 118 | 28.2 | 125 |
| Vietnam | 180.7 | 121 | 5.3 | 121 | 1.0 | 88 | 55.2 | 37 |
| China | 535.1 | 77 | 5.4 | 118 | 0.0 | 139 | 44.0 | 71 |
| Japan | 4360.5 | 17 | 10.7 | 15 | 0.0 | 156 | 16.1 | 164 |
| Korea, Rep. | 2624.5 | 27 | 8.2 | 48 | .. | | 40.5 | 84 |
| # of Obs | 186 | | 186 | | 169 | | 186 | |

Source: WDI

Table 5: Government health expenditure of selected countries in 2019

| Regions | Per capita (current US\$) | | % of general government expenditure | | % of GDP | | % of current health expenditure | |
|-------------|---------------------------|-----------|-------------------------------------|-----------|------------|-----------|---------------------------------|-----------|
| | 2019 | 2019 Rank | 2019 | 2019 Rank | 2019 | 2019 Rank | 2019 | 2019 Rank |
| World | 671.3 | 1.5 | | | 5.9 | 1.2 | 59.8 | -0.2 |
| Brunei | 633.4 | 55 | 6.8 | 137 | 2.0 | 131 | 94.3 | 1 |
| Cambodia | 27.5 | 145 | 7.0 | 135 | 1.7 | 137 | 24.3 | 160 |
| Indonesia | 58.8 | 130 | 8.7 | 113 | 1.4 | 143 | 48.9 | 109 |
| Lao PDR | 25.2 | 146 | 4.7 | 164 | 1.0 | 167 | 36.9 | 143 |
| Malaysia | 227.9 | 89 | 8.5 | 115 | 2.0 | 133 | 52.2 | 96 |
| Myanmar | 9.5 | 166 | 3.6 | 178 | 0.7 | 176 | 15.8 | 177 |
| Philippines | 57.7 | 131 | 7.6 | 126 | 1.7 | 141 | 40.6 | 134 |
| Singapore | 1321.7 | 32 | 14.5 | 40 | 2.1 | 130 | 50.2 | 103 |
| Thailand | 212.2 | 93 | 13.9 | 47 | 2.7 | 103 | 71.7 | 43 |
| Vietnam | 79.2 | 123 | 10.1 | 94 | 2.3 | 119 | 43.8 | 124 |
| China | 299.6 | 79 | 8.8 | 109 | 3.0 | 95 | 56.0 | 92 |
| Japan | 3656.6 | 12 | 24.2 | 1 | 9.0 | 6 | 83.9 | 10 |
| Korea, Rep. | 1562.4 | 28 | 14.3 | 43 | 4.9 | 48 | 59.5 | 78 |
| # of Obs | 186 | | 186 | | 186 | | 186 | |

Source: WDI

3. Policy Responses of Developing ASEAN Countries to the Pandemic

In response to the outbreak of COVID-19 at the end of 2019, countries all over the world, including developing ASEAN countries, announced and implemented policies with a wide range of targets, including virus containment, public health improvement, economic relief and recovery, medical and vaccination support, and many others. However, due to the highly contagious nature of the virus and the development gap among ASEAN countries, their policy selection, implementation and effectiveness have also been quite different during this global crisis. These differences further contributed to the divergence of economic performance we demonstrated in the previous section. This section introduces and compares developing ASEAN countries' policy responses to the pandemic from two perspectives: virus containment measures and economic relief efforts.⁵

Measures to contain virus spreading

To slow down the spread of the COVID-19 virus, governments took various measures to limit the movement of people and things. OxCGRT's Stringency Index measures the degree of movement control implemented by various governments. It is calculated daily based on nine response indicators, including school closures, workplace closures, and travel bans.⁶ We can see that many developing ASEAN countries responded to the outbreak very quickly. Indonesia, Malaysia, the Philippines, and Vietnam are among the countries that set movement controls as early as January 2020 (see Table 6). However, the dynamic process of enacting stringency policies is quite different among developing ASEAN countries. Most regions of the world enacted strict movement controls by the end of March 2020. For example, the Philippines, Laos, and Vietnam strengthened their movement control to a very high level, ranking 1st, 18th, and 78th, respectively, among 248 regions. But Indonesia, Cambodia, and Thailand enacted fewer restrictions on movement. When many countries began to ease their restrictions in the second half of 2020, some developing ASEAN countries, such as the Philippines and Vietnam, also loosened restrictions while others maintained strict controls in place, like Cambodia and Thailand, or even strengthened controls, like in Indonesia's case.

5 The analysis in this section is based on two data sources: the Oxford COVID-19 Government Response Tracker (OxCGRT) and the IMF Policy Response to Covid-19 (IMF Policy Tracker). OxCGRT tracks and compares government responses to the coronavirus outbreak of 263 countries and regions worldwide. We use their data of Stringency Index, International Travel Constraints, Economic Support Index, Income Support, and Debt Relief for our analysis. The IMF Policy Tracker, which includes 197 economies, highlights the key economic responses governments have been taking to mitigate the negative economic impact of the COVID-19 pandemic. We highlight some specific policies to combat Covid-19 pandemic within the countries discussed.

6 The index value ranges from 0 to 100 with 100 indicating the strictest control.

Since 2021, most regions of the world have been easing controls on movement gradually. Developing ASEAN countries have also followed this trend, but at a slower pace. By the end of June 2021, the stringency index values of all developing ASEAN countries were higher than the world's median level. At the end of 2021, the stringency index values for Indonesia and Philippines were only slightly lower than those at the end of 2020. For Laos, Myanmar, and Vietnam, the stringency index values were even higher than they were at the end of 2020.

In summary, developing ASEAN countries responded quickly to the outbreak of the pandemic. However, most ASEAN countries have globally-oriented economies and are, therefore, highly reliant on economic exchange with other regions, especially China. Thus, developing ASEAN countries could not enact very strict movement controls at the beginning. As a result, the virus spread very quickly among them, and economic growth of many ASEAN countries dropped more than the world average level in 2020, as stated previously. Due to the wide spread of virus among developing ASEAN countries, it took longer for them to ease movement controls. This further caused many ASEAN's countries' economies to recover slower than average in 2021.

Vietnam's economy performed much better than other ASEAN countries in both 2020 and 2021. One of the important reasons for this has been the spill over business from China that Vietnam acquired due to the US-China trade conflict. At the same time, Vietnam also controlled the spread of the virus much better than any other ASEAN country in 2020. This helped Vietnam to have more time to vaccinate more people and get ready for the ease of movement controls in 2022. Its better economic performance overall has also helped Vietnam to have better fiscal capacity for economic relief and recovery stimulus.

ASEAN countries also acted very quickly to restrict international travel. By the end of March 2020, all ASEAN countries had set bans on arrivals from some or even all regions. However, as mentioned, ASEAN countries rely heavily on economic exchanges with other regions. Therefore, some ASEAN countries, such as Cambodia, Malaysia, and Singapore, never closed their borders completely during the pandemic (see Appendix 10).

Table 6: The stringency index and ranks of ASEAN Countries at different points during the pandemic

| Regions | 31Jan2020 | | 31Mar2020 | | 31Dec2020 | | 30Jun2021 | | 30Dec2021 | | 15Sep2022 | |
|-------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| | Index | Rank |
| Brunei | 19.44 | 12 | 52.78 | 227 | 35.19 | 223 | 40.74 | 170 | 49.63 | 76 | - | - |
| Cambodia | | | 65.74 | 202 | 62.96 | 108 | 83.80 | 7 | 44.01 | 111 | - | - |
| Indonesia | 13.89 | 22 | 50.93 | 233 | 68.06 | 77 | 71.76 | 25 | 66.68 | 21 | - | - |
| Laos | | | 96.30 | 18 | 29.63 | 228 | 60.19 | 68 | 71.30 | 13 | - | - |
| Malaysia | 19.44 | 11 | 78.70 | 129 | 67.13 | 84 | 78.70 | 11 | 50.46 | 70 | - | - |
| Myanmar | | | 57.41 | 218 | 75.93 | 37 | 66.20 | 47 | 80.56 | 3 | - | - |
| Philippines | 19.44 | 8 | 100 | 1 | 66.20 | 87 | 71.76 | 26 | 64.81 | 25 | - | - |
| Singapore | 25.00 | 6 | 36.11 | 240 | 45.37 | 198 | 54.63 | 93 | 42.80 | 121 | - | - |
| Thailand | | | 68.06 | 194 | 63.89 | 106 | 53.70 | 97 | 43.52 | 114 | 29.63 | 9 |
| Vietnam | 25.93 | 5 | 83.33 | 78 | 55.09 | 154 | 75.46 | 16 | 68.52 | 19 | - | - |
| Max | 69.91 | | 100 | | 87.96 | | 92.59 | | 86.5 | | 46.81 | |
| Min | 2.78 | | 8.33 | | 6.48 | | 2.78 | | 6.48 | | 5.56 | |
| Median | 8.33 | | 79.63 | | 60.19 | | 48.69 | | 41.67 | | 17.59 | |
| # of Obs | 118 | | 248 | | 248 | | 256 | | 256 | | 23 | |

Source: Oxford COVID-19 Government Response Tracker.

Economic relief efforts

Due to the implementation of virus containment policies, many people lost their source of income. To help these people while also promoting the implementation of movement control policies, many countries provided economic relief to their citizens. However, economic help provided by governments of different ASEAN countries varied due to their different levels of fiscal capability. One way to quantify this is through the Economic Support Index, which measures the degree of economic relief provided by governments. We can see that most ASEAN countries provided economic help to people, but for some ASEAN countries, like Cambodia, Indonesia, the Philippines, and Vietnam, the economic help from the government was significantly lower than the world median level (see Table 7). Some countries increased the help later, like the Philippines. However, in Cambodia, government assistance was kept at a low level or even decreased.

Table 7: Economic support index of ASEAN countries at different points during the pandemic

| Regions | 31Mar2020 | | 30Jun2020 | | 31Dec2020 | | 30Jun2021 | | 31Dec2021 | | 30Jun2022 | |
|-------------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|-----------|------|
| | Index | Rank |
| Brunei | 12.5 | 173 | 62.5 | 97 | 50 | 101 | - | - | - | - | - | - |
| Cambodia | - | - | 37.5 | 186 | 37.5 | 147 | 12.5 | 202 | - | - | 12.5 | 115 |
| Indonesia | - | - | 25 | 298 | 37.5 | 147 | 37.5 | 117 | 37.5 | 89 | 87.5 | 9 |
| Laos | - | - | 62.5 | 97 | 87.5 | 17 | 87.5 | 16 | 87.5 | 10 | 100 | 1 |
| Malaysia | - | - | 75 | 62 | 75 | 29 | 75 | 22 | 75 | 17 | 62.5 | 21 |
| Myanmar | - | - | | | 75 | 29 | 75 | 22 | 62.5 | 42 | - | - |
| Philippines | - | - | 12.5 | 226 | 75 | 29 | - | - | - | - | - | - |
| Singapore | - | - | 100 | 1 | 100 | 1 | 100 | 1 | 100 | 1 | 100 | 1 |
| Thailand | - | - | 100 | 1 | 100 | 1 | 75 | 22 | 75 | 17 | - | - |
| Vietnam | - | - | 25 | 298 | 50 | 101 | - | - | - | - | - | - |
| Max | 100 | | 100 | | 100 | | 100 | | 100 | | 100 | |
| Min | 12.5 | | 12.5 | | 12.5 | | 12.5 | | 12.5 | | 12.5 | |
| Median | 62.5 | | 62.5 | | 50 | | 50 | | 50 | | 37.5 | |
| # of Obs | 173 | | 229 | | 208 | | 214 | | 171 | | 122 | |

Source: Oxford COVID-19 Government Response Tracker.

The OcCGRT provides data on two types of government economic help: income support and debt relief.⁷ We can see that for countries with better economic development

⁷ The Income Support reflects whether “the government is covering the salaries or providing direct cash payments, universal basic income, or similar, of people who lose their jobs or cannot work. It uses an ordinal scale with three levels: 0 meaning no income support; 1 meaning the government is replacing less than 50% of lost salary; 2 meaning the government is replacing 50% or more of lost salary. The Debt Relief scale reflects if the government froze financial obligations during the pandemic. It also uses a three-level ordinal scale: 0 meaning no change; 1 meaning narrow relief, specific to one kind of contract; and 2 meaning broad debt and/or contract relief.

before the pandemic, like Thailand and Malaysia, both types of economic help were used as early as the first half of 2020 (see Appendices 5.11 and 5.12). For economies with weaker fiscal capability, such as Cambodia, Indonesia, and the Philippines, only one measure was used in the early period of the pandemic. Most ASEAN countries still managed to provide both types of support at a later point of the pandemic. However, Cambodia never provided debt relief. The Philippines stopped both types of support the earliest (in 2021), which may be due to their weak fiscal capability.

The IMF Policy Tracker summarised most of the economic policies that countries adopted to mitigate the impact of the COVID-19 pandemic. Regarding fiscal policies, almost all ASEAN countries have spent a large portion of their budgets for public healthcare in the form of virus testing, contact tracing, vaccination, procurement of medical equipment, and providing additional subsidies for healthcare workers. In addition, many governments provided the following: cash transfer programs and loan payment deferment for poor and vulnerable households; salary subsidies and skill training programs for affected sectors and workers, particularly for small and medium enterprises (SMEs) and the self-employed; and, in general, reductions in utilities costs, rents, and tax relief or exemption. Based on the summary of the IMF Policy Tracker, some countries enacted specific measures to push forward economic policies. For monetary policies, most ASEAN countries had reduced the policy rate by lowered the reserve requirement ratios for banks. The measure encourages banks and financial institutions to defer or restructure loans and provide new loans to affected sectors and individuals.

Some ASEAN countries also carried out special economic treatments to mitigate the negative impacts of the COVID-19 pandemic. Specific fiscal policies enacted by ASEAN countries' governments are listed below.

- a) The Cambodian government implemented most of the fiscal policies listed above except payment deferment, but focused on the affected sectors. For example, they particularly focused on the garment, tourism, and agriculture sectors as well as individuals like returning migrant workers.
- b) Malaysia, the Philippines, and Singapore adopted several phases of stimulus packages rather than a one-time package to mitigate the economic impact of the COVID-19 pandemic.
- c) Indonesia announced a permanent reduction of the corporate income tax from 25% to 22% between 2020 and 2021 and 20% starting in 2022. The Philippines also passed the Corporate Recovery and Tax Incentive for Enterprises Act for long-term economic relief for its country's key sectors.
- d) Singapore and Thailand provided incentives for enterprises to digitise and adopt green technology. Myanmar's customs authority also reduced the duties for businesses operating with the Myanmar Automated Cargo Clearance System in order to enhance the digital economy.

- e) Some tourism-intensive ASEAN countries, particularly Thailand, provided subsidy packages to reinvigorate domestic travel to start and international travel afterwards.
- f) Malaysia allowed individuals to apply special withdrawals from their Employment Provident Fund. Like some developing ASEAN countries, Malaysia's government also implemented some measures within real estate to stabilise the housing market.
- g) Thailand's government supported localisation of vaccine manufacturing. Beginning in the middle of 2021, Siam Bioscience produced vaccines on behalf of AstraZeneca. It was able to produce 180 million to 200 million doses per year, which were evenly distributed throughout Southeast Asia.
- h) Many ASEAN countries had relied heavily on international assistance to promote domestic economic relief.

Specific monetary policies enacted by ASEAN countries are listed below.

- i) Many ASEAN countries began to promote digital banking.
- j) Vietnam instructed credit institutions to actively reduce bonuses and salaries, cut operating costs, adjust business plans in a timely manner, and use saved resources to reduce interest.
- k) Under Bayanihan II of the Philippines, governmentally supported financial institutions? put private projects that promised high economic returns or increased jobs, on a fast track to obtain certain permits or licences or waived other requirements in order to avoid delays.

4. The Role of International Assistance in the Fight against the COVID-19 Pandemic

Section 5.2 has demonstrated that many ASEAN countries needed international assistance to implement economic stimulus packages aimed at alleviating the burdens of key sectors, households, and individuals from the negative impacts of the COVID-19 pandemic. This section will concentrate on how the international assistance⁸ was distributed among East and Southeast Asia countries as a way to identify which countries are classified as receivers or providers, which international organisations or countries are the main providers for Southeast Asia countries, and the amount of financial assistance provided.

8 International assistance, according to ADB classifications, includes both the loans (international loans and grants) and swaps (swaps and clearing agreements). The loans indicate (1) international aids and grants/donations related to the COVID-19 pandemic in support of developing ADB member countries; or (2) loans or aids from international organisation, such as the World Bank, United Nations, World Health Organization; or 3) granted by IMF special drawing right; or 4) special donations or aids from one nation to another nation. The swaps indicate the central bank currency swaps and repurchase agreement facility for foreign accounts. They include either currency swap lines with the central bank, which has collateral loans in the receiving economy's currency, or international organisations, like the IMF, that have non-currency swap repurchase agreement facility for foreign accounts.

In general, the Southeast Asian countries were mainly involved in loan activities while the East Asian countries were involved in both loan activities and swaps (see Table 8). Furthermore, most Southeast Asian countries were only recipients of loans while most East Asian countries, except China, were loan providers. China not only provided loans or grants for Southeast Asian countries, but also received loans from the Asian Infrastructure Investment Bank, a Chinese-based international organisation. It is worth noting that some Southeast Asian countries, including Vietnam and Laos, also provided small loans to provinces in neighbouring countries. Besides East Asian countries, there were two Southeast Asian countries (Malaysia and Indonesia) that received swaps for mitigating the negative impacts of the pandemic.

Table 8: Parties engaged in international assistance

| Country | Loans Receiver | Loans Provider | Swaps Receiver | Swaps Provider |
|-------------|----------------|----------------|----------------|----------------|
| Thailand | V | | | |
| Philippines | V | | | |
| Myanmar | V | | | |
| Cambodia | V | | | |
| Vietnam | V | V | | |
| Lao PDR | V | V | | |
| Indonesia | V | | V | |
| Malaysia | V | | V | |
| China | V | V | | V |
| Singapore | | V | V | V |
| Japan | | V | V | V |
| South Korea | | V | V | V |

Source: ADB COVID-19 Policy Database

International organisations, especially the Asian Development Bank (ADB), World Bank (WB), and United Nations (UN), are the main sources of loans (see Table 9). Almost all Southeast Asian countries, except Singapore, have received loans from one of them. Cambodia, Laos, and Vietnam have received loans from all three international organisations, while Indonesia and the Philippines have only received loans from ADB and WB. Laos has the highest number of loan sources, followed by Indonesia and the Philippines. Meanwhile, Brunei and Singapore did not receive any international loans.

Apart from international organisations, the United States, European Union, and Australia are the main providers of loans to Southeast Asian countries. The US provided loans to most low- and middle-income countries among the East Asian countries. East Asian countries have different needs for the loans than ASEAN countries. Japan did not request any international loans. South Korea only received loans from Israel, and China only received loans from international organisations.

In terms of amount, non-CLMV Southeast Asian countries received a higher loan amount than CLMV countries (see Appendix 13). Thailand received the most (US \$17 billion), followed by the Philippines (US \$8 billion), and then Indonesia (US \$7 billion) resulting in nearly US \$4 billion in total loans to CLMV countries. Compared to the loans received from ADB and other sources, most non-CLMV Southeast Asian countries have received more loans from other sources than from ADB, particularly Thailand. Thailand received loans from other sources totalling to nearly 15 times the amount of loans received from ADB because the Thai government has been approved to borrow nearly US \$14 billion from international markets in order to finance COVID-19 recovery measures.

Among East Asian countries, China is the highest provider of loans (US \$2 billion) followed by Japan (US \$1.4 billion) and South Korea (US \$9 million). At the 73rd session of the World Health Assembly on 18 May 2020, China's President Xi Jinping announced a US \$2 billion measure, which included international financial aid and COVID-19 vaccines over 2 years, to support affected countries. The measure was directed at developing countries so that they could combat the COVID-19 pandemic and support economic and social development.⁹ The measure included cooperating with the United Nations to set up a global humanitarian response to ensure the operation of anti-epidemic activities, supporting 30 African hospitals to enhance the control capacity of COVID-19, and working with G20 members to implement the Debt Service Suspension Initiative for the poorest countries.

9 The State of Council of the People's Republic of China, "China announces concrete measures to boost global fight against COVID-19" 18 May 2020. http://english.www.gov.cn/news/topnews/202005/18/content_WS5ec2960bc6d0b3f0e9497ec4.html (accessed on 9 Aug 2022)

Table 9: Major sources of loans to East and Southeast Asia

| | Source of loans | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------------|----|----|-----|------|-----|-------|-------|-------|----------|---------|----------|--------|----|----|-----------|---------|--------|--------|--------|---|
| | ADB | WB | UN | IMF | AiIB | WHO | China | Japan | Korea | Cambodia | Vietnam | Thailand | Brunei | US | EU | Australia | Germany | Russia | Canada | Israel | |
| Brunei | | | | | | | | | | | | | | | | | | | | | |
| Cambodia | ✓ | | ✓ | | | | | ✓ | | | | | | | ✓ | ✓ | | | | | |
| Indonesia | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | | | | | | ✓ | ✓ | | | | | |
| Lao PDR | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| Malaysia | ✓ | | | | | | | | | | | | | | | | | | | | |
| Myanmar | ✓ | ✓ | | ✓ | | | | ✓ | | | | | | ✓ | ✓ | | | | | | |
| Philippines | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | | | | | ✓ | ✓ | ✓ | | | ✓ | | |
| Singapore | | | | | | | | | | | | | | | | | | | | | |
| Thailand | ✓ | | | | | | | | ✓ | | | | | | ✓ | | | | | | |
| Vietnam | ✓ | ✓ | ✓ | | | | | | | | | | | | ✓ | | | | | | |
| China | ✓ | | | | ✓ | | | | | | | | | | | | | | | | |
| South Korea | | | | | | | | | | | | | | | | | | | | | ✓ |
| Japan | | | | | | | | | | | | | | | | | | | | | |

Source: ADB COVID-19 Policy Database

Thailand (US \$245) received much more loans per capita than other countries in the region (see Appendix 14). Their figure is nearly three times that of the second largest receiver the Philippines (US \$74). Other loan recipient countries included Laos, Cambodia, Myanmar, and Indonesia that received between US \$26 and US \$74 in loans per capita. Other receivers in the region received less than US \$10 in loans per capita.

There are fewer countries in the region involved in currency swaps activities. East Asian countries have been the main actors in swaps activities in the region (see Appendix 15). Japan and South Korea both received and provided swaps while China has only acted as a provider. Only four countries provided swaps, including Japan, South Korea, China, and Singapore. Japan (US \$226 billion) and Indonesia (US \$134 billion) have received the most swaps while China (US \$58 billion) and Japan (US \$26 billion) have provided the most swaps. It is notable that the amount of swaps received was higher than swaps provided in all countries involved in both directions. Among Southeast Asian countries, only Indonesia, Singapore, and Malaysia were involved in swaps activities.

5. The Contents of International Loans for Developing ASEAN Countries

International loans that Southeast Asian countries received can be divided into four categories based on emergency and purpose (see Table 10). The first category is loans provided for emergencies and health-related improvements. Most of the projects that were launched at the beginning of the COVID-19 pandemic fall into this category. For example, Cambodia received a US \$20 million credit from the World Bank in April 2020 for its COVID-19 Emergency Response Project to support dedicated fast-track COVID-19 facilities and US \$14 million to purchase ambulances and medical equipment as well as increasing national laboratory capacity for COVID-19 pandemic.¹⁰ The Philippines received roughly US \$10 million in grants from ADB under the Covid-19 Emergency Response Project, Rapid Emergency Supplies Provision Assistance to Design a Sustainable Solution for COVID-19 Impact Areas in the National Capital Region and the COVID-19 Active Response and Expenditure Support Program during the same period.¹¹ Most other Southeast Asian countries, especially Myanmar and Laos, received similar loans and grants from international organisations to mitigate the impact of the COVID-19 outbreak.

10 The World Bank, "World Bank Approves \$20 Million for Cambodia's COVID-19 Response", 2 April 2020. Source: <https://www.worldbank.org/en/news/press-release/2020/04/02/world-bank-approves-20-million-for-cambodias-covid-19-coronavirus-response> (accessed on 16 Aug 2022)

11 ADB, 72nd Updates of Working Groups on COVID-19. 8 October 2021. Source: <https://covid19policy.adb.org/policy-measures/PHI> (accessed on 17 Aug 2022)

Table 10: Categories of international loans for Southeast Asian countries

| Category | Emergency | Non-emergency |
|--------------------|---|---|
| Health-related | ex. Cambodia's COVID-19 Emergency Response Project (2020); Philippines' Covid-19 Emergency Response Project (2020); Philippines' Rapid Emergency Supplies Provision Assistance (2020); Myanmar's Covid-19 Emergency Response Project (2020) | ex. Greater Mekong Subregion Health Security Project - Additional Financing (2020); Myanmar's Essential Health Services Access Project -additional Financing (2020) |
| Non-health related | ex. Malaysia's Migration and Refugee Assistance Program (2020); Laos' emergency finance support project (2020) | ex. Laos Competitiveness and Trade Project (2021); Due Diligence and Capacity Development of Trade Finance Program and the Supply-Chain Finance Program |

Source: ADB COVID-19 Policy Database

The second category of loans is for non-emergency situations that are still related to healthcare improvements. Some of the loans follow international organisations' responses, like the ADB's Emergency Response Projects, and were targeted to enhance the recipient country's health security system in the long term. Other loans were provided by individual countries and supported building resilience in healthcare systems. Since 2014, the ADB has been implementing the Greater Mekong Subregion Health Security Project to strengthen public health security focusing on CDC, HIV/AIDS, and Malaria in Cambodia, Laos, Myanmar, and Vietnam. All of the countries in the project have been granted additional financing to improve the national healthcare capabilities during the COVID-19 pandemic. For example, the additional financing was aimed at assisting the Cambodian government to upgrade eight new provincial hospitals and 73 new district referral hospitals in the areas of clinical care, laboratory, infection prevention and control, and human resources to counter the COVID-19 pandemic.¹² Laos was granted additional credit to upgrade medical equipment and facilities, including transformers for CT scan rooms, the maintenance of a thermal room in border checkpoints, minor repairs of 44 hospitals, and others.¹³ Apart from the additional financing to the ADB granted project - Greater Mekong Subregion Health Security Project - which targeted long-term enhancements in the healthcare system, some Southeast Asian countries got loans from other channels. For example, Myanmar received US \$110 million in additional financing through the Essential Health Services Access Project from the

12 ADB, "Cambodia: Greater Mekong Subregion Health Security Project (Additional Financing)", Sovereign Project 48118-05. Source: <https://www.adb.org/projects/48118-005/main> (accessed on 17 Aug 2022).

13 ADB, "Greater Mekong Subregion Health Security Project: Lao PDR Procurement Plan." May 2022. Source: https://www.adb.org/sites/default/files/project-documents/48118/48118-002-pp-en_0.pdf (accessed on 18 Aug 2022)

World Bank, and Indonesia received US \$6.5 million for health and human assistance from the United States Agency for International Development.¹⁴

The third category of loans are those for emergency but non-health related improvements. This category designates funds or capital support for vulnerable groups, including temporarily unemployed workers, the elderly, and those whose livelihood was affected, or for infrastructure investment in the non-health sectors. Most of these loans are provided by the domestic government through fiscal or monetary measures rather than international loans and grants. However, there are still some relevant plans that were initiated through international channels of borrowing. For instance, the United States Agency for International Development provided humanitarian support for refugees and asylum seekers in Malaysia through the Migration and Refugee Assistance Program in May 2020.¹⁵ Additionally, the World Bank has granted US \$40 million to the Laos Ministry of Industry in order to implement an emergency financial support project to help small and medium-sized businesses recover from the economic slowdown associated with the COVID-19 pandemic.

Last but not least, the fourth category consists of loans for non-emergency and also non-health related improvements. For instance, the World Bank gave the Laotian government an additional US \$6.5 million grant to improve the environment of the trade and business in Laos through the Lao Competitiveness and Trade Multi-Donor Trust Fund supported by Australia, Ireland, and the United States.¹⁶ The original project, which was worth US \$13 million of credit and grants, was set up to improve the processes required to start and operate a business as well as reduce the costs of doing business in Laos. In Myanmar, the World Bank granted a US \$350 million credit from the International Development Association to expand the supply of power generation and bolster the electricity system's resilience to climate change and natural disasters.¹⁷ Other Southeast Asian countries, such as Indonesia, have received loans and grants from the ADB under the Due Diligence and Capacity Development of Trade Finance Program as well as the Supply-Chain Finance Program in order to improve the quality of economic activities and protect livelihoods within the country.

14 U.S Embassy of Burma, "Factsheet: U.S. Government Health and Humanitarian Assistance to Myanmar for COVID-19 Response", 21 July 2020. Source: <https://mm.usembassy.gov/factsheet-u-s-government-health-and-humanitarian-assistance-to-myanmar-for-covid-19-response/> (accessed on 18 Aug 2020); ADB Covid Policy Database (Thailand), Source: <https://covid19policy.adb.org/index.php/policy-measures/THA> (accessed on 18 Aug 2022)

15 ADB Covid Policy Database (Malaysia). 15 Nov 2021. Source: <https://covid19policy.adb.org/index.php/policy-measures/MAL> (accessed on 18 Aug 2022)

16 The World Bank, "More Funding for Business and Trade to Help Lao PDR Recover from Pandemic", 19 October 2021. Source: <https://www.worldbank.org/en/news/press-release/2021/10/19/more-funding-for-business-and-trade-to-help-lao-pdr-recover-from-pandemic> (accessed on 16 Aug 2022)

17 The World Bank, "Myanmar: Power System Efficiency Project Brings Country Closer to Universal Electricity Access." 29 May 2020. Source: <https://covid19policy.adb.org/policy-measures/MYA> (accessed on 18 Aug 2022)

6. Policy Implications

As the WHO has warned¹⁸, COVID-19 will not be the world's last health emergency. In addition, the increasing number of extreme weather events since the beginning of 2022 indicates a faster than expected rate of climate change impacting the world economy, especially among the developing ASEAN nations, which Shocks from natural disasters to the world economy will become more consistent in the near future, and so there is an urgent need to develop sustainable emergency preparations to deal with the next health crisis or natural disaster. Creating these plans is especially challenging for the developing ASEAN countries, like Cambodia, due to their depleted fiscal balance and lack of economic and public health development. Getting more international aid can be an important and more effective measure to design and implement preparation plans faster at the national level for developing ASEAN countries, like Cambodia.

The Cambodian government may need to expand their sources of international assistance by appealing to more countries to be involved in bilateral projects and enhance long-term public-private partnerships. For example, the government needs to establish an emergency health network regardless of the kind or amount of assistance from international organisations, cooperation among other countries, or appeals to the private sector in order to ensure the sufficient and timely supply of health resources, such as masks and vaccines, to its people.

The Cambodian government also needs to improve transparency around project financing and set up accountable assessment mechanisms for making health projects more effective and efficient. The ranking of Cambodia in the Corruption Perception Index is currently 157th of 180 countries and has remained unchanged for the past ten years. The continuing low ranking of Cambodia will decrease confidence of international assistance providers to help the government achieve its goals.¹⁹

Cambodia is seldom involved in international assistance activities with neighbouring countries, except for Laos. Laos, on the other hand, has participated in health cooperation initiatives not only with Cambodia but also with Vietnam and Thailand. Health cooperation initiatives among neighbouring countries—including measures of cross-border economic exchange, customs inspection, and the exchange of health resources—should be implemented regularly to mitigate the sudden risk of disease and disaster.

18 For more details, please refer to <https://www.who.int/news/item/01-10-2020-the-best-time-to-prevent-the-next-pandemic-is-now-countries-join-voices-for-better-emergency-preparedness>, accessed on 12 September 2022.

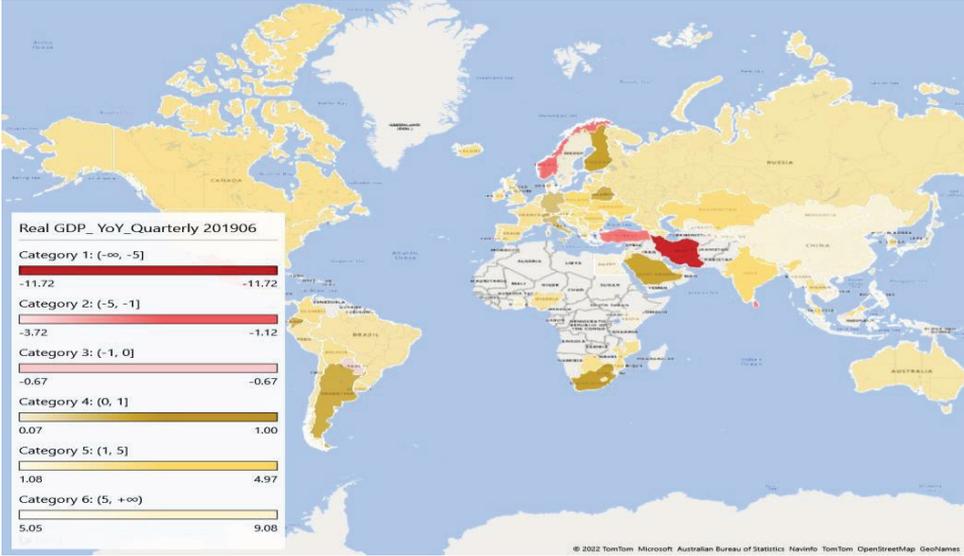
19 Business & Human Rights Resource Centre, "Cambodia: Transparency International's report shows Cambodia is the most corrupt country in ASEAN region; NGOs call for reform." 29 Jan 2021. Source: <https://www.business-humanrights.org/en/latest-news/cambodia-transparency-internationals-report-shows-cambodia-is-the-most-corrupt-country-in-asean-region-ngos-call-for-reform/> (accessed on 22 Aug 2022)

Finally, the Cambodian government needs to seek out opportunities to engage in international health cooperation activities so that they can exchange knowledge, talent, and systems through international assistance in order to continue to both develop and upgrade existing health systems in the country. Based on the 2021 Global Health Security Index, Cambodia ranks 126th out of 195 countries. Its low position is due in part to having relatively weak risk communication capabilities, insufficient supply of healthcare workers, low capacity to test and approve new medical countermeasures, and an overall high-risk environment with the country vulnerable to biological threats.

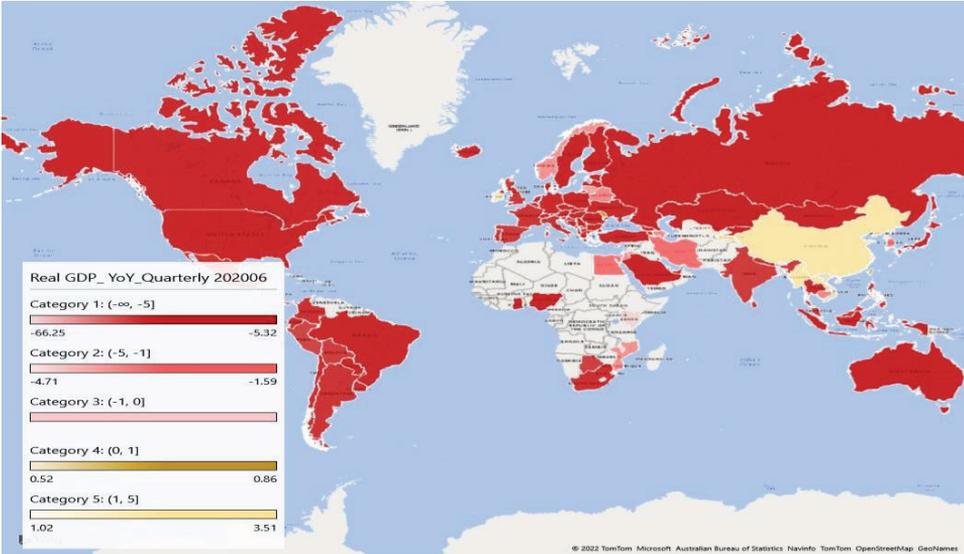
Apart from international organisations, like the World Bank, ADB and the UN, the Cambodian government should seek long-term loans and grants from countries for sustainable health development. Much of the foreign direct investment in Cambodia focuses on developing infrastructure, like railways, ports, and industrial parks. The Cambodian government could provide higher incentives, like tax reimbursements, to encourage foreign investors to redirect their investment from infrastructure projects to private hospitals, facilities, and health equipment manufacturing.

Appendices

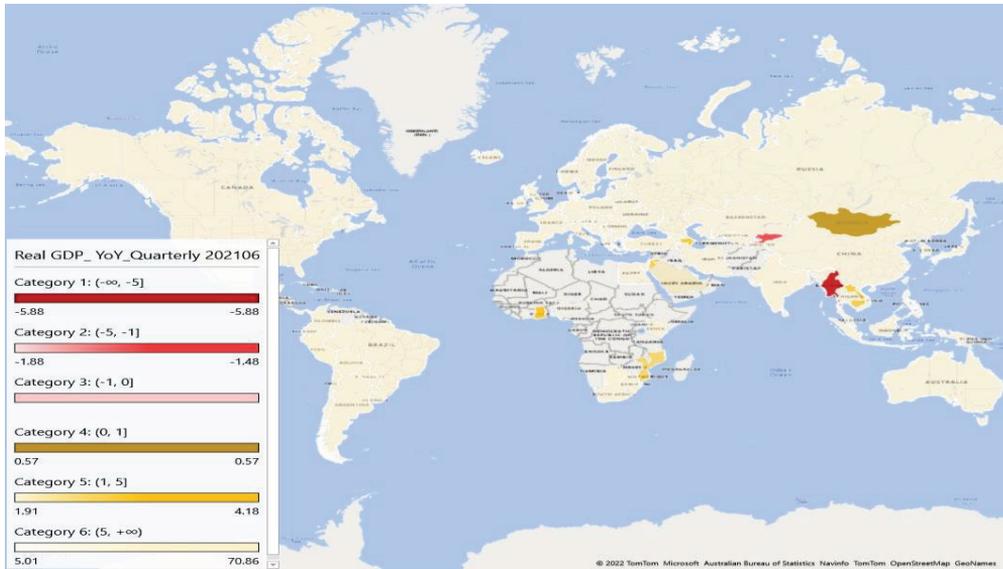
Appendix 1a: GDP growth in the 2nd quarter 2019, year-on-year



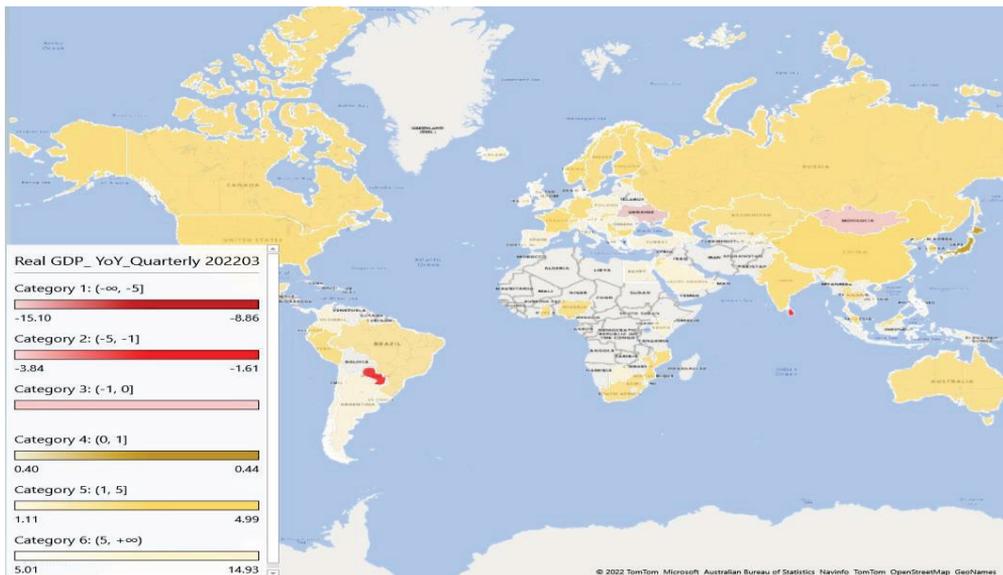
Appendix 1b: GDP growth for the 2nd quarter in 2020, year-on-year



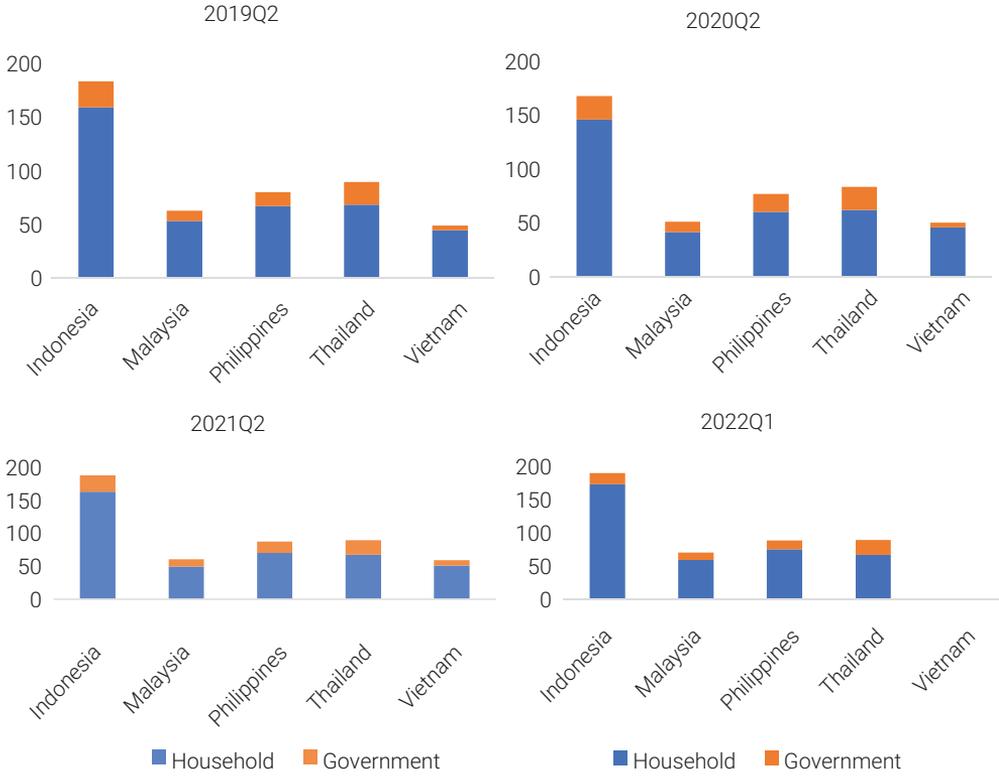
Appendix 1c: GDP growth for the 2nd quarter in 2021, year-on-year



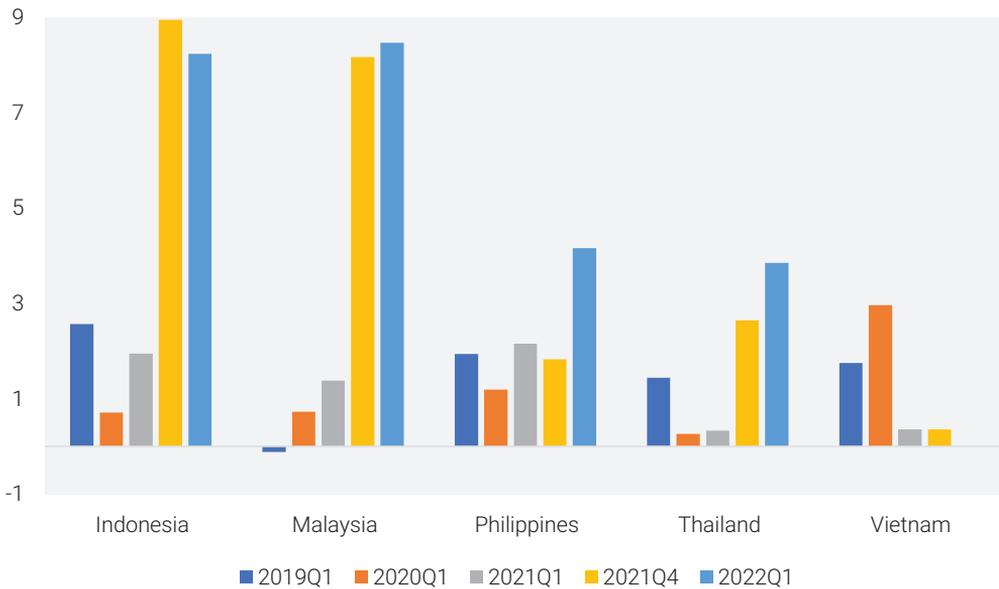
Appendix 1d: GDP growth for the 2nd quarter in 2022, year-on-year



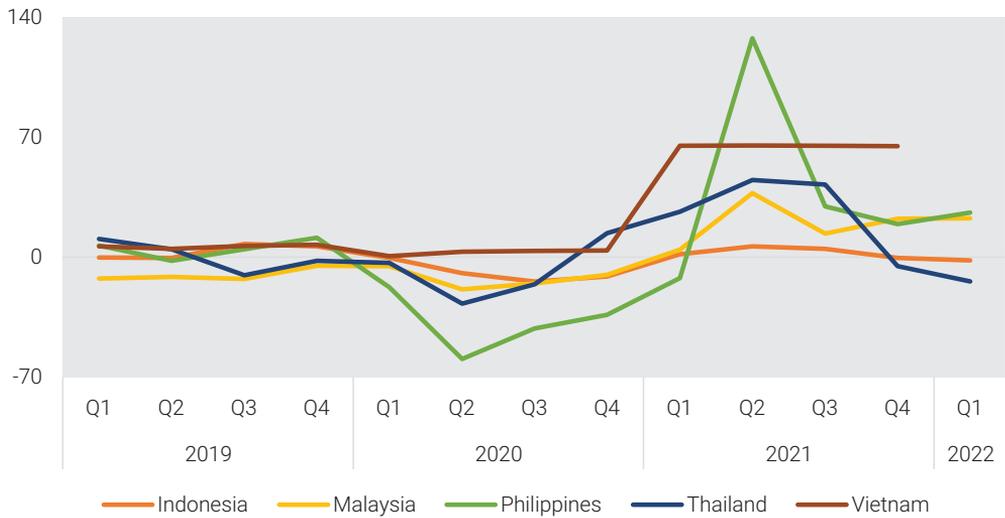
Appendix 2: Nominal value of final consumption (USD in million)



Appendix 3: YOY changes in quarterly GDP deflator (%)

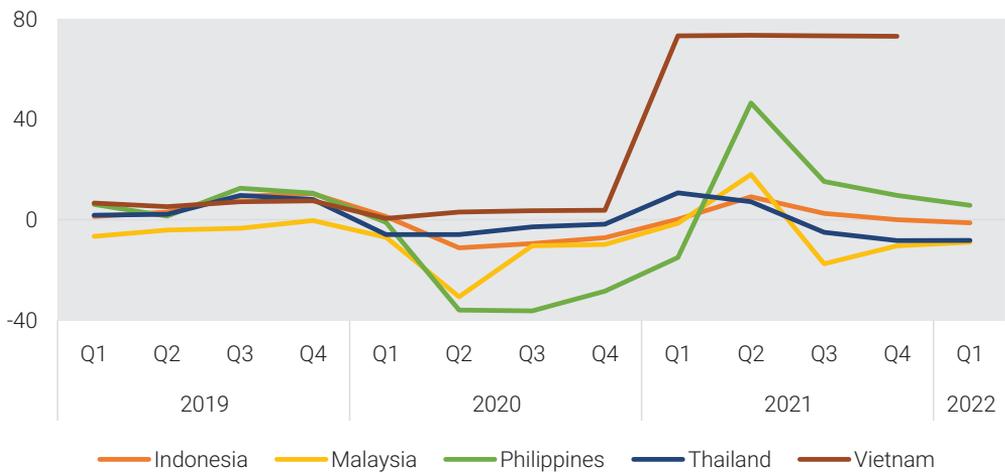


Appendix 4a: Quarterly growth in gross capital formation, YOY price adjusted



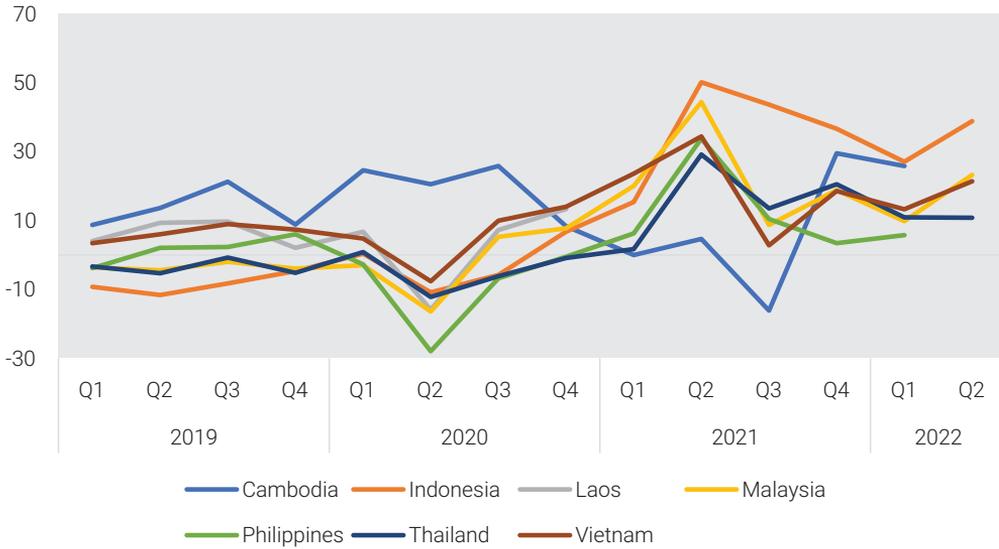
Source: CEIC Data Manager. Note: GDP deflator is used for price adjustment.

Appendix 4b: Quarterly growth in gross fixed capital formation, YOY price adjusted



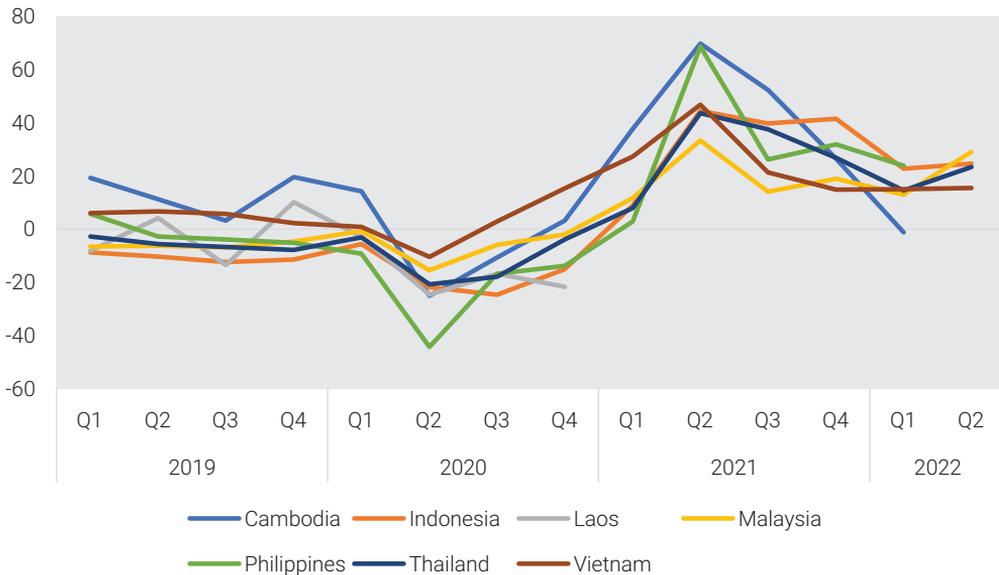
Source: CEIC Data Manager. Note: GDP deflator is used for price adjustment.

Appendix 5a: Quarterly growth export, YOY price adjusted



Source: CEIC Data Manager. Note: GDP deflator is used for price adjustment.

Appendix 5b: Quarterly growth in import, YOY price adjusted



Source: CEIC Data Manager. Note: GDP deflator is used for price adjustment.

Appendix 6: Drinking water service in 2020

| Regions | % of population | | rural (% of rural population) | | urban (% of urban population) | |
|---|-----------------|------|-------------------------------|------|-------------------------------|------|
| | Value | Rank | Value | Rank | Value | Rank |
| People using at least basic drinking water services | | | | | | |
| World | 90.04 | - | 81.72 | - | 96.24 | - |
| Cambodia | 71.2 | 165 | 65.1 | 120 | 90.5 | 137 |
| Indonesia | 92.4 | 129 | 85.7 | 98 | 97.6 | 96 |
| Lao PDR | 85.2 | 148 | 78.5 | 107 | 97.1 | 104 |
| Malaysia | 97.1 | 99 | 90.2 | 84 | 99.1 | 74 |
| Myanmar | 83.7 | 151 | 78.4 | 108 | 95.4 | 118 |
| Philippines | 94.1 | 119 | 91.1 | 79 | 97.5 | 97 |
| Thailand | 100 | 29 | 100 | 14 | 100 | 37 |
| Vietnam | 96.9 | 104 | 95.5 | 63 | 99.2 | 73 |
| No. of Obs | 196 | | 161 | | 172 | |
| People using safely managed drinking water services | | | | | | |
| World | 74.3 | - | 85.7 | - | 59.6 | - |
| Cambodia | 27.8 | 113 | 18.4 | 44 | 57.1 | 61 |
| Indonesia | - | - | - | - | - | - |
| Lao PDR | 17.7 | 120 | 12.4 | 50 | 27 | 80 |
| Malaysia | 93.8 | 57 | .. | .. | .. | .. |
| Myanmar | 58.8 | 90 | 52.1 | 25 | 73.8 | 47 |
| Philippines | 47.5 | 99 | 34.5 | 34 | 61.8 | 56 |
| Thailand | - | - | - | - | - | - |
| Vietnam | - | - | - | - | - | - |
| NO. of Obs | 127 | | 63 | | 85 | |

Source: WDI

Appendix 7: People with basic handwashing facilities including soap and water in 2020

| Regions | % of population | | rural (% of rural population) | | urban (% of urban population) | |
|-------------|-----------------|------|-------------------------------|------|-------------------------------|------|
| | Value | Rank | Value | Rank | Value | Rank |
| Cambodia | 73.9 | 30 | 70.8 | 26 | 83.3 | 28 |
| Indonesia | 94.1 | 9 | 91.5 | 9 | 96.1 | 8 |
| Lao PDR | 55.6 | 38 | 45.6 | 37 | 73.3 | 35 |
| Malaysia | - | - | - | - | - | - |
| Myanmar | 74.5 | 29 | 70.7 | 27 | 83 | 29 |
| Philippines | 81.7 | 25 | 78.5 | 21 | 85.3 | 25 |
| Thailand | 85 | 21 | 83.2 | 16 | 86.7 | 22 |
| Vietnam | 86.1 | 18 | 82.2 | 17 | 92.5 | 12 |
| No. of Obs | 78 | | 77 | | 75 | |

Source: WDI

Appendix 8: Public health resources

| Regions | Hospital beds (per 1,000 people) | | Nurses and midwives (per 1,000 people) | | Immunisation, DPT (% of children ages 12-23 months) | | | Immunisation, measles (% of children ages 12-23 months) | | | |
|---------------|----------------------------------|-----------|--|-----------|---|------|-----------|---|------|-----------|-----------|
| | 2017 | 2017 Rank | 2018 | 2018 Rank | 2019 | 2020 | 2019 Rank | 2019 | 2020 | 2019 Rank | 2020 Rank |
| World | 2.89 | - | 3.96 | - | 86 | 83 | - | 86 | 84 | - | - |
| Brunei | 2.85 | 51 | 5.9 | 46 | 99 | 99 | 1 | 97 | 99 | 35 | 1 |
| Cambodia | 0.9 | 96 | 0.69 | 143 | 92 | 92 | 92 | 84 | 84 | 131 | 112 |
| China | 4.31 | 28 | 2.66 | 87 | 99 | 99 | 1 | 99 | 99 | 1 | 1 |
| Indonesia | 1.04 | 92 | 2.05 | 98 | 85 | 77 | 130 | 88 | 76 | 116 | 138 |
| Japan | 13.05 | 1 | 12.7 | 10 | 98 | 96 | 24 | 96 | 98 | 49 | 19 |
| Korea, Rep. | 12.27 | 2 | 7.46 | 27 | 98 | - | - | 98 | - | - | - |
| Lao PDR | 1.5 | - | 1.19 | 125 | 80 | 79 | 147 | 83 | 79 | 133 | 129 |
| Malaysia | 1.88 | 68 | 4.22 | 62 | 98 | 98 | 24 | 97 | 95 | 35 | 47 |
| Myanmar | 1.04 | 91 | 1 | 130 | 90 | 84 | 110 | 84 | 91 | 131 | 74 |
| Philippines | 0.99 | - | 4.94 | 52 | 77 | 71 | 152 | 73 | 72 | 153 | 147 |
| Singapore | 2.49 | 58 | 6.24 | 39 | 96 | - | - | 95 | - | - | - |
| Thailand | 2.1 | - | 2.76 | 85 | 97 | 97 | 38 | 96 | 96 | 49 | 39 |
| Vietnam | 2.6 | - | 1.45 | 115 | 89 | 94 | 116 | 95 | 97 | 64 | 27 |
| Number of Obs | 109 | | 165 | | 179 | 179 | | 179 | 179 | | |

Source: WDI

Appendix 9: Covid vaccination status by the end of July 2022

| Country | Total Vaccinations Per100 | | Persons Vaccinated 1+ Dose Per100 | | Persons Fully Vaccinated Per100 | | First Vaccine Date | | Number Vaccines Types Used | | Persons_Booster_Add_Dose_Per100 | |
|---------------|---------------------------|------|-----------------------------------|------|---------------------------------|------|--------------------|------|----------------------------|-------------|---------------------------------|------|
| | Value | Rank | Value | Rank | Value | Rank | Value | Rank | Value | Rank | Value | Rank |
| Brunei | 268.2 | 5 | 101.6 | 5 | 97.6 | 4 | 4/3/2021 | 180 | 5 | 69 | 6 | |
| Cambodia | 248.7 | 13 | 90.3 | 18 | 86.2 | 16 | 2/10/2021 | 90 | 7 | 57.3 | 31 | |
| China | 233.3 | 25 | 88.9 | 23 | 86.1 | 17 | 7/22/2020 | 1 | 8 | 52.7 | 48 | |
| Indonesia | 156.1 | 101 | 73.9 | 82 | 62.1 | 107 | 1/13/2021 | 57 | 7 | 20.1 | 112 | |
| Japan | 226.3 | 32 | 82 | 51 | 81 | 38 | 2/17/2021 | 98 | 4 | 62.2 | 23 | |
| Laos | 161.6 | 97 | 80.2 | 62 | 70.6 | 76 | 11/25/2020 | 3 | 8 | 23 | 104 | |
| Malaysia | 220.3 | 42 | 86.7 | 32 | 84.4 | 24 | 2/24/2021 | 118 | 8 | 49.9 | 52 | |
| Myanmar | 123.1 | 139 | 63.9 | 121 | 50.6 | 138 | 1/27/2021 | 75 | 2 | 4.1 | 162 | |
| Philippines | 142.9 | 114 | 69.8 | 99 | 65.6 | 97 | 3/1/2021 | 128 | 11 | 14.2 | 126 | |
| South Korea | 249.8 | 12 | 87.9 | 25 | 87.1 | 13 | 2/26/2021 | 125 | 5 | 65.2 | 14 | |
| Singapore | 243.6 | 19 | 85.8 | 37 | 85.5 | 18 | 12/30/2020 | 36 | 4 | 72.3 | 4 | |
| Thailand | 201.3 | 64 | 81.4 | 54 | 76.1 | 57 | 2/28/2021 | 127 | 8 | 43.7 | 62 | |
| Viet Nam | 241.3 | 21 | 89.2 | 22 | 82.4 | 33 | 3/8/2021 | 141 | 6 | 63.1 | 18 | |
| World Average | 157.8 | | 68.3 | | 62.4 | | | | | 26 | | |
| World Max | 355.7 | | 124.9 | | 122.9 | | 7/22/2020 | | 12 | 107.9 | | |
| World Median | 144.1 | | 65.8 | | 59.7 | | 2/17/2021 | | 4 | 24.3 | | |
| Number of Obs | 225 | | 224 | | 224 | | 204 | | 222 | 205 | | |

Source: WHO

Appendix 10: The international travel constraints of ASEAN countries at different points of the pandemic

| | 2020 | | | | 2021 | | 2022 |
|-------------|-------|-------|-------|-------|-------|-------|-------|
| | 31Jan | 31Mar | 30Jun | 31Dec | 30Jun | 31Dec | 30Jun |
| Brunei | 3 | 4 | 4 | 2 | 4 | 1 | 1 |
| Cambodia | 0 | 3 | 2 | 2 | 3 | 1 | 1 |
| Indonesia | 1 | 4 | 4 | 3 | 3 | 2 | 1 |
| Laos | 0 | 4 | 2 | 4 | 2 | 4 | 1 |
| Malaysia | 3 | 3 | 3 | 3 | 3 | 2 | 1 |
| Myanmar | 0 | 3 | 3 | 4 | 1 | 4 | 1 |
| Philippines | 3 | 4 | 4 | 2 | 3 | 3 | 1 |
| Singapore | 3 | 3 | 3 | 3 | 3 | 1 | 1 |
| Thailand | 0 | 4 | 4 | 2 | 3 | 3 | 1 |
| Vietnam | 2 | 4 | 3 | 4 | 4 | 2 | 0 |
| Obs = 0 | 193 | 9 | 7 | 0 | 1 | 0 | 58 |
| Obs = 1 | 39 | 1 | 6 | 44 | 53 | 155 | 185 |
| Obs = 2 | 4 | 6 | 27 | 41 | 43 | 52 | 7 |
| Obs = 3 | 17 | 102 | 102 | 125 | 115 | 39 | 4 |
| Obs = 4 | 0 | 135 | 111 | 43 | 49 | 15 | 3 |
| Total Obs | 253 | 253 | 253 | 253 | 261 | 261 | 257 |

Source: Oxford COVID-19 Government Response Tracker. Note: The international travel constraints measures restrictions on international travel with a 5-level ordinal scale: 0 meaning no measures; 1 meaning screening; 2 meaning quarantine of arrivals from high-risk regions; 3 meaning ban on arrivals from some regions; 4 meaning ban on all regions or a total border closure.

Appendix 11: The Income Support of ASEAN Countries at Different Points during the Pandemic

| | 2020 | | | 2021 | | 2022 |
|-------------|-------|-------|-------|-------|-------|-------|
| | 31Mar | 30Jun | 31Dec | 30Jun | 31Dec | 30Jun |
| Brunei | 1 | 1 | 0 | 0 | 0 | 0 |
| Cambodia | 0 | 2 | 2 | 1 | 0 | 1 |
| Indonesia | 0 | 0 | 1 | 1 | 1 | 2 |
| Laos | 0 | 1 | 2 | 2 | 2 | 2 |
| Malaysia | 0 | 1 | 1 | 1 | 1 | 1 |
| Myanmar | 0 | 0 | 1 | 1 | 1 | 0 |
| Philippines | 0 | 1 | 1 | 0 | 0 | 0 |
| Singapore | 0 | 2 | 2 | 2 | 2 | 2 |
| Thailand | 0 | 2 | 2 | 1 | 1 | 0 |
| Vietnam | 0 | 1 | 1 | 0 | 0 | 0 |
| Obs = 0 | 113 | 48 | 59 | 65 | 133 | 170 |
| Obs = 1 | 38 | 83 | 139 | 147 | 95 | 63 |
| Obs = 2 | 102 | 122 | 55 | 49 | 33 | 22 |
| Total Obs | 253 | 253 | 253 | 261 | 261 | 255 |

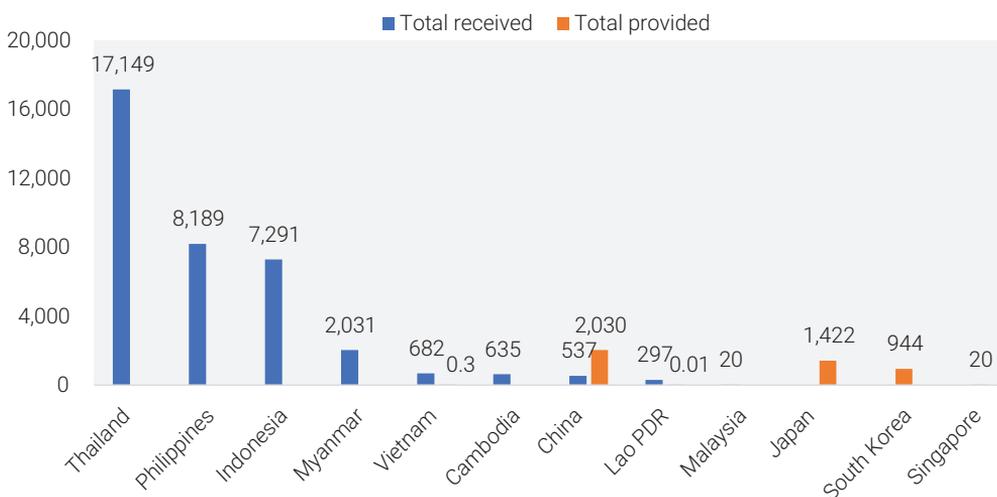
Source: Oxford COVID-19 Government Response Tracker.

Appendix 12: The debt relief of ASEAN countries at different points during the pandemic

| | 2020 | | | 2021 | | 2022 |
|-------------|-------|-------|-------|-------|-------|-------|
| | 31Mar | 30Jun | 31Dec | 30Jun | 31Dec | 30Jun |
| Brunei | 0 | 2 | 2 | 0 | 0 | 0 |
| Cambodia | 0 | 0 | 0 | 0 | 0 | 0 |
| Indonesia | 0 | 1 | 1 | 1 | 1 | 2 |
| Laos | 0 | 2 | 2 | 2 | 2 | 2 |
| Malaysia | 0 | 2 | 2 | 2 | 2 | 2 |
| Myanmar | 0 | 0 | 2 | 2 | 2 | 0 |
| Philippines | 0 | 0 | 2 | 0 | 0 | 0 |
| Singapore | 0 | 2 | 2 | 2 | 2 | 2 |
| Thailand | 0 | 2 | 2 | 2 | 2 | 0 |
| Vietnam | 0 | 0 | 1 | 0 | 0 | 0 |
| Obs = 0 | 98 | 44 | 68 | 85 | 112 | 158 |
| Obs = 1 | 76 | 91 | 90 | 99 | 98 | 68 |
| Obs = 2 | 79 | 118 | 95 | 77 | 51 | 28 |
| Total Obs | 253 | 253 | 253 | 261 | 261 | 254 |

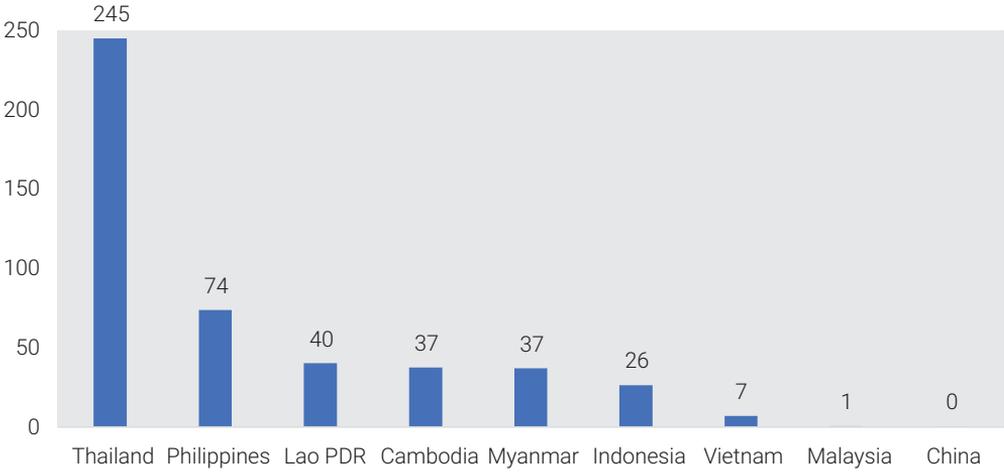
Source: Oxford COVID-19 Government Response Tracker

Appendix 13: Total amount of the loans involving in east and southeast asia to combat the COVID-19 pandemic (USD in million)



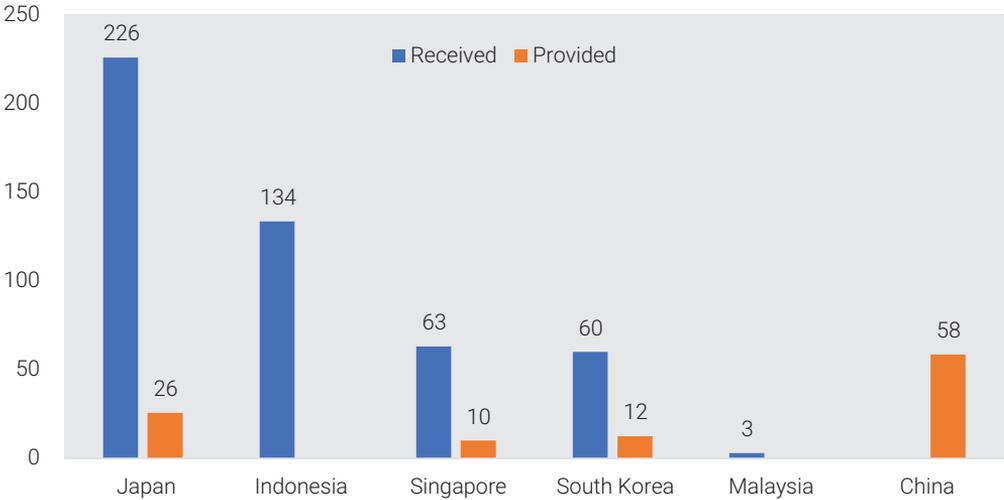
Source: ADB COVID-19 Policy Database

Appendix 14: Total amount of loans received by east and southeast asia to combat the COVID-19 pandemic (US\$ per capita)



Source: ADB COVID-19 Policy Database

Appendix 15: Total amount of currency swaps to combat COVID-19 Pandemic (US\$ in billions)



Source: ADB COVID-19 Policy Database

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