

## ESTIMATING THE OVERALL FISCAL IMPACT OF COVID-19 RESPONSE PACKAGES

1. This supplementary appendix presents estimates of the overall fiscal impact on real gross domestic product (GDP) of Myanmar's coronavirus disease (COVID-19) response packages, using published data on spending and tax multipliers for Myanmar. Fiscal multipliers show the overall impact of government spending and tax cuts on stimulating output after 1 or 2 years. For example, a spending multiplier of 1.5 tells us that a \$1 increase in government spending will result in a cumulative increase in output by \$1.50.
2. For the purpose of our analysis, we employ Romer and Bernstein (2009)'s approach to fiscal impact assessment whereby fiscal multiplier estimates for 1 and 2 years are used to calculate the overall fiscal impact on GDP.<sup>1</sup> The International Monetary Fund estimated fiscal multipliers from public investment spending and found that the spending multiplier in Myanmar ranges from 0.2–0.8.<sup>2</sup> Myanmar's fiscal multiplier less than unity signifies high import leakages from public spending and, to some extent, less than effective fiscal policy. Hence, fiscal multipliers are assumed to be equal to 0.6 in year 1 and 0.4 in year 2. There are no existing studies on tax multipliers in Myanmar. To address this problem, we assume Myanmar's tax multiplier is equal to the average tax multipliers in developing countries in Southeast Asia, 0.332.<sup>3</sup>
3. Using data currently available, Myanmar's COVID-19 Economic Relief Plan (CERP), in terms of fiscal spending and tax revenue foregone, accounts for 4.0% of GDP (Table 1). Government spending accounts for most for the fiscal package (91.8%), while tax cuts account for 8.2%. It should be also noted that the government's CERP is a list of action plans for FY2020 and FY2021, and hence the estimated costs are tentative and subject to change during actual implementation.
4. Column 1 of Table 1 shows the total cost of spending and tax measures. Columns 2 and 3 show the estimated fiscal impacts after 1 and 2 years, respectively. All fiscal impacts are computed using Thailand's fiscal multipliers for public investment and taxes.
5. Table 1 shows that incorporating the spending and tax multipliers, Myanmar's fiscal package of \$2.5 billion (4.0% of GDP) could lead to a cumulative increase in the economic output of \$1.9 billion after 1 year, and \$1.4 billion after 2 years, equivalent to 3% and 2% of GDP respectively.
6. The analysis has limitations. The multipliers are based on Myanmar's historical data and therefore may not reflect a fiscal impact for Myanmar during the economic slowdown due to COVID-19. While there is strong evidence to show fiscal multipliers are above 1 for developing economies during a contraction, in the absence of recent estimates for Myanmar, the assessment employs fiscal multipliers during normal macroeconomic conditions. The analysis does not incorporate other effects that may lower the fiscal impact such potential for higher prices and higher imports of goods and services arising from increased government spending.

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<sup>1</sup> Romer, C and Beinstern. 2009. *The Job Impact of the American Recovery and Reinvestment Plan*, reported in L.Mustea (2015).

<sup>2</sup> International Monetary Fund. 2018. *Myanmar: 2018 Article IV Consultation*. Washington DC.

<sup>3</sup> Tang, Hsiao Chink, Philip Liu, and Eddie C. Cheung. 2010. "Changing Impact of Fiscal Policy on Selected ASEAN Countries". ADB Working Paper Series on Regional Economic Integration No. 70. Asian Development Bank. Manila.

**Table 1: Myanmar Stimulus Package - Potential Multiplier Effects**

<b>Development Expenditure Programs</b>	<b>Amount (\$ million)</b>	<b>Fiscal Impact after 1 Year</b>	<b>Fiscal Impact after 2 years</b>
<b>Unconditional cash and in-kind transfers to mothers, children, smallholder farmers, and vulnerable households implemented</b>	<b>711.4</b>	<b>569.1</b>	<b>426.8</b>
• Financial support to smallholder farmers who have lost sales revenue or remittance income to support input purchases in time for monsoon planting	143.4	114.7	86.0
• Support for productivity enhancement and market connectivity among farmers	53.8	43.0	32.3
• Exempt electricity tariffs for all households up to 150 units per month	57.3	45.8	34.4
• Provide in-kind food transfers to vulnerable households and at-risk populations	35.4	28.3	21.2
• Provide emergency rations through community-based food banks and associations	27.2	21.8	16.3
• Top-up benefits for MCCT and social pension beneficiaries, and reduce the age limit for the social pension	35.8	28.6	21.5
• Cash transfers to most vulnerable and affected households	215.1	172.1	129.1
• Establish rural employment programs for those laid off, or returning migrants	143.4	114.7	86.0
<b>Health system strengthened for COVID-19 prevention and control</b>	<b>372.8</b>	<b>298.2</b>	<b>223.7</b>
• Extend and improve quarantine services and procurement of medical supplies	179.2	143.4	107.5
• Improve preventive health measures	28.6	22.9	17.2
• Improve human resources in the healthcare sector	7.2	5.8	4.3
• Provide electricity supply and refrigeration of cold chain maintenance of vaccinations and special drugs for medical facilities handling COVID-19	50.2	40.2	30.1
• Extend healthcare and medicine benefits for unemployed SSB members from 6 months to 1 year from the date of unemployment	107.5	86.0	64.5
<b>Support provided for businesses and economic recovery</b>	<b>1,190.0</b>	<b>952.0</b>	<b>714.0</b>
• Establish MK100 billion COVID-19 Fund to provide capital injection or loan restructuring for affected MSMEs, at 1% interest rate per annum	71.7	57.4	43.0
• Ensure small borrowers have full access to low-cost funding through microfinance	71.7	57.4	43.0
• MK500 billion increase in the COVID-19 Fund size	358.4	286.7	215.0
• Expand existing pilot commercial lending programs to affected townships	544.8	435.8	326.9
• Government guarantees 50% of existing loans to MSMEs affected by COVID-19, conditional upon maintenance or rehire of staff	71.7	57.4	43.0
• Establish an MK100 billion fund to promote trade financing	71.7	57.4	43.0
<b>Tax Relief and Credit Measures Including Government Fee Waivers</b>	<b>203.5</b>	<b>67.6</b>	<b>67.6</b>
• Waive the 2% withholding tax on exports	57.3	19.0	19.0
• Waive annual fees charged by Ministry of Hotels and Tourism	0.8	0.3	0.3
• Waive customs duties and Commercial Tax related to the importation of medical supplies for the prevention, control, and treatment	0.2	0.1	0.1
• Waive or reduce toll fees for cargo trucks on major roads/bridges	0.7	0.2	0.2
• Exempt lease fees charged to affected firms that have leased state-owned factories for manufacturing, for 3–6 months	1.2	0.4	0.4
• Provide 10% non-refundable tax credits on the incremental wage bill	35.8	11.9	11.9

<b>Development Expenditure Programs</b>	<b>Amount (\$ million)</b>	<b>Fiscal Impact after 1 Year</b>	<b>Fiscal Impact after 2 years</b>
• Allow for a corporate income tax deduction equal to 125% of wages	35.8	11.9	11.9
• Provide 10% non-refundable tax credits for incremental capital investments	35.8	11.9	11.9
• Allow for a one-time increase in depreciation equal to 125% for the current year	35.8	11.9	11.9
<b>TOTAL</b>	<b>2,477.6</b>	<b>1,886.9</b>	<b>1,432.1</b>
<i>% of GDP</i>	<b>4%</b>	<b>3%</b>	<b>2%</b>

CERP = COVID-19 Economic Relief Plan, COVID-19 = coronavirus disease, MCCT = Maternal and Child Cash Transfer, MSME = micro, small and medium-sized enterprise, SSB = Social Security Board.

Note: Exchange rate used is \$1 = MK1,394.63. Numbers may not sum precisely due to rounding.

Source: Ministry of Planning, Finance and Industry and Asian Development Bank Staff Calculation.