

# COVID-19 and debt in the Global South: Protecting the most vulnerable in times of crisis

## Annex – Methodology and country figures<sup>1</sup>

### Health care system vulnerability

- Capacity ratio: Health system capacity is measured by the current density of health workers as a proxy for service delivery readiness. The capacity ratio is defined as the combined measure of doctors, nurses and midwives per 1000 population. Countries with a GDP per capita below USD 2500 (PPP) and a ratio of less than 2.28 workers per 1000 population are defined as having health care systems that are either vulnerable or presenting a poor performance. Shaded cells indicate countries with ratios below this threshold. Data from the WHO Global Observatory (latest figures available per country). Criteria follows the methodology of Stenberg, K., et. al. (2017).<sup>2</sup>
- Performance: Current health system performance as measured through skilled birth attendance coverage. Countries with a GDP per capita below USD 2500 (PPP) and a ratio of less than 90% are defined as having health care systems that are either vulnerable or presenting a poor performance. Shaded cells indicate countries with ratios below this threshold. Data from the WHO Global Observatory (latest figures available per country). Criteria follows the methodology of Stenberg, K., et. al. (2017).

### Debt vulnerabilities

- Short term external debt (% of exports): Defined as the ratio of short term external debt to exports. Measures the capacity of a country to service its short term external debt and aims to capture debt vulnerabilities to a trade shock caused by COV-19. Threshold is set at 15%. Shaded cells indicate countries with ratios above this threshold. Data from the World Bank World Development Indicators (figures for 2018).
- Debt stock (% of GDP): Defined as the total public debt stock of a country, including both its domestic and external components. Threshold is set at 60% of GDP. Shaded cells indicate countries with ratios above this threshold. Data from latest IMF DSA available per country (latest figures available per country).<sup>3</sup>

### Trade vulnerabilities

- Exports to China (% of total): Defined as the share of country exports to China. Measures the trade exposure of a country to a sharp reduction of imports of China in Q1 in the context of the COV-19 outbreak. Threshold is set at 15%. Shaded cells indicate countries with ratios above this threshold. Data from the UNCTADStat (figures for 2018).
- Commodities (% of merchandise exports): Defined as the share of commodities in total merchandise exports. Measures the trade exposure of a country to a sharp drop in commodity prices in the context of the COV-19 outbreak. Threshold is set at 60%. Shaded cells indicate countries with ratios above this threshold. Data from the UNCTAD (2019).<sup>4</sup>

### Debt burden

- Public debt service to revenue ratio: Defined as the ratio of total public debt service (on short, medium and long-term debt, including both its domestic and external components) to government revenue (including grants). Threshold is set at 20%. Shaded cells indicate countries with ratios above this threshold. Data from latest IMF DSA available per country (latest figures available per country).
- Public debt service (% of GDP): Defined as total public debt service on short, medium and long-term debt, including both its domestic and external components. Threshold is set at the level where debt service as a % of GDP is higher than public health care expenditure. Shaded cells indicate countries with ratios above this threshold. Data estimated from latest IMF DSA available per country (latest figures available per country).
- Public health care expenditure (% of GDP): Defined as total public health care expenditure as % of GDP. Threshold is set in relation to the SDG health care expenditure target of 8.6% of GDP by 2030 for HS1 countries in the progress scenario estimated by Stenberg et. al. (2017). Shaded cells indicate countries with current health care expenditures of less than half the expenditure target (4.3% of GDP). Data from the World Bank World Development Indicators (latest figures available).

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<sup>2</sup>Stenberg, K., et. al. 'Financing transformative health systems towards achievement of the health Sustainable Development Goals: a model for projected resource needs in 67 low-income countries and middle-income countries' *The Lancet Global Health*, 5(9), e875-e887 (2017)

<sup>3</sup>List of IMF DSAs available at: <https://bit.ly/2VJba0h>

<sup>4</sup>UNCTAD 'The State of Commodity Dependence 2019' (2019) <https://bit.ly/38ppPAW>. Accessed 12 March 2019



**Table 1 - Vulnerabilities in LIEs<sup>5</sup> in debt distress<sup>6</sup>**

Country	Health care system vulnerability		Debt vulnerabilities*		Trade vulnerabilities	
	Capacity Ratio	Performance	Short term external debt (% of exports)	Debt stock (% of GDP)	Exports to China (% of total)	Commodities (% of merchandise exports)
Congo, Republic of	1.6	93.4	4.0	87.8	60.2	75
Gambia, The	1.5	5.8	5.1	87.0	5.6	88
Grenada	4.4	-	17.8	63.4	-	58
Mozambique	0.5	54.3	19.7	110.4	9.3	95
São Tomé and Príncipe	2.4	81.7	9.5	95.5	-	86
Somalia	0.1	30.1	-	-	1.4	85
South Sudan	-	-	-	46.3	-	-
Sudan	1.1	76.2	105.1	116.2	16.0	97
Zimbabwe	1.3	66.2	-	69.7	12.5	86
<b>Group Average</b>	<b>1.6</b>	<b>65.5</b>	<b>26.9</b>	<b>84.5</b>	<b>17.5</b>	<b>84</b>

\* As countries are already under debt distress, all debt indicators are highlighted as vulnerable

**Table 2 - Debt burden indicators for LIEs in debt distress**

Country	Debt burden		
	Public debt service to revenue ratio	Public debt service (% of GDP)	Public health care expenditure (% of GDP)
Congo, Republic of	30.5	8.9	2
Gambia, The	154.7	24	0.8
Grenada	56.4	14.9	2.2
Mozambique	26	7.4	2.7
São Tomé and Príncipe	85.5	21.1	2.4
Somalia	-	-	-
South Sudan	35.4	12.1	-
Sudan	14.7	1.3	1.1
Zimbabwe	9.2	2	4.4
<b>Group Average</b>	<b>51.6</b>	<b>11.5</b>	<b>2.2</b>

<sup>5</sup> LIEs include 59 IDA-only, PRGT eligible countries, 13 high-income small states and 4 countries that have graduated from PRGT eligibility since 2010.

<sup>6</sup> Country groups are defined according to the latest debt risk assessment performed by the IMF. List of countries per group available at: <https://bit.ly/2VJba0h>

**Table 3 - Vulnerabilities in LIEs at high risk of debt distress**

Country	Health care system vulnerability		Debt vulnerabilities*		Trade vulnerabilities	
	Capacity Ratio	Performance	Short term external debt (% of exports)	Debt stock (% of GDP)	Exports to China (% of total)	Commodities (% of merchandise exports)
Afghanistan	0.5	38.6	19	7	2	90
Cameroon	0.8	63.6	5.85	36.9	14.7	92
Cabo Verde	2	-	0.1	123.9	0	67
Central African Republic	0.3	53.3	-	48.8	12.9	74
Chad	0.4	22.7	-	43.8	-	99
Djibouti	0.7	92.9	54.8	72.2	2.3	61
Kiribati	5	-	-	21.0	0.4	95
Lao P.D.R.	1.4	41.5	6.4	55.8	38.7	75
Maldives	4.8	95.4	7.1	61.6	0.2	94
Marshall Islands	3.6	-	-	35.2	37.9	13
Mauritania	1.2	60.9	47.3	102.3	36.4	98
Sierra Leone	0.9	59.7	24.5	45.3	24.8	90
Tonga	4.6	-	-	49.2	0.1	84
Burundi	0.7	60.3	0.1	32.7	5.1	91
Dominica	7.2	-	7.6	71.7	0.1	25
Ethiopia	0.9	10.8	9.7	58.5	4.9	85
Ghana	1.3	58.7	15.7	57.7	10.5	94
Haiti	0.9	37.5	-	26.2	0.5	11
Micronesia	3.5	-	-	20.3	15.3	92
Samoa	2.2	-	-	57.2	0.2	48
St. Vincent and the Grenadines	-	-	1.3	74.2	0.1	-
Tajikistan	6.4	83.4	32.8	0	6.8	81
Tuvalu	4.4	-	-	47.2	0	61
Zambia	0.9	46.5	6.7	80.8	41.3	88
<b>Group Average</b>	<b>2.4</b>	<b>55.1</b>	<b>15.9</b>	<b>51.2</b>	<b>11.1</b>	<b>74</b>

**Table 4 - Debt burden indicators for LIEs at high risk of debt distress**

Countries	Debt Burden		
	Public debt service to revenue ratio	Public debt service (% of GDP)	Public health care expenditure (% of GDP)
Afghanistan	3.2	0.8	0.5
Cameroon	15.3	2.6	0.6
Cabo Verde	30.1	8.5	3
Central African Republic	18.6	3.1	0.6
Chad	22.6	3.2	0.9
Djibouti	9.9	2.5	1.6
Kiribati	0.2	0.3	7.3
Lao P.D.R.	32.2	5.2	0.8
Maldives	70.5	19.1	7.7
Marshall Islands	4.6	3.1	12.3
Mauritania	30.5	9.3	1.6
Sierra Leone	3.9	0.6	1.8
Tonga	8.2	2.4	3.5
Burundi	22.6	6.7	1.8
Dominica	11	6.1	3.4
Ethiopia	26.2	3.6	1.1
Ghana	134.8	18.7	1.7
Haiti	5.6	1.1	0.8
Micronesia	1.8	1.7	3.5
Samoa	28.3	9.7	4.2
St. Vincent and the Grenadines	14.7	7	2.7
Tajikistan	0	-	2
Tuvalu	4.7	6.5	13.1
Zambia	71.2	14.2	1.7
<b>Group Average</b>	<b>23.8</b>	<b>5.9</b>	<b>3.3</b>

**Table 5 - Vulnerabilities in LIEs at moderate risk of debt distress**

Country	Health care system vulnerability		Debt vulnerabilities*		Trade vulnerabilities	
	Capacity Ratio	Performance	Short term external debt (% of exports)	Debt stock (% of GDP)	Exports to China (% of total)	Commodities (% of merchandise exports)
Benin	0.7	84.1	2.7	54.4	1.3	87
Bhutan	2	64.4	0.5	106.3	0	39
Burkina Faso	0.6	67.1	-	38.4	2.2	96
Comoros	0.9	82.2	0.7	18.9	-	70
Côte d'Ivoire	1	59.4	0.2	45.3	2.0	85
Guinea	0.5	45.3	3.7	37.6	54.8	86
Guinea-Bissau	1.5	38.8	9.8	50.8	2.1	98
Guyana	2.1	91.9	7.6	55	3.1	85
Kenya	1.6	44.3	24.5	53.2	1.5	72
Kyrgyz Republic	7.5	99.7	17.4	58.8	2.1	75
Lesotho	0.7	72.6	-	38.8	2.5	33
Liberia	0.1	61.1	-	42	10.5	50
Malawi	0.3	73	2	57.7	1.5	79
Mali	0.5	58.6	2.7	37.3	2.2	89
Nicaragua	2.5	90.1	24.3	41.9	1.9	57
Niger	0.3	29.3	4.6	53.8	11.7	66
Papua New Guinea	0.5	-	0.7	37.5	-	96
St. Lucia	0	98.7	7.3	0	-	0
Togo	0.3	59.4	14.5	76.2	8.7	72
Vanuatu	1.4	74	8	52.4	-	58
Yemen, Republic of	1	35.7	25.4	-	-	92
Congo DRC	0	0	0.6	20.3	35.8	86
Solomon Islands	2.1	-	6	9.4	-	98
<b>Group Average</b>	<b>1.2</b>	<b>63.3</b>	<b>8.2</b>	<b>44.8</b>	<b>8.5</b>	<b>72.6</b>

**Table 6 - Debt burden indicators for LIEs at moderate risk of debt distress**

Countries	Debt Burden		
	Public debt service to revenue ratio	Public debt service (% of GDP)	Public health care expenditure (% of GDP)
Benin	37.4	7	0.8
Bhutan	29.1	7.8	2.6
Burkina Faso	22.6	5	2.7
Comoros	3.6	0.4	1.1
Côte d'Ivoire	37.3	7.6	1.1
Guinea	12.2	1.8	0.7
Guinea-Bissau	24	4.4	2.7
Guyana	63.3	17.6	2.5
Kenya	35.5	6.6	1.6
Kyrgyz Republic	6.3	2.1	2.6
Lesotho	5.6	2.4	5.2
Liberia	3.8	1	1.4
Malawi	40.6	9.3	2.8
Mali	37.6	5.1	1.2
Nicaragua	6.8	2	5.4
Niger	28.7	7.2	1.5
Papua New Guinea	117.9	20.8	1.4
St. Lucia	-	-	2.2
Togo	57.7	13.8	1.3
Vanuatu	12.4	4.4	2
Yemen, Republic of	-	-	-
Congo DRC	4.1	0.5	0.5
Solomon Islands	2.9	1.2	3.6
<b>Group Average</b>	<b>28.1</b>	<b>6.1</b>	<b>2.1</b>

**Table 7 - Vulnerabilities in LIEs at low risk of debt distress**

Country	Health care system vulnerability		Debt vulnerabilities*		Trade vulnerabilities	
	Capacity Ratio	Performance	Short term external debt (% of exports)	Debt stock (% of GDP)	Exports to China (% of total)	Commodities (% of merchandise exports)
Bangladesh	0.9	27.7	20.4	3	2.4	4
Honduras	1.2	82.9	9.4	41.8	0.5	53
Madagascar	0.2	43.9	6.2	45.7	5.4	75
Nepal	3.5	41.9	7.4	30.4	0.8	32
Timor Leste	2.4	29.9	0.3	3.8	0.2	89
Uzbekistan	13.4	99.9	4.2	20.6	15.8	74
Cambodia	1.1	71	72.5	30.3	9.1	12
Moldova	0	99.2	42.9	30.6	1.1	47
Myanmar	1.8	-	5.1	34.7	35.4	68
Rwanda	0.9	69	5.1	53.1	2.4	89
Senegal	0.4	50.5	-	60.6	2.4	69
Tanzania	0.4	48.9	21.2	36.2	4.9	86
Uganda	0.7	59.3	9	41.3	0.9	82
<b>Group Average</b>	<b>2.1</b>	<b>60.3</b>	<b>12</b>	<b>35.6</b>	<b>6.3</b>	<b>60</b>

**Table 6 - Debt burden indicators for LIEs at low risk of debt distress**

Countries	Debt Burden		
	Public debt service to revenue ratio	Public debt service (% of GDP)	Public health care expenditure (% of GDP)
Bangladesh	49.6	4.8	0.4
Honduras	11.6	3.5	3.9
Madagascar	43.5	6.4	2.9
Nepal	4.7	1.2	1.2
Timor Leste	0.3	0.1	2.2
Uzbekistan	3.9	1.1	2.9
Cambodia	4.3	1	1.3
Moldova	13.6	4.1	4.4
Myanmar	29.8	5.1	1
Rwanda	29.5	7.1	2.3
Senegal	25.9	7	1.9
Tanzania	21.5	3.2	1.7
Uganda	44.5	6.8	1
<b>Group Average</b>	<b>21.7</b>	<b>4</b>	<b>2.1</b>