

# Ex-ante Poverty & Distributional Impacts of COVID-19 in Indonesia



## Key Messages

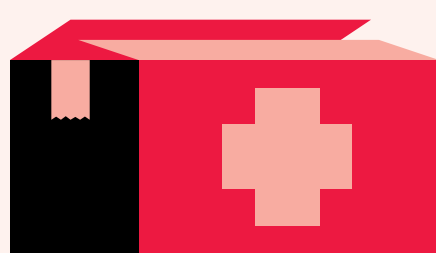
**2x**

SOCIAL ASSISTANCE



The Government of Indonesia has responded to the pandemic strongly, instituting several economic support measures for households. Budgetary outlays on the newly announced programs amount to an approximate doubling of spending on core social assistance programs.

**These relief measures could potentially mitigate the pandemic's impact on poverty...**

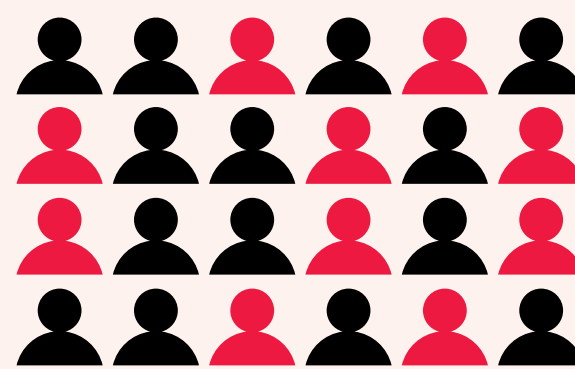


If the planned economic relief measures were fully delivered to the target households as planned and people could return to work by July 2020, the poverty rate could decline from 9.4 percent in 2019 to between 8.2 and 9.0 percent in 2020

...AND WITHOUT THEM,

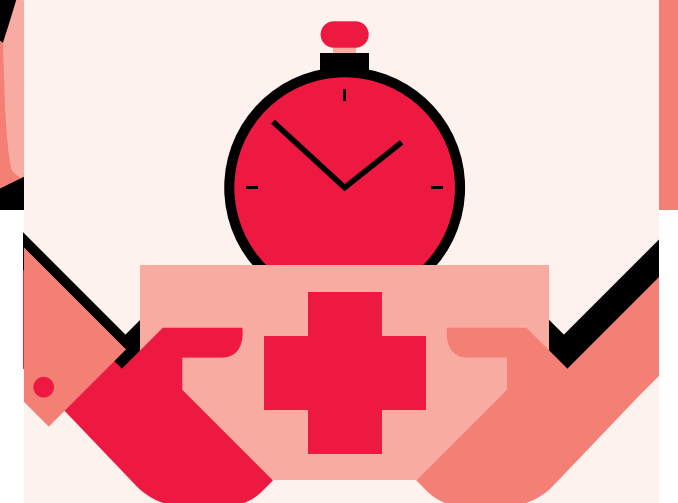
**5.5–8 million**

INDONESIANS COULD BE PUSHED INTO POVERTY



Without the emergency social assistance for households, Covid-19 could push between 5.5 and 8 million Indonesians into poverty, potentially wiping out accumulated gains in poverty reduction achieved over the last seven years.

**Effective & timely rollout**



What the overall impact on poverty ends up being between these extremes will depend crucially on how effectively this assistance is delivered during the remainder of the year.

**G**OI's response to the crisis has been strong with budgetary allocations on new relief measures implying an approximate doubling of the spending on core social assistance. Measures to mitigate adverse impacts among the poor and vulnerable include vertical and horizontal expansion and repurposing of several existing social assistance programs, as well as addition of new ones. Most of the measures target households in the bottom 40 percent including those that were not covered by existing programs.<sup>1</sup> New programs have been introduced to address the needs of those who reside in areas with high rates of infection and mobil-

ity restrictions (Sembako for Jabodetabek); the needs of the majority of poor and vulnerable who live in rural areas (reallocation of the Dana Desa funds for UCT) and those that lost work and wished to undertake skills training (Kartu Pra Kerja). Most of the programs will in principle be implemented for a duration of between 3 and 12 months. These generous measures approximately double GOI's spending on core social assistance relative to that in 2018.

**This emergency response has the potential to mitigate the pandemic's impact on the poor and vulnerable population in Indonesia.** World Bank (WB) modelling of ex-ante poverty impacts of the pandemic

shows that if the planned economic relief measures are fully delivered to the intended target population and people are able to return to work by the third quarter of 2020, then the poverty rate could decline from 9.4 percent in 2019 to between 8.2 and 9.0 percent in 2020.<sup>2</sup> This suggests that irrespective of whether the overall macroeconomic impact of the pandemic is mild (0 percent growth) or more severe (-2 percent growth), the fiscal stimulus may pack enough punch to shield the poor and mitigate the welfare loss of households in the bottom 40 percent of the distribution. (Figure 1)

**But how well this potential will be realized depends crucially on the performance of**

<sup>1</sup> Indonesia's social registry (DTKS) contains information on households in the bottom 40 percent of the population and pre-Covid the registry was used primarily to target programs aimed at supporting consumption of the bottom 15 percent (PKH) and bottom 25 percent (Sembako).

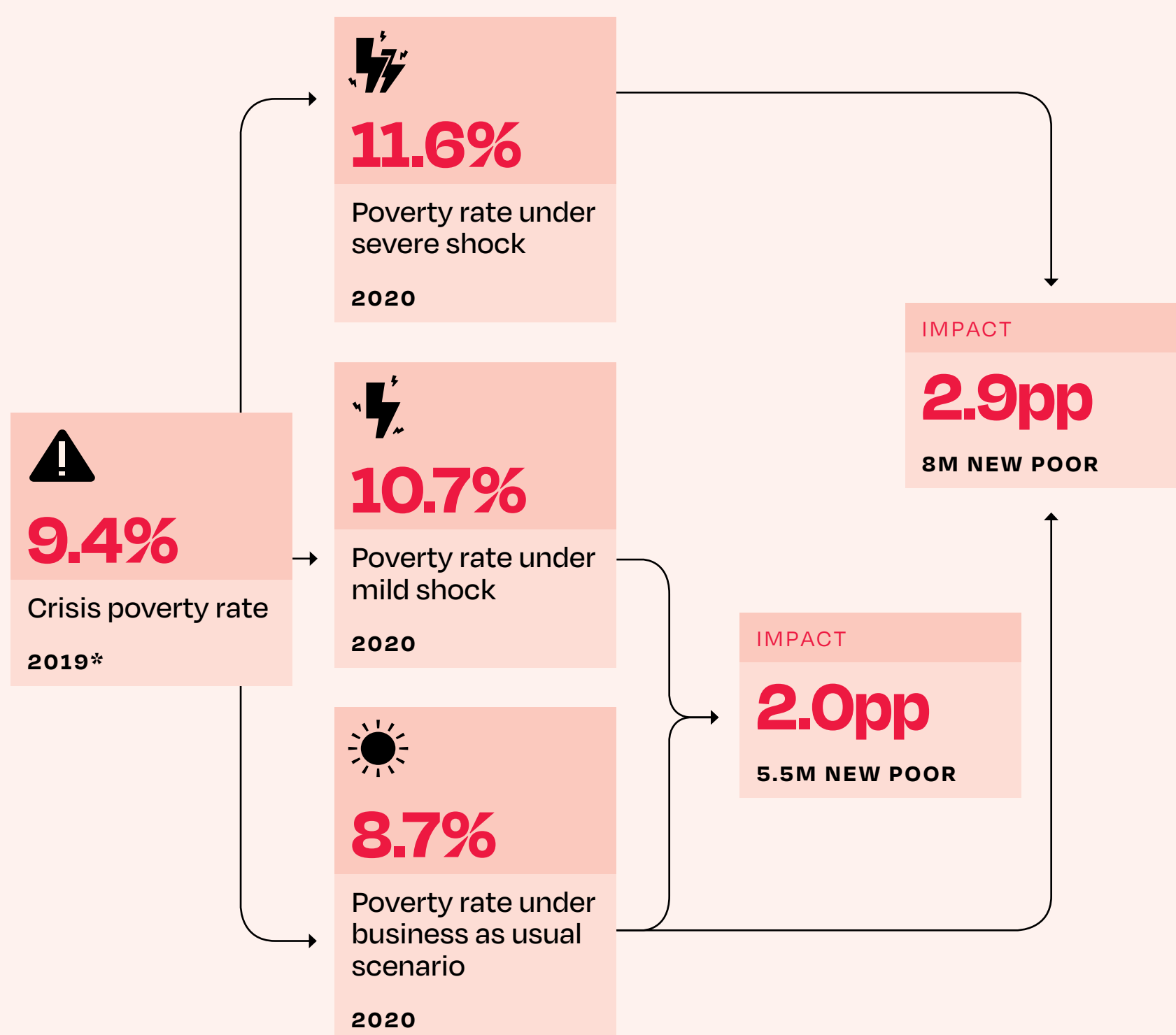
<sup>2</sup> The measures taken into account in the WB analysis include vertical and horizontal expansion and repurposing of several existing SA programs, including addition of new programs, namely Sembako, Program Keluarga Harapan (PKH), Kartu Pra-Kerja, BLT (Non-Jabodetabek), Sembako (Jabodetabek), electricity subsidy, and Bantuan Langsung Tunai (BLT) Dana Desa.

the targeting and delivery systems. Such a large-scale expansion of social assistance programs implies additional burden on delivery systems, and this can affect the speed of rollout and program realization. Some of the newer programs such as BLT, BLT-Dana Desa are designed to provide safety nets to affected households who are not already covered by some of the existing programs such as PKH and Sembako. Ensuring that the targeting mechanism correctly identifies and delivers assistance to the deserving households will be equally important in determining how successfully this package of programs shields the poor.

Without GOI's emergency economic support measures for households, Covid-19 could push as many as 8 million Indonesians into poverty. The same modeling exercise also shows that without the emergency social assistance and economic support measures for households, Covid-19 could push between 5.5 and 8 million Indonesians into poverty in 2020. This would imply a potential wiping out accumulated gains in poverty reduction achieved over the last seven years. (Figure 2) What the actual impact ends up being between these extremes depends crucially on how effectively this assistance is delivered during the remainder of the year.

**Figure 2** Absent GOI's emergency response, Covid-19 shock could push 5.5 million to 8 million Indonesians into poverty

(PP=PERCENTAGE POINTS)



**Figure 1** Welfare losses with & without GOI emergency response under the severe impact scenario, by per capita consumption decile

(PERCENT CHANGE IN PER CAPITA CONSUMPTION OVER THE 2020 BENCHMARK)



SOURCE World Bank staff calculations.

NOTE Percent changes are relative to a benchmark 2020 scenario without Covid-19. The 'uncompensated' scenario shows estimates without mitigation responses, while the 'compensated' scenario takes into account GOI SA and economic support measures for households assuming effective and timely implementation.

## Methodology

The macro-micro simulation model used to generate these results takes existing household and labor force surveys (SUSENAS and SAKERNAS 2019) as a starting point and uses:

- 1 Macro-growth projections under benchmark and crisis scenarios
- 2 Estimated structural relationships between employment in specific sectors and output in that sector
- 3 Parameters from estimated occupational choice models to determine sectoral sorting and resorting of workers
- 4 Parameters from an estimated earnings model to calibrate labor and other sources of income to simulate the consumption distribution under three scenarios (a) business-as-usual (growth estimate of 5.0 percent); (b) a mild shock (growth estimate of 0 percent estimated under assumptions of a deep global recession and moderate domestic restrictions); and (c) a severe shock (growth estimate of -2.0 percent estimated under assumptions of a deep global recession and severe domestic restrictions). The model is loosely based on the approaches described in Bourguignon et al (2008) and Ferreira et al. (2008), with the important simplification of omitting the CGE component. Notable applications to Global Financial Crisis impact include Habib, et al., 2010; Olivieri, et al. 2014 and others. The results so far only capture the labor market channel, but the model could be modified to incorporate changes in food prices, if needed.

### Key References

1. Bourguignon, F., M. Bussolo, and L. Pereira da Silva. 2008. "The Impact of Macroeconomic Policies on Poverty and Income Distribution: Macro-Micro Evaluation Techniques and Tools." In *The Impact of Macroeconomic Policies on Poverty and Income Distribution: Macro-Micro Evaluation Techniques and Tools*, eds F. Bourguignon, M. Bussolo, and L. Pereira da Silva. Washington, DC: World Bank.
2. Ferreira, F., P. Leite, L. Pereira da Silva, and P. Picchetti. 2008. "Can the Distributional Impacts of Macroeconomic Shocks Be Predicted? A Comparison of Top-Down Macro-Micro Models with Historical Data for Brazil." In *The Impact of Macroeconomic Policies on Poverty and Income Distribution: Macro-Micro Evaluation Techniques and Tools*, edited by F. Bourguignon, M. Bussolo, and L. Pereira da Silva. Washington, DC: World Bank.
3. Habib, B., A. Narayan, S. Olivieri, and C. Sánchez-Páramo. 2010. "Assessing Ex Ante the Poverty and Distributional Impact of the Global Crisis in a Developing Country: A Micro-simulation Approach with Application to Bangladesh." Policy Research Working Paper 5238, World Bank, Washington, DC.
4. ———. 2010b. "Assessing Ex Ante the Poverty and Distributional Impact of the Global Crisis in The Philippines: A Micro-simulation Approach." Policy Research Working Paper 5286, World Bank, Washington, DC.
5. ———. 2012. "Assessing the Poverty and Distributional Impacts of the Financial Crisis with Microsimulations: An Overview of Country Studies." In *Knowing, When You Do Not Know: Simulating the Poverty and Distributional Impacts of an Economic Crisis*, edited by A. Narayan and C. Sánchez-Páramo. Washington, DC: World Bank.