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TEMPORARY BASIC INCOME:
Protecting Poor and Vulnerable People in Developing Countries

BY GEORGE GRAY MOLINA AND EDUARDO ORTIZ-JUAREZ

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GEORGE GRAY MOLINA AND EDUARDO ORTIZ-JUAREZ[1]

ABSTRACT

As the rate of new COVID-19 cases accelerates across the developing world, it exposes the potentially devastating costs of job losses and income reversals. Unconditional emergency cash transfers can mitigate the worst immediate effects of the COVID-19 crisis on poor and near-poor households that do not currently have access to social assistance or insurance protection. This paper provides estimates for a Temporary Basic Income (TBI), a minimum guaranteed income above the poverty line, for vulnerable people in 132 developing countries. A TBI amounts to between 0.27 and 0.63 per cent of their combined GDPs, depending on the policy choice:

i. top-ups on existing average incomes in each country up to a vulnerability threshold;

ii. lump-sum transfers that are sensitive to cross-country differences in the median standard of living; or,

iii. lump-sum transfers that are uniform regardless of the country where people live.

A temporary basic income is within reach and can inform a larger conversation about how to build comprehensive social protection systems that make the poor and near-poor more resilient to economic downturns in the future.

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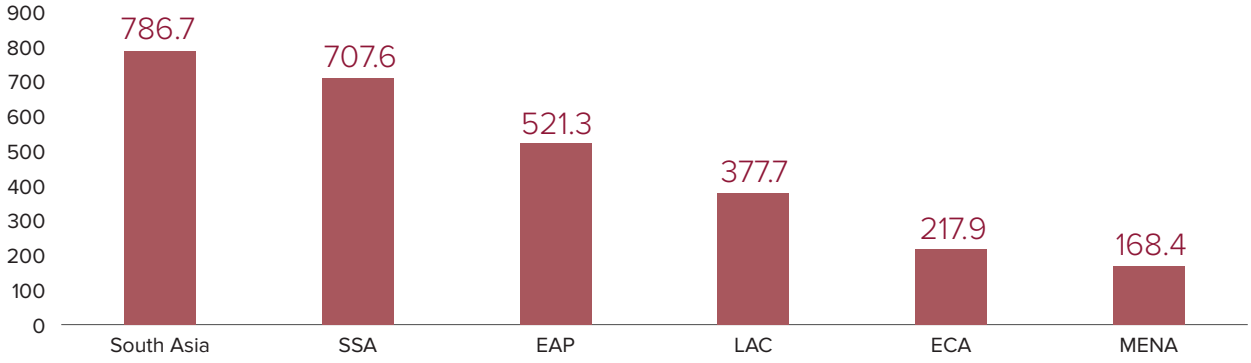
1 INTRODUCTION

The rapid surge of COVID-19 cases across developing countries and the devastating socio-economic crisis that follows because of lost jobs and incomes suggests that unprecedented policy measures are needed. In most developing countries, social protection systems are weak and tend to benefit mostly formal workers, leaving poor and vulnerable people and their families partially or fully unprotected. While the world has witnessed an expansion of social protection and assistance measures in response to the pandemic, the lion's share of spending has been accounted for by high-income economies. Specifically, the number of such measures has increased from 103 to 1,055 across 200 countries and territories since mid-March; fully one-third of those are non-contributory cash transfers benefiting 15 per cent of the world's population. However, total spending by low- and middle-income countries amounts to just US$77.9 billion, or 13.2 per cent of the world's total of US$589.6 billion. In per capita terms, these countries are spending an average of US$7 in social assistance or US$9.5 if social insurance and labour market programs are added, which is in stark contrast with the corresponding averages of US$121-123 recorded by high-income economies.[2]

This paper estimates the total and per beneficiary amounts of a temporary basic income (TBI) to poor and vulnerable people in 132 developing countries[3] defined as: a top-up to existing average per capita incomes that are below a minimum defined by a near-poverty, vulnerability threshold that changes in value (in PPP 2011), depending on a region's standard of living;[4] a transfer equivalent to half each country's median per capita income or consumption, depending on the available indicator in each country, and thus is also sensitive to varying standard of living across countries; and a lump-sum transfer of $5.50 a day that is uniform across countries. The coverage of these schemes ranges from 168-218 million people in the Middle East and North Africa (MENA) and Europe and Central Asia (ECA), to 378-521 million people in Latin America and the Caribbean (LAC) and East Asia and Pacific (EAP), to 708-787 million people in sub-Saharan Africa (SSA) and South Asia (Figure 1).

FIGURE 1. REGIONAL COVERAGE OF TBI SCHEMES ON POOR AND VULNERABLE (MILLION PEOPLE)



Source: Own estimates based on PovcalNet data for 2018. See section 3 and the annex for specific details on the data and estimation procedure.

The rationale behind the estimates is to offer a benchmark in terms of size and cost for providing unconditional, non-entitlement-based cash assistance during a specific period in the developing world.

[2] Based on Gentilini et al. (2020a).

[3] These 132 developing countries are home to about 83 per cent of the world's population. An additional subset of 33 high-income developed countries, which together are home to 14 per cent of the global population, were excluded from the computations. The remaining 3 per cent of the world's population is concentrated in 30 countries for which there is no available data. See further details and the lists of included and excluded countries in the annex.

[4] From here onwards and unless otherwise stated, all monetary amounts are expressed in international dollars at 2011 PPP exchange rates.

2 PRE-EXISTING CONDITIONS MAKE PEOPLE IN DEVELOPING COUNTRIES LESS RESILIENT TO SHOCKS

Developing countries are less equipped and less resilient to shocks than advanced economies. Crises in the past have revealed deep-rooted structural inequalities and injustices that haven't been decisively addressed and that could exacerbate dramatically as the immediate impacts of the current crisis strike peoples' lives and livelihoods. For starters, seven out of ten workers in developing countries make a living in informal markets (ILO 2018). Most of them are engaged in activities and tasks that are less likely to be performed from home (Dingel and Neiman 2020; Hatayama et al. 2020)[5] and hence some of them, especially in urban settings, are particularly affected by current COVID-19 containment measures. According to some estimates, for informal workers the first month of the crisis could have caused earnings contractions of up to a startling average of 82 per cent in low- and lower-middle-income countries (ILO 2020). Secondly, a sizable share of the population in developing countries cannot be regarded as economically secure in the face of shocks and impoverishment risks. The data shown in Figure 1 above suggest that, before the crisis, a fourth of the total population in EAP, and between half and two-thirds of the total population in the rest of the regions, were either poor or at high risk of poverty according to region's standard of living.[6]

These pre-existing conditions of informality, poverty, and vulnerability coexist with relatively weak social protection systems that tend to benefit mostly formal workers. Of the above statistic of seven in ten workers in informality, only one of them can rely on employment-based protection programs, with underinvestment particularly acute in Africa, South Asia, and the Arab States (ILO 2018; Packard et al. 2019). Under such circumstances, any COVID-19 containment measures would prevent a large majority of people from earning an income. In the absence of safety nets, the sudden drop of people's incomes hits particularly hard during crises and often persists with a low recovery well beyond the end of the crisis,[7] even more so if people's productive assets are low or have been depleted. Some recent estimates assuming a moderate contraction in incomes suggest that the total number of people in poverty, as measured by the lowest standard of $1.90 a day, could increase by 70-100 million globally as a result of the pandemic (Mahler et al. 2020; Sumner et al. 2020; Valensisi 2020).[8]

Beyond the immediate monetary impacts, the progression of the pandemic has exacerbated already wide gender inequalities as it has increased the burden of care on working mothers, while hitting harder those sectors with relatively more female employment (Alon et al. 2020; Cowan 2020). In addition, there are potentially harmful, long-lasting consequences on human development that are magnified by pre-existing circumstances. The disruption in education due to COVID-19 containment measures has put the accumulation of human capital at risk, pushing some school-age groups further down the learning ladder as a result of lacking computer equipment and internet connection, of receiving deficient coaching

[5] Dingel and Neiman (2020) estimate that the share of jobs that could be performed at home is less than 25 per cent in most of the developing countries they analyse, and as low as 5 per cent in some sub-Saharan countries.

[6] See the details of the estimation in section 3.

[7] Evidence for the US suggests that workers might lose close to three years of pre-crisis earnings if mass-layoffs occur at times when the unemployment rate is above 8 percent (Davis and von Wachter 2017).

[8] And potentially more when using higher poverty lines and assuming harder contractions in per capita incomes.

at home, or of living in inadequate conditions, viz. overcrowded, stressful or violent homes. It has been estimated that the impact on education could cause the human development index to decline for the first time since 1990, effectively erasing the progress achieved over the last six years (UNDP 2020).

In terms of health, some risk factors — such as hypertension, diabetes or obesity, some of which are more prevalent among people at the bottom of the income distribution, as well as persistent conditions of indoor and outdoor pollution, malnutrition, and lack of basic services such as clean water and nearby health centres — could make some people in developing countries particularly vulnerable to COVID-19 (Alkire et al. 2020; Brown et al. 2020; Schellekens and Sourrouille 2020). Finally, while factors such as conflict or climate-related shocks were making more than 130 million people experience acute food insecurity before the pandemic, its progression has increased the risk of famines in several countries (FEWS Net 2020; FSIN 2020).

It is thus likely that the non-pharmaceutical efforts to contain the disease, magnified by pre-existing structures of inequalities and exclusion, carry devastating costs for the livelihoods of less advantaged people. As the return to business as usual is uncertain in terms of both if and when, the accelerated progression of the pandemic across developing countries makes clear that unprecedented mitigating actions are urgent.

3 A TEMPORARY BASIC INCOME FOR POOR AND VULNERABLE PEOPLE

The immediate welfare losses are difficult to quantify. However, it is urgent and only fair to provide shock-resistant transfers in the form of what is termed in this paper a temporary basic income (TBI). The term *basic income* has been commonly used to refer to universal basic income (UBI) schemes in a simpler way by longstanding proponents —without implying that the *universal* component does not still apply to it (see, for instance, Standing 2017, 2020; Van Parijs and Vanderborght 2017). Such a term is employed here to denote schemes of emergency cash assistance that are explicitly temporary, up to 9-12 months as discussed below, while retaining some of the features that characterize UBIs.

The latter schemes carry the notion of a *right* to income with an undetermined duration; its coverage is universal or quasi-universal, viz. paid individually to all resident citizens and legal resident non-citizens in a country; and its delivery is unconditional, not subject to means or job-seeking testing or spending conditions (see also Gentilini et al. 2020b). TBIs as proposed here, on the other hand, are not universal but targeted to people with livelihoods below a vulnerability-to-poverty threshold, which is at least 70 per cent above the value of the poverty line (see next subsection). While this targeting involves, by definition, a mechanism to exclude non-eligible people, TBIs remain unconditional in terms of not imposing behavioural conditions such as job-search or use of the cash benefits. Finally, the delivery of TBIs, as with that of UBIs, is assumed to be made on an individual basis, regardless of household composition,[9] thus avoiding any assumption of economies of scale and unintended within-household discrimination that could be particularly harmful for women's empowerment and control of economic resources.[10]

The coverage, size, and duration of the temporary basic income schemes shown below assume that the costs of the crisis are widespread, profound and potentially lasting. As such, the amounts per beneficiary might help people to cover internet connectivity to support education and work from home, compensate for costs associated with childcare, or assist households to prevent the depletion of productive assets — in addition to enabling people to cover essential spending.[11] There is strong evidence for developing countries that, in the presence of unconditional cash transfers, human capital accumulation can be protected and boosted through expenditure on more and better diets, as well as on health and education services (Haushofer and Shapiro 2016, Handa et al. 2018a). Moreover, by allowing people to meet their essential consumption needs, cash assistance could also lead to the protection and accumulation of productive assets and the diversification of livelihoods (Handa et al. 2018b), and boost the entry into entrepreneurship (Bianchi and Bobba 2013).

[9] A TBI, however, could vary depending on some individuals' characteristics. For instance, such schemes could consider a uniform transfer for adults and a child-benefit as a complement. They could also include supplements to compensate for the likely higher cost of living among some elderly people or individuals with disabilities who experience limited income-generating capacities.

[10] In the context of conditional cash transfer (CCT) schemes targeted to poor people, some recent evidence suggests that delivering cash assistance to women could exert a positive effects on several dimensions: more balanced economic power within the household, better spending in comparison to men in terms of more nutritious diet for children, and the possibility of women avoiding taking low-pay jobs and instead staying at home with their children (Armand et al. 2020; Garganta et al. 2017). Following this evidence, Figure A1 in the annex presents an estimate of the overall monthly cost of transfers targeted to 2.28 billion women (aged 15 and above) in developing countries, regardless of their economic condition, under each of the TBI options described below.

[11] And, crucially, attempting to reach those who have not been able to make any progress in average consumption through *business as usual* policies (Ravallion 2020).

The idea of a temporary basic income arises from the urgency to deliver shock-resistant transfers to an unprecedented crisis.[12] Several countries have taken a step forward in this direction by rolling out similar schemes under different names and with diverse targeting thresholds. In Tuvalu, for instance, there is already a fully-fledged scheme that does fulfil the UBI criteria, although articulated as having a limited lifespan until the crisis subsides (Gentilini et al. 2020a). In Spain, a monthly budget of €250 million was approved in May to provide a minimum income guarantee that is equivalent to lifting the incomes of 850,000 families and 2.3 million individuals up to a minimum threshold, and hence help them to move out of poverty and vulnerability.[13] In Colombia, the government introduced the *Solidarity Income* scheme to deliver resources to an additional 3 million vulnerable households — and increase the cash transfers for 12 million people through existing assistance schemes (Alvarez et al. 2020).

Two significant caveats are worth noting here. First, the fact that poor and vulnerable people in developing countries may benefit from a TBI does not necessarily mean that, in all settings, markets exist for the goods and services that people value and require, and, even if markets exist, it is unclear whether they can be distorted by the predefined duration of the TBI. That is, while some available evidence from local UBI pilots is not supportive of inflationary pressures,[14] there is the risk that knowing in advance the duration of the TBI could lead to a spike in local food prices. This may be problematic among the poorest, given that they spend a larger share of their income on food, and also because in poorer countries people tend to face differentials in prices for healthy vs. non-healthy foods that are much higher than in richer countries (Headey and Alderman 2019). Second, even the successful implementation of a TBI does not resolve the key systemic challenge faced by most developing countries today: how to build a robust social assistance and social insurance system that is equitable, but also enjoys broad-based political buy-in, does not harm labour participation rates and is financially sustainable over the long run (Ortiz et al. 2018).

3.1. VULNERABILITY THRESHOLDS AND TBI SCENARIOS

The economic costs imposed by the pandemic are hard not only for the existing poor, but also to those who were at high risk of falling into poverty before the pandemic and who are likely experiencing a limited income-generating capacity. Three scenarios of a temporary basic income for poor and vulnerable-to-poverty people in 132 developing countries are considered.

This group of potential beneficiaries is comprised, first, by 1.07 billion people living under the typical international poverty lines of $1.90, $3.20, and $5.50 a day, applied depending on countries' living standard.[15] Specifically, using the sample of national poverty lines (in 2011 PPP) of Jolliffe and Prydz (2016), the median value of these lines among countries in both South Asia and sub-Saharan Africa (SSA) is roughly $2 a day; thus, by proximity, poverty in these regions is assessed in this paper under the well-established international threshold of $1.90 a day. As for the rest of regions, the median value of the national poverty lines in the sample is $3.4-3.9 a day among countries in both East Asia and the Pacific (EAP) and the Middle East and North Africa (MENA), and $5.2-6.3 among countries in both Europe and Central Asia (ECA)

[12] The idea of emergency TBIs or UBIs with a limited amount of time has been raised in the aftermath of other crises and humanitarian disasters, for instance, the war in Iraq in 2003, where it was argued that "a guaranteed basic income provided…for, say, three years, might have avoided much of the chaos…that followed" (Barrowclough 2018, p. 99).

[13] See the Royal Decree-Law 20, May 29, 2020 that establishes the minimum vital income.

[14] Given that increased demand resulting from the additional cash has been accompanied by an increased supply of goods, in fact unleashing a multiplier effect. See, for instance, Davala et al. (2015) for evidence from some pilots in India.

[15] For further details on these international poverty lines, see Jolliffe and Prydz (2016).

and Latin America and the Caribbean (LAC). Based on the proximity of such median values to the typical international lines, it is thus assumed in this paper that $3.20 a day is a reasonable standard for poverty measurement across EAP and MENA, and that $5.50 a day is so across ECA and LAC.

A second subgroup of beneficiaries comprises 1.71 billion people who are no longer poor according to the previous standards, but presumably face a sizeable risk of falling into poverty. The identification is based on the following criteria. For countries in both ECA and LAC, it is considered that vulnerable-to-poverty people comprises those with incomes above the $5.50-a-day poverty line, but below a vulnerability threshold of $13 a day. The latter is the updated value (in 2011 PPP) of the cut-off of $10 a day (in 2005 PPP) identified by Lopez-Calva and Ortiz-Juarez (2014) as the dividing line between vulnerability and economic security in the context of LAC countries, and is consistent with the value of the vulnerability line estimated for ECA countries by Bussolo et al. (2018).

Following a similar approach, in countries in EAP and MENA, where poverty is assessed through the $3.20-a-day threshold, people regarded as vulnerable would be those with incomes above such value but below $5.50 a day, the latter corresponding to the vulnerability threshold identified among EAP countries (World Bank 2018a). Finally, and with no known evidence suggesting the value of a corresponding vulnerability threshold for countries where poverty is assessed at $1.90 a day, it is simply assumed that vulnerable people would be those with incomes above $1.90 a day but below the next typical international poverty line, that is, $3.20 a day.

Table 1 shows the total number of potential beneficiaries, disaggregated by regions, after applying previous standards. The total of 2.78 billion beneficiaries identified — 1.07 billion under the poverty lines and 1.71 billion between these and the vulnerability thresholds — is equivalent to coverage of 44 per cent of the developing world's total population, and such relative coverage ranges from 25.6 per cent in EAP, to 45-46 per cent in ECA, MENA and South Asia, to 61-67 per cent in LAC and SSA.

TABLE 1. REGIONAL COVERAGE OF TBI SCHEMES ON POOR AND VULNERABLE (MILLION PEOPLE)

REGIONS	COVERAGE			TOTAL POPULATION	SHARE OF COVERED
	POOR	VULNERABLE	TOTAL		
Developing countries (132)	**1,072.7**	**1,706.9**	**2,779.6**	**6,300.4**	**44.1%**
East Asia and Pacific	155.5	365.8	521.3	2,039.7	25.6%
Europe and Central Asia	59.4	158.6	217.9	469.6	46.4%
Latin America and the Caribbean	150.5	227.2	377.7	621.5	60.8%
Middle East and North Africa	74.5	93.9	168.4	376.2	44.8%
South Asia	192.7	594.0	786.7	1,734.8	45.4%
Sub-Saharan Africa	440.2	267.4	707.6	1,058.5	66.8%

Source: Own estimates based on PovcalNet data for 2018. See the annex for specific details on the data.

The assistance considered in each scenario of a temporary basic income comprises cash transfers with homogeneous amounts across targeted individuals within a country under three options: top-ups on existing average incomes in each country; lump-sum transfers that are sensitive to cross-country differences in median standard of living; and lump-sum transfers that are uniform regardless of the country where the beneficiary population lives. Specifically, to cover 1.07 billion poor and 1.71 billion vulnerable people in 132 developing countries, the costs of the following transfer equivalences are compared:

1. **A cash transfer equivalent to each country's average shortfall in income in relation to the corresponding vulnerability threshold defined above, viz. $3.20 a day for countries in South Asia and SSA, $5.50 a day for countries in EAP and MENA, and $13 a day for countries in ECA and LAC.** Under this approach, average incomes among poor and vulnerable people before the crisis are supplemented up to the point of reaching the vulnerability threshold. The estimation of the total cost and per beneficiary amounts is based on the well-known per capita deficit measure, defined as[16]

$$P_j = \frac{1}{nj} \sum_{i=1}^{qj} \left(1 - \frac{yij}{z} \right)$$

where *z* is the vulnerability threshold, namely $3.20, $5.50 or $13 a day; *yij* represents the income of individual i living below *z* in country *j*; *qj* is the total number of people whose incomes *yij* are below *z*; and *nj* is the total population in each country. This measure takes its values in the range [0,1] and reflects the average per capita shortfall, as a percentage of *z*, between the incomes of those living below *z* and the value of *z*. For instance, a per capita deficit of 0.20 would indicate that the shortfall in per capita incomes of those people living with less than *z*, say $5.50, is $1.10, on average. Adding up this monetised per capita shortfall across each country's total population yields the monetary amount required to lift the incomes of those below *z* up to the vulnerability threshold, and such amount is taken in this paper as the total cost of a temporary basic income which is shared evenly among the beneficiary population in each country. Notice that these top-up transfers vary across countries as the average shortfall in income changes from place to place.

2. **A cash transfer equivalent to half the median household per capita income or consumption in each country.** This option follows some well-established approaches[17] and, by definition, changes in value across countries as the countries' per capita median income or consumption also varies. A feature of this approach is that if the value of the half median measure in a given country is lower than the typical international poverty line of $1.90 a day, then such value is raised up to the latter amount. Therefore, the minimum amount of a temporary basic income per beneficiary under this option cannot be lower than $1.90 a day. Formally, the cash transfer per beneficiary in each country j can be expressed as

$$\max (\$1.90, 0.5 \cdot \tilde{y}_j)$$

where $\tilde{y}j$ is the median per capita income or consumption in country *j*. Adding these individual amounts across the total beneficiary population, viz. poor plus vulnerable-to-poverty people, yields the total costs of a temporary basic income under this option.

3. **A uniform cash transfer of $5.50 a day.** These uniform transfers build on an earlier proposal of an assistance relief of $1.90 a day for around 3.4 billion people living on less than $5.50 a day (Lakner et al. 2020), but expand the latter's scope by increasing the size of the transfers from $1.90 to $5.50 a day and adjust the coverage to include vulnerable individuals by taking into account the different standard of living across countries.

[16] Also commonly known as a poverty gap; see Foster et al. (1984) for further details.

[17] See, for instance, a detailed conceptual and technical discussion of the *societal* minimum standard, on which this proposal is built, in Jolliffe and Prydz (2017) and World Bank (2018b). Half the median income is also the approach followed by the OECD for the measurement of relative poverty among its member countries.

3.2. TOTAL COST AND PER BENEFICIARY AMOUNTS

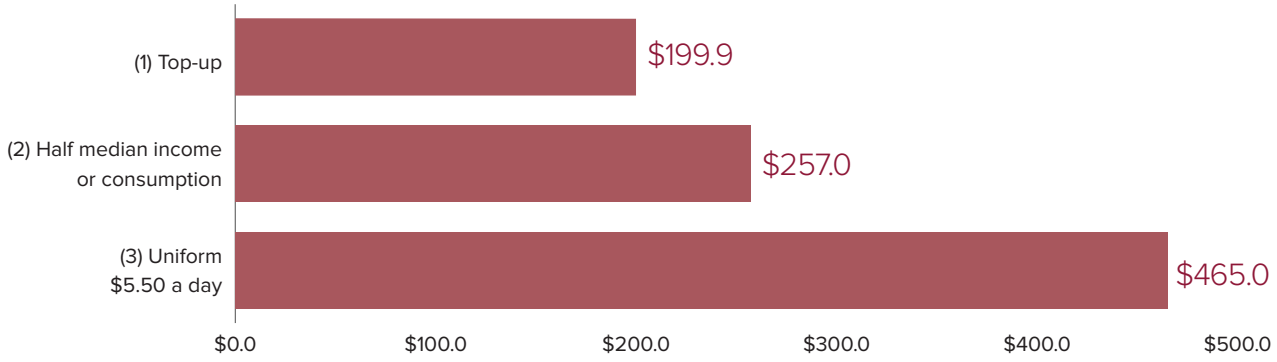
The estimation of the total and per beneficiary costs of these temporary basic income schemes exploits the latest publicly available data, from around 2018, for each of the 132 developing countries considered.[18] As a result of the pandemic's progression and its economics effects, it is likely that, relative to both the figures recorded in 2018 or to what could have been expected in 2020 in the absence of crisis, the incidence of poverty has already increased and those who were already poor before the pandemic became poorer. While there are some recent studies suggesting these outcomes (e.g., Mahler et al. 2020; Sumner et al. 2020), there is also uncertainty in terms of the magnitude of the increase in poverty and the income losses among the existing poor, all of which is dependent on the duration of the crisis and the policy responses already in place. Given this, this paper takes a conservative stance and assumes that pre-crisis welfare levels as reflected by the 2018 data are a more objective starting point to provide an initial benchmark of the potential costs of cash transfers.

Figure 2 presents the overall cost of each of the above TBI options on a monthly basis. For the total coverage of 2.78 billion poor and vulnerable people (see Table 1 above), the total cost of a temporary basic income is as follows:

- Option (1) costs $200 billion per month, in which the TBI is equivalent to the average distance between the incomes of these people and the vulnerability thresholds.
- Option (2) costs $257 billion per month, in which the TBI is sensitive to the median standard of living.

These monthly figures are roughly half the total cost of a uniform transfer of $5.50 a day to the developing world's poor and vulnerable people ($465 billion per month).

FIGURE 2. MONTHLY COST OF A TEMPORARY BASIC INCOME TO POOR AND VULNERABLE PEOPLE UNDER DIFFERENT SCENARIOS ($ BILLION)



Source: Own estimates based on PovcalNet.
Note: Monthly amounts are expressed in international dollars at 2011 PPP exchange rates.

Relative to the size of the economy of the 132 developing countries combined, the cost of such TBI options reaches, respectively, 0.27 per cent, 0.35 per cent, and 0.63 per cent of the GDP (Table 2). A closer look at the costs disaggregated at the level of regions reveals some similar figures, especially in regions where the majority of countries exhibit living standards in the middle-income ranks. Table 2 shows that, for all

[18] Based on the World Bank's PovcalNet dataset. See the annex for specific details on the data.

poor and vulnerable people identified, the cost of a monthly cash transfer under any one of the three options described above —viz. the average distance between the incomes of poor and vulnerable people and the vulnerability threshold, or a sum equivalent to half the median per capita income or consumption, or a uniform transfer of $5.50 a day— could amount to 0.10 to 0.30 per cent of the GDP in EAP; 0.32 to 0.36 per cent of the GDP in ECA; 0.22 to 0.60 per cent of the GDP in MENA; and 0.60 to 0.70 per cent of LAC's GDP. Naturally, the costs of some of these options in relation to the economy tend to be particularly large for populous low-income countries. In SSA, for instance, the monthly costs range from 0.80 per cent of the GDP for a top-up transfer up to 2.7 per cent for a uniform transfer of $5.50 a day, whereas in South Asia such a uniform transfer could cost the equivalent of 1.3 per cent of its GDP. The only relatively low-cost options in the latter region are (1) and (2), whose overall costs stand at 0.20-0.45 per cent of the GDP.

TABLE 2. MONTHLY COST OF A TEMPORARY BASIC INCOME UNDER DIFFERENT SCENARIOS, BY REGIONS ($ billion and % of regions' GDP)

	TOP-UP		HALF MEDIAN		UNIFORM $5.50 A DAY	
	AMOUNT	% GDP	AMOUNT	% GDP	AMOUNT	% GDP
Developing countries (132)	**$199.9**	**0.27%**	**$257.0**	**0.35%**	**$465.0**	**0.63%**
East Asia and Pacific	$27.0	0.08%	$59.3	0.18%	$87.2	0.26%
Europe and Central Asia	$34.7	0.32%	$39.1	0.36%	$36.5	0.33%
Latin America and the Caribbean	$72.8	0.72%	$57.7	0.57%	$63.2	0.62%
Middle East and North Africa	$11.0	0.22%	$13.5	0.27%	$28.2	0.57%
South Asia	$21.2	0.21%	$46.1	0.45%	$131.6	1.27%
Sub-Saharan Africa	$33.1	0.76%	$41.3	0.95%	$118.4	2.71%

Source: Own estimates based on PovcalNet and IMF's World Economic Outlook Database (April 2020 update) for GDP.
Notes: Monthly amounts are expressed at 2011 PPP exchange rates.

After almost four months of containment measures that have imposed varying economic and developmental costs, the spread of COVID-19 is accelerating across the developing world. Considering the size of the global economy, there is only a moderate cost to carry out a comprehensive assistance transfer over a period of 3 to 9 months assuming a profound shock with a slow recovery — that is, at least the average duration of 3 months of new social protection measures currently in place (Gentilini et al. 2020a). For instance, providing 3-9 months of a TBI equivalent to either the average distance between the incomes of poor and vulnerable people and the vulnerability thresholds (option (1)), or to half the median per capita income or consumption (option (2)), could cost between 1 and 3.1 per cent of the 132 developing countries' GDP (or between 0.4 and 1.7 per cent of the world's GDP), whereas a uniform transfer of $5.50 a day for the same population could amount up to $4.2 trillion, or 5.6 per cent of the developing countries' GDP (3.1 per cent of the global GDP), if such a transfer is delivered over a 9-month period (Table 3).

TABLE 3. COST OF A TEMPORARY BASIC INCOME TO POOR AND VULNERABLE PEOPLE UNDER DIFFERENT SCENARIOS FOR A DURATION OF 3 TO 9 MONTHS ($ trillion and % of GDP)

	$ TRILLION			% OF DEVELOPING WORLD'S GDP			% OF WORLD'S GDP		
SCENARIO	3-MONTH	6-MONTH	9-MONTH	3-MONTH	6-MONTH	9-MONTH	3-MONTH	6-MONTH	9-MONTH
(1) Top-up	$0.60	$1.20	$1.80	0.8%	1.6%	2.4%	0.4%	0.9%	1.3%
(2) Half median	$0.77	$1.54	$2.31	1.0%	2.1%	3.1%	0.6%	1.1%	1.7%
(3) Uniform $5.50 a day	$1.39	$2.79	$4.18	1.9%	3.8%	5.6%	1.0%	2.1%	3.1%

Source: Own estimates based on PovcalNet and IMF's World Economic Outlook Database (April 2020 update) for 132 developing countries' GDP ($74.2 trillion, PPP) and world's GDP ($135.8 trillion, PPP).
Note: Monetary amounts are expressed in international dollars at 2011 PPP exchange rates.

Moving to the size of temporary basic incomes per beneficiary, the monthly amount per person equals $167.3 under the uniform transfer of $5.50 a day, and that monthly amount remains unchanged regardless of the size of the targeted population and the country where they live. The per beneficiary amounts under the top-up and half median options, on the other hand, will vary across countries as they are sensitive, respectively, to the prevailing difference between the incomes of the potential beneficiaries and the vulnerability threshold and to the standard of living in each country. This is shown in Table 4, which present the population-weighted average transfers per beneficiary aggregated at the regional level.

TABLE 4. TEMPORARY BASIC INCOME PER BENEFICIARY UNDER OPTIONS (1) AND (2) (MONTHLY AVERAGES)

REGIONS	TOP-UP (1)	HALF MEDIAN (2)
Developing countries (132)	**$61.7**	**$110.5**
East Asia and Pacific	$45.6	$138.8
Europe and Central Asia	$138.5	$219.4
Latin America and the Caribbean	$187.7	$164.5
Middle East and North Africa	$54.4	$111.0
South Asia	$26.3	$59.5
Sub-Saharan Africa	$45.0	$59.2

Source: Own estimates based on PovcalNet.
Note: Monthly amounts are population-weighted averages of country-level figures and are expressed in international dollars at 2011 PPP exchange rates.

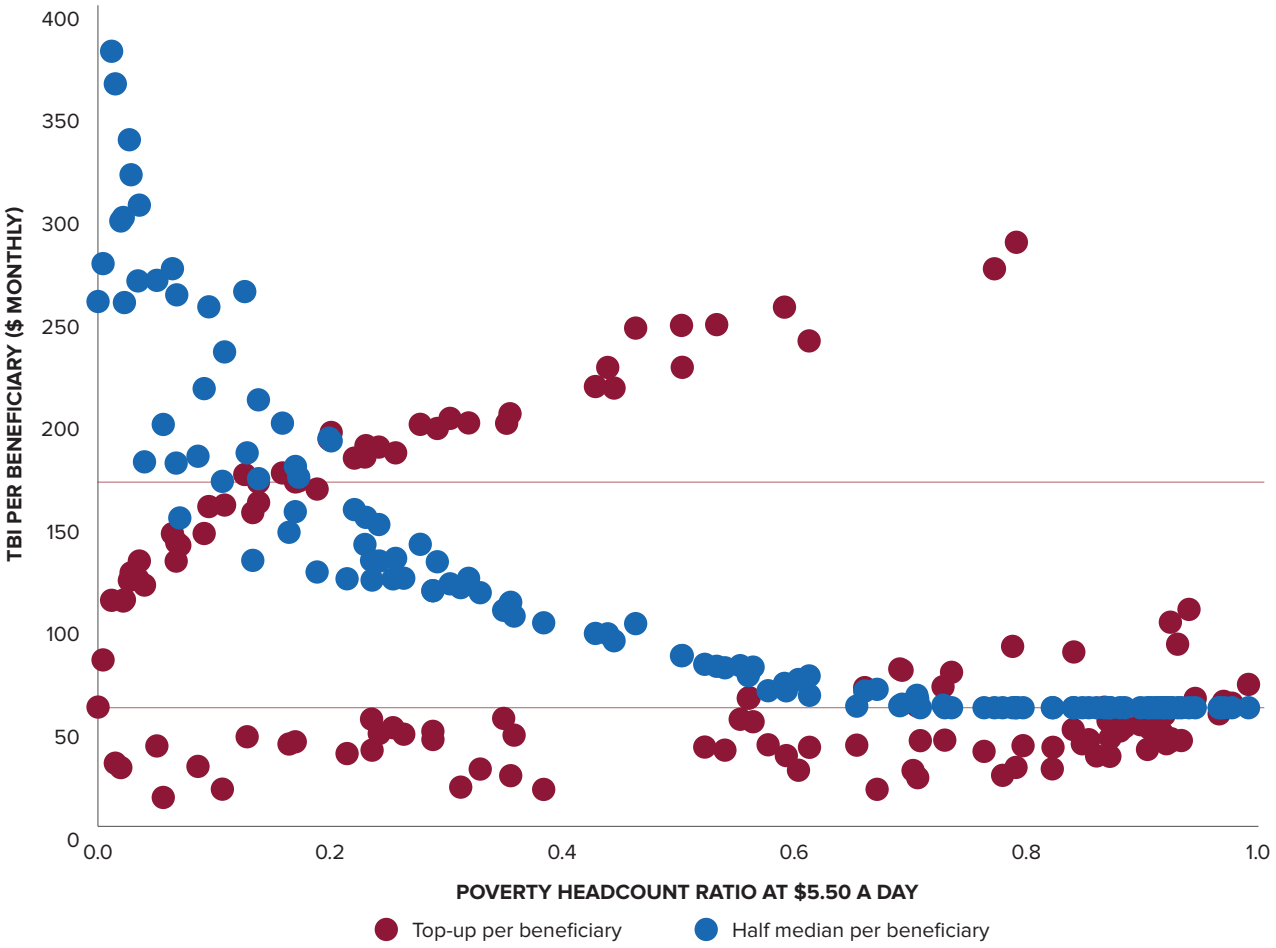
Among the 132 developing countries considered, the transfer equivalent to the top-up of existing average incomes up to the vulnerability threshold is $61.7 a month per beneficiary, and $110.5 a month if such transfer equals half the median per capita income or consumption. Because these options are responsive to prevailing standard of living in each country, monthly basic incomes computed for the poorest countries, mainly in SSA and South Asia, are well below the global figures, averaging $26-45 and $59 per beneficiary, depending on the option. This is in contrast to regions with higher living standards, where the size of basic incomes per beneficiary increase significantly in comparison with the former regions and in relation to the developing world's average. For instance, the size of the per beneficiary transfer under option (1) in ECA and LAC is 2-3 times larger than the global average, while under option (2) such transfer is 2-4 times larger in EAP, ECA, LAC, and MENA than in South Asia and SSA.

Finally, Figure 3 plots the amounts of temporary basic incomes per beneficiary in each country. Starting with those derived from the top-up option, the data reveals that the largest monthly transfers, above $100 per beneficiary, are observed mostly in ECA and LAC, as these regions have a relatively high vulnerability threshold of $13 a day, given their median standard of living and with a tendency to increase, as expected, the poorer a country is. A similar tendency is observed at the bottom of the plot, where the size of transfers ranges $15 to $100 per beneficiary in the remaining four regions, with the largest amounts being observed among the poorest countries.

The opposite pattern is observed for option (2), with the largest amounts per beneficiary, above $250 per month, being observed in 19 richer countries (16 of which in ECA and LAC), whereas the lowest, between $58 and $70 per month, is observed in 56 low-income and lower-middle-income countries, of which 38 are

in SSA and 7 in EAP. The plot also illustrates that the option of a temporary basic income of $1.90 a day ($57.8 per month) proposed in an earlier analysis as an emergency relief[19] might delimit the lower bound of a temporary transfer (lowest dashed line).

FIGURE 3. TEMPORARY BASIC INCOME PER BENEFICIARY UNDER DIFFERENT SCENARIOS ($ MONTHLY)



Source: Own estimates based on PovcalNet.
Notes: Monthly amounts are expressed in international dollars at 2011 PPP exchange rates. The dashed horizontal lines represent the monthly amount per beneficiary of the following uniform transfers: $5.50 a day (upper line) and $1.90 a day (lower line). The total costs in both absolute terms and as share of GDP, as well as the amounts per beneficiary of the different schemes in each country are shown in Table A1 in the annex.

[19] See Lakner et al. (2020). The authors estimate the total cost of transferring $1.90 a day to around 3.4 billion poor people living under the $5.50 a day poverty line based on 2015 data, which is equivalent to a monthly cash transfer of $195.7 billion or, as the authors present it, $1.17 trillion if such transfer is made for a period of six months.

4 IMPLEMENTATION CHALLENGES

In most developing countries, the counter-factual to a TBI is not *nothing* but expanding existing social assistance or social insurance programmes to reach diverse populations with various eligibility and targeting criteria and payment schemes. This section reviews three of the hardest implementation challenges involved in a TBI rollout: administrative targeting and payment questions, fiscal and funding challenges, and political economy issues. Unlike many of the systemic challenges implied by a UBI, the TBI poses, mostly, an emergency implementation challenge: it is about reaching as many excluded people as possible within the next 9-12 months.

The first obstacle is administrative and digital. How to reach those eligible individuals —citizens and resident non-citizens living with less than the value of the vulnerability threshold — who are currently invisible to existing administrative registry and payment systems? There is an extensive literature on the costs of targeting that analyses errors of inclusion, both external and internal, eligibility criteria, either universal or categorical, and targeting means, that is, means and proxy-means testing, geographic and self-selection mechanisms, among others (see Gentillini et al. 2020b; Hanna and Olken 2018; Lowe et al. 2020). The literature suggests a pecking order of feasibility by administrative cost: a *low-cost* ideal type involves universal eligibility or self-selection criteria that reduces exclusion errors and targeting costs to a minimum, serviced by digital payment and mobile money mechanisms in contexts of high financial inclusion and high digital inclusion; a *high-cost* ideal type involves in-kind transfers, with proxy-means testing with multiple eligibility criteria, associated with high exclusion errors and high marginal targeting costs, serviced by cash payment systems in the absence of digital payments and inclusion (see Devereaux et al. 2017). The administrative challenges for a TBI rollout stand somewhere in between.

Most developing countries combine features of *both* ideal types. Most countries have unified registry systems that cover a portion of those under a poverty or vulnerability threshold (see Kidd and Athias 2019); they also have vast sectors of the population uncovered by registries, who do not have access to a bank account or mobile money accounts. For most countries, a TBI will involve both topping-up existing unified social registry systems (that have a proxy for market incomes) and directing lump-sum payments (in the absence of a proxy for market incomes) to excluded individuals through digital registration campaigns. This is precisely what a number of countries have started doing since the COVID-19 crisis hit. Some uncovered or unregistered people are beyond the traditional reach of the state because they lack formal documentation or live in remote areas or informal settlements. In some cases, alternative solutions such as partnering with local social networks that have greater proximity to poor and vulnerable people may be necessary to fill in for an absent state (Lustig and Tommasi 2020). The cost of *adding* each new household is not insignificant, but pales in comparison to the direct and indirect benefits of reaching those with a TBI in comparison.

The second challenge concerns fiscal space and funding. Given the temporary nature of the challenge, we exclude additional taxation, natural resource royalties or pension earmarks, and focus on three pockets of existing resources: repurposing fiscal resources directed to external debt repayment (through temporary debt standstills); repurposing energy subsidies, no-harm and wasteful expenditures during the crisis; and self-funding through potential multiplier effects of temporary cash transfers that will partially be recouped

through direct and indirect taxation. Each of these has its own set of challenges, but together might provide enough funding for a TBI across the developing world under some of the options reviewed in the previous section.

The largest pocket of resources comes from repurposing external debt service repayments through a comprehensive debt standstill. While a TBI for developing countries could cost less than 1 per cent of their combined GDP per month (see Table 2 above), the distribution is unequal: for the vast majority of the 56 upper-middle-income countries considered, any of the three TBI options will amount to less than 1 per cent of their GDP; it will oscillate between 1 and 5 per cent under options (1) and (2) for about a third of the 46 lower-middle-income countries, and for about two-thirds of these countries if the transfer is uniform at $5.50 a day; and for some of the 30 poorest, low-income countries in the world it could reach well beyond 5 per cent and in some cases up to 15-20 per cent of their own GDP (see Table A1 in the annex). At the global level, developing countries are expected to pay $3.1 trillion in debt service this year, $1 trillion of which is long term debt (of more than 1-year maturity) and $2.1 trillion of which is short term date (of less than 1-year maturity, often tied to trade finance) (World Bank 2020). A comprehensive debt service standstill alone will fund the equivalent of a 16-month TBI under the top-up option, a 12-month cash transfer under option (2), and up to 6-7 months of a uniform transfer of $5.50 a day.

A second pocket of resources that has already been repurposed for the COVID-19 response by many countries — as oil process dropped below $20 per barrel in March of 2020 — are energy subsidies, both to consumers and to producers. Sixteen countries currently spend over 2 per cent of their GDP on energy subsidies (Coady et al. 2019). Besides fossil fuel subsidies, countries are also repurposing wasteful fiscal earmarks, benchmarked as inefficiency expenditures, and all non-essential expenditures. While inefficiency benchmarks have often been associated with graft, inefficient procurement systems, or inefficient allocation of investment or recurrent expenditures, they provide a proxy for emergency fiscal space: some benchmarking exercises put this figure at anywhere between 3 and 10 per cent of GDP in developing countries (see, for instance, Tiffin 2006).

Finally, emergency cash transfers have some of the highest fiscal multiplier effects among poor and vulnerable populations as they are often steered towards immediate food and essentials consumption (Bastagli et al. 2016). Part of this effect will be captured by direct and indirect taxation over the following months, thus providing a degree of self-funding. A recent study estimates that cash transfers, in particular those aimed towards improving children's educational and health opportunities, are partially self-funding (see Hendren and Sprung-Keyser 2020; Standing 2017). Ultimately the yardstick for judging the fiscal impact of an unconditional cash transfer is context-specific and revolves around the alternative uses of such fiscal resources. The literature is still open on this question (Banerjee et al. 2019; Banerjee and Duflo 2019).

The third implementation challenge is political and can be unpacked in two steps. First, who benefits from a TBI, and how will that shape a political coalition for and against? Second, how will a TBI be unwound after the emergency? Similar challenges are currently faced by advanced economies implementing emergency furlough programmes, tax holidays, and social assistance top-ups —with the difference that developing country political coalitions are likely to face more political pressure and experience more volatility during implementation and graduation windows (De Wispelaere and Yemstov 2020).

A TBI signals a society's political resolve to provide a temporary basic income floor to thrive or to survive during an acute crisis. It is not unlike topping-up the existing social assistance system but involves adding more beneficiaries or stakeholders during the emergency period. This expands the political coalition of beneficiaries, without necessarily expanding sources of funding. The literature has documented cases of *excluded* middle classes that feel threatened if either the sources of funding, or the target of expenditures, are not credible (see, for instance, Lee 2020). How to ensure fiscal resources from a debt standstill, for example, are not repurposed for graft or directed to alternative purposes? One answer is using explicit third-party oversight: requiring a debt standstill to open a *country account* that is transparent to creditors, debtors, and citizens on both servicing and expenditures (see, for instance, Bolton et al. 2020). A second answer is requiring single lump-sum transfers that do not involve the expectation of recurrent expenditures, and do not yield the threat of future taxation. This is, in fact, how most countries are implementing their COVID-19 topping-up strategies at present.

How to ensure a temporary scheme does not perpetuate itself beyond the emergency period? While in theory a one-shot lump-sum requires no pre-commitment rule, in practice the feasibility of such an action is often tied to the degree of trust in government and expectations concerning future policy action. Not every government is able to repurpose fossil fuel subsidies or apply a *temporary tax* for this reason. Some governments may signal an explicit bridge to a future minimum income guarantee policy (as signalled by the Spanish government this year), but other governments will signal an emergency policy with no expectation of continued support. Furlough schemes and tax holidays in more formal settings often provide pre-set timelines and stick to a calendar. In informal settings, these pre-commitment schemes need to be supplemented by broad-based support, cross-party agreements, or third-party accountability. These are all political challenges that need to be addressed on a country-by-country basis.

5 CONCLUSION: MITIGATING THE CRISIS

This paper focuses on estimating potential sizes of income transfers to 1.07 billion poor and 1.71 billion vulnerable populations in developing countries, either top-ups on existing average incomes in each country up to a vulnerability threshold; lump-sum transfers that are sensitive to cross-country differences in median standard of living; or lump-sum transfers that are uniform regardless of the country where the population lives. This group of potential beneficiaries is defined by considering vulnerability thresholds that change in value depending on a region's living standard criteria. For countries in Europe and Central Asia and Latin America and the Caribbean, it is considered that poor and vulnerable people comprise those with incomes below a $13 a day cut-off; in countries in East Asia and Pacific and the Middle East and North Africa, the corresponding beneficiary population would be those with incomes below a $5.50 a day threshold; and, finally, it is assumed that poor and vulnerable people in countries in South Asia and sub-Saharan Africa are those living below the value of the international standard of $3.20 a day.

The paper reviews some implementation challenges, including how to expand coverage and combine digital and cash payments systems to reach excluded populations; how to fund a TBI without raising new taxes, and how to begin to address the complex political economy challenges posed by implementing a temporary basic income floor. The idea of a temporary basic income arises from an unprecedented set of responses to an unprecedented crisis. It is being rolled out under different names and with diverse targeting thresholds in countries around the world. It intersects with existing social assistance and insurance systems, but also with the idea of an entitlement-based Universal Basic Income (UBI) that secures a basic income floor for all people, regardless of means and behavioural testing or work considerations.

For now, the focus of policymakers is on mitigating the effects of a devastating crisis. The figures in this paper suggest that a temporary basic income strategy is within reach and can inform a larger conversation about how to address vulnerabilities worldwide through policy action.

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ANNEX

A NOTE ON THE DATA SOURCE AND ASSUMPTIONS

The main data source for the estimations is the World Bank's PovcalNet[20] tool on harmonised household income and expenditure surveys. The specific data utilised correspond to the downloadable csv files under the "download economies table" on the web interface, which provides information on per capita income or expenditure measures at 2011 PPP exchange rates, such as mean and median values, as well as an array of poverty measures for any user-specified poverty line, including the poverty gap ratio measure, or per capita deficit, shown in equation (1) above. These files include information for 166 developed and developing economies covering around 97 per cent of the world's population in 2018[21]. In 165 economies, the latest available year is 2018, whereas in the remaining one, India, the most recent data corresponds to 2015.

These 166 data points correspond to the country-level series with extrapolations to the most recent year. That is, given that many countries have no available survey data in every year, the World Bank performs extrapolations, or interpolations, of household per capita income or consumption of the closest survey year to a so-called reference year with the aim of reporting global and regional aggregates of poverty for a given point in time that is common to all countries in the dataset. This procedure assumes that the growth in income or consumption in the survey is distribution neutral and that it can be approximated by growth in national accounts.[22]

The estimation of the different scenarios of temporary basic incomes in this paper is restricted to 132 countries that are considered emerging or developing economies, even though some of them are categorised by the World Bank as high-income economies given their level of per capita GNI. This subset of 132 developing countries, listed in Table A1 below, covers approximately 83 per cent of the world's population in 2018. The list of excluded countries comprises 27 high-income countries and one dependency (Taiwan, China) not included in PovcalNet's geographic regions, plus six high-income countries in Europe and Central Asia.

In the computation of the TBI based on the half median per capita income or consumption, such median measure is not available in the dataset for the following four countries: Angola, China, Indonesia, and India. For these countries, the median value was assumed to be equivalent to 73.8 per cent of their per capita mean income or consumption, which is the average median-to-mean ratio observed among the remaining 128 developing countries in the sample.

Excluded 33 high-income and developed countries and one high-income dependency (14 per cent of the world's population): Australia, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Arab Emirates, United Kingdom, and United States.

No available data in 30 countries (3 per cent of the world's population): Afghanistan, Andorra, Antigua and Barbuda, Bahamas, Bahrain, Barbados, Brunei Darussalam, Cambodia, Cuba, Dominica, Equatorial Guinea, Eritrea, Grenada, Kuwait, Libya, Liechtenstein, Marshall Islands, Monaco, Nauru, New Zealand, North Korea, Oman, Palau, Qatar, San Marino, Saudi Arabia, Singapore, Somalia, Saint Kitts & Nevis, and St. Vincent & Grenadines.

[20] http://iresearch.worldbank.org/PovcalNet/povDuplicateWB.aspx

[21] The remaining 3 per cent of the global population is concentrated in 30 countries for which there is no available data that allows to estimate comparable indicators as those presented in this paper. See list of countries below.

[22] For further details, see Jolliffe et al. (2015).

TABLE A1. TOTAL COST ($ MILLION AND % OF COUNTRY'S GDP) AND AMOUNTS PER BENEFICIARY UNDER DIFFERENT SCENARIOS

REGION/COUNTRY	POPULATION (MILL.)	BENEFICIARIES (MILL.)	TOTAL MONTHLY COSTS (MILLION)			PER BENEFICIARY (MONTHY)		MONTHLY COST (% OF COUNTRY'S GDP)		
			(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM	(1) TOP-UP	(2) HALF MEDIAN	(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM
East Asia and Pacific	**2,039.73**	**521.30**	**$26,956.1**	**$59,300.2**	**$87,209.9**	**$45.65**	**$138.83**	**0.08%**	**0.18%**	**0.26%**
China	1,392.73	236.82	$9,754.1	$36,303.7	$39,617.7	$41.19	$153.30	0.04%	0.14%	0.16%
Fiji	0.88	0.32	$14.1	$32.5	$53.0	$44.43	$102.43	0.14%	0.31%	0.51%
Indonesia	267.66	149.99	$9,358.7	$11,014.1	$25,092.1	$62.40	$73.43	0.27%	0.32%	0.72%
Kiribati	0.12	0.08	$5.2	$5.0	$12.8	$67.58	$65.93	2.14%	2.09%	5.29%
Lao People's Democratic Republic	7.06	5.14	$349.8	$303.6	$860.2	$68.02	$59.04	0.65%	0.57%	1.60%
Malaysia	31.53	0.47	$14.5	$170.8	$79.0	$30.77	$361.71	0.00%	0.02%	0.01%
Micronesia, Federated States of	0.11	0.08	$6.0	$4.6	$13.0	$76.67	$58.77	1.70%	1.30%	3.70%
Mongolia	3.17	0.92	$38.7	$105.0	$153.1	$42.31	$114.76	0.09%	0.24%	0.35%
Myanmar	53.71	30.32	$1,545.1	$2,351.8	$5,072.3	$50.96	$77.57	0.47%	0.71%	1.54%
Papua New Guinea	8.61	6.78	$594.7	$392.0	$1,134.8	$87.67	$57.79	1.84%	1.21%	3.50%
Philippines	106.65	59.85	$3,752.5	$4,497.1	$10,012.4	$62.70	$75.14	0.39%	0.47%	1.05%
Samoa	0.20	0.06	$2.6	$6.5	$9.5	$46.28	$114.79	0.24%	0.59%	0.85%
Solomon Islands	0.65	0.55	$46.6	$31.7	$91.8	$84.95	$57.79	3.30%	2.25%	6.50%
Thailand	69.43	5.98	$174.8	$1,079.0	$1,001.2	$29.20	$180.30	0.01%	0.08%	0.08%
Timor-Leste	1.27	1.18	$104.7	$68.2	$197.3	$88.74	$57.79	5.44%	3.55%	10.26%
Tonga	0.10	0.03	$1.3	$3.2	$4.4	$48.06	$120.56	0.21%	0.52%	0.71%
Tuvalu	0.01	0.00	$0.2	$0.4	$0.7	$52.59	$105.24	0.46%	0.92%	1.46%
Vanuatu	0.29	0.22	$16.2	$12.4	$36.0	$75.04	$57.79	1.99%	1.53%	4.43%
Vietnam	95.54	22.53	$1,176.5	$2,918.6	$3,768.6	$52.22	$129.56	0.13%	0.32%	0.41%
Europe and Central Asia	**469.63**	**217.91**	**$34,689.2**	**$39,081.9**	**$36,454.1**	**$138.53**	**$219.43**	**0.32%**	**0.36%**	**0.33%**
Albania	2.87	2.41	$472.4	$253.6	$402.4	$196.38	$105.40	1.23%	0.66%	1.05%
Armenia	2.95	2.74	$612.4	$227.9	$458.2	$223.61	$83.23	2.01%	0.75%	1.50%
Azerbaijan	9.94	2.18	$126.6	$557.1	$364.5	$58.10	$255.68	0.07%	0.31%	0.20%
Belarus	9.49	1.96	$159.0	$537.7	$328.2	$81.07	$274.14	0.08%	0.28%	0.17%
Bosnia and Herzegovina	3.32	0.80	$88.2	$238.3	$134.4	$109.77	$296.61	0.19%	0.50%	0.28%
Bulgaria	7.02	2.33	$321.9	$602.9	$389.5	$138.25	$258.92	0.20%	0.37%	0.24%
Croatia	4.09	0.93	$120.8	$282.8	$156.3	$129.25	$302.63	0.11%	0.26%	0.15%
Georgia	3.73	3.26	$699.4	$306.8	$546.1	$214.26	$93.98	1.56%	0.69%	1.22%
Hungary	9.77	1.64	$197.0	$550.0	$275.1	$119.81	$334.48	0.06%	0.17%	0.09%
Kazakhstan	18.28	13.01	$1,780.7	$1,953.9	$2,175.8	$136.91	$150.23	0.35%	0.38%	0.43%
Kosovo	1.85	1.55	$254.6	$192.0	$259.2	$164.31	$123.90	1.22%	0.92%	1.24%
Kyrgyz Republic	6.32	6.10	$1,442.0	$446.8	$1,020.1	$236.49	$73.28	5.88%	1.82%	4.16%
Moldova	3.55	2.94	$449.0	$380.6	$491.4	$152.85	$129.58	1.73%	1.47%	1.90%
Montenegro	0.62	0.31	$53.6	$61.2	$52.1	$172.16	$196.43	0.45%	0.51%	0.44%
North Macedonia	2.08	1.26	$212.1	$214.4	$210.8	$168.29	$170.11	0.64%	0.65%	0.64%
Poland	37.98	4.13	$455.0	$1,560.3	$691.3	$110.12	$377.59	0.04%	0.13%	0.06%
Romania	19.47	9.31	$1,560.1	$1,934.1	$1,557.3	$167.60	$207.77	0.30%	0.37%	0.30%
Russian Federation	144.48	47.82	$5,278.7	$12,202.7	$8,000.4	$110.38	$255.16	0.12%	0.29%	0.19%
Serbia	6.98	4.09	$528.1	$723.3	$683.8	$129.21	$176.97	0.43%	0.59%	0.56%
Tajikistan	9.10	8.24	$1,759.0	$744.8	$1,378.2	$213.52	$90.41	5.64%	2.39%	4.42%
Turkey	82.32	37.67	$5,374.1	$8,032.7	$6,301.8	$142.66	$213.24	0.23%	0.35%	0.27%
Turkmenistan	5.85	4.67	$939.1	$507.7	$781.6	$201.01	$108.68	0.83%	0.45%	0.69%
Ukraine	44.62	26.60	$3,126.6	$4,723.7	$4,450.4	$117.53	$177.57	0.80%	1.21%	1.14%
Uzbekistan	32.96	31.95	$8,678.7	$1,846.5	$5,345.2	$271.62	$57.79	3.07%	0.65%	1.89%

TABLE A1. TOTAL COST ($ MILLION AND % OF COUNTRY'S GDP) AND AMOUNTS PER BENEFICIARY UNDER DIFFERENT SCENARIOS (Continuation)

REGION/COUNTRY	POPULATION (MILL.)	BENEFICIARIES (MILL.)	TOTAL MONTHLY COSTS (MILLION)			PER BENEFICIARY (MONTHY)		MONTHLY COST (% OF COUNTRY'S GDP)		
			(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM	(1) TOP-UP	(2) HALF MEDIAN	(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM
Latin America and the Caribbean	**621.51**	**377.67**	**$72,815.8**	**$57,742.9**	**$63,181.7**	**$187.67**	**$164.49**	**0.72%**	**0.57%**	**0.62%**
Argentina	40.88	15.68	$2,442.3	$3,967.7	$2,622.7	$155.78	$253.08	0.27%	0.43%	0.29%
Belize	0.38	0.32	$79.3	$25.3	$54.3	$244.42	$77.98	2.41%	0.77%	1.65%
Bolivia	11.35	7.30	$1,353.5	$1,098.5	$1,220.9	$185.46	$150.53	1.52%	1.23%	1.37%
Brazil	209.47	108.80	$20,524.7	$20,574.6	$18,201.1	$188.65	$189.11	0.61%	0.61%	0.54%
Chile	18.73	6.05	$728.7	$1,607.1	$1,011.8	$120.49	$265.72	0.15%	0.33%	0.21%
Colombia	49.65	33.18	$6,498.2	$4,558.9	$5,550.9	$195.84	$137.40	0.87%	0.61%	0.74%
Costa Rica	5.00	2.14	$335.3	$495.1	$358.3	$156.52	$231.12	0.38%	0.56%	0.40%
Dominican Republic	10.63	6.25	$985.4	$1,057.9	$1,044.9	$157.76	$169.37	0.53%	0.57%	0.56%
Ecuador	17.08	11.20	$2,069.2	$1,646.7	$1,873.6	$184.76	$147.04	1.03%	0.82%	0.94%
El Salvador	6.42	4.73	$860.4	$617.3	$791.1	$181.95	$130.54	1.61%	1.16%	1.48%
Guatemala	17.25	14.20	$3,174.1	$1,331.7	$2,375.3	$223.55	$93.79	2.19%	0.92%	1.64%
Guyana	0.78	0.57	$110.3	$73.3	$95.2	$193.83	$128.89	1.64%	1.09%	1.42%
Haiti	11.12	10.82	$3,079.2	$625.4	$1,810.4	$284.54	$57.79	14.85%	3.02%	8.73%
Honduras	9.59	7.88	$1,924.0	$655.3	$1,318.9	$244.04	$83.12	3.91%	1.33%	2.68%
Jamaica	2.93	2.13	$423.9	$252.0	$356.8	$198.74	$118.14	1.56%	0.93%	1.31%
Mexico	126.19	87.58	$15,757.8	$12,025.4	$14,650.7	$179.93	$137.31	0.61%	0.47%	0.57%
Nicaragua	6.47	4.91	$964.9	$593.2	$821.3	$196.53	$120.83	2.71%	1.66%	2.30%
Panama	4.18	1.59	$272.2	$413.7	$265.7	$171.40	$260.51	0.25%	0.39%	0.25%
Paraguay	6.96	3.98	$667.3	$697.2	$665.3	$167.79	$175.32	0.71%	0.74%	0.70%
Peru	31.99	20.31	$3,642.9	$3,133.6	$3,397.2	$179.39	$154.31	0.80%	0.68%	0.74%
St. Lucia	0.18	0.10	$18.3	$17.9	$15.9	$191.89	$187.79	0.64%	0.63%	0.56%
Suriname	0.58	0.46	$111.6	$45.4	$76.9	$242.73	$98.75	1.24%	0.50%	0.86%
Trinidad and Tobago	1.39	0.47	$66.8	$127.3	$78.4	$142.58	$271.66	0.15%	0.29%	0.18%
Uruguay	3.45	0.88	$109.1	$280.5	$147.8	$123.49	$317.43	0.13%	0.35%	0.18%
Venezuela, Republica Bolivariana de	28.87	26.16	$6,616.6	$1,821.9	$4,376.2	$252.94	$69.65	2.17%	0.60%	1.43%
Middle East and North Africa	**376.22**	**168.39**	**$11,046.6**	**$13,482.5**	**$28,169.6**	**$54.41**	**$111.01**	**0.22%**	**0.27%**	**0.57%**
Algeria	42.23	9.07	$321.4	$1,093.3	$1,516.5	$35.45	$120.61	0.05%	0.17%	0.23%
Djibouti	0.96	0.66	$50.5	$39.5	$111.2	$76.05	$59.49	0.88%	0.69%	1.94%
Egypt, Arab Republic of	98.42	69.46	$4,077.0	$4,434.0	$11,619.9	$58.70	$63.84	0.31%	0.34%	0.90%
Iran, Islamic Republic of	81.80	10.52	$459.0	$1,913.5	$1,759.4	$43.64	$181.94	0.03%	0.12%	0.11%
Iraq	38.43	21.27	$1,109.4	$1,665.1	$3,558.3	$52.16	$78.28	0.17%	0.25%	0.53%
Jordan	9.96	2.35	$87.3	$282.2	$393.5	$37.11	$119.98	0.09%	0.30%	0.42%
Lebanon	6.85	0.13	$3.9	$39.8	$22.6	$28.62	$294.91	0.00%	0.04%	0.03%
Morocco	36.03	9.49	$426.2	$1,147.7	$1,588.4	$44.89	$120.88	0.14%	0.36%	0.50%
Syrian Arab Republic	16.91	15.62	$1,553.8	$902.9	$2,613.6	$99.45	$57.79	—	—	—
Tunisia	11.57	1.90	$76.4	$272.8	$318.6	$40.11	$143.26	0.05%	0.19%	0.22%
West Bank and Gaza	4.57	1.11	$50.1	$143.2	$185.3	$45.26	$129.25	—	—	—
Yemen, Republic of	28.50	26.79	$2,831.6	$1,548.4	$4,482.3	$105.68	$57.79	4.08%	2.23%	6.46%
South Asia	**1,734.75**	**786.75**	**$21,247.4**	**$46,055.8**	**$131,615.9**	**$26.29**	**$59.54**	**0.21%**	**0.45%**	**1.27%**
Bangladesh	161.36	65.32	$1,623.4	$3,775.1	$10,928.0	$24.85	$57.79	0.21%	0.49%	1.43%
Bhutan	0.75	0.06	$1.1	$7.0	$10.0	$19.09	$116.29	0.02%	0.09%	0.14%
India	1,310.15	658.21	$18,430.5	$38,039.0	$110,112.9	$28.00	$57.79	0.23%	0.47%	1.37%
Maldives	0.52	0.00	$0.0	$0.4	$0.4	$14.08	$195.79	0.00%	0.01%	0.00%
Nepal	28.09	9.44	$223.7	$584.3	$1,578.9	$23.70	$61.90	0.26%	0.67%	1.82%

TABLE A1. TOTAL COST ($ MILLION AND % OF COUNTRY'S GDP) AND AMOUNTS PER BENEFICIARY UNDER DIFFERENT SCENARIOS (Continuation)

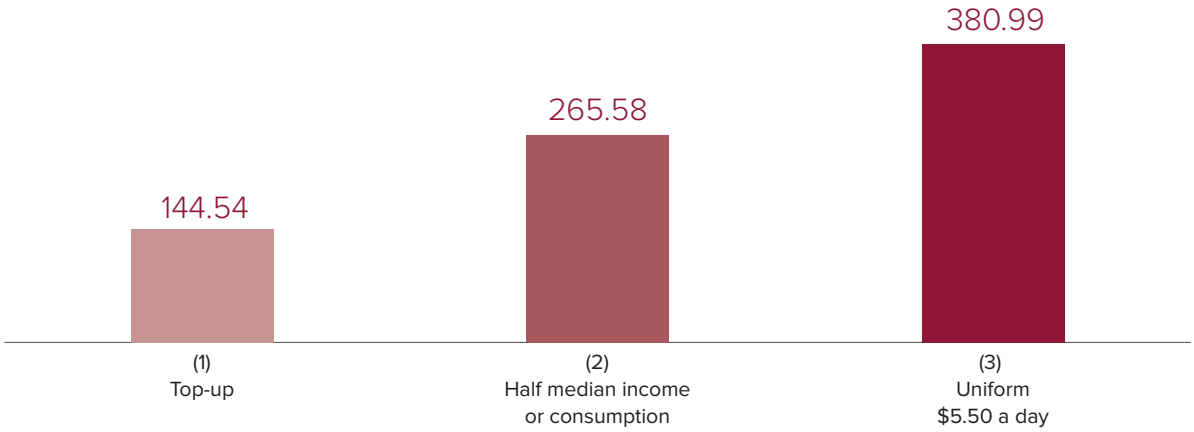
REGION/COUNTRY	POPULATION (MILL.)	BENEFICIARIES (MILL.)	TOTAL MONTHLY COSTS (MILLION)			PER BENEFICIARY (MONTHY)		MONTHLY COST (% OF COUNTRY'S GDP)		
			(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM	(1) TOP-UP	(2) HALF MEDIAN	(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM
Pakistan	212.22	51.72	$932.8	$3,452.1	$8,651.7	$18.04	$66.75	0.08%	0.30%	0.76%
Sri Lanka	21.67	2.00	$35.9	$197.9	$333.9	$17.99	$99.16	0.01%	0.07%	0.11%
Sub-Saharan Africa	**1,058.54**	**707.55**	**$33,120.7**	**$41,309.9**	**$118,367.7**	**$44.98**	**$59.23**	**0.76%**	**0.95%**	**2.71%**
Angola	30.81	21.36	$1,098.7	$1,234.4	$3,573.4	$51.44	$57.79	0.55%	0.62%	1.78%
Benin	11.49	8.27	$409.4	$477.8	$1,383.1	$49.53	$57.79	1.09%	1.27%	3.68%
Botswana	2.25	0.83	$28.6	$54.8	$139.0	$34.46	$66.02	0.07%	0.13%	0.33%
Burkina Faso	19.75	14.09	$527.9	$814.3	$2,357.1	$37.47	$57.79	1.20%	1.85%	5.36%
Burundi	11.18	10.31	$618.6	$595.9	$1,725.0	$59.99	$57.79	7.35%	7.08%	20.50%
Cabo Verde	0.54	0.07	$1.6	$7.2	$11.0	$24.68	$109.15	0.04%	0.18%	0.27%
Cameroon	25.22	10.50	$415.5	$615.1	$1,757.3	$39.56	$58.56	0.44%	0.65%	1.84%
Central African Republic	4.67	4.03	$251.4	$233.1	$674.8	$62.32	$57.79	6.27%	5.82%	16.84%
Chad	15.48	10.68	$496.0	$617.2	$1,786.7	$46.44	$57.79	1.63%	2.03%	5.86%
Comoros	0.83	0.30	$11.5	$19.1	$50.0	$38.50	$63.83	0.47%	0.78%	2.05%
Congo, Democratic Republic of	84.07	74.09	$4,319.7	$4,282.0	$12,395.3	$58.30	$57.79	5.52%	5.47%	15.83%
Congo, Republic of	5.24	3.38	$159.4	$195.3	$565.3	$47.18	$57.79	0.51%	0.63%	1.83%
Cote d'Ivoire	25.07	12.40	$452.6	$716.3	$2,073.6	$36.52	$57.79	0.31%	0.49%	1.42%
Eswatini	1.14	0.58	$24.1	$33.4	$96.6	$41.74	$57.79	0.20%	0.28%	0.80%
Ethiopia	109.22	63.02	$2,149.6	$3,642.2	$10,543.3	$34.11	$57.79	0.98%	1.66%	4.80%
Gabon	2.12	0.25	$6.9	$28.3	$41.6	$27.90	$113.81	0.02%	0.07%	0.11%
Gambia, The	2.28	0.79	$21.5	$48.0	$132.2	$27.20	$60.70	0.36%	0.81%	2.22%
Ghana	29.77	8.48	$314.6	$654.6	$1,417.9	$37.12	$77.24	0.17%	0.35%	0.75%
Guinea	12.41	6.96	$238.6	$402.0	$1,163.8	$34.30	$57.79	0.77%	1.29%	3.75%
Guinea-Bissau	1.87	1.54	$83.4	$88.9	$257.3	$54.25	$57.79	2.40%	2.56%	7.41%
Kenya	51.39	31.92	$1,283.6	$1,844.9	$5,340.4	$40.21	$57.79	0.72%	1.04%	3.00%
Lesotho	2.11	1.05	$43.9	$60.4	$175.0	$41.99	$57.79	0.65%	0.90%	2.61%
Liberia	4.82	3.54	$151.3	$204.8	$593.0	$42.69	$57.79	2.39%	3.24%	9.37%
Madagascar	26.26	23.66	$1,440.9	$1,367.4	$3,958.2	$60.90	$57.79	2.90%	2.76%	7.98%
Malawi	18.14	16.15	$885.3	$933.5	$2,702.1	$54.81	$57.79	3.74%	3.95%	11.42%
Mali	19.08	14.29	$597.2	$825.8	$2,390.3	$41.80	$57.79	1.35%	1.86%	5.39%
Mauritania	4.40	1.11	$30.4	$79.7	$186.4	$27.33	$71.52	0.13%	0.34%	0.79%
Mauritius	1.27	0.02	$0.4	$3.9	$3.9	$18.11	$168.07	0.00%	0.01%	0.01%
Mozambique	29.50	23.77	$1,295.5	$1,374.0	$3,977.4	$54.49	$57.79	3.01%	3.20%	9.25%
Namibia	2.45	0.77	$29.9	$61.1	$129.5	$38.62	$78.94	0.11%	0.23%	0.49%
Niger	22.44	16.63	$689.3	$961.1	$2,782.2	$41.45	$57.79	2.14%	2.99%	8.64%
Nigeria	195.87	148.14	$7,311.9	$8,561.4	$24,783.1	$49.36	$57.79	0.63%	0.73%	2.12%
Rwanda	12.30	9.52	$452.7	$550.0	$1,592.2	$47.56	$57.79	1.64%	1.99%	5.76%
Sao Tome and Principe	0.21	0.13	$5.6	$7.7	$22.3	$42.22	$57.79	0.78%	1.07%	3.09%
Senegal	15.85	8.99	$346.1	$519.7	$1,504.4	$38.49	$57.79	0.58%	0.87%	2.51%
Seychelles	0.10	0.00	$0.1	$0.5	$0.3	$39.16	$265.99	0.00%	0.02%	0.01%
Sierra Leone	7.65	5.69	$229.0	$328.8	$951.9	$40.25	$57.79	1.87%	2.69%	7.78%
South Africa	57.78	22.16	$880.4	$1,464.1	$3,707.0	$39.73	$66.07	0.11%	0.19%	0.47%
South Sudan	10.98	10.44	$721.7	$603.3	$1,746.3	$69.14	$57.79	3.70%	3.09%	8.95%
Sudan	41.80	18.30	$525.5	$1,057.9	$3,062.2	$28.71	$57.79	0.30%	0.60%	1.73%
Tanzania	56.32	43.08	$1,958.7	$2,489.8	$7,207.3	$45.46	$57.79	1.09%	1.39%	4.03%
Togo	7.89	5.53	$268.0	$319.6	$925.0	$48.47	$57.79	1.92%	2.29%	6.62%

TABLE A1. TOTAL COST ($ MILLION AND % OF COUNTRY'S GDP) AND AMOUNTS PER BENEFICIARY UNDER DIFFERENT SCENARIOS (Continuation)

REGION/COUNTRY	POPULATION (MILL.)	BENEFICIARIES (MILL.)	TOTAL MONTHLY COSTS (MILLION)			PER BENEFICIARY (MONTHY)		MONTHLY COST (% OF COUNTRY'S GDP)		
			(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM	(1) TOP-UP	(2) HALF MEDIAN	(1) TOP-UP	(2) HALF MEDIAN	(3) UNIFORM
Uganda	42.72	29.39	$1,265.9	$1,698.7	$4,917.4	$43.07	$57.79	1.14%	1.53%	4.42%
Zambia	17.35	12.79	$742.3	$739.2	$2,139.7	$58.04	$57.79	1.01%	1.01%	2.91%
Zimbabwe	14.44	8.53	$335.1	$492.7	$1,426.3	$39.30	$57.79	0.79%	1.16%	3.35%
Developing countries (132)	**6,300.38**	**2,779.57**	**$199,875.8**	**$256,973.1**	**$464,998.9**	**$108.78**	**$110.50**	**0.27%**	**0.35%**	**0.63%**

Source: Own estimates based on PovcalNet and IMF's World Economic Outlook Database (April 2020 update) for countries' GDP.
Notes: Monetary amounts are expressed at 2011 PPP exchange rates. Monthly basic income per beneficiary under the uniform transfer of $5.50 a day is not included as it remains fixed across countries at $167.3. The per beneficiary amounts for the aggregate of developing countries are population-weighted averages of per beneficiary amounts by country.

FIGURE A1. MONTHLY COST OF A TEMPORARY BASIC INCOME TARGETED TO 2.28 BILLION WOMEN (AGES 15 AND ABOVE) UNDER DIFFERENT SCENARIOS, REGARDLESS OF POVERTY OR VULNERABILITY CONDITION ($ BILLION)



Source: Own estimates based on PovcalNet and World Bank's World Development Indicators for countries' share of females aged 15 and above.
Notes: Monthly amounts are expressed in international dollars at 2011 PPP exchange rates.

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