



WIDER Working Paper 2020/43

Estimates of the impact of COVID-19 on global poverty

Andy Sumner,¹ Chris Hoy,² and Eduardo Ortiz-Juarez³

April 2020

Abstract: In this paper we make estimates of the potential short-term economic impact of COVID-19 on global monetary poverty through contractions in per capita household income or consumption. Our estimates are based on three scenarios: low, medium, and high global contractions of 5, 10, and 20 per cent; we calculate the impact of each of these scenarios on the poverty headcount using the international poverty lines of US\$1.90, US\$3.20 and US\$5.50 per day. Our estimates show that COVID poses a real challenge to the UN Sustainable Development Goal of ending poverty by 2030 because global poverty could increase for the first time since 1990 and, depending on the poverty line, such increase could represent a reversal of approximately a decade in the world's progress in reducing poverty. In some regions the adverse impacts could result in poverty levels similar to those recorded 30 years ago. Under the most extreme scenario of a 20 per cent income or consumption contraction, the number of people living in poverty could increase by 420–580 million, relative to the latest official recorded figures for 2018.

Key words: global poverty; COVID-19; SDGs; crisis impact

JEL classification: I32

¹King's College London, ²Australian National University, ³King's College London. Corresponding author: andrew.sumner@kcl.ac.uk

Copyright © UNU-WIDER 2020

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9256-800-9

<https://doi.org/10.35188/UNU-WIDER/2020/800-9>

Typescript prepared by Lorraine Telfer-Taivainen.

The United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland, Sweden, and the United Kingdom as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

The views expressed in this paper are those of the author(s), and do not necessarily reflect the views of the Institute or the United Nations University, nor the programme/project donors.

1 Introduction

In this paper we make estimates of the potential impact of COVID-19 on global monetary poverty through per capita household income or consumption contraction.¹ We use three scenarios: low, medium, and high contractions of 5, 10, and 20 per cent, and estimate the impact on the poverty headcount using the international poverty lines of US\$1.90, US\$3.20 and US\$5.50 per day (purchasing power parity (PPP) 2011 prices).

Our estimates have important limitations. First, we have a set of contractions of mean income or consumption per capita applied to each country. We do not know which of our three scenarios will be closest to the final real-world outcome, nor how consumption changes will differ across countries. Second, we assume that the effects of economic contractions are distribution neutral, and hence they omit the differentiated effects through important transmission channels, chiefly the labour market. Third, there are other transmission channels from the pandemic to poverty beyond changes in consumption. Fourth, there are important non-monetary poverty impacts, not only on health indicators but also on education and other dimensions of poverty not captured in these estimates of consumption losses. Finally, as Gentilini, Almenfi and Orton (2020) note, many governments in middle-income developing countries have introduced or adapted social protection and jobs programmes in response to the crisis, most notably cash transfer initiatives, and hence to some extent the full impacts of the could be mitigated. These recent policy interventions are *not* captured in our estimates.

As far as we know, to date, the only estimates of the poverty impact of COVID-19 in developing countries across the world are those by the International Labour Organization (ILO) and the International Food Policy Research Institute (IFPRI).

The ILO (2020: 5) estimates are focused on the working population and argue that there will be between 9 and 35 million new working poor (at the higher World Bank poverty line of US\$3.20 per day) in developing countries in 2020. Most will live in middle-income developing countries. These estimates draw on the computable general equilibrium (CGE) model of McKibbin and Fernando (2020).

IFPRI estimates, by Vos, Martin and Laborde (2020a, 2020b) make use of the IFPRI's own global CGE model.² Their estimates are based on about 30 household surveys mainly from Sub-Saharan Africa and South Asia and show that a global gross domestic product (GDP) slowdown of 1 percentage point would increase poverty (at the lower World Bank poverty line of US\$1.90 per day) by between 14–22 million people. Somewhat counterintuitively, most of these (two-thirds) are rural dwellers. And the greatest impact will be in sub-Saharan Africa (SSA) where up to half of the new poor will live.

¹ We refer to income or consumption as some countries have income data and others have consumption data in the PovcalNet dataset.

² Specifically, as described in Ivanic and Martin (2018), a combination of two datasets: the first of trade, production, and consumption for private households, governments and firms, plus parameters describing trade, production, and consumption behaviour. The second is a sample of 300,000+ households from 31 developing countries with information on household consumption and agricultural production. With the first dataset and the CGE model they have, they identify the long-run effects of a number of productivity shocks on national income and prices. Then, they apply the country-level productivity and price shocks to the 300,000+ household-level models in the second dataset to simulate the poverty implications of the aforementioned productivity shocks.

The ILO and IFPRI estimates are both derived from complex CGE models that estimate how supply and demand shocks, output contractions or changes in trade or production factors feed through to poverty.

In contrast to ILO and IFPRI estimates we make new estimates in this paper of the impact of COVID-19 on global poverty in the short-run due to direct consumption shocks.

Our paper is structured as follows. Section 2 discusses our data and assumptions. Section 3 presents findings. Section 4 concludes.

2 Data and assumptions

We make new estimates of the short-run effects of COVID-19 on the global poverty count.

We considered a set of contractions to household per capita consumption and asked what these could mean for global poverty at the international poverty lines of US\$1.90, US\$3.20, and US\$5.50 per day.

These estimates are based on microdata from the World Bank’s PovcalNet dataset and were computed through the Stata’s PovcalNet interface (see discussion of Castañeda et al. 2019) at the global and regional levels using 2018 as the reference year for these aggregates—with the only exception of South Asia for which the survey coverage is too low and thus the reference year for this region is 2015 instead.³

The PovcalNet dataset has the advantage of a higher coverage (than IFPRI and ILO estimates) in terms of the number of countries. Further, the data includes the whole population of each country in the dataset. Specifically, the PovcalNet dataset is composed by approximately 1,500 country-year harmonised household income or consumption survey data covering 138 developing countries and 26 high-income economies, with all monetary data expressed in PPP exchange rates from the 2011 International Comparison Program.

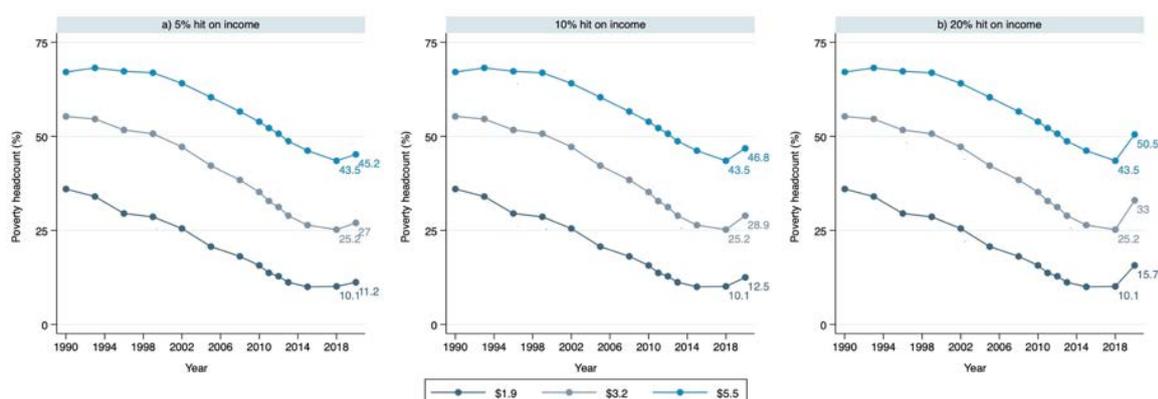
Our estimates are made using three scenarios of per capita income or consumption contraction (depending on the data of the country) as a result of the ongoing COVID-19 pandemic: 5, 10, and 20 per cent contraction. As we do not observe individuals’ income or consumption levels from PovcalNet’s built-in database, we capture aforesaid contractions by increasing the value of the poverty line accordingly. That is, for a per capita income or consumption contraction of x per cent, the poverty line z is adjusted upwardly as $z/(1-x)$. The three scenarios are performed for the US\$1.9, US\$3.2, and US\$5.5 per day poverty lines.

3 Short-term impact of COVID-19 on global poverty

Everything else equal, even a relatively small contraction in per capita income or consumption of 5 per cent as a result of the COVID-19 pandemic, could lead to an increase in the incidence of income-based poverty for the first time since 1990 (Figure 1).

³ Estimates using 2015 as the reference year for all regions and globally are shown in Tables A3 and A4 in the Annex.

Figure 1: Global poverty headcount ratio, 1990–2018 and projection



Source: authors' estimates based on PovcalNet.

Under such contraction of 5 per cent and relative to the latest available year (2018), the poverty headcount rate at US\$1.9/day could increase by 1 percentage point, whereas that at US\$3.2/day and US\$5.5/day could do so by between 1.5–2 percentage points. In the case of a 10 per cent income or consumption contraction, the rise in the poverty headcount rates could range between 2–4 percentage points depending on the poverty line, while in the most extreme scenario—that is, an income contraction of 20 per cent—the increase in poverty could be close to 6 percentage points for the US\$1.9/day poverty line, and between 7 and 8 points for the US\$3.2/day and US\$5.5/day poverty lines, respectively (Table 1: panel A).

Table 1: Additional global poverty as a result of per capita income or consumption contractions

Panel A						
Contraction	People living in poverty (% of population)			Additional percentage points in the poverty headcount ratio		
	\$1.9/day	\$3.2/day	\$5.5/day	\$1.9/day	\$3.2/day	\$5.5/day
	5%	11.2	27.0	45.2	1.1	1.8
10%	12.5	28.9	46.8	2.4	3.7	3.3
20%	15.7	33.0	50.5	5.6	7.7	7.0
Status quo	10.1	25.2	43.5			

Panel B						
Contraction	People living in poverty (millions)			Additional people living in poverty (millions)		
	\$1.9/day	\$3.2/day	\$5.5/day	\$1.9/day	\$3.2/day	\$5.5/day
	5%	844.1	2,033.8	3,399.5	84.9	135.3
10%	940.8	2,176.9	3,524.4	181.6	278.4	248.6
20%	1,178.1	2,479.9	3,799.3	419.0	581.4	523.5
Status quo	759.2	1,898.5	3,275.8			

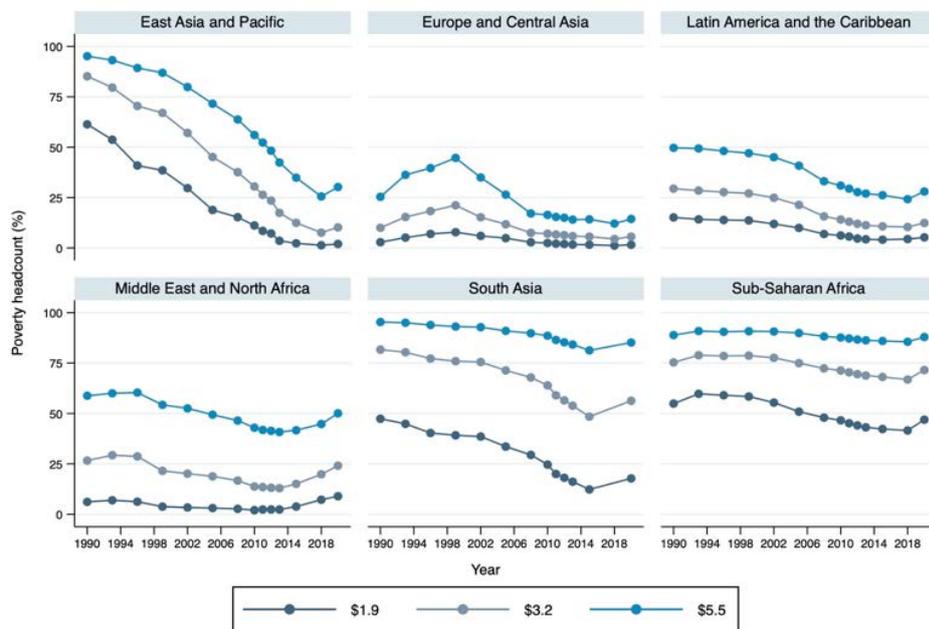
Source: authors' estimates based on PovcalNet.

These potential increases would be equivalent to reversing almost a decade of progress in global poverty reduction, as the projected headcount rates, *ceteris paribus*, would return back to the levels observed in first half of the 2010s. In absolute terms, these changes mean that the number of people living in poverty in the world could increase, in comparison to the status quo in 2018, by between 85–135 million under a 5 per cent contraction, by between 180–280 million under a 10

per cent contraction, and, startlingly, between 420–580 million people under a per capita income or consumption contraction of 20 per cent (Table 1: panel B).⁴

The impact of these contractions could occur in all regions of the world, though with some degree of heterogeneity depending on their level of development. Focusing on a contraction of per capita income or consumption of 10 per cent, the poverty headcount rates could increase for the first time since 1990 in East Asia and Pacific (EAP), Latin America and the Caribbean (LAC), and South Asia (SA), and for the first time since the mid-1990s in Europe and Central Asia (ECA), Middle East and North Africa (MENA), and SSA. While the increase in the incidence of the US\$1.9/day poverty is relatively low in EAP, ECA, and LAC, that of the US\$5.5/day poverty is more sizeable and would imply a reversal towards the levels observed five years ago across these regions. A similar reversal could occur in SA, although it could be more pronounced for lower poverty lines and more moderate for the higher line of US\$5.5/day (Figure 2).

Figure 2: Poverty headcount ratio by regions, 1990–2018 and projection under a 10% per capita income or consumption contraction



Source: authors' estimates based on PovcalNet. See Figures A1 and A2 in annex for 5% and 20% contraction.

Especially hard-hit regions in estimates are MENA, SA, and SSA, either because of their relatively slow progress in reducing poverty over the last years or because of their already high poverty levels. In MENA, for instance, a 10 per cent contraction could exacerbate the rising trend in poverty observed since 2013 up to reaching as high as, worryingly, the levels observed in 1990—at least for both the US\$1.9/day and US\$3.2/day poverty lines. Similarly, in SSA, a potential 10 per cent contraction in income or consumption is enough to erase the progress achieved in reducing

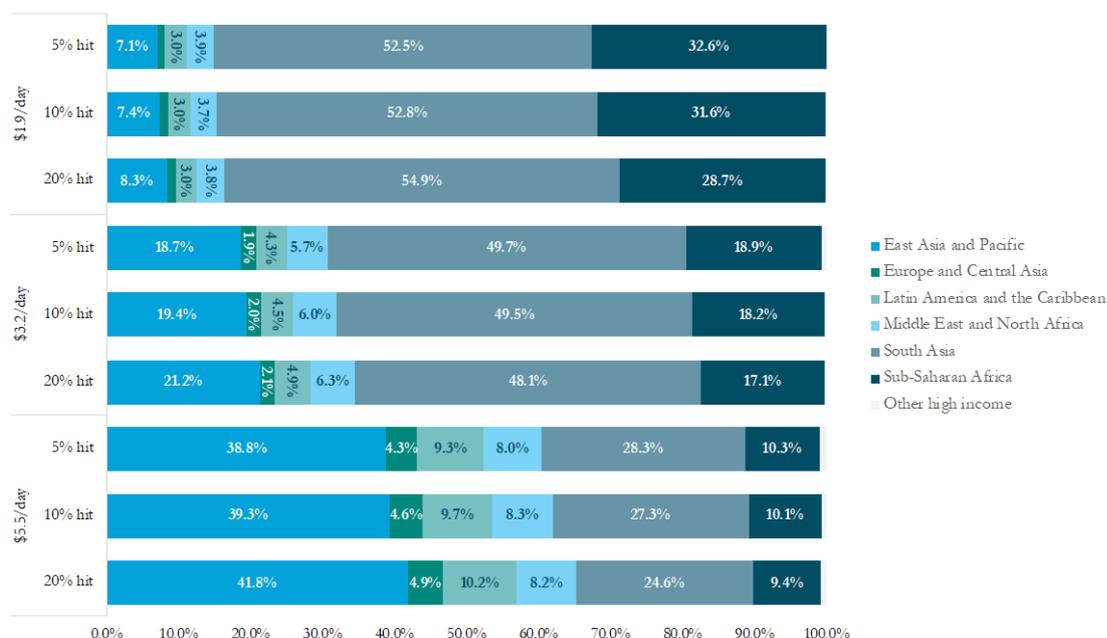
⁴ The poverty headcount rates and absolute numbers of poor under the US\$1.90, US\$3.20 and US\$5.50 per day (PPP 2011 prices) for the 2018 reference year and the three contraction scenarios, disaggregated by region, are shown in Tables A1 and A2 in the Annex.

extreme poverty in recent years. These results are even more dramatic when considering the scenario of a 20 per cent contraction (Figure A2 in the Annex).

According to our estimates of a 10 per cent contraction and under the US\$1.9/day poverty line, between 80 and 85 per cent of those **newly living in poverty** would be located in two regions, namely, SSA and South Asia. When using the US\$3.2/day poverty line, still about two thirds of the new world’s poor would be residing in these two regions, but East Asia and Pacific would account for around 20 per cent of the total (Figure 3).

Finally, if poverty is measured with the US\$5.5/day poverty line, the proportion accounted for by EAP would dramatically increase, accounting for almost 40 per cent of the total new poor, whereas the combined share in SSA and South Asia would reach about a third of total. At this value of the poverty line, both MENA and Latin America could account each for about 10 per cent of the global increase in poverty, regardless of the magnitude of the economic contraction. Table A2 in the Annex presents the number of poor people by region under the three contraction scenarios, relative to the latest observed poverty incidence in 2018.

Figure 3: Distribution of additional number of poor by region and contraction scenario



Source: authors' estimates based on PovcalNet.

4 Conclusions

In this paper we have sought to make estimates of the potential short-term poverty impact of COVID-19 in developing countries. While these estimates have important limitations as they are based on distribution neutral assumptions and crucially omit labour market, social and fiscal policy, and household-level responses to economic contractions, they are intended as indicative of the potential increase in poverty as a result of the damaging economic consequences of the pandemic.

We find that:

- Everything else equal, assuming a 5 per cent contraction in per capita incomes, the world could witness a potential increase in the number of poor people, relative to the 2018 figures, of more than 80 million for the US\$1.9/day poverty line, of more than 130 million for the US\$3.2/day standard, and of almost 124 million for the higher line of US\$5.5/day.
- Under a contraction of 10 per cent, while keeping everything else equal, the increases in poverty headcount at US\$1.90, US\$3.20 and US\$5.50 is respectively, about 180, 280, and 250 million people, but if the contraction is 20 per cent, then the increases could be about 420, 580, and 520 million people, respectively.
- At the global level, the potential impact of COVID-19 poses a real challenge to the UN Sustainable Development Goal of ending poverty by 2030 because increases in the relative and absolute size of the number of poor under the three poverty lines would be the first recorded since 1990 and they could represent a reversal of approximately a decade of progress in reducing poverty. In regions such as the Middle East and North Africa and SSA, the adverse impacts could result in poverty levels similar to those recorded 30 years ago, in 1990.
- The concentration of the potentially **new poor** under the US\$1.9/day and US\$3.2/day poverty lines would occur in the poorest regions of the world, notably in SSA and South Asia, which could accrue together between two thirds and 80–85 per cent of the total poor.
- For the higher poverty line of US\$5.5/day, the majority (about 40 per cent) of the new poor could be concentrated in East Asia and Pacific, about a third in both SSA and South Asia combined, and about 10 per cent each in Middle East and North Africa and Latin America and the Caribbean.

While these welfare impacts of the COVID-19 pandemic could be overestimated, there is no doubt that the real outcomes will be dramatic across developing countries. There is also no question, based on the evidence of previous global crises, that non-monetary indicators such as infant and maternal mortality, undernutrition and malnourishment, and educational achievement would also be seriously hit. The severity of the effects will depend on how long the pandemic lasts, and on how the national governments and the international community reacts.

The policy reactions some national governments have started to exhibit are of paramount importance to relief those without employment insurance, access to health services, and systems of care—for example those performing jobs in precarious, informal sectors of the economy across developing countries. Under these circumstances, the current pandemic calls for international efforts to assist those countries that do not have the fiscal space to face this global problem, not only in terms of addressing the ongoing challenge imposed by COVID-19 on their health systems' capacity, but also to protect those for whom their income generating possibilities are on-hold.

References

- Castañeda Aguilar, R.A., C. Lakner, E.B. Prydz, J. Soler Lopez, R. Wu, and Q. Zhao (2019). 'Estimating Global Poverty in Stata. The *povcalnet* command'. Global Poverty Monitoring Technical Note 9. World Bank: Washington DC.
- Gentilini, U., M. Almenfi, and I. Orton (2020). 'Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures'. Downloaded at

<http://www.ugogentilini.net/wp-content/uploads/2020/03/global-review-of-social-protection-responses-to-COVID-19-2.pdf>

ILO (2020) 'COVID-19 and the world of work: impact and policy responses'. Downloaded at https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_738753.pdf

Ivanic, M. and W. Martin (2018) Sectoral Productivity Growth and Poverty Reduction: National and Global Impacts, *World Development* 109: 429-439.

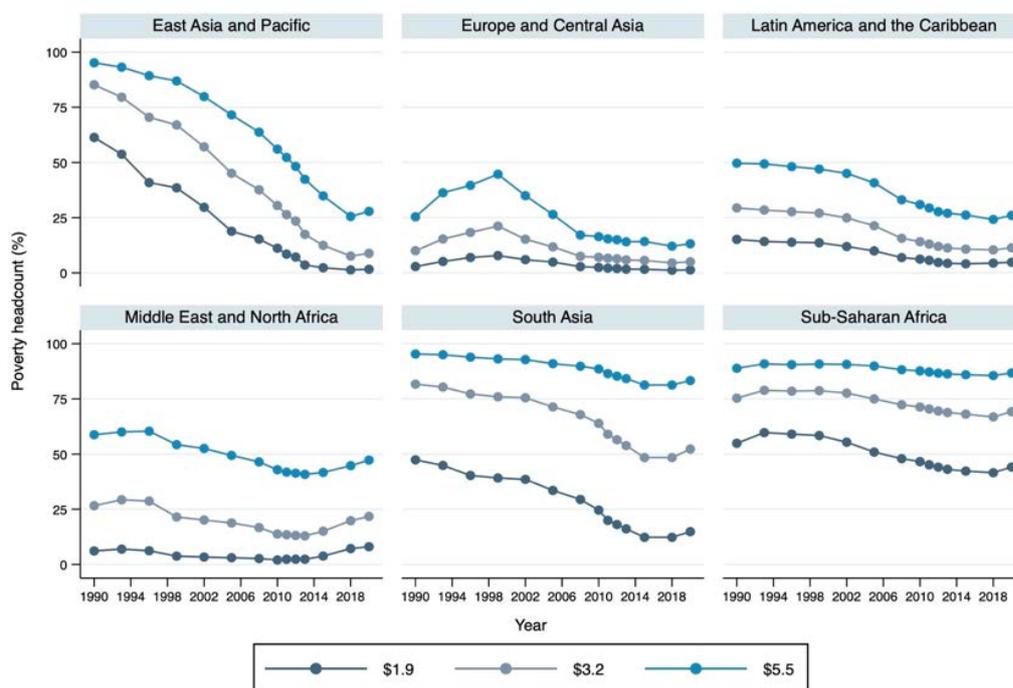
McKibbin, W., and R. Fernando (2020). 'The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. Downloaded at: https://www.brookings.edu/wp-content/uploads/2020/03/20200302_COVID19.pdf

Vos, R., W. Martin, and D. Laborde (2020a). 'As COVID-19 spreads, no major concern for global food security yet'. Downloaded at: <https://www.ifpri.org/blog/covid-19-spreads-no-major-concern-global-food-security-yet>

Vos, R., W. Martin, and D. Laborde (2020b). 'How much will global poverty increase because of COVID-19?'. Downloaded at: <https://www.ifpri.org/blog/how-much-will-global-poverty-increase-because-covid-19>

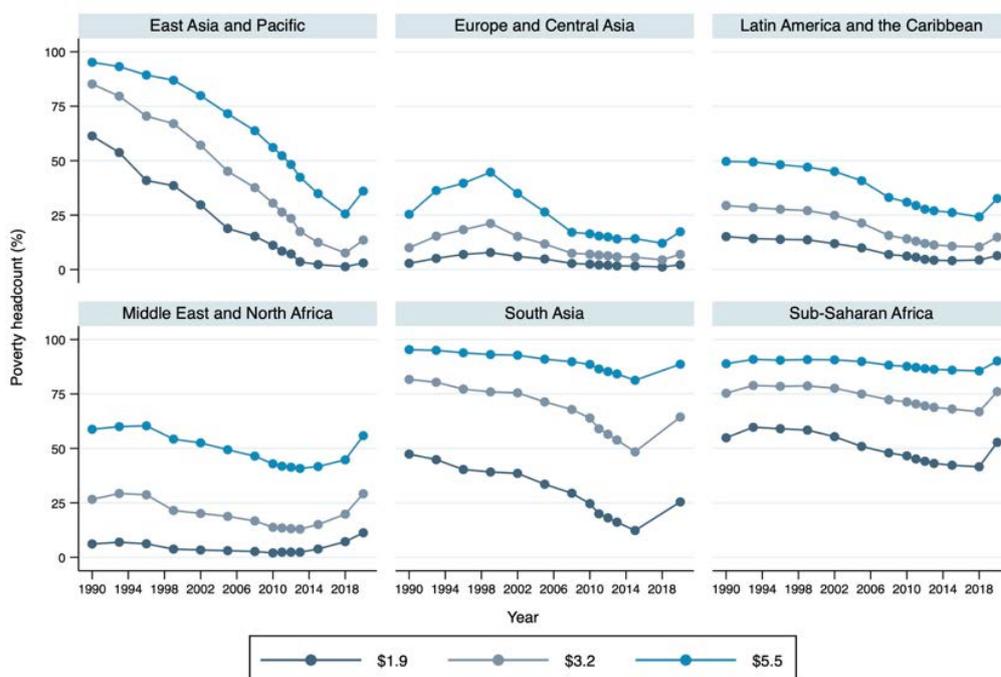
Annex

Figure A1: Poverty headcount ratios by region, 1990–2018 and projection under a 5% contraction in per capita income or consumption



Source: authors' estimates based on PovcalNet.

Figure A2: Poverty headcount ratio by region, 1990–2018 and projection under a 20% contraction in per capita income or consumption



Source: authors' estimates based on PovcalNet.

Table A1: Incidence of poverty by region, 2018 and estimates under scenarios of contraction in per capita incomes or consumption (% of the population and millions of people)

Aggregate	Population	Headcount - Reference year 2018					
		\$1.9		\$3.2		\$5.5	
		%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	2,081.7	1.3	27.8	7.6	158.7	25.6	532.0
Europe and Central Asia	493.8	1.2	5.9	4.5	22.1	12.1	59.7
Latin America and the Caribbean	637.1	4.4	28.0	10.4	66.3	24.2	154.2
Middle East and North Africa	387.7	7.2	27.9	19.8	76.8	44.8	173.5
Other high Income	1,101.2	0.7	7.4	0.8	9.0	1.3	14.0
South Asia	1,749.4	12.3	215.2	48.4	847.1	81.3	1,422.4
Sub-Saharan Africa	1,074.9	41.6	447.0	66.8	718.5	85.6	919.9
World Total	7,525.8	10.1	759.2	25.2	1,898.5	43.5	3,275.8

Aggregate	Headcount - 5% hit on income/consumption					
	\$1.9		\$3.2		\$5.5	
	%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	1.6	33.8	8.8	184.0	27.9	580.0
Europe and Central Asia	1.4	6.7	5.0	24.8	13.2	65.0
Latin America and the Caribbean	4.8	30.5	11.3	72.2	26.0	165.7
Middle East and North Africa	8.0	31.2	21.8	84.4	47.3	183.4
Other high Income	0.7	7.4	0.9	10.0	1.4	15.3
South Asia	14.8	259.8	52.3	914.4	83.3	1,457.4
Sub-Saharan Africa	44.2	474.6	69.2	744.0	86.8	932.6
World Total	11.2	844.1	27.0	2,033.8	45.2	3,399.5

Aggregate	Headcount - 10% hit on income/consumption					
	\$1.9		\$3.2		\$5.5	
	%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	2.0	41.3	10.2	212.7	30.2	629.7
Europe and Central Asia	1.6	7.9	5.6	27.7	14.4	71.1
Latin America and the Caribbean	5.3	33.5	12.4	79.0	28.0	178.4
Middle East and North Africa	8.9	34.7	24.1	93.4	50.1	194.2
Other high Income	0.7	7.8	0.9	10.1	1.4	15.7
South Asia	17.8	311.2	56.3	984.8	85.2	1,490.3
Sub-Saharan Africa	46.9	504.4	71.6	769.3	87.9	945.1
World Total	12.5	940.8	28.9	2,176.9	46.8	3,524.4

Aggregate	Headcount - 20% hit on income/consumption					
	\$1.9		\$3.2		\$5.5	
	%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	3.0	62.6	13.5	282.0	36.1	750.6
Europe and Central Asia	2.2	10.8	7.0	34.5	17.3	85.6
Latin America and the Caribbean	6.4	40.7	14.9	94.8	32.6	207.9
Middle East and North Africa	11.3	43.7	29.2	113.2	55.9	216.6
Other high Income	0.7	7.9	1.0	10.7	1.7	18.4
South Asia	25.4	445.1	64.4	1,126.7	88.7	1,551.2
Sub-Saharan Africa	52.8	567.3	76.1	818.0	90.1	969.0
World Total	15.7	1,178.1	33.0	2,479.9	50.5	3,799.3

Source: authors' estimates based on PovcalNet.

Note: the estimates under 5%, 10%, or 20% contraction of income or consumption are calculated relative to the reference year. The reference year for South Asia is 2015, while it is 2018 for the rest.

Table A2: Additional global poverty as a result of per capita income or consumption contractions, by regions and using 2018 as reference year

Aggregate	Number of poor at \$1.9 (million)				Additional poor (million)		
	Status quo	5% hit	10% hit	20% hit	5% hit	10% hit	20% hit
East Asia and Pacific	27.8	33.8	41.3	62.6	6.0	13.4	34.8
Europe and Central Asia	5.9	6.7	7.9	10.8	0.8	2.0	4.9
Latin America and the Caribbean	28.0	30.5	33.5	40.7	2.5	5.5	12.7
Middle East and North Africa	27.9	31.2	34.7	43.7	3.3	6.8	15.9
Other high Income	7.4	7.4	7.8	7.9	0.0	0.4	0.5
South Asia	215.2	259.8	311.2	445.1	44.5	95.9	229.8
Sub-Saharan Africa	447.0	474.6	504.4	567.3	27.6	57.5	120.3
World Total	759.2	844.1	940.8	1,178.1	84.9	181.6	419.0

Aggregate	Number of poor at \$3.2 (million)				Additional poor (million)		
	Status quo	5% hit	10% hit	20% hit	5% hit	10% hit	20% hit
East Asia and Pacific	158.7	184.0	212.7	282.0	25.3	54.0	123.3
Europe and Central Asia	22.1	24.8	27.7	34.5	2.6	5.5	12.3
Latin America and the Caribbean	66.3	72.2	79.0	94.8	5.9	12.7	28.6
Middle East and North Africa	76.8	84.4	93.4	113.2	7.6	16.6	36.4
Other high Income	9.0	10.0	10.1	10.7	1.0	1.1	1.7
South Asia	847.1	914.4	984.8	1,126.7	67.3	137.7	279.6
Sub-Saharan Africa	718.5	744.0	769.3	818.0	25.5	50.8	99.5
World Total	1,898.5	2,033.8	2,176.9	2,479.9	135.3	278.4	581.4

Aggregate	Number of poor at \$5.5 (million)				Additional poor (million)		
	Status quo	5% hit	10% hit	20% hit	5% hit	10% hit	20% hit
East Asia and Pacific	532.0	580.0	629.7	750.6	48.0	97.6	218.6
Europe and Central Asia	59.7	65.0	71.1	85.6	5.3	11.3	25.9
Latin America and the Caribbean	154.2	165.7	178.4	207.9	11.5	24.1	53.7
Middle East and North Africa	173.5	183.4	194.2	216.6	9.8	20.7	43.1
Other high Income	14.0	15.3	15.7	18.4	1.3	1.8	4.4
South Asia	1,422.4	1,457.4	1,490.3	1,551.2	35.0	67.9	128.8
Sub-Saharan Africa	919.9	932.6	945.1	969.0	12.8	25.2	49.1
World Total	3,275.8	3,399.5	3,524.4	3,799.3	123.7	248.6	523.5

Source: authors' estimates based on PovcalNet.

Note: the estimates under a 5%, 10%, or 20% per cent contraction of income or consumption are calculated relative to the reference year. The reference year for South Asia is 2015, while it is 2018 for the rest.

Table A3: Incidence of poverty by region, 2015 and estimates under scenarios of contraction in per capita incomes or consumption (% of the population and millions of people)

Aggregate	Population	Headcount - Reference year 2018					
		\$1.9		\$3.2		\$5.5	
		%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	2,038.3	2.3	47.0	12.5	254.0	34.9	710.6
Europe and Central Asia	487.1	1.6	7.8	5.6	27.4	14.2	69.2
Latin America and the Caribbean	618.5	4.1	25.3	10.7	66.4	26.2	162.0
Middle East and North Africa	368.2	3.8	14.1	15.1	55.5	41.7	153.5
Other high Income	1,083.5	0.7	7.7	0.9	10.3	1.5	15.9
South Asia	1,749.4	12.3	215.2	48.4	847.1	81.3	1,422.4
Sub-Saharan Africa	992.1	42.3	419.6	68.1	675.8	86.0	852.9
World Total	7,337.2	10.0	736.7	26.4	1,936.5	46.2	3,386.5

Aggregate	Headcount - 5% hit on income/consumption					
	\$1.9		\$3.2		\$5.5	
	%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	2.8	57.1	14.1	287.8	37.5	764.3
Europe and Central Asia	1.8	9.0	6.2	30.3	15.5	75.4
Latin America and the Caribbean	4.5	27.9	11.8	72.8	28.2	174.6
Middle East and North Africa	4.4	16.3	17.0	62.6	44.5	163.8
Other high Income	0.7	7.8	1.0	10.6	1.5	16.4
South Asia	14.8	259.8	52.3	914.4	83.3	1,457.4
Sub-Saharan Africa	44.9	445.9	70.3	697.3	87.2	864.7
World Total	11.2	823.7	28.3	2,075.9	47.9	3,516.5

Aggregate	Headcount - 10% hit on income/consumption					
	\$1.9		\$3.2		\$5.5	
	%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	3.4	70.2	16.0	326.1	40.3	821.6
Europe and Central Asia	2.1	10.2	6.9	33.6	16.9	82.2
Latin America and the Caribbean	5.0	30.8	13.0	80.2	30.4	187.8
Middle East and North Africa	5.2	19.1	19.4	71.3	47.6	175.1
Other high Income	0.7	7.9	1.0	11.2	1.7	18.0
South Asia	17.8	311.2	56.3	984.8	85.2	1,490.3
Sub-Saharan Africa	47.6	472.6	72.5	719.5	88.3	876.0
World Total	12.6	921.9	30.3	2,226.6	49.8	3,651.0

Aggregate	Headcount - 20% hit on income/consumption					
	\$1.9		\$3.2		\$5.5	
	%	Mill.	%	Mill.	%	Mill.
East Asia and Pacific	5.3	107.6	20.4	416.4	46.6	950.5
Europe and Central Asia	2.8	13.8	8.5	41.3	20.5	99.6
Latin America and the Caribbean	6.2	38.5	15.9	98.6	35.0	216.3
Middle East and North Africa	7.2	26.4	24.6	90.6	53.9	198.4
Other high Income	0.8	8.2	1.1	12.0	1.9	20.5
South Asia	25.4	445.1	64.4	1,126.7	88.7	1,551.2
Sub-Saharan Africa	53.6	531.5	76.9	762.8	90.5	897.5
World Total	16.0	1,171.1	34.7	2,548.4	53.6	3,934.1

Source: authors' estimates based on PovcalNet.

Note: the estimates under 5%, 10%, or 20% contraction of income or consumption are calculated relative to the reference year 2015.

Table A4: Additional global poverty as a result of per capita income or consumption contractions, by regions and using 2015 as reference year

Aggregate	Number of poor at \$1.9 (million)				Additional poor (million)		
	Status quo	5% hit	10% hit	20% hit	5% hit	10% hit	20% hit
East Asia and Pacific	47.0	57.1	70.2	107.6	10.1	23.2	60.6
Europe and Central Asia	7.8	9.0	10.2	13.8	1.1	2.4	6.0
Latin America and the Caribbean	25.3	27.9	30.8	38.5	2.6	5.5	13.1
Middle East and North Africa	14.1	16.3	19.1	26.4	2.2	5.1	12.3
Other high Income	7.7	7.8	7.9	8.2	0.2	0.2	0.6
South Asia	215.2	259.8	311.2	445.1	44.5	95.9	229.8
Sub-Saharan Africa	419.6	445.9	472.6	531.5	26.3	53.0	111.9
World Total	736.7	823.7	921.9	1,171.1	87.0	185.3	434.4

Aggregate	Number of poor at \$3.2 (million)				Additional poor (million)		
	Status quo	5% hit	10% hit	20% hit	5% hit	10% hit	20% hit
East Asia and Pacific	254.0	287.8	326.1	416.4	33.8	72.1	162.4
Europe and Central Asia	27.4	30.3	33.6	41.3	2.9	6.1	13.8
Latin America and the Caribbean	66.4	72.8	80.2	98.6	6.4	13.8	32.1
Middle East and North Africa	55.5	62.6	71.3	90.6	7.1	15.8	35.1
Other high Income	10.3	10.6	11.2	12.0	0.4	0.9	1.7
South Asia	847.1	914.4	984.8	1,126.7	67.3	137.7	279.6
Sub-Saharan Africa	675.8	697.3	719.5	762.8	21.6	43.7	87.0
World Total	1,936.5	2,075.9	2,226.6	2,548.4	139.4	290.1	611.8

Aggregate	Number of poor at \$5.5 (million)				Additional poor (million)		
	Status quo	5% hit	10% hit	20% hit	5% hit	10% hit	20% hit
East Asia and Pacific	710.6	764.3	821.6	950.5	53.7	111.0	239.8
Europe and Central Asia	69.2	75.4	82.2	99.6	6.2	13.1	30.5
Latin America and the Caribbean	162.0	174.6	187.8	216.3	12.5	25.8	54.3
Middle East and North Africa	153.5	163.8	175.1	198.4	10.3	21.6	44.9
Other high Income	15.9	16.4	18.0	20.5	0.5	2.1	4.7
South Asia	1,422.4	1,457.4	1,490.3	1,551.2	35.0	67.9	128.8
Sub-Saharan Africa	852.9	864.7	876.0	897.5	11.8	23.2	44.6
World Total	3,386.5	3,516.5	3,651.0	3,934.1	130.0	264.5	547.6

Source: authors' estimates based on PovcalNet.

Note: the estimates under 5%, 10%, or 20% contraction of income or consumption are calculated relative to the reference year 2015.