

September 2020 PovcalNet Update

What's New

*R. Andres Castaneda Aguilar, Tony Fujs, Dean Jolliffe,
Christoph Lakner, Daniel Gerszon Mahler, Minh C. Nguyen,
Marta Schoch, David L. Vargas Mogollon,
Martha C. Viveros Mendoza, Samuel Kofi Tetteh Baah,
Nishant Yonzan, and Nobuo Yoshida*

September 2020

Keywords: What's New; September 2020.



WORLD BANK GROUP

Development Data Group

Development Research Group

Poverty and Equity Global Practice Group

Abstract

The September 2020 update to PovcalNet mainly involves the adoption of the revised 2011 PPPs for the estimation of global poverty. In addition, the coverage rules for reporting regional and global poverty aggregates have been reviewed, resulting in small adjustments. Historical regional and global aggregates are now reported with an annual frequency instead of intervals with varying lengths. Only two surveys have been added and some welfare aggregates have been revised compared with the March 2020 update. National accounts and population input data have been updated. This document explains these changes and the rationale behind them in detail. The data and associated estimates are used for the analysis of global poverty in the forthcoming Poverty and Shared Prosperity Report 2020.

All authors are with the World Bank. Corresponding authors: Christoph Lakner (clakner@worldbank.org) and Minh C. Nguyen (mnguyen3@worldbank.org). The authors are thankful for comments and guidance received from Samuel Freije-Rodriguez, Haishan Fu, Jonathan Lain, David Newhouse, Berk Özler Carolina Sánchez-Páramo, Sarosh Sattar, Umar Serajuddin and Tara Vishwanath. We would also like to thank the countless Poverty Economists that have provided data and documentation; without them the database of household surveys that underpins the World Bank's global poverty measures would not exist. This note has been cleared by Berk Özler and Umar Serajuddin.

The Global Poverty Monitoring Technical Note Series publishes short papers that document methodological aspects of the World Bank's global poverty estimates. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent. Global Poverty Monitoring Technical Notes are available at <http://iresearch.worldbank.org/PovcalNet/>.

Contents

1. Introduction.....	2
2. Annual regional and global poverty estimates, review of population coverage rule.....	4
3. Revised 2011 PPPs	8
3.1. Country-specific PPP adjustments.....	9
4. Surveys added	10
4.1. Nigeria 2018/2019	10
4.2. Canada 2017.....	11
5. India line-up.....	12
6. Revisions to welfare aggregates.....	12
6.1. Changes to the US data in LIS.....	12
6.2. National inequality estimates for India, Indonesia and China	13
7. Changes to national accounts data	13
8. Changes to population data.....	14
9. References.....	15
A. Appendix 1 – Imputation of revised 2011 PPPs	16
A1.1. Egypt, Iraq, Jordan, Laos, Myanmar, Yemen	16
A1.2. China, India, Indonesia	17
B. Appendix 2 – CPI data sources	18
C. Appendix 3 – Gini coefficients	32
D. Appendix 4 – National accounts data sources	33

1. Introduction

The September 2020 global poverty update from the World Bank presents new global poverty estimates for 2017 and revises the previously published historical global and regional estimates. This note describes and explains the changes made in this update. The revisions occur as a result of the adoption of revised 2011 PPPs, the addition of new survey data, the update of national accounts, as well as other (small) changes to the existing data.

Table 1 indicates the global and regional poverty estimates for 2017, which are presented in more detail in the forthcoming 2020 Poverty and Shared Prosperity report (World Bank, 2020). In 2017, an estimated 689 million people were living below the international poverty line (IPL), set at \$1.90 PPP U.S. dollars. The global poverty rate, the share of the world's population living below the IPL, stood at 9.2%.¹ Sub-Saharan Africa accounted for more than 60% of the world's population below the IPL and had the highest regional poverty rate, at 41.0%. Around a quarter of the world population (24.1%) lived on less than \$3.20 and 43.6% on less than \$5.50, poverty lines that are typical of lower-middle and upper-middle income countries, respectively.

Table 1. Poverty estimates for reference year 2017, different poverty lines

Region	Survey coverage (%)	\$1.90		\$3.20		\$5.50	
		Head-count ratio (%)	Number of poor (mil)	Head-count ratio (%)	Number of poor (mil)	Head-count ratio (%)	Number of poor (mil)
East Asia and Pacific	97.1	1.4	29	8.7	179	28.2	583
Europe and Central Asia	89.5	1.3	6	4.7	23	12.6	62
Latin America and the Caribbean	90.2	3.9	24	9.5	60	23.1	146
Middle East and North Africa	58.2	6.3	24	18.5	71	43.4	165
Rest of the World	77.7	0.6	7	0.8	9	1.3	14
South Asia	21.8	n/a	n/a	n/a	n/a	n/a	n/a
Sub-Saharan Africa	79.0	41.0	431	67.3	707	86.1	905
World	70.7	9.2	689	24.1	1811	43.6	3271

Source: [PovcalNet](#)

Note: Survey coverage is assessed within a three-year window either side of 2017, i.e. including surveys that were conducted between 2014 and 2020 (see Section 2 below). The estimates for South Asia are not displayed since the region has a survey coverage less than 50% of the region's total population. At the global level, the surveys available within a three-year window either side of 2017 represent 52% of the population living in low-income and lower-middle income countries.

¹ Even though the estimates for South Asia are not shown in Table 1, they are included in the total for the World.

Table 2 reports the differences in regional poverty estimates in 2018 between the March 2020 and September 2020 PovcalNet vintages. In general, the differences are small. Venezuela explains the reduction in poverty in Latin America and the Caribbean (0.6 percentage points at the IPL).² The inclusion of new survey data for Nigeria explains the reduction in Sub-Saharan Africa (14 million fewer poor people). For most of the regions, poverty rates decrease with the September 2020 update at all poverty lines.³ The exception is the Middle East and North Africa, where the poverty estimates increase at the higher global poverty lines (the same is true for Sub-Saharan Africa at \$5.50).

Table 2. Regional poverty rates in 2018: March 2020 vs. September 2020 PovcalNet update

Region	\$1.90:		\$1.90:		\$3.20:		\$3.20:		\$5.50:		\$5.50:	
	Headcount ratio (%)		Number of poor (mil)		Headcount ratio (%)		Number of poor (mil)		Headcount ratio (%)		Number of poor (mil)	
	<i>Mar</i>	<i>Sep</i>	<i>Mar</i>	<i>Sep</i>	<i>Mar</i>	<i>Sep</i>	<i>Mar</i>	<i>Sep</i>	<i>Mar</i>	<i>Sep</i>	<i>Mar</i>	<i>Sep</i>
East Asia and Pacific	1.3	1.2	28	25	7.6	7.2	159	149	25.6	25.0	532	520
Europe and Central Asia	1.2	1.1	6	6	4.5	4.3	22	21	12.1	11.9	60	59
Latin America & Caribbean	4.4	3.8	28	24	10.4	9.3	66	59	24.2	22.6	154	144
Middle East and North Africa	7.2	7.2	28	28	19.8	20.3	77	79	44.8	45.0	174	174
Rest of the World	0.7	0.6	7	7	0.8	0.8	9	9	1.3	1.3	14	14
South Asia	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sub-Saharan Africa	41.6*	40.2	447*	433	66.8*	66.6	718*	718	85.6*	86.0	920*	927

Source: [PovcalNet](#)

Note: The estimates for South Asia are not displayed due to insufficient population coverage. The March 2020 update did not report the regional estimates for Sub-Saharan Africa for the same reason; those unreported estimates are shown here to assess the impact of the data revisions.

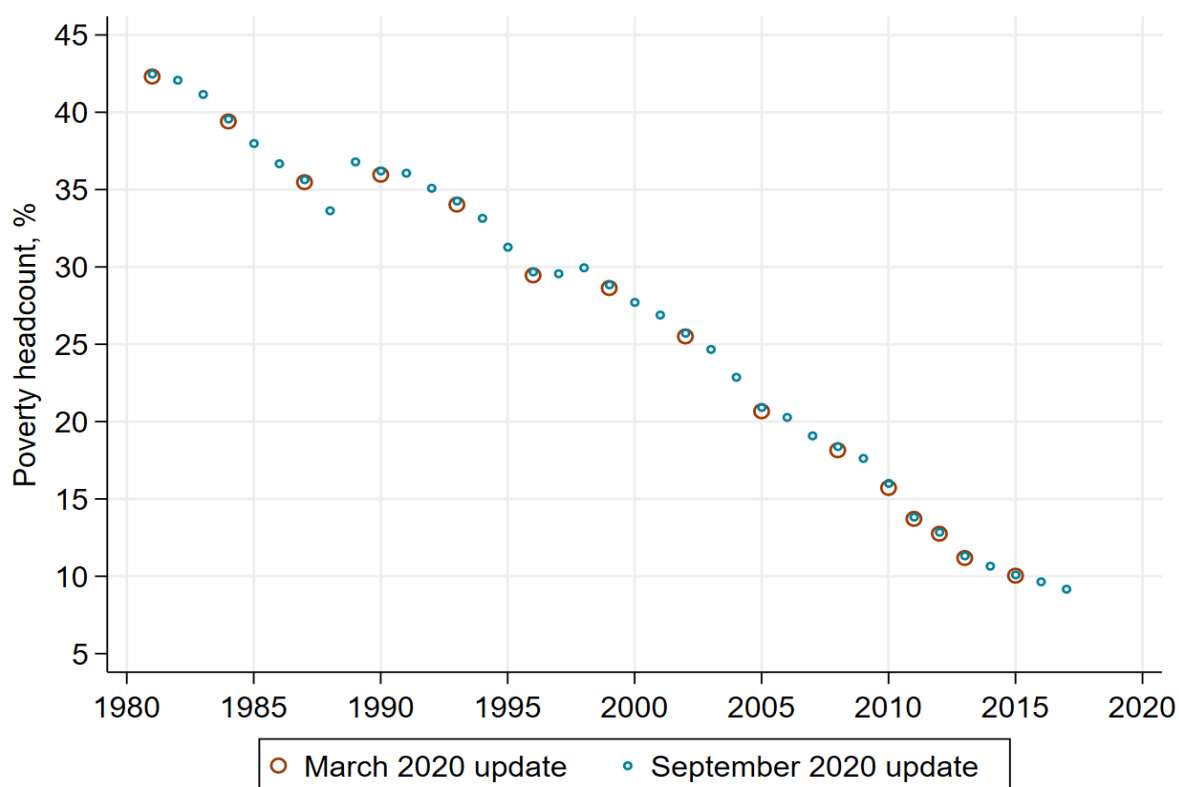
² The updated national accounts data excludes recent data for Venezuela, so it cannot be lined-up to 2018. Without a lined-up poverty estimate, like any missing country, Venezuela is assigned the regional poverty rate, which is lower than the lined-up estimate from the March 2020 update.

³ Table 2 reports the net effect of several changes to the underlying data. For example, the revisions to the 2011 PPPs by themselves increased the poverty rate in Sub-Saharan Africa, but this was offset by the new Nigeria survey.

2. Annual regional and global poverty estimates, review of population coverage rule

In this update, for the first time, PovcalNet is reporting lined-up global and regional poverty numbers for every year. Previously, poverty estimates were reported at varying intervals and for the following years: every three years from 1981 to 2008, annually from 2010 to 2013, followed by 2015 and 2018. Figure 1 compares the lined-up global poverty estimates for the March 2020 update with the lined-up estimates for the September 2020 update. Figure 2 shows the comparison by region.

Figure 1. Global line-up estimates of extreme poverty

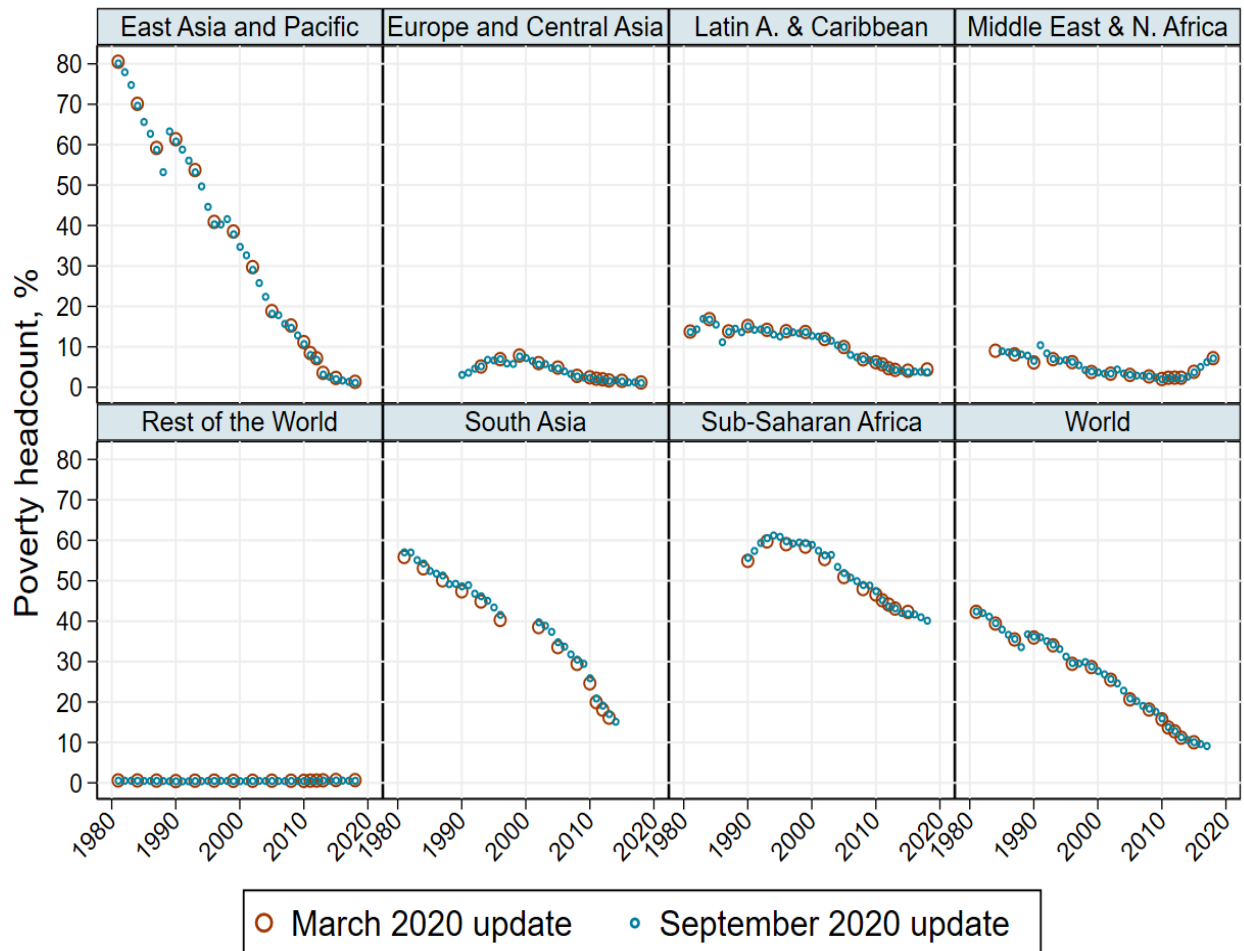


Source: [PovcalNet](#)

Notes: Extreme poverty is measured as the share of population living on less than \$1.90 per day. Interactive graph depicting global line-up estimates of extreme poverty, available [here](#).

The introduction of annual line-up years makes it easier to compare changes over time, as it standardizes the distance between line-up years. With the added granularity it is also possible to see that COVID-19 is likely to cause the first increase in global poverty since 1998, when the Asian Financial Crisis hit (Mahler et al., 2020). This was not apparent from the line-up years available previously, which included 1996 and 1999, but not the years in between.

Figure 2. Regional line-up estimates of extreme poverty



Source: [PovcalNet](#)

Notes: Extreme poverty is measured as the share of population living on less than \$1.90 per day. Interactive graphs depicting line-up estimates of extreme poverty at the regional level, available [here](#).

The annual line-up series is noisier, though, especially before 1990. This is largely explained by the line-up estimates at the country level switching from income to consumption.⁴ This treatment of consumption and income data is not new, but the effect is now more visible with more granular line-up estimates. In fact, there has been no change in the way poverty estimates are calculated; the underlying country-level estimates have always been estimated for every year, but simply had

⁴ China, for example, has income-based poverty estimates at and before 1987 and consumption-based estimates from 1990 onwards. The 1990 estimate has a higher poverty rate at \$1.90 than the 1987 estimate. PovcalNet does not interpolate between income and consumption-based estimates but rather extrapolates from the nearest survey. In this case, this means that the 1988 lined-up estimate is based on forward-extrapolated 1987 income estimate while the 1989 lined-up estimate is based on the backwards extrapolated consumption estimate. This creates a sharp break in the lined-up estimates, which is visible in the regional East Asia and Pacific poverty rates. Though this break was also apparent before, the introduction of lined-up estimates for 1987 and 1988 makes it more salient.

not been aggregated. We are working on refining the line-up methods and possibly change how line-up estimates switch between the use of income and consumption estimates.

Together with the introduction of the annual line-up years, the population coverage rules applied to report regional and global aggregates have also been revised slightly. These rules are used to determine whether a particular line-up year has sufficient population coverage to allow the reporting of regional and global poverty aggregates. It is important to highlight that these changes do not affect how regional and global poverty aggregates are estimated; they only affect whether an estimate is displayed. Three main changes have been made.

First, the coverage rules now include data for survey years within 3 years either side of a line-up year. This change makes this rule somewhat more lenient, but represents a small change compared to the old rule. Under the old rule, a country was included if the survey used is *less than* three years to the line-up year.⁵ Under the new rule, a country is considered covered if the distance to the line-up year is *less than or equal* to three years. This change simplifies the coverage rule and does not require making decisions for surveys that overlap multiple years, shown in PovcalNet as ‘decimal’ years (see footnote 4).

The second change increases the threshold of population coverage at the regional level from 40% to 50% of the population. For regions in which the surveys within 3 years either side of the line-up year account for less than half of the regional population, the regional poverty estimate is not reported. This is a stricter parameter compared to the previous version of the coverage rule and balances the previous requirement. The 40-percent and 50-percent thresholds are both somewhat arbitrary but requiring a coverage of half of the regional population seems more intuitive.

The third change introduces an additional requirement for the global poverty aggregate to ensure sufficient population coverage of countries where most of the poor live. Specifically, it tries to

⁵ The old rule has often been communicated as including surveys within 2 years either side of a line-up year. In practice, however, surveys that span two years were included even if only a small share of the survey actually fell within the two-year window. Surveys that span two years are reported in PovcalNet with a decimal year, with the decimals indicating the share of the survey conducted in the second year. For example, the 2012.25 survey for Lao PDR means that 75% of the survey was conducted in 2012 and 25% in 2013. Similarly, for the 2017.92 survey in Tanzania, 8% of the survey was conducted in 2017 and 92% of the survey in 2018. Under the old rule, both these surveys are included in the 2015 reference year. In other words, the old rule included surveys for 2015 as long as the survey year was less than 2018 and greater than 2012.

avoid a situation whereby the global population threshold is met by having recent data in the high-income countries, East Asia, and Latin America, which together account for a small share of the global extreme poor today. Under this requirement, *global* poverty estimates are reported only if data is representative of at least 50 percent of the population in low-income and lower-middle income countries (LIC/LMIC countries), since over 90 percent of the poor live in these countries.⁶ This requirement, however, is only applied to the *global* poverty estimate, not to the regional estimates.⁷ The World Bank classification of countries according to income groups in the line-up year is used.⁸ By using the income classification in the line-up year, this rule also accounts for how the regional composition of global poverty has shifted over time.⁹

The adoption of the new coverage rules makes little or no change in the reporting of regional poverty numbers, especially in the latest line-up years. Poverty estimates for the Latin America and the Caribbean (LAC) and East Asia and Pacific (EAP) regions can be reported over the entire line-up years under both the old and the new rules. Poverty estimates can be reported for Sub-Saharan Africa between 1990 and 2018 under both old and new rules. Poverty numbers cannot be reported for South Asia for the periods 1997-2001 and 2015-2018 under both old and new rules. For the Middle East and North Africa, line-up poverty estimates cannot be reported until 1983 (1984) under the old (new) rules. And for Europe and Central Asia, line-up poverty estimates cannot be reported until 1990 (1989) under the old (new) rules.

Using these new rules, estimates of the global extreme poverty rate stop in 2017, while for individual regions we have information up to 2018, except for South Asia where the regional estimate is only reported until 2014. For 2018, the population coverage of LIC/LMIC countries with recent data is less than the 50% threshold; without this new requirement, the population

⁶ In 2017, more than 93% of the extreme global poor lived in low and lower-middle income countries. An alternative requirement would have been to compute the population coverage of the countries with the most poor. However, this would have created a certain circularity, since the objective of this rule is to assess whether the population coverage is sufficient to estimate which countries these are.

⁷ It does not make sense to apply this rule at the regional level, since some regions have only few LIC/LMIC countries that account for a small share of the regional population. For example, in Latin America, currently, the only LIC/LMIC countries are Bolivia, El Salvador, Haiti, Honduras and Nicaragua. These countries account for around 7% of the regional population.

⁸ For details on income classification, see the [World Bank's classification of countries by income](#) (Fantom & Serajuddin, 2016).

⁹ For example, East Asia accounted for around two-fifths of global poverty in the late-1990s compared with around 4 percent in 2017. China, which has been an important contributor to this change, has since then left the group of LIC/LMIC countries.

coverage threshold for reporting on global poverty would have been reached. Reporting the most recent regional estimates for which the coverage rules are satisfied is an attempt to provide the most up-to-date poverty estimates and to recognize the efforts by many countries to collect timely household survey data to monitor global poverty.

3. Revised 2011 PPPs

Purchasing power parities (PPPs) are price indices that measure how much it costs to purchase a basket of goods and services in one country relative to purchasing the same basket in a reference country. Put differently, they express how much of a country's currency will exchange for one unit of the currency of a reference country, typically the US, in real terms. Market exchange rates do not take into account non-tradable services, which are often cheaper in developing countries, where factors of production (e.g., labor) are not as expensive as in rich countries (i.e., the Balassa-Samuelson effect).

All the poverty estimates included in this chapter adjust for differences in relative price levels across countries using the revised 2011 PPPs released by the International Comparison Program (ICP) in May 2020. The original 2011 PPPs were revised, mainly in light of the rebasing of national accounts data in several countries. The underlying price data remain unchanged. Since the PPPs are multilateral price indices, revisions to national accounts weights in one or a few countries translate into changes in PPP estimates for all countries.

The revised 2011 PPPs have relatively small effects on global poverty estimates, as analyzed in greater detail in Atamanov et al. (2020b). The global headcount ratio increases by 0.24 percentage points (equivalent to 17.7 million more poor people) in 2017. When compared with the adoption of the 2005 PPPs replacing the 1993 PPPs, which increased global poverty by 400 million people, this change in poverty is small (Chen & Ravallion, 2010).

Historically, ICP rounds have not only reflected new price information but also changes in ICP methodologies (e.g., the change from 2005 to 2011 PPPs). With this concern in mind, the [Atkinson Commission on Global Poverty](#) has recommended against adopting future ICP rounds (World Bank, 2017). Thus, the 2017 PPPs, which were published together with the revised 2011 PPPs, are not currently used for global poverty measurement as more analysis will be needed to examine their comparability. However, it is necessary to adopt the revised 2011 PPPs, as they incorporate

new information from national accounts. This is similar to how PovcalNet periodically revises its other input data, such as CPI, GDP or population estimates, to reflect the most recent accurate information.

PPPs are also used in the derivation of the global poverty lines. When updated with the revised 2011 PPPs, the IPL still rounds to \$1.90 per person per day (the updated underlying estimate is \$1.87) (Atamanov et al., 2020b). The higher lines—\$3.20 and \$5.50 per person per day—are derived as the median implicit national poverty lines corresponding to lower-middle income countries and upper-middle income countries (Jolliffe & Prydz, 2016). When updated with the revised 2011 PPPs, the \$3.20 line also remains unchanged, but the \$5.50 line increases by approximately \$0.15 (Atamanov et al., 2020b). Over time the World Bank’s global poverty lines have been widely used in the development community, such that they could be considered as parameters in estimating global poverty and there is a cost to revising them frequently. While changes in PPPs could result in a different estimate, it is important to recognize that the poverty line is a parameter chosen—using a reasonable method—to monitor progress in different parts of the global distribution of income or consumption. To this end, the World Bank has decided to keep all global poverty lines unchanged, including the Societal Poverty Line (SPL).

3.1. Country-specific PPP adjustments

For Egypt, Iraq, Jordan, Laos, Myanmar and Yemen, PovcalNet uses imputed PPPs considered to be more appropriate than the official PPPs (Atamanov et al., 2018). The imputed PPP estimates are out-of-sample predictions based on a variant of the seemingly unrelated regression (SURE) model the ICP uses for estimating PPPs for non-benchmark countries. Using the same imputation method, revised 2011 PPPs have been imputed for these countries (Atamanov et al., 2020b). See Appendix 1, Table A1.1 for the original 2011 PPPs imputed for these economies, as well as the revised 2011 PPPs imputed using both old and new input data. PovcalNet currently uses those estimates with new input data.

For global poverty estimation, PovcalNet uses rural and urban PPPs for China, India and Indonesia, to take into account the ‘urban bias’ in the ICP price data collection (Chen & Ravallion, 2008, 2010; Ferreira et al., 2016). These location-specific PPPs are imputed using the official national PPP estimates, the ratio of urban to rural poverty lines, and the urban share in the ICP price data

collection (see the formula given in the online Appendix of Ferreira et al. (2016) and Lakner et al. (2015)). For China, India and Indonesia, the rural and urban PPPs have been updated using the official national estimates for revised 2011 PPPs (while the other parameters remain unchanged) (Atamanov et al., 2020b). See Appendix 1, Table A1.2 for the original and revised 2011 PPPs for both rural and urban China, India and Indonesia.

Using the rural and urban revised 2011 PPPs for India, the poverty estimate for 2014/15 that has been estimated by Newhouse & Vyas, (2019) has been updated. This estimate is derived using a survey-to-survey imputation methodology. PovcalNet uses it to calibrate a pass-through rate to estimate poverty in India between 2011 and 2015 for the purposes of the global poverty aggregate (following Chen et al., 2018).¹⁰ The 2014/15 survey-to-survey poverty estimates for rural and urban India with the original and revised 2011 PPPs are shown in Table 3.

Table 3: Survey-to-survey poverty estimates for India (2014/15) at \$1.90

PPP	Poverty rate (%)
Original 2011 PPP – Rural	16.8
Original 2011 PPP – Urban	10.1
Revised 2011 PPP – Rural	18.1
Revised 2011 PPP – Urban	10.7

Source: Newhouse & Vyas (2019) and updates by the same authors.

The Syrian Arab Republic has no revised 2011 PPP estimate, so the original 2011 PPP estimate is still used. More details on how the revised 2011 PPPs affect the measurement of global poverty can be found in Atamanov et al. (2020b).

4. Surveys added

4.1. Nigeria 2018/2019

This PovcalNet update includes newly published household survey data from the Nigeria Living Standards Survey (NLSS) 2018/19 (Nigerian National Bureau of Statistics, 2020). This survey was conducted over 12 months for a final total sample of approximately 22,000 households. The survey

¹⁰ The implied fraction of household final consumption expenditure (HFCE) per capita growth that is passed through to growth in the survey mean is 69.9% for rural India and 55.1% for urban India from 2011/12 to 2014/15.

is representative at the national, zonal (6 zones), state (36+1), and rural/urban levels. The household survey contains information on household consumption, including a module on consumption from home production. The survey provides new data for estimating poverty in Nigeria, one of the countries with the largest extreme poor population according to the IPL. Some issues regarding the survey deserve additional discussion.

First, the NLSS is not representative of the Borno state, which accounts for 2.5% of the Nigerian population. This is because parts of the state became inaccessible over the course of the survey. Only 530 households were reached (i.e., 15 Local Government Areas (LGAs) out of original 27 LGAs). For both national and international poverty estimates, Borno state is excluded from the data. In the regional and global aggregates, PovcalNet weights Nigeria using the national population, so Borno state is implicitly assumed to have the Nigerian poverty rate (excluding Borno state).¹¹

Second, the NLSS survey is not comparable to the previous data used in PovcalNet, the Harmonized Nigeria Living Standards Survey (HNLSS) 2009/2010 (see [comparability database](#)). There has been a change in the questionnaire design which affects how the household consumption aggregate has been constructed. Another difference between the two surveys is that the HNLSS 2009/2010 was not spatially deflated while the NLSS 2018/2019 is both spatially and temporally deflated using food unit values. The survey runs from September of 2018 to October 2019 and the reference price is the median at the national level (i.e., April 2019). With the spatial deflation the national poverty rate over the survey period at the international poverty line is 39.1% (without deflation it would be 42.5%).¹²

4.2. Canada 2017

One survey has been added for Canada (2017), which is incorporated as binned data (400 quantile groups) from the Luxembourg Income Study (LIS). For further details on the LIS data, see Section 6.1.

¹¹ Alternatively, Borno state could have been treated as a missing country, in which case it would have been assigned the regional (i.e., Sub-Saharan African) poverty rate for the purposes of the global aggregation. Our approach thus assumes that the Nigerian national poverty rate is a better predictor for Borno state than the Sub-Saharan regional poverty rate.

¹² Using the national poverty line, the Nigerian National Bureau of Statistics reports a poverty estimate of 40.1% (including a spatial price deflation).

5. India line-up

Annual growth in household final consumption expenditure (HFCE) per capita from the World Development Indicators (WDI) is used to line-up poverty estimates for rural and urban India, based on the latest survey available for 2011/12, for the purposes of estimating global poverty. Only a fraction of the growth in HFCE per capita is passed through to survey consumption. From 2011 to 2015, the pass-through rates have been calibrated using the poverty rates estimated by Newhouse & Vyas (2019), as described earlier in Section 3 (also see Chen et al. (2018)).

After 2015, the pass-through factor is based on estimates from historic data. The pass-through factor accounts for the difference in growth rates between HFCE per capita in national accounts and household consumption expenditure as recorded in surveys. Using all comparable consumption surveys available in PovcalNet, a pass-through rate of 67% is estimated.¹³ This estimate is applied to the HFCE per capita growth in WDI for India after 2015. This estimate is in line with the existing literature on this issue (Datt et al., 2003; Deaton & Kozel, 2005; Lakner et al., 2020; Sen, 2000), and also very close to the pass-through factors calibrated for the period 2011/12 to 2014/15. Further details, including alternative methods to estimate poverty in India in 2017, will be available in the forthcoming Poverty and Shared Prosperity report and the associated background paper (Edochie et al., 2020). See Section 7 for more details on the treatment of national accounts data for India.

6. Revisions to welfare aggregates

6.1. Changes to the US data in LIS

We continue to use the LIS data for the following eight economies: Australia; Canada; Germany; Israel; Japan; South Korea; Taiwan, China; and United States. In addition, we continue to use the LIS data for countries that use EU-SILC in recent years (typically from the early 2000s). In June 2020, several changes were made to the US data in the LIS database that affect disposable household income (DHI), which is the welfare aggregate used by PovcalNet.

The US series in PovcalNet has thus been updated (downloaded on 19 June 2020). Data for all other LIS countries have remained unchanged since the March 2020 PovcalNet update

¹³ Lakner et al. (2020) show that using a machine learning method finds significant differences in terms of pass-through rates between consumption and income surveys.

(downloaded on 6 February 2020). As before, we use disposable income per capita from the LIS data in the form of 400 bins (see Chen et al. (2018) for more details).

6.2. National inequality estimates for India, Indonesia and China

We discovered and rectified an error in the estimation of the national Gini coefficients for India and Indonesia that was introduced in the March 2020 PovcalNet update.¹⁴ The urban/rural spatial price adjustment had not been applied correctly. This has now been fixed along with applying the revised 2011 PPPs. Appendix 3, Table A3.1 shows the observations for India and Indonesia for which there are differences between the March 2020 and September 2020 updates. Country-year observations with differences less than 0.01 percentage points are not shown in the table.

Unlike the distributions for India and Indonesia, there was no such error in the distributions for China, which are based on grouped data. These estimates have also been updated, but since the urban-to-rural PPP ratio is the same in the revised and original 2011 PPPs (see Appendix 1, Table A1.2), all the country-year differences in the national Gini coefficient for China are less than 0.01pp and are therefore not shown in Table A3.1.

7. Changes to national accounts data

The national accounts data used to adjust survey data to reference years have been updated. Methodological details and the choice of data sources are available in Prydz et al. (2019). The primary source of national accounts data in this update is the May 2020 version of the World Development Indicators (WDI). For the following special cases, supplementary data are obtained from the April 2020 version of the World Economic Outlook (WEO) where WDI data are missing: Angola (2019), Djibouti (2016-2018), Iran (2018), South Sudan (2016-2018), Syrian Arab Republic (2008-2010), and Taiwan, China (1981-2018). Apart from these cases, there are other special series and other sources of national accounts data in the March 2020 vintage of PovcalNet that have not changed, such as the Madison Project Database (Atamanov et al., 2020a). A full overview of national accounts data used in the update, including special series, is available in Appendix 4.

¹⁴ This does not affect the national estimates of poverty or the mean. The new estimates for the Gini are very close to the estimates in the September 2019 vintage.

For India, adjustments are made to the national accounts data, as in the previous PovcalNet update. A method that adjusts HFCE growth by incorporating findings of a survey-to-survey imputation for 2014/15 is used for the line-up years from 2011 to 2015 (see Sections 3 and 5). After 2015, growth rates in national accounts are adjusted with a pass-through rate of 67%, as described in Section 5.

8. Changes to population data

We did a general update of population data as published in the July 2020 vintage of World Development Indicators (WDI). All 218 economies have been included in the update, including Eritrea which was missed in the March 2020 PovcalNet update.

9. References

- Atamanov, A., Aguilar, R. A. C., Fujs, T. H. M. J., Dewina, R., Diaz-bonilla, C., Mahler, D. G., Jolliffe, D., Lakner, C., Matytsin, M., Montes, J., Herrera, L. L. M., Mungai, R., Newhouse, D., Nguyen, M. C., Parada, F. J., Urquiza, G., Silwal, A. R., Castro, D. M. S., Schoch, M., ... Wu, H. (2020a). March 2020 PovcalNet update: What's new. *Global Poverty Monitoring Technical Note*, 11(March).
- Atamanov, A., Jolliffe, D., Lakner, C., & Prydz, E. B. (2018). Purchasing power parities used in global poverty measurement. *Global Poverty Monitoring Technical Note*, 5(September).
- Atamanov, A., Lakner, C., Mahler, D. G., Tetteh-Baah, S. K., & Yang, J. (2020b). *The effect of new PPP estimates on global poverty: A first look*. May.
- Chen, S., Jolliffe, D. M., Lakner, C., Lee, K., Mahler, D. G., Mungai, R., Nguyen, M. C., Prydz, E. B., Sangraula, P., Sharma, D., Yang, J., & Qinghua, Z. (2018). September 2018 PovcalNet update: What's new. *Global Poverty Monitoring Technical Note*, 2(September), 1–21.
<http://documents.worldbank.org/curated/en/800661537207486157/pdf/129962-WP-REVISED-PUBLIC-Disclosed-3-21-2019.pdf>
- Chen, S., & Ravallion, M. (2008). China is poorer than we thought, but no less successful in the fight against poverty. In *Policy Research Working Paper* (No. 4621; Policy Research Working Paper, Issue May).
- Chen, S., & Ravallion, M. (2010). The developing world is poorer than we thought, but no less successful in the fight against poverty. *The Quarterly Journal of Economics*, November, 1577–1625.
- Datt, G., Kozel, V., & Ravallion, M. (2003). A model-based assessment of India's progress in reducing poverty in the 1990s. *Economic and Political Weekly*, 38(4), 355–361.
- Deaton, A., & Kozel, V. (2005). Data and dogma: The great Indian poverty debate. *World Bank Research Observer*, 20(2), 177–199. <https://doi.org/10.1093/wbro/lki009>
- Edochie, I. N., Freije-Rodriguez, S., Lakner, C., Moreno Herrera, Laura Newhouse, D., Olinto, P., Roy, S. S., Yonzan, N., & Yoshida, N. (2020). *What do we know about poverty in India in 2017/2018?* (forthcoming; World Bank Policy Research Working Paper).
- Fantom, N. & Serajuddin, U. (2016). The World Bank's classification of countries by income. In *Policy Research Working Paper* (No. 7528). <https://doi.org/10.1596/1813-9450-7528>
- Ferreira, F. H. G., Chen, S., Dabalen, A., Dikhanov, Y., Hamadeh, N., Jolliffe, D., Narayan, A., Prydz, E. B., Revenga, A., Sangraula, P., Serajuddin, U., & Yoshida, N. (2016). A global count of the extreme poor in 2012: Data issues, methodology and initial results. *Journal of Economic Inequality*, 14(2), 141–172.
<https://doi.org/10.1007/s10888-016-9326-6>
- Jolliffe, D., & Prydz, E. B. (2016). Estimating international poverty lines from comparable national thresholds. *Journal of Economic Inequality*, 14(2), 185–198. <https://doi.org/10.1007/s10888-016-9327-5>
- Lakner, C., Mahler, D. G., Negre, M., Prydz, E. B., Dialoke, I., Joseph, O. A., & Ogbu, E. F. (2020). How much does reducing inequality matter for global poverty? *Global Poverty Monitoring Technical Note*, 13.
<http://www.worldbank.org/prwp.%0Ahttps://ideas.repec.org/p/wbk/wbrwps/8869.html>
- Lakner, C., Negre, M., & Prydz, E. B. (2015). *The role of inclusive growth in ending extreme poverty*. Paper presented at Sixth ECINEQ Meeting, July 2015.
http://www.ecineq.org/ecineq_lux15/FILESx2015/CR2/p191.pdf
- Mahler, D. G., Lakner, C., Aguilar, R. A. C., & Wu, H. (2020). *The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit*. World Bank Data Blog.
<https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest>
- Newhouse, D., & Vyas, P. (2019). *Estimating poverty in India without expenditure data: A survey-to-survey imputation approach* (No. 8878; Policy Research Working Paper, Issue June).
- Nigerian National Bureau of Statistics. (2020). *2019 Poverty and Inequality in Nigeria: Executive Summary*.
- Sen, A. (2000). Estimates of consumer expenditure and its distribution: Statistical priorities after NSS 55th round. *Economic and Political Weekly*, 35(51), 4499–4501.
- World Bank. (2017). *Monitoring global poverty: Report of the Commission on Global Poverty*. Washington, DC: World Bank.
- World Bank. (2020). *Poverty and Shared Prosperity Report 2020: Reversing reversals of fortune*. Washington, DC: World Bank.

A. Appendix 1 – Imputation of revised 2011 PPPs

A1.1. Egypt, Iraq, Jordan, Laos, Myanmar, Yemen

Table A1.1: Raw and imputed 2011 PPPs

(1)	(2)	(3)	(4)	(5)	(6)
Country	Original 2011 PPP		Revised 2011 PPP		
	<i>Raw</i>	<i>Imputed</i>	<i>Raw</i>	<i>Imputed</i> <i>(old input data)</i>	<i>Imputed</i> <i>(new input data)</i>
Egypt	1.80	2.78	1.71	2.74	2.87
Iraq	573.42	1003.8	477.56	993.81	939.22
Jordan	0.32	0.45	0.33	0.44	0.44
Lao	2914.85	3325.2	3124.08	3273.48	3248.44
Myanmar	275.83	320.6	278.39	310.73	296.14
Yemen	82.09	111.3	76.77	109.18	109.53

Source: Atamanov et al. (2020b), Table A.1.

Notes: The imputed PPP estimates are out-of-sample predictions based on a variant of the seemingly unrelated regression (SURE) model the ICP uses for estimating PPPs for non-benchmark countries (Atamanov et al., 2020b). Columns (2) and (4) report the raw, official PPPs for household final consumption expenditure, including non-profit institutions serving households (NPISHs), obtained from the ICP. Column (3) shows the original 2011 PPPs imputed by Atamanov et al. (2018). Column (5) shows imputed PPPs using revised 2011 PPPs but otherwise the same input data as in Column (3). Column (6) shows imputed 2011 PPPs using both revised 2011 PPPs and new input data. The World Bank currently uses the estimates in column (6) for global poverty measurement.

A1.2. China, India, Indonesia

Table A1.2: Imputed rural and urban PPPs

<i>a. China</i>	Original 2011 PPP	Revised 2011 PPP
Ratio of urban to rural poverty line	1.29	1.29
ICP urban shares	0.76	0.76
Rural PPP	3.038	3.039
Urban PPP	3.904	3.905
National PPP	3.696	3.698
<i>b. India</i>		
Ratio of urban to rural poverty line	1.22	1.22
ICP urban shares	0.74	0.74
Rural PPP	12.908	13.173
Urban PPP	15.695	16.018
National PPP	14.975	15.283
<i>c. Indonesia</i>		
Ratio of urban to rural poverty line	1.18	1.18
ICP urban shares	0.61	0.61
Rural PPP	3678.414	3498.876
Urban PPP	4352.751	4140.299
National PPP	4091.939	3892.218

Source: Atamanov et al. (2020b), Table A.2.

Note: National PPPs are from the ICP. Further details in the text.

B. Appendix 2 – CPI data sources

Table A2.1 lists the source of CPI used for each country-year observation reported in PovcalNet. The columns in the table are defined as follows:

- **Code:** The 3-letter country code used by the World Bank:
<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
- **Economy name:** Name of economy
- **Year(s):** Welfare reporting year, i.e. the year for which the welfare has been reported. If the survey collects income for the previous year, it is the year prior to the survey. This is identical to the year variable used in PovcalNet.
- **CPI period:** Common time period to which the welfare aggregates in the survey have been deflated. The letter Y denotes that the CPI period is identical to the year column. When the welfare aggregate has been deflated to a particular month within the welfare reporting year, the month is indicated by a number between 1 and 12, preceded by an M, and similarly with a Q for quarters. The letter W indicates that a weighted CPI is used, as described in equation 1 in Lakner et al. (2018).
- **CPI source:** Source of the deflator used. The source is given by the abbreviation, the frequency of the CPI, and the vintage; e.g. IFS-M-201911 denotes the monthly IFS database version November 2019. For country-specific deflators, the description is given in the text or further details are available upon request.

Table A2.1. Source of temporal deflator used in PovcalNet

Code	Economy name	Survey	Year(s)	CPI period	Source
AGO	Angola	HBS	2000	W	IFS-M-201911
		IBEP-MICS	2008	W	IFS-M-201911
		IDREA	2018	W	IFS-M-201911
ALB	Albania	EWS	1996	Y	IFS-M-201911
		LSMS	2002-2012	Y	IFS-M-201911
ARE	United Arab Emirates	HIES	2014	W	IFS-M-201911
ARG	Argentina - urban	EPH	1980-1987	Y	CEDLAS May 25 18
			1991-2002	M9	NSO
		EPHC-S2	2003-2018	M7-M12	NSO
			2007-2014	M7-M12	Private estimates
ARM	Armenia	ILCS	All	Y	IFS-M-201911
AUS	Australia	HIS-LIS	1981	Y	IFS-A-201911
		IDS-LIS	1985	Y	IFS-A-201911
		SIH-LIS	1989-2014	Y	IFS-A-201911
		SIH-HES-LIS	2004-2010	Y	IFS-A-201911
AUT	Austria	MC-LIS	1987-1995	Y	IFS-M-201911
		ECHP-LIS	1994-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
AZE	Azerbaijan	ALZ	1995	Y	IFS-M-201911
		HBS	2001-2005	Y	IFS-M-201911
		HSMTSA	2008	Y	IFS-M-201911
BDI	Burundi	EDCM	1992	Y	IFS-M-201911
		EP	1998	W	IFS-M-201911
		QUIBB	2006	Y	IFS-M-201911
		ECVMB	2013	W	IFS-M-201911
BEL	Belgium	SEP-LIS	1985-1997	Y	IFS-M-201911
		PSBH-ECHP-LIS	1995-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
BEN	Benin	QUIBB	2003	Y	IFS-M-201911
		EMICOV	2011	W	IFS-M-201911
			2015	Y	IFS-M-201911
BFA	Burkina Faso	EP-I	1994	W	IFS-M-201911
		EP-II	1998	Y	IFS-M-201911
		ECVM	2003-2009	Y	IFS-M-201911
		EMC	2014	Y	IFS-M-201911
BGD	Bangladesh	HHES	1983-1985	W	WEO-A-201910
			1988-1991	W	IFS-A-201911
			1995	W	Survey
		HIES	2000-2016	Y	Survey

BGR	Bulgaria	HBS	1989	Y	IFS-A-201911
			1992-1994	Y	IFS-M-201911
		IHS	1995-2001	Y	IFS-M-201911
		MTHS	2003-2007	Y	IFS-M-201911
		EU-SILC	2007-2018	(prev. year) Y	IFS-M-201911
BIH	Bosnia and Herzegovina	LSMS	2001-2004	Y	WEO-A-201910
		HBS	2007-2015	Y	IFS-M-201911
BLR	Belarus	FBS	1988	Y	Previous WDI/IFS
			1993-1995	Y	IFS-M-201911
		HHS	1998-2018	Y	IFS-M-201911
BLZ	Belize	LFS	1993-1999	Y	WEO-A-201910
		HBS	1995	Y	WEO-A-201910
		SLC	1996	Y	WEO-A-201910
BOL	Bolivia	EPF	1990	W	IFS-M-201911
	Bolivia - urban	EIH	1992	M11	IFS-M-201911
		ENE	1997	M11	IFS-M-201911
			1999	M10	IFS-M-201911
		ECH	2000	M11	IFS-M-201911
		EH	2001-2005	M11	IFS-M-201911
		ECH	2004	M10	IFS-M-201911
			2006-2016	M10	IFS-M-201911
		EH	2017-2018	M11	IFS-M-201911
BRA	Brazil	PNAD	1981-2015	M9	IFS-M-201911
		PNADC-E1	2012-2018	Y	IFS-M-201911
BTN	Bhutan	BLSS	All	Y	Previous WDI/IFS
BWA	Botswana	HIES	1985-2002	W	IFS-M-201911
		CWIS	2009	W	IFS-M-201911
		BMTHS	2015	W	IFS-M-201911
CAF	Central African Republic	EPCM	1992	W	IFS-M-201911
		ECASEB	2003-2008	Y	IFS-M-201911
CAN	Canada	SCF-LIS	1971-1997	Y	IFS-M-201911
		SLID-LIS	1998-2010	Y	IFS-M-201911
		CIS-LIS	2012-2017	Y	IFS-M-201911
CHE	Switzerland	SIWS-LIS	1982	Y	IFS-M-201911
		NPS-LIS	1992	Y	IFS-M-201911
		IES-LIS	2000-2002	Y	IFS-M-201911
		EU-SILC	2007-2018	(prev. year) Y	IFS-M-201911
CHL	Chile	CASEN	1987	Y	IFS-M-201911
			1990-2017	M11	IFS-M-201911
CHN	China - rural	CRHS-CUHS	1981-2011	Y	NSO
	China - urban		1981-2011	Y	NSO

	China - rural	CNIHS	2012-2016	Y	NSO
	China - urban		2012-2016	Y	NSO
CIV	Côte d'Ivoire	EPAM	1985-1988	W	IFS-M-201911
		EP	1992	W	IFS-M-201911
		ENV	1995-2015	Y	IFS-M-201911
CMR	Cameroon	ECAM-I	1996	Y	IFS-M-201911
		ECAM-II	2001	Y	IFS-M-201911
		ECAM-III	2007	Y	IFS-M-201911
		ECAM-IV	2014	Y	IFS-M-201911
COD	Congo, Dem. Rep.	E123	All	W	IFS-M-201911
COG	Congo, Rep.	ECOM	All	Y	IFS-M-201911
COL	Colombia	ENH	1980-1988	Y	IFS-M-201911
			1989-1991	M11	IFS-M-201911
		ENH	1992-2000	M11	IFS-M-201911
		ECH	2001-2005	M11	IFS-M-201911
		GEIH	2008-2018	M11	IFS-M-201911
COM	Comoros	EIM	2004	Y	IFS-M-201911
		EESIC	2013	Y	IFS-M-201911
CPV	Cabo Verde	IDRF	2001	W	IFS-M-201911
		QUIBB	2007	W	IFS-M-201911
		IDRF	2015	Y	IFS-M-201911
CRI	Costa Rica	ENH	1981-1986	Y	IFS-M-201911
			1989	Y	IFS-M-201911
		EHPM	1990-2009	M7	IFS-M-201911
			2010-2018	M7	IFS-M-201911
CYP	Cyprus	EU-SILC	All	(prev. year) Y	IFS-M-201911
CZE	Czech Republic	CM	1988	Y	Previous WDI/IFS
		MC-LIS	1992-2002	Y	IFS-M-201911
		CM	1993	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
DEU	Germany	LIS	1973-1983	Y	IFS-M-201911
			1981	Y	IFS-M-201911
			1984-2016	Y	IFS-M-201911
DJI	Djibouti	EDAM	2002-2013	Y	IFS-M-201911
			2017	M5	IFS-M-201911
DNK	Denmark	LM-LIS	1987-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
DOM	Dominican Republic	ENGSLF	1986-1989	Y	IFS-M-201911
		ICS	1992	M6	IFS-M-201911
		ENFT	1996	M2	IFS-M-201911
			1997	M4	IFS-M-201911

			2000-2016	M9	IFS-M-201911
		ECNFT-Q03	2017-2018	Y	IFS-M-201911
DZA	Algeria	EDCM	1988	Y	IFS-M-201911
		ENMNV	1995	Y	IFS-M-201911
		ENCNVM	2011	W	IFS-M-201911
ECU	Ecuador	EPED	1987	Y	IFS-M-201911
		ECV	1994	M6-M10	IFS-M-201911
	Ecuador - urban	EPED	1995	M11	IFS-M-201911
		EPED	1998	M6	IFS-M-201911
	Ecuador	ECV	1999	(prev. year) M10-M9	IFS-M-201911
		EPED	2000	M11	IFS-M-201911
		ENEMDU	2003-2018	M11	IFS-M-201911
EGY	Egypt, Arab Rep.		1990-2012	W	IFS-M-201911
		HIECS	2015	Y	IFS-M-201911
			2017	W	IFS-M-201911
ESP	Spain	HBS-LIS	1980-1990	Y	IFS-M-201911
		ECHP-LIS	1995-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
EST	Estonia	HIES	1988	Y	Previous WDI/IFS
			1993-1998	Y	IFS-M-201911
		HBS	2000-2004	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
ETH	Ethiopia - rural	HICES	1981	W	IFS-M-201911
	Ethiopia	HICES	1995-2010	W	IFS-M-201911
			2015	M12	IFS-M-201911
FIN	Finland	IDS-LIS	1987-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
FJI	Fiji	HIES	All	W	IFS-M-201911
FRA	France	HBS-LIS	1978-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
FSM	Micronesia, Fed. Sts. - urban	CPH	2000	Y	IFS-A-201911
	Micronesia, Fed. Sts.	HIES	2005-2013	Y	IFS-A-201911
GAB	Gabon	EGEP	All	Y	IFS-M-201911
GBR	United Kingdom	FES-LIS	1969-1995	Y	IFS-M-201911
		FRS-LIS	1994-1999	Y	IFS-M-201911
		EU-SILC	2005-2017	(prev. year) Y	IFS-M-201911
GEO	Georgia	SGH	1996-1997	Y	IFS-M-201811
		HIS	1997-2004	Y	IFS-M-201811
			2005-2018	Y	IFS-M-201911
GHA	Ghana	GLSS-I	1987	W	IFS-M-201911

		GLSS-II	1988	W	IFS-M-201911
		GLSS-III	1991	W	IFS-M-201911
		GLSS-IV	1998	W	IFS-M-201911
		GLSS-V	2005	W	Survey
		GLSS-VI	2012	W	Survey
		GLSS-VII	2016	W	Survey
GIN	Guinea	ESIP	1991	Y	WEO-A-201910
		EIBC	1994	W	WEO-A-201910
		EIBEP	2002	W	WEO-A-201910
		ELEP	2007-2012	Y	IFS-M-201911
GMB	Gambia, The	HPS	1998	Y	IFS-M-201911
		HIS	2003	W	IFS-M-201911
		IHS	2010-2015	W	IFS-M-201911
GNB	Guinea-Bissau	ILJF	1991	Y	IFS-M-201911
		ICOF	1993	Y	IFS-M-201911
		ILAP-I	2002	Y	IFS-M-201911
		ILAP-II	2010	Y	IFS-M-201911
GRC	Greece	ECHP-LIS	1995-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
GTM	Guatemala	ENSD	1986	W	IFS-M-201911
			1989	Y	IFS-M-201911
		ENIGF	1998	M8	IFS-M-201911
		ENCOVI	2000	M6-M11	IFS-M-201911
			2006-2014	M7	IFS-M-201911
GUY	Guyana	GLSMS	1992	W	WEO-A-201910
			1998	Y	IFS-M-201911
HND	Honduras	ECSFT	1986	Y	IFS-M-201911
			1989	Y	IFS-M-201911
		EPHPM	1990-1993	M5	IFS-M-201911
			1994	M9	IFS-M-201911
			1995-2018	M5	IFS-M-201911
HRV	Croatia	HBS	1988-2010	Y	IFS-M-201911
		EU-SILC	2010-2018	(prev. year) Y	IFS-M-201911
HTI	Haiti	ECVH	2001	M5	IFS-M-201911
		ECVMAS	2012	M10	IFS-M-201911
HUN	Hungary	HBS	1987-2007	Y	IFS-M-201911
		HHP-LIS	1991-1994	Y	IFS-M-201911
		THMS-LIS	1999	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
IDN	Indonesia	SUSENAS	1984-1999	Y	IFS-M-201911
			2000-2007	M2	IFS-M-201911

			2008-2018	M3	IFS-M-201911
IND	India - rural	NSS	1977-1983	Y	NSO
	India - urban		1977-1983	Y	NSO
	India - rural	NSS-SCH1	1987-2011	W	NSO
	India - urban		1987-2011	W	NSO
IRL	Ireland	SIDPUSS-LIS	1987	Y	IFS-M-201911
		LIS-ECHP-LIS	1994-2000	Y	IFS-M-201911
		EU-SILC	2004-2017	(prev. year) Y	IFS-M-201911
IRN	Iran, Islamic Rep.	SECH	1986-1998	Y	CBI
		HEIS	2005-2017	Y	CBI
IRQ	Iraq	IHSES	2006	M11-(next year) M12	COSIT
			2012	Y	COSIT
ISL	Iceland	EU-SILC	All	(prev. year) Y	IFS-M-201911
ISR	Israel	HES-LIS	All	Y	IFS-M-201911
ITA	Italy	SHIW-LIS	1986-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
JAM	Jamaica	SLC	1988	M9	IFS-M-201911
			1990-1993	M11-(next year) M3	IFS-M-201911
			1996	M5-M8	IFS-M-201911
			1999	M6-M8	IFS-M-201911
			2002-2004	M6	IFS-M-201911
JOR	Jordan	HEIS	1986	W	IFS-M-201911
			1992-1997	Y	IFS-M-201911
			2002-2010	W	IFS-M-201911
JPN	Japan	JHPS-LIS	ALL	Y	IFS-M-201911
KAZ	Kazakhstan	HBS	1988	Y	Previous WDI/IFS
			1993-2017	Y	IFS-M-201911
		LSMS	1996	Y	IFS-M-201911
KEN	Kenya	WMS-I	1992	Y	NSO
		WMS-II	1994	Y	NSO
		WMS-III	1997	Y	NSO
		IHBS	2005-2015	W	NSO
KGZ	Kyrgyz Republic	PMS	1988	Y	Previous WDI/IFS
			1993	Y	Previous WDI/IFS
		HBS	1998-2003	Y	IFS-M-201911
		KIHS	2004-2018	Y	IFS-M-201911
KHM	Cambodia	CSES	All	Y	IFS-M-201911
KIR	Kiribati	HIES	2006	Y	IFS-M-201911
KOR	Korea, Rep.	HIES-FHES-LIS	All	Y	IFS-M-201911
LAO	Lao PDR	LECS	1997	W	IFS-M-201911

			2002-2012	W	Survey
LBN	Lebanon	HBS	2011	(next year) M5	IFS-M-201911
LBR	Liberia	CWIQ	2007	Y	IFS-M-201911
		HIES	2014-2016	Y	IFS-M-201911
LCA	St. Lucia	LSMS	1995	Y	IFS-M-201911
		SLC-HBS	2016	M1	IFS-M-201911
		LFSS	1985	Y	IFS-M-201911
		HIES	1990	W	IFS-M-201911
		SES	1995	W	IFS-M-201911
LKA	Sri Lanka		2002	Y	IFS-M-201911
		HIES	2006-2012	W	IFS-M-201911
			2016	Y	IFS-M-201911
		HBS	1986	W	WEO-A-201910
		NHECS	1994	W	WEO-A-201910
LSO	Lesotho	HBS	2002	W	IFS-M-201911
			2010	Y	IFS-M-201911
		CMSHBS	2017	M8	IFS-M-201911
		HBS	1988	Y	Previous WDI/IFS
LTU	Lithuania		1993-2008	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
		PSSELL-LIS	1985-1991	Y	IFS-M-201911
LUX	Luxembourg	PSSELL-ECHP-LIS	1994-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
		HBS	1988	Y	Previous WDI/IFS
LVA	Latvia		1993-2009	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
		ECDM	1984	W	IFS-M-201911
		ENCV	1990	W	IFS-M-201911
MAR	Morocco	ENNVM	1998-2006	W	IFS-M-201911
		ENCDM	2000-2013	W	IFS-M-201911
		HBS	1988-1992	Y	Previous WDI/IFS
			1997-2018	Y	IFS-M-201911
		EB	1980	Y	IFS-M-201911
			1993	W	IFS-M-201911
MDG	Madagascar	EPM	1997-2010	Y	IFS-M-201911
		ENSOMD	2012	Y	IFS-M-201911
		HIES	2002-2009	W	IFS-M-201911
			2016	Y	IFS-M-201911
		ENIGH	1984-2014	M8	IFS-M-201911
MEX	Mexico	ENIGHNS	2016-2018	M8	IFS-M-201911
MKD	North Macedonia	HBS	1998-2008	Y	IFS-M-201911

		SILC-C	2010-2018	(prev. year) Y	IFS-M-201911
MLI	Mali	EMCES	1994	Y	IFS-A-201911
		EMEP	2001	W	IFS-M-201911
		ELIM	2006	Y	IFS-M-201911
			2009	W	IFS-M-201911
MLT	Malta	EU-SILC	ALL	(prev. year) Y	IFS-M-201911
MMR	Myanmar	MPLCS	2015	M1	IFS-M-201911
		MLCS	2017	Q1	IFS-M-201911
MNE	Montenegro	HBS	2005-2014	Y	IFS-M-201911
		SILC-C	2013-2016	(prev. year) Y	IFS-M-201911
MNG	Mongolia	LSMS	1995-1998	Y	IFS-M-201911
		LFS	2002	Y	IFS-M-201911
		LSS	2007	W	IFS-M-201911
		HSES	2010-2018	Y	IFS-M-201911
MOZ	Mozambique	NHS	1996	W	WEO-A-201910
		IAF	2002	W	WEO-A-201910
		IOF	2008-2014	W	WEO-A-201910
MRT	Mauritania	EPCV	1987	Y	IFS-M-201911
		EP	1993	Y	IFS-M-201911
		EPCV	1995	W	IFS-M-201911
			2000-2014	Y	IFS-M-201911
MUS	Mauritius	HBS	2006	W	IFS-M-201911
			2012-2017	Y	IFS-M-201911
MWI	Malawi	IHS-I	1997	W	IFS-M-201911
		IHS-II	2004	W	Survey
		IHS-III	2010	W	Survey
		IHS-IV	2016	M04	Survey
MYS	Malaysia	HIS	1984-2007	Y	IFS-M-201911
			2009	W	IFS-M-201911
			2012-2014	Y	IFS-M-201911
			2016	W	IFS-M-201911
NAM	Namibia	NHIES	1993	W	WEO-A-201910
			2003-2015	W	IFS-M-201911
NER	Niger	ENBCM	1992-2007	W	IFS-M-201911
		EPCEs	1994	W	IFS-M-201911
		ENCVM	2005	Y	IFS-M-201911
		ECVMA	2011-2014	Y	IFS-M-201911
NGA	Nigeria	NCS	1985	W	IFS-M-201911
			1992-1996	Y	IFS-M-201911
		LSS	2003-2009	W	IFS-M-201911

			2018	(next year) M3-(next year) M4	IFS-M-201911
NIC	Nicaragua	EMNV	1993	M2	NSO
			1998	M6	NSO
			2001	M6	IFS-M-201911
			2005-2009	M8	IFS-M-201911
			2014	M8-M10	IFS-M-201911
NLD	Netherlands	AVO-LIS	1983-1990	Y	IFS-M-201911
		SEP-LIS	1993-1999	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
NOR	Norway	IDS-LIS	1979-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
NPL	Nepal	MHBS	1984	W	IFS-M-201911
		LSS-I	1995	W	IFS-M-201911
		LSS-II	2003	W	IFS-M-201911
		LSS-III	2010	W	IFS-M-201911
PAK	Pakistan	HIES	1987	Y	IFS-M-201911
			1990-1998	W	IFS-M-201911
		IHS2	1996	W	IFS-M-201911
		PIHS	2001	W	IFS-M-201911
		PSLM	2004-2015	W	IFS-M-201911
PAN	Panama	EMO	1979-1989	Y	IFS-M-201911
			1991	M7	IFS-M-201911
		EH	1995-2018	M7	IFS-M-201911
PER	Peru	ENNIV	1985	W	IFS-M-201911
			1994	Y	IFS-M-201911
			1997-2002	Q4	IFS-M-201911
		ENAH0	2003	M5-M12	IFS-M-201911
			2004-2018	Y	IFS-M-201911
PHL	Philippines	FIES	All	Y	IFS-M-201911
PNG	Papua New Guinea	HIES	1996	Y	IFS-A-201911
			2009	W	IFS-A-201911
POL	Poland	HBS	1985-1987	Y	IFS-A-201911
		HBS-LIS	1986	Y	IFS-A-201911
		HBS	1989-2016	Y	IFS-M-201911
		HBS-LIS	1992-1999	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
PRT	Portugal	EU-SILC	All	(prev. year) Y	IFS-M-201911
PRY	Paraguay	EH	1990	M7	IFS-M-201911
			1995	M8-M11	IFS-M-201911

		EIH	1997	(next year) M2	IFS-M-201911
		EPH	1999	M9	IFS-M-201911
		EIH	2001	M3	IFS-M-201911
			2002	M11	IFS-M-201911
			2003	M9	IFS-M-201911
			2004	M10	IFS-M-201911
		EPH	2005	M11	IFS-M-201911
			2006	M12	IFS-M-201911
			2007-2008	M10	IFS-M-201911
			2009	M11	IFS-M-201911
			2010-2018	M10	IFS-M-201911
PSE	West Bank and Gaza	PECS	2004-2011	Y	IFS-M-201911
			2016	W	IFS-M-201911
		HBS	1989	Y	Milanovic (1998)
		MC	1992	Y	IFS-M-201911
		HIS	1994	Y	IFS-M-201911
ROU	Romania	IHS-LIS	1995-1997	Y	IFS-M-201911
		IHS	1998-2000	Y	IFS-M-201911
		HBS	1999-2016	Y	IFS-M-201911
		EU-SILC	2007-2018	(prev. year) Y	IFS-M-201911
		RLMS	1988	Y	Previous WDI/IFS
RUS	Russian Federation	HBS	1993-2018	Y	IFS-M-201911
		RLMS	2001	Y	IFS-M-201911
		ENBCM	1984	W	IFS-M-201911
		EICV-I	2000	W	IFS-M-201911
		EICV-II	2005	W	IFS-M-201911
RWA	Rwanda	EICV-III	2010	(next year) M1	IFS-M-201911
		EICV-IV	2013	(next year) M1	IFS-M-201911
		EICV-V	2016	(next year) M1	IFS-M-201911
			2009	Y	IFS-M-201911
SDN	Sudan	NBHS	2014	M11	IFS-M-201911
		EP	1991	W	IFS-M-201911
		ESAM	1994	W	IFS-M-201911
SEN	Senegal	ESAM-II	2001	Y	IFS-M-201911
		ESPS-I	2005	W	IFS-M-201911
		ESPS-II	2011	W	IFS-M-201911
SLB	Solomon Islands	HIES	All	Y	IFS-M-201911
		HEEAS	1989	W	WEO-A-201910
SLE	Sierra Leone	SLIHS	2003	W	WEO-A-201910

			2011-2018	Y	IFS-M-201911
			1989	Y	IFS-M-201911
			1991	M10-(next year) M4	IFS-M-201911
SLV	El Salvador	EHPM	1995-1999	Y	IFS-M-201911
			2000-2007	M12	IFS-M-201911
			2008-2018	M11	IFS-M-201911
		LSMS	2002	Y	IFS-M-201911
SRB	Serbia	HBS	2003-2018	Y	IFS-M-201911
		EU-SILC	2013-2018	(prev. year) Y	IFS-M-201911
SSD	South Sudan	NBHS	2009	Y	IFS-M-201911
STP	São Tomé and Príncipe	IOF	2000	W	IFS-M-201911
			2010-2017	Y	IFS-M-201911
SUR	Suriname	EHS	1999	Y	IFS-M-201911
		MC-LIS	1992-1996	Y	IFS-M-201911
SVK	Slovak Republic	HBS	2004-2009	Y	IFS-M-201911
		EU-SILC	2005-2017	(prev. year) Y	IFS-M-201911
		IES	1987-1993	Y	IFS-M-201911
SVN	Slovenia	HBS-LIS	1997-1999	Y	IFS-M-201911
		HBS	1998-2003	Y	IFS-M-201911
		EU-SILC	2005-2018	(prev. year) Y	IFS-M-201911
		LLS-RD-LIS	1967	Y	IFS-M-201911
SWE	Sweden	HIS-LIS	1975-2000	Y	IFS-M-201911
		EU-SILC	2004-2018	(prev. year) Y	IFS-M-201911
			1994-2000	W	IFS-M-201911
SWZ	Eswatini	HIES	2001	Y	IFS-M-201911
			2009-2016	W	IFS-M-201911
		HES	1999	W	IFS-M-201911
SYC	Seychelles	HBS	2006	W	IFS-M-201911
			2013	Y	IFS-M-201911
SYR	Syrian Arab Republic	HBS	2004	Y	IFS-M-201911
TCD	Chad	ECOSIT-II	2003	Y	IFS-M-201911
		ECOSIT-III	2011	Y	IFS-M-201911
TGO	Togo	QUIBB	All	Y	IFS-M-201911
THA	Thailand	SES	All	Y	IFS-M-201911
		TLSS	1999	Y	WEO-A-201910
			2003-2007	Y	Survey
TJK	Tajikistan	HBS	2004	Y	Survey
		TLSS	2009	Y	IFS-M-201911
		HSITAFIEN	2015	Y	IFS-M-201911
TKM	Turkmenistan	LSMS	1998	Y	WEO-A-201910
TLS	Timor-Leste	TLSS	2001	Y	WEO-A-201910

		TLCLS	2007-2014	Y	IFS-M-201911
TON	Tonga	HIES	All	Y	IFS-M-201911
TTO	Trinidad and Tobago	SLC	1988	Y	IFS-M-201911
		PHC	1992	Y	IFS-M-201911
TUN	Tunisia	HBCS	1985	Y	IFS-A-201911
			1990	Y	IFS-M-201911
		LSS	1995-2000	Y	IFS-M-201911
		NSHBCSL	2005-2015	W	IFS-M-201911
TUR	Turkey	HICES	All	Y	IFS-M-201911
TUV	Tuvalu	HIES	2010	Y	WEO-A-201910
TWN	Taiwan, China	FIDES-LIS	All	Y	WEO-A-201910
TZA	Tanzania	HBS	1991	W	IFS-A-201911
			2000	W	IFS-M-201911
			2007	Y	IFS-M-201911
			2011-2018	W	IFS-M-201911
UGA	Uganda	HBS	1989	Y	WEO-A-201910
		NIHS	1992	W	WEO-A-201910
			1996-1999	W	IFS-M-201911
		UNHS	2002-2016	W	IFS-M-201911
UKR	Ukraine	HS	1988	Y	Previous WDI/IFS
			1992-1993	Y	IFS-M-201911
		HIES	1995-1996	Y	IFS-M-201911
		HBS	1999	Y	IFS-M-201911
		HLCS	2002-2018	Y	IFS-M-201911
URY	Uruguay	ENH	1981-1989	Y	IFS-M-201911
	Uruguay - urban	ECH	1992-2005	(prev. year) M12	IFS-M-201911
	Uruguay	ECH	2006-2018	(prev. year) M12	IFS-M-201911
USA	United States	CPS-LIS	1974-2000	Y	IFS-M-201911
		CPS-ASEC-LIS	2004-2018	Y	IFS-M-201911
UZB	Uzbekistan	HBS	All	Y	WEO-A-201910
VEN	Venezuela, RB	EHM	1981-1989	Y	NSO
			1992-2006	M12	NSO
VNM	Vietnam	VLSS	1992	W	WEO-A-201910
			1998	W	IFS-M-201911
		VHLSS	2002-2018	M1	IFS-M-201911
VUT	Vanuatu	HIES	2010	Y	IFS-A-201911
WSM	Samoa	HIES	2002-2008	Y	IFS-M-201911
			2013	W	IFS-M-201911
XKX	Kosovo	HBS	All	Y	IFS-M-201911
YEM	Yemen, Rep.	HBS	1998	Y	IFS-M-201911

			2005	W	IFS-M-201911
			2014	Y	IFS-M-201911
		KIDS	1993	Y	IFS-M-201911
		HIES	1996	Y	IFS-M-201911
			2000	W	IFS-M-201911
ZAF	South Africa	IES	2005-2010	(next year) M6	IFS-M-201911
			2008	W	IFS-M-201911
		LCS	2014	(next year) M6	IFS-M-201911
		HBS	1991-1993	Y	IFS-M-201911
		LCMS-I	1996	Y	IFS-M-201911
		LCMS-II	1998	Y	IFS-M-201911
		LCMSIII	2002	W	IFS-M-201911
ZMB	Zambia	LCMS-IV	2004	W	IFS-M-201911
		LCMS-V	2006	W	IFS-M-201911
		LCMS-VI	2010	Y	IFS-M-201911
		LCMS-VII	2015	Y	IFS-M-201911
		ICES	2011	Y	IFS-M-201911
ZWE	Zimbabwe	PICES	2017	Y	IFS-M-201911

C. Appendix 3 – Gini coefficients

Table A3.1. Estimates of Gini coefficient

<i>Country</i>	<i>Year</i>	<i>Gini (%)</i> <i>Mar 2020</i>	<i>Gini (%)</i> <i>Sept 2020</i>	<i>Difference (pp)</i>
India	1993	32.71	31.70	-1.01
India	2004	36.83	34.41	-2.43
India	2009	37.51	35.38	-2.13
India	2011	37.83	35.71	-2.12
Indonesia	1993	31.96	32.02	0.05
Indonesia	1996	34.41	34.47	0.06
Indonesia	1998	31.07	31.12	0.05
Indonesia	1999	31.03	31.08	0.05
Indonesia	2000	30.25	28.58	-1.67
Indonesia	2001	30.89	29.03	-1.87
Indonesia	2002	33.77	31.72	-2.04
Indonesia	2003	33.96	31.90	-2.06
Indonesia	2004	34.78	32.74	-2.03
Indonesia	2005	34.92	33.02	-1.90
Indonesia	2006	36.15	34.29	-1.86
Indonesia	2007	37.47	35.70	-1.77
Indonesia	2008	36.83	35.15	-1.67
Indonesia	2009	36.74	35.11	-1.64
Indonesia	2010	37.88	36.41	-1.47
Indonesia	2011	41.08	39.73	-1.36
Indonesia	2012	41.12	39.68	-1.44
Indonesia	2013	41.47	39.97	-1.50
Indonesia	2014	40.82	39.42	-1.39
Indonesia	2015	40.98	39.73	-1.25
Indonesia	2016	39.90	38.60	-1.30
Indonesia	2017	39.37	38.11	-1.27
Indonesia	2018	38.97	37.77	-1.19

Source: [PovcalNet](#)

Note: This table shows the Gini coefficients (%) in the March 2020 and September 2020 PovcalNet updates as well as the differences. Small differences less than 0.01pp are not shown in this table.

D. Appendix 4 – National accounts data sources

Legend for Tables A4.1 and A4.2

Code – World Bank economy/country code Sources

Sources

M – Madison Project Dataset

W – World Development Indicators, May 2020

S – Special Country Series

Coverage

N – National

U – Urban

R – Rural

Table A4.1. Gross Domestic Product (GDP) per capita

[illegible]

[illegible]

[illegible]

Table A4.2. Household Final Consumption Expenditures (HFCE) per capita

[illegible]

38

ZMB N
ZWE N

W
WWWWWWWWW