Article: Disaggregated Impacts of Growth on Multidimensional Poverty: Does the Source of Growth Matter?

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1. Overview

The code and data provided in this package replicate the tables and figures from the article "Disaggregated Impacts of Growth on Multidimensional Poverty: Does the Source of Growth Matter?" using STATA. Users should run the master .do file, "00 Main do file.do," to generate all the tables and figures displayed in the article and appendix. The corresponding tables/figures from the paper are indicated throughout the script.

Before running the master do file, save the replication package in the directory of your choice, copy your username and the path to that directory, and paste it into the "00 Main do file.do" do-file (lines 11–17).

2. Data Availability

The clean dataset, "1 data\Master.dta," is the result of merging and cleaning the raw data as described in the manuscript and the do-files with the prefix 01_ to 10_. All raw datasets used to generate the clean master file are publicly available, as listed below.

The MPI index and its components are sourced from the OPHI homepage:

- **Filename**: Table_6_Trends_Over_Time_MPI_2023_2.xlsx

Source: Alkire, S., Kanagaratman, U., & Suppa, N. (2021). *The Global Multidimensional Poverty Index (MPI): 2018 Revision* (51; OPHI MPI Methodological Note). University of Oxford.

Url: https://ophi.org.uk/global-mpi/2022#paragraph--3083

Accessed: 31/01/2024

Note 1: We used the table "Data Table 6: Trends Over Time 2022"

Note 2: We manually added the first row into the xlsx file. If the replicator chooses to use the latest data from OPHI by downloading it from their homepage, instead of using the file provided in the reproducibility package, they should copy the first row from "1 data/1 raw/Table_6_Trends_Over_Time_MPI_2023_2.xlsx" and insert it into the downloaded file. Otherwise, the "01 cleaning mpi.do" file will not function properly.

GDP per capita (constant 2015 US\$) is sourced from the Word Development Indicator

- Filename: API_NY.GDP.PCAP.KD_DS2_en_excel_v2_6526226.xls
Source: World Bank. (2024). GDP per capita (constant 2015 US\$) [Data set]. World Development Indicators.

Url: https://data.worldbank.org/indicator/NY.GDP.PCAP.KD

Accessed: 02/02/2024

Gini is sourced from UNU-WIDER's WIID dataset

- **Filename:** wiid-data.xlsx

Source: UNU-WIDER, World Income Inequality Database (WIID) (2024). Gini Index [Data set]. Version 28 November 2023.

Url:https://www4.wider.unu.edu/?ind=1&type=ChoroplethSeg&year=70&byCountry= false&slider=buttons

Accessed: 06/02/2024

Data classifying countries by income groups has been obtained from the World Bank

Filename: Historical income groups.xlsx

Source: World Bank Country and Lending Groups

URL: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-

bank-country-and-lending-groups

Accessed: 07/02/2024

Note: We downloaded the raw data by clicking on the link: "historical classification by income in XLSX format" and renamed the file from "OGHIST.xlsx" to "Historical income groups.xlsx"

Productivity data are sourced from the book "Global Productivity: Trends, Drivers, and Policies"

Filename: global_productivity.dta

Source: Dieppe, A. (2021). Global Productivity: Trends, Drivers, and Policies (A. Dieppe (ed.); 2021st ed.). World Bank. https://doi.org/doi:10.1596/978-1-4648-1608-6

Url: https://www.worldbank.org/en/research/publication/global-productivity

Accessed: 02/02/2024

Note 1: We downloaded the raw data by clicking on the "Stata" link under Aggregate Productivity Data on the right-hand side of the homepage. We then unzipped the file Global-Productivity-Aggregate-Database.dta and renamed it global productivity.dta.

Note 2: The downloaded file from the homepage is based on a newer version of Stata (later than version 13). We had to convert the data to make it readable by our Stata 13.1 version. If you are using a newer version, this should not be an issue.

Data used to calculate the expenditure approach components (c: consumption, i: investment, g: government spending, x: export, and m: import) are derived from the World Development Indicators and have been all accessed on 23/05/2024.

Filename: c.xls

Variable: Final consumption expenditure (constant 2015 US\$): https://data.worldbank.org/indicator/NE.CON.TOTL.KD

Filename: i.xls

Variable: Gross capital formation (constant 2015 US\$):

URL: https://data.worldbank.org/indicator/NE.GDI.TOTL.KD

Filename: g.xls

Variable: General government final consumption expenditure (constant 2015 US\$): https://data.worldbank.org/indicator/NE.CON.GOVT.KD

Filename: x.xls

Variable: Exports of goods and services (constant 2015 US\$): https://data.worldbank.org/indicator/NE.EXP.GNFS.KD

Filename: m.xls

Variable: *Imports of goods and services (constant 2015 US\$):* https://data.worldbank.org/indicator/NE.IMP.GNFS.KD - Filename: pop.xls

Variable: Population, total

Url: https://data.worldbank.org/indicator/SP.POP.TOTL

The *sustainable* and *unsustainable growth* variables are calculated following Mahler (2021) using the following variables from the World Bank's The Changing Wealth of Nations and World Development Indicators

- **Filename:** cons_fc.xls

Variable: Adjusted savings: consumption of fixed capital (% of GNI):

Url: https://data.worldbank.org/indicator/NY.ADJ.DKAP.GN.ZS

- **Filename:** co2_damage.xls

Variable: Adjusted savings: carbon dioxide damage (% of GNI): **Url:** https://data.worldbank.org/indicator/NY.ADJ.DCO2.GN.ZS

- Filename: emission_damage.xls

Variable: Adjusted savings: particulate emission damage (% of GNI):

Url: https://data.worldbank.org/indicator/NY.ADJ.DPEM.GN.ZS

- **Filename:** nr_depletion.xls

Variable: Adjusted savings: natural resources depletion (% of GNI):

Url: https://data.worldbank.org/indicator/NY.ADJ.DRES.GN.ZS

- **Filename:** gni.xls

Variable: *GNI (constant 2015 US\$)*:

Url: https://data.worldbank.org/indicator/NY.GNP.MKTP.KD

- Filename: pop.xls

Variable: Population, total:

Url: https://data.worldbank.org/indicator/SP.POP.TOTL

All accessed 23/05/2024

Total natural resource rents (% of GDP) is sourced from the Word Development Indicator

 $\hbox{\bf - Filename:}\ API_NY.GDP.TOTL.RT.ZS_DS2_en_excel_v2_1537790.xls$

Source: World Bank. (2024). Total natural resources rents (% of GDP) [Data set]. World

Development Indicators.

Url: https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS?view=chart

Accessed 23/07/2024

3. Computing Requirements

This code was last executed on a laptop with the following specifications: AMD Ryzen 7 PRO 7730U running at 2.0 GHz, operating on Windows 11 Pro version 23H2. We utilized a Stata/MP 13.1, and the runtime was approximately 2 minutes.

4. Software Requirements

This code was last run using Stata 13.1. One user-written package is used in the files (outreg2: version 2.3.2, 17 August 2014). It is installed when the replication do file is run.

5. Instructions for Replicators

To replicate the figures and tables displayed in the article:

- 1. Open the .do file named "00 Main do file" from the folder "2 do-files"
- 2. Copy paste the path to your folder in the main do file.
- 3. Run the do file
- 4. The reproduced tables and graphs from the article and appendix are saved in the "reproducibility package\3 outputs\..." folder. The table below shows the correspondence between the tables/figures in the manuscript and the outputs in the reproducibility package, along with the respective .do file from which each output was generated.

Please note that each .do file can be run independently. However, ensure that the path in each .do file is set according to your directory settings.

Table	Table in package	do-file	Note
Manuscript:			
Table 1: Dimensions, indicators, and weights of the MPI	n/a	n/a	Source: Alkire et al. (2021)
Table 2: Regions of the sample	n/a	20 Summary Stat	Manually generated using data created within the do-file.
Table 3: MPI and GDP	3 outputs/mpi_gdp	21 Analysis	
Table 4: MPI components and GDP	3 outputs/mpi_comp_gdp	21 Analysis	
Table 5: MPI and GDP by income groups and resource dependency	3 outputs/mpi_gdp_inc_gr	21 Analysis	
Table 6: MPI and GDP by region	3 outputs/mpi_gdp_region	21 Analysis	
Table 7: MPI and advanced growth measures	3 outputs/mpi_growth	21 Analysis	
Appendix A:			
Table A 1: List of countries and survey years	n/a	21 Summary Stat	Manually generated using data created within the do-file.
Table A 2: Summary statistics	3 outputs/Table A2	21 Summary Stat	
Table A 3: MPI components and GDP (current + lagged)	3 outputs/mpi_comp_gdp_c1	21 Analysis	
Table A 4: MPI components and GDP by income	3 outputs/mpi_gdp_inc_gr_1	21 Analysis	Low income countries
	3 outputs/mpi_gdp_inc_gr_2	21 Analysis	Lower-middle income countries
	3 outputs/mpi_gdp_inc_gr_3	21 Analysis	Upper-middle income countries
Table A 5: MPI components and GDP by region	3 outputs/mpi_gdp_region_1	2 Analysis	Arab states
	3 outputs/mpi_gdp_region_2	21 Analysis	East Asia and the Pacific
	3 outputs/mpi_gdp_region_3	21 Analysis	Europe and Central Asia
	3 outputs/mpi_gdp_region_4	21 Analysis	Latin America and the Caribbean
	3 outputs/mpi_gdp_region_5	21 Analysis	South Asia
	3 outputs/mpi_gdp_region_6	21 Analysis	Sub-Saharan Africa
Table A 6: MPI components and labour productivity	3 outputs/mpi_lpe	21 Analysis	
Table A 7: MPI components and labour productivity components	3 outputs/mpi_lp_components	21 Analysis	
Table A 8: MPI components and GDP expenditure components	3 outputs/mpi_components_cigxm	21 Analysis	
Table A 9: MPI components and sustainable growth	3	21 Analysis	
	outputs/mpi_components_sust_growth		
Table A 10: Robustness check: MPI, GDP, and Gini	3 outputs/mpi_gdp_gini	22 RC gini	
Table A 11: Robustness check: Alternative methodologies: OLS with level	3 outputs/mpi_gdp_ols	23 OLS level	
Table A 12: Robustness check: Alternative methodologies: Beta	3 outputs/mpi_gdp_beta	24 RC Beta	
regression			
Appendix B:		25 D.C. 41	
Figure B 1: Outlier test, excluding one country in each regression		25 RC outliers	

References

Alkire, S., Kanagaratman, U., & Suppa, N. (2021). *The Global Multidimensional Poverty Index (MPI):* 2018 Revision (51; OPHI MPI Methodological Note). University of Oxford. Url: https://ophi.org.uk/global-mpi/2022#paragraph--3083

Mahler, D. G. (2021). *Is green growth more effective at reducing poverty than gray growth?* World Bank Blogs. https://blogs.worldbank.org/en/opendata/green-growth-more-effective-reducing-poverty-graygrowth