Rethinking Global Wealth Inequality

The Role of Human Capital

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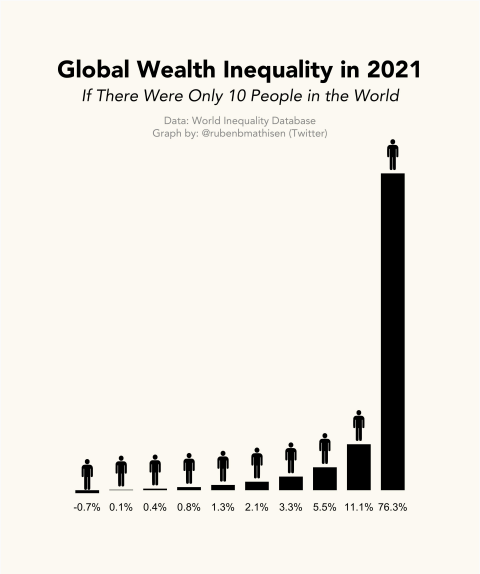
Income and Wealth Inequality: Drivers and Consequences, LIS & Gdańsk University of Technology
September 28, 2023

Introduction: Global wealth inequality as we know it



Motivation

Human capital also important dimension of wealth (Smith 1776, Mincer 1958, Becker 1964, Jorgensen & Fraumeni 1989, etc) — but missing in previous **global distributional analyses** (e.g. Lakner & Milanovic 2015, Hammar & Waldenström 2020, Davies et al 2022)

	CAPITAL	LABOR	
FLOW	Capital income	+ Labor income	= Total income
STOCK	Wealth	+ **Human capital**	= **Total wealth**

*Human capital puts a **monetary value on the knowledge, skills, competencies and attributes of a person**, which enable individuals to work, and therefore produce something of economic value*

Main approaches to measuring human capital: education vs **lifetime income** (e.g. OECD 2011, World Bank 2018, Liu & Fraumeni 2020, Castello-Climent & Domenech 2021)

Research questions

Questions

- How does **global wealth inequality** patterns change when including **human capital**?
- What are the levels and trends of **global *total wealth* inequality**?
- Which are its potential drivers (decompositions)?

Contribution

- **Microdata-based** estimations of **global total wealth** (TW = W + H) inequality

Data and method

Data: Constructing the global human capital and total wealth distribution

Measuring **human capital** by **country–year–occupation–sex–age** groups [n = 1,607,200]

- Individual-level labor income and employment data from LIS, UBS and ILO
- 10 occupational groups: ISCO 1–9 and not employed
- 20 gender-age groups: male and female, 5-year age groups (15–19, 20–24, ..., 60–64)
- 196 countries, 41 years (1979–2019) [missing data imputed, 85% of pop. observed]

Merging with **wealth** data for same groups [n = 1,097,600]

- Data from Credit Suisse (country-year wealth deciles and top 10, 5, 1% wealth shares) merged with groups through LIS (household capital income) and LWS
- Age groups: ..., 65–69, 70–74, 75–79, 80+
- 20 years (2000–2019)

Macro data from WDI (population, growth, GDP), PWT (PPP, labor shares), UN (mortality)

Estimation: Measuring human capital and total wealth

Human capital (**H**) of an individual in country (c), year (y), occupation (o), sex (s), age (a) group calculated by capitalization of current and future labor income flows:

$$H^{c,y}_{o,s,a} = LY^{c,y}_{o,s,a} = Y^{c,y}_{o,s,a} \times Emp^{c,y}_{s,a} + LY^{c,y}_{o,s,\mathbf{a+1}} \times Sur^{c,y}_{s,\mathbf{a+1}} \times \frac{1+g^{c,y}}{1+\delta} \quad (1)$$

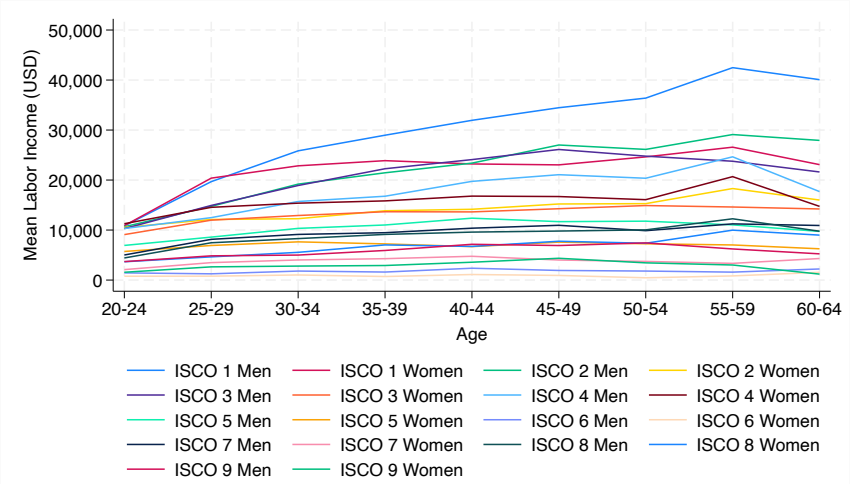
- **LY**: Remaining lifetime labor income until retirement
- **Y**: Labor income (incl. self-employed)
- **Emp**: Employment rate (not employed have probability to be employed in next period)
- **Sur**: Survival rate
- **g**: Growth rate
- δ: Discount factor (4.58%)

Total wealth (**TW**) calculated as sum of human capital and wealth:

$$TW^{c,y}_{o,s,a} = W^{c,y}_{o,s,a} + H^{c,y}_{o,s,a} \quad (2)$$

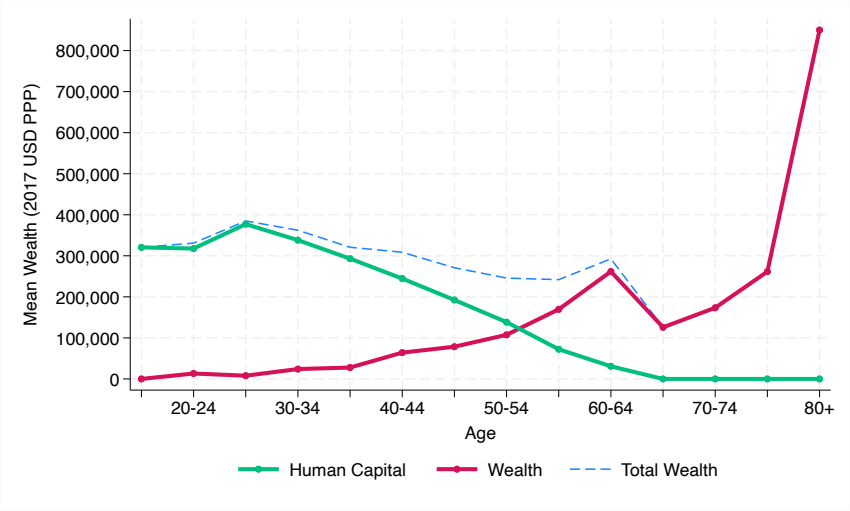
Example: Labor income age profiles

- 3,920 labor income age profiles per year, e.g. global mean by occupation–sex in 2000:

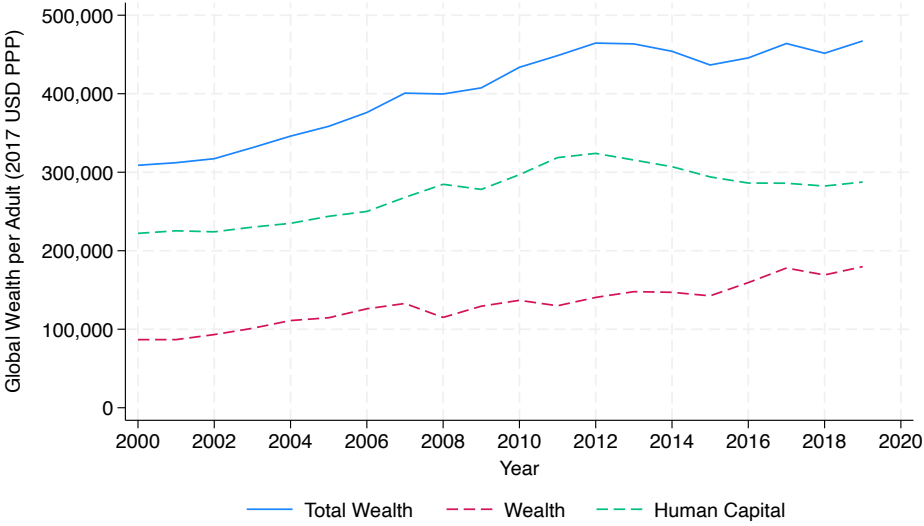


Example: Human capital and wealth age profiles

- 54,880 human capital and wealth observations per year, e.g. global mean in 2000:

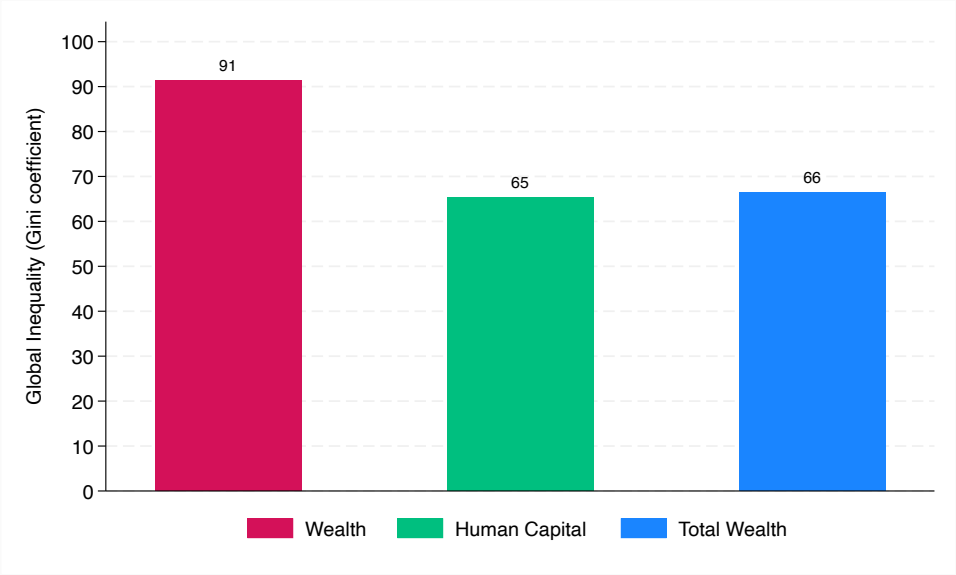


Aggregate: Global wealth per adult, 2000–2019

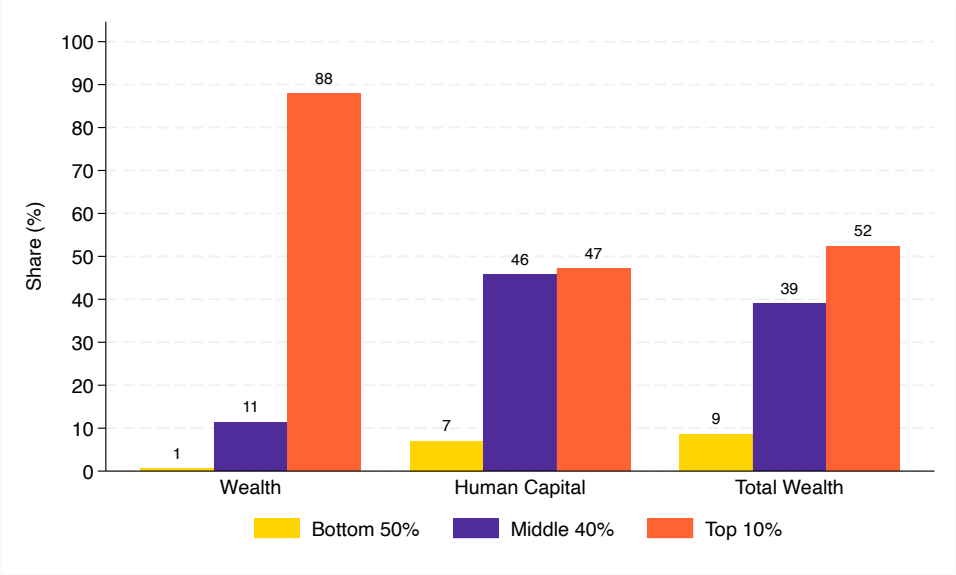


Results

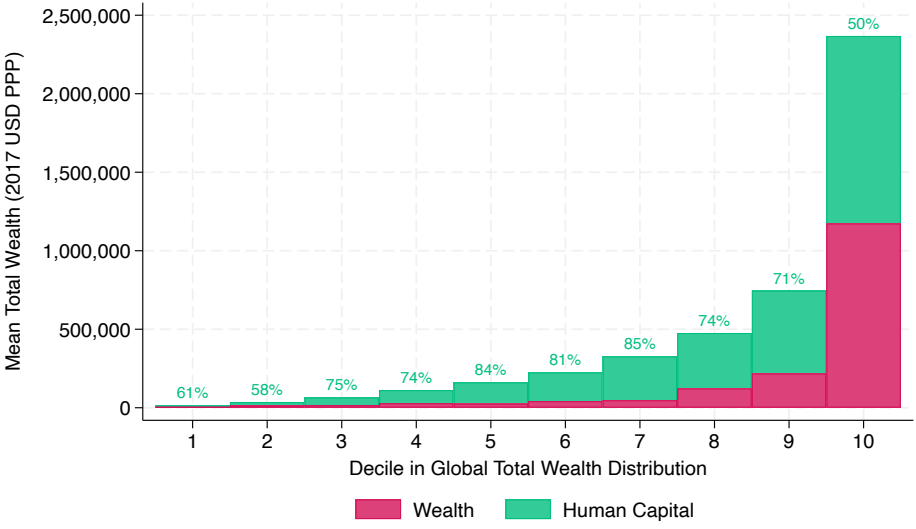
Global wealth inequality (2018): Gini coefficients



Global wealth inequality (2018): Wealth shares

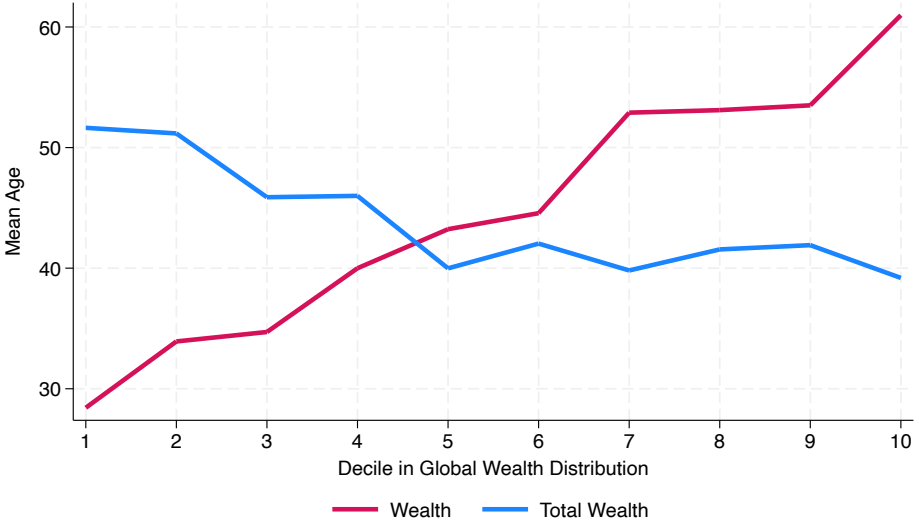


The global total wealth distribution (2018)

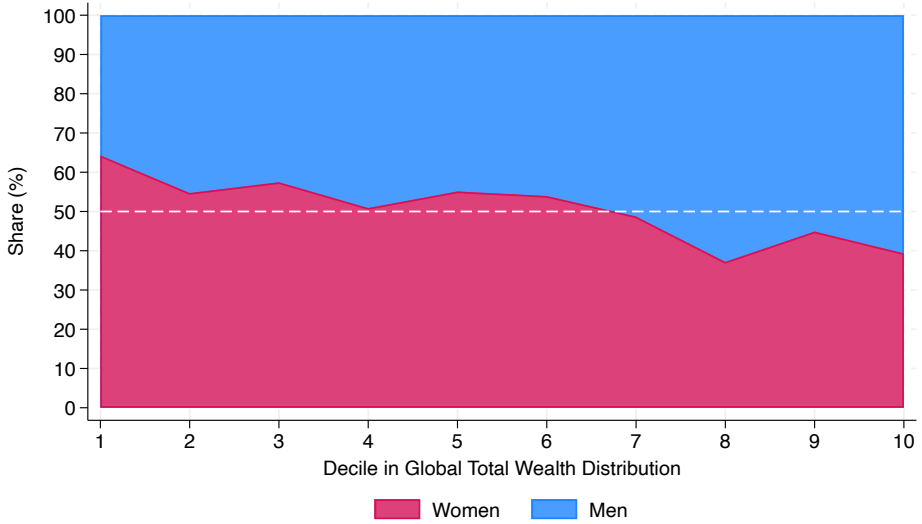


Decompositions

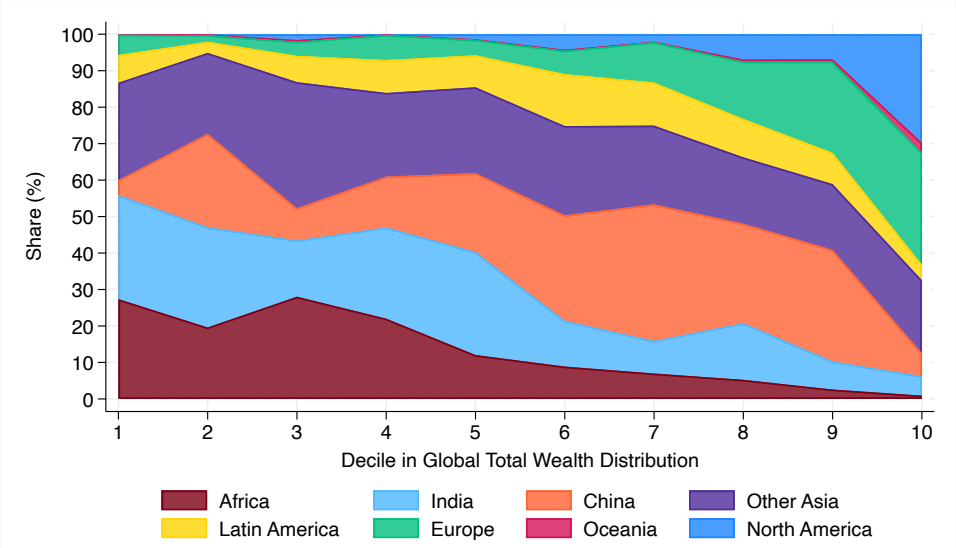
Age gradient in global wealth distribution



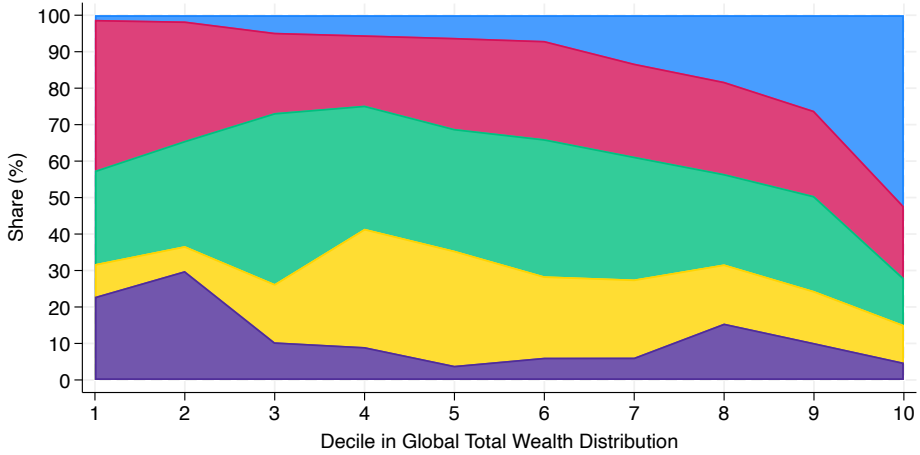
Global *total wealth* distribution: Gender composition



Global *total wealth* distribution: Regional composition

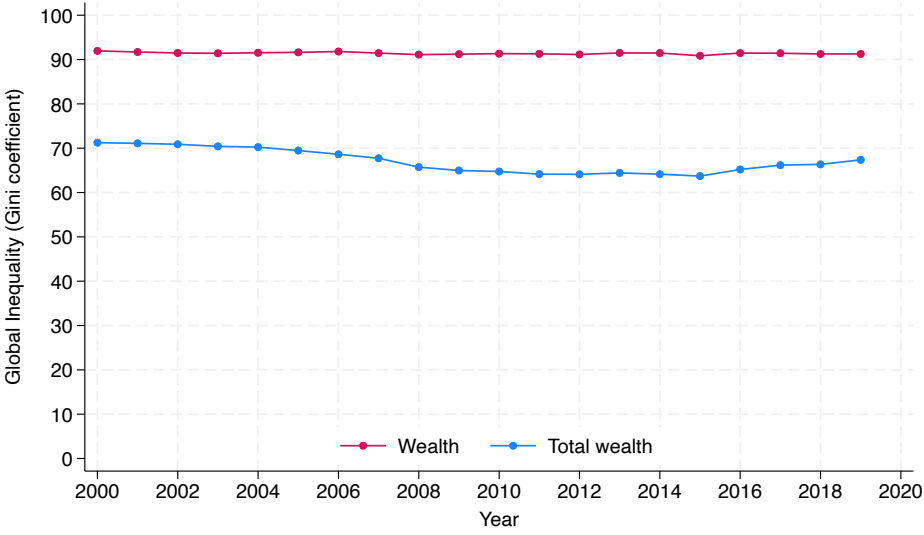


Global *total wealth* distribution: Occupational composition

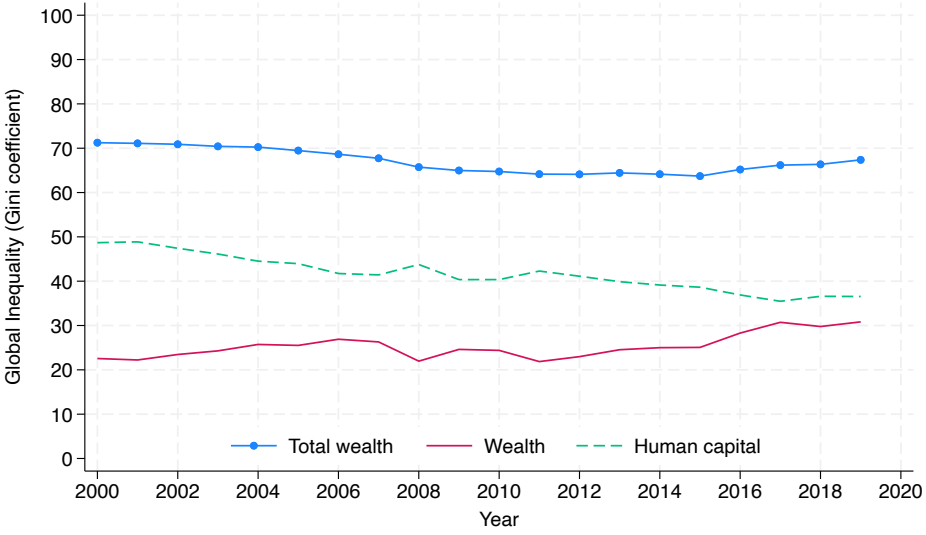


Trends

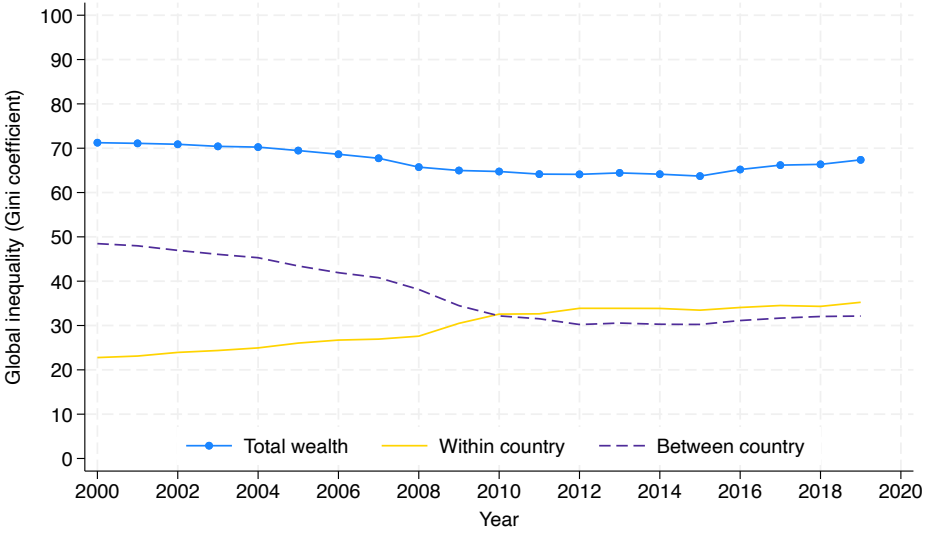
Global wealth inequality, 2000–2019: Trends



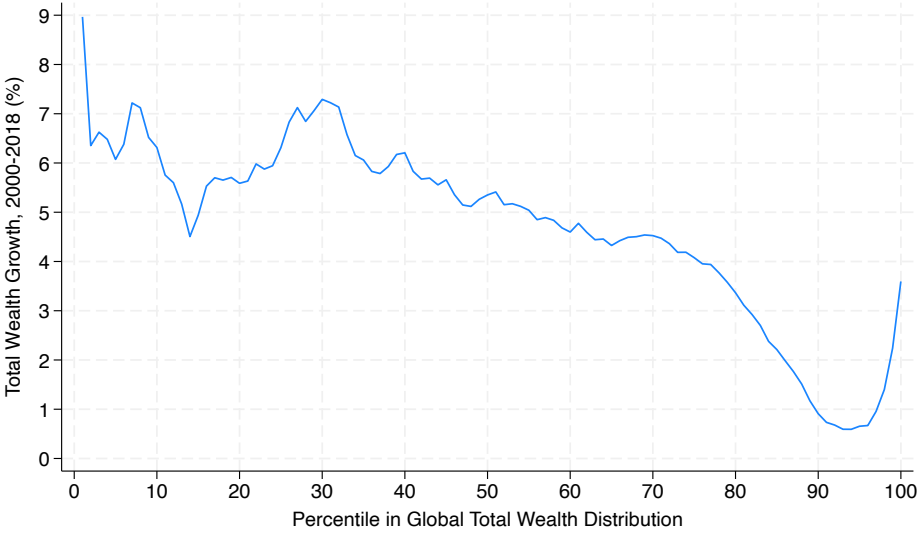
Global *total wealth* inequality, 2000–2019: Source decomposition



Global *total wealth* inequality, 2000–2019: Group decomposition



Growth incidence curve



Conclusion

Conclusion

Global wealth inequality patterns **very different** when including **human capital**

- **Life-cycle** dynamics important

Global total wealth inequality **trends**

- Increasing wealth and within-country inequality
- Falling human capital and between-country inequality

Work in progress

- Further data validations
- Additional analyses (e.g. education)
- Adding public and natural wealth

Thank you!