

Swedish Fiscal Policy Council

Conference on economic inequality

Session 1: Data and determinants



Insights from the World Inequality Report 2022

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This presentation

- Inequality data as a public good: the World Inequality Database project
- What have we learned from recent research on global income & wealth dynamics?
- Exploring the new frontiers of global inequality research : gender & carbon injustices

Inequality is everywhere but still missing from public statistics

- Leaks, rich lists, social movements suggest large inequalities (in particular wealth inequalities)
- Public statistics in most countries still struggle to publish basic information about the distribution of income and wealth growth
- Issue of accountability in democracy

The objective of the Distributional National Accounts Project (DINA) is to fill this data gap

- **1950s-1970s:** Pioneering work of Kuznets (1953) and Atkinson (1978) combining tax and national accounts data
- **2000-2010s:** Project started with the publication of long run top income shares (Piketty, 2001, 2003; Piketty and Saez, 2003; Alvaredo et al. 2013)
→ World Top Income Database
- **Since the mid-2010s:** focus on top and bottom groups, income and wealth thanks to systematic combination of household surveys, national accounts, tax data rich lists
→ World Inequality Database

Methodological contribution: Distributional National Accounts guidelines

- **Flexible** approach to the distribution of national income and wealth within countries
- DINA use the strength of **all data sources** (tax, survey, nat. accounts, lists...) and combine them systematically and in a transparent manner
- A **cumulative** process: series are constantly improved thanks to better data access or methodological improvements
- **Collaborative** enterprise: computer codes, raw sources available online (WID.world, github) for anybody to contribute to the project



An international team of researchers contributing to the World Inequality Database over the years



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An international team of researchers contributing to the World Inequality Database over the years



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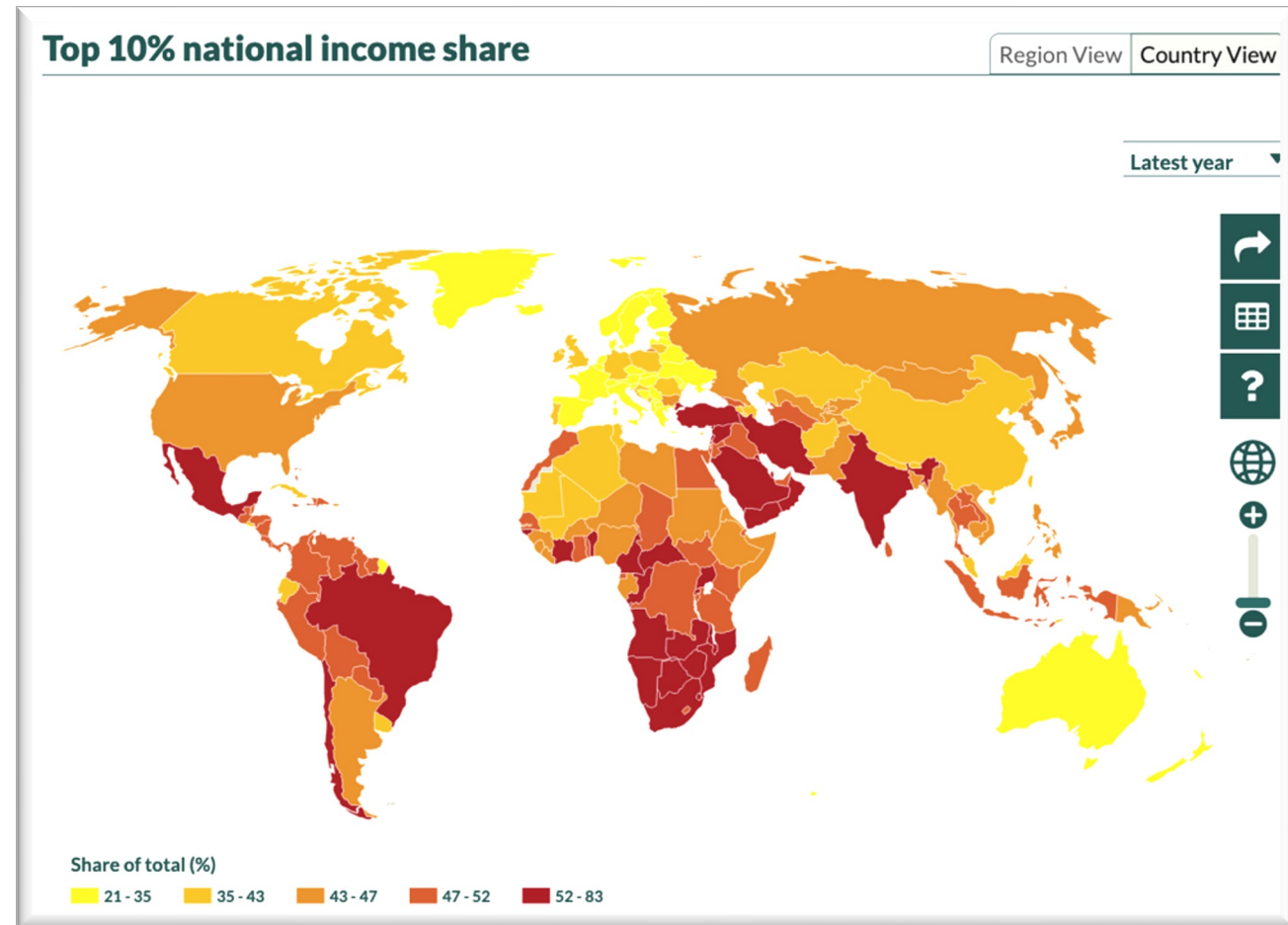
Institutional partnerships with the vast ecosystem of inequality data actors

- **International organizations** : United Nations, World Bank, OECD
 - **National statistical offices**: in Europe, Latin America, Africa...
 - **Partner institutions**: Luxembourg Income Study (LIS), Commitment for Equity Institute (CEQ), Southern Center for Inequality Studies, Stone Center Harvard Kennedy School...
- **Common challenges**: heterogeneity of data, lack of common standards
- **Common goals**: develop public data systems fit for 21st century challenges



The World Inequality Database today

- **Aggregate** income and wealth series for 140+ countries
- **Distributional** income and wealth series for 140+ countries since 1980s-1990s
- **Long-run** income inequality series for large countries & world regions since 1820
- **New developments:** global carbon inequality, global gender inequality, political cleavages & social inequalities (see wpid.world)

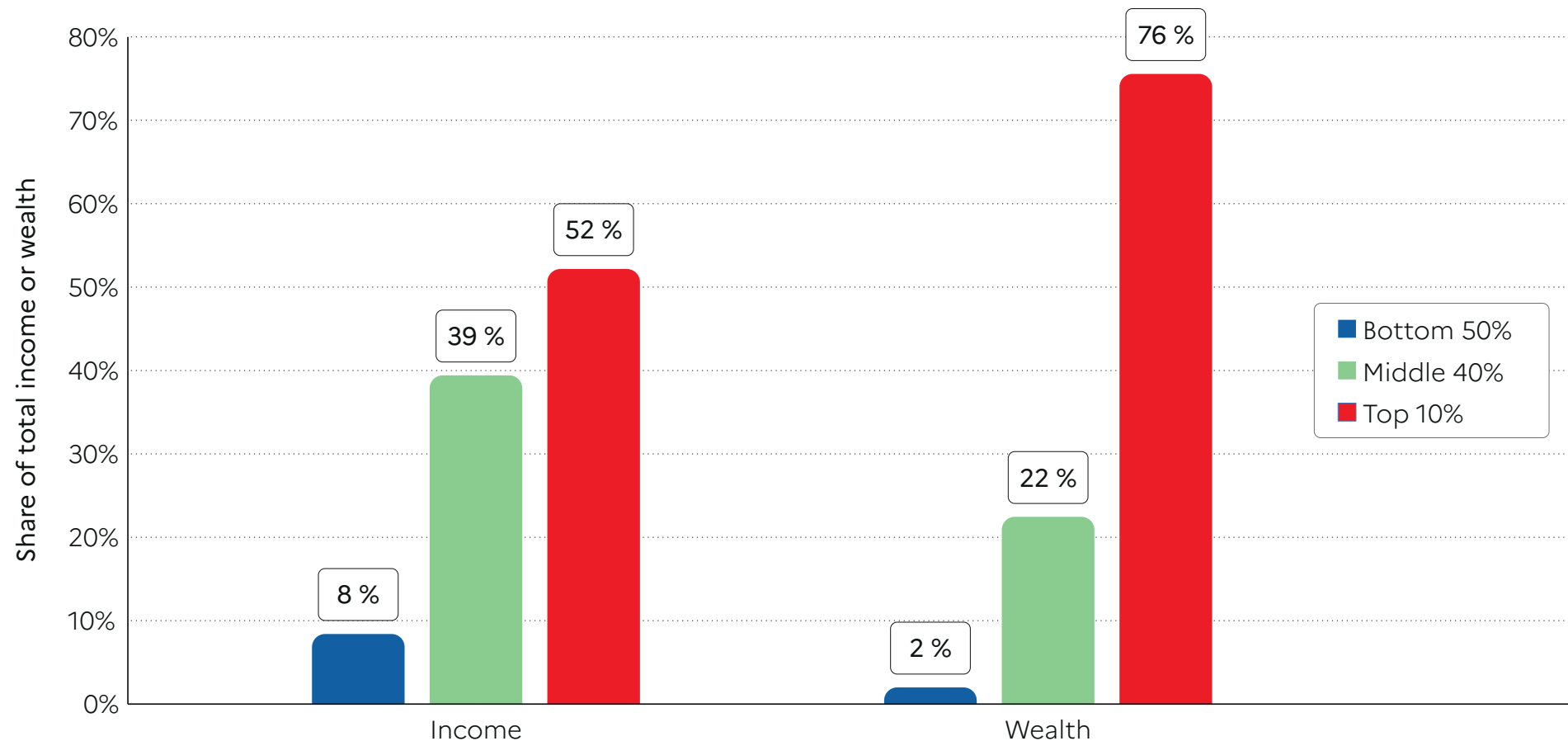


This presentation

- Inequality data as a public good: the World Inequality Database project
- **What have we learned from recent research on global income & wealth dynamics?**
- Exploring the new frontiers of global inequality research : gender & carbon injustices

Global income and wealth inequality today

Figure 1 Global income and wealth inequality, 2021

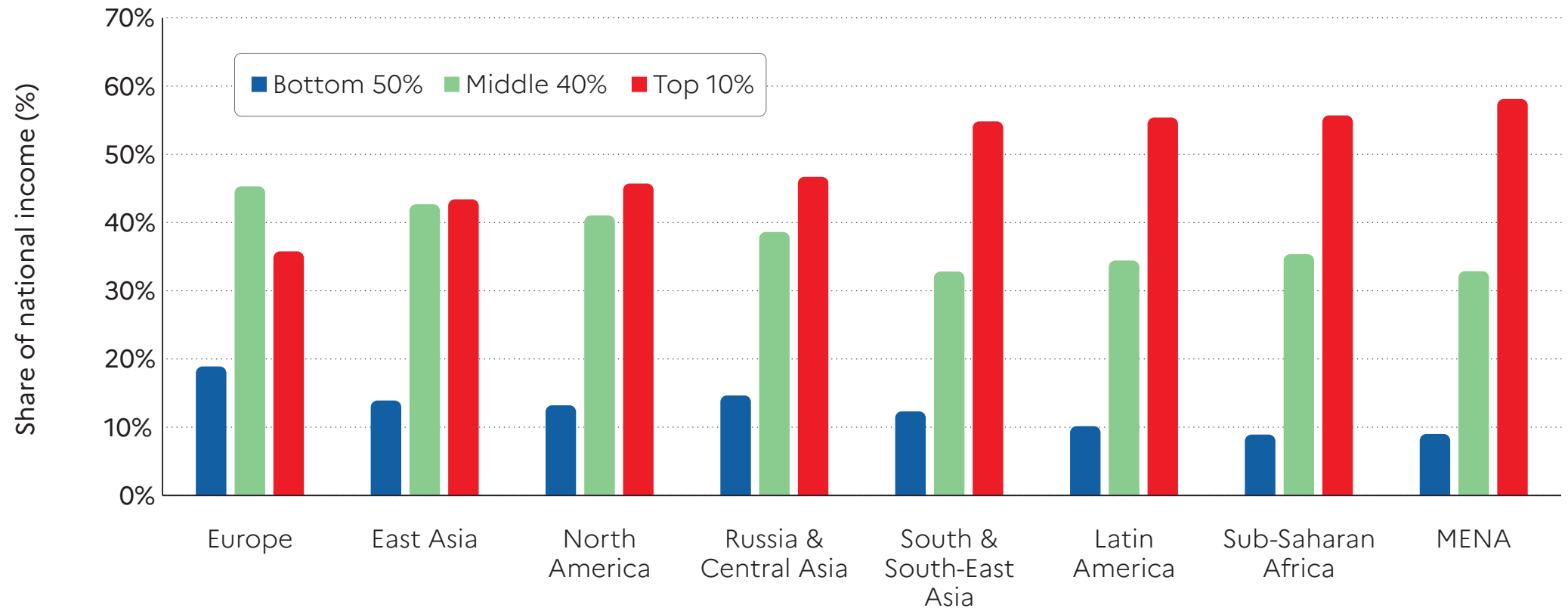


Interpretation: The global 50% captures 8% of total income measured at Purchasing Power Parity (PPP). The global bottom 50% owns 2% of wealth (at Purchasing Power Parity). The global top 10% owns 76% of total Household wealth and captures 52% of total income in 2021. Note that top wealth holders are not necessarily top income holders. Incomes are measured after the operation of pension and unemployment systems and before taxes and transfers. **Sources and series:** wir2022.wid.world/methodology.

A diversity of income inequality regimes

Top 10% captures 35%-60% of national income, bottom 50% = 10-20%

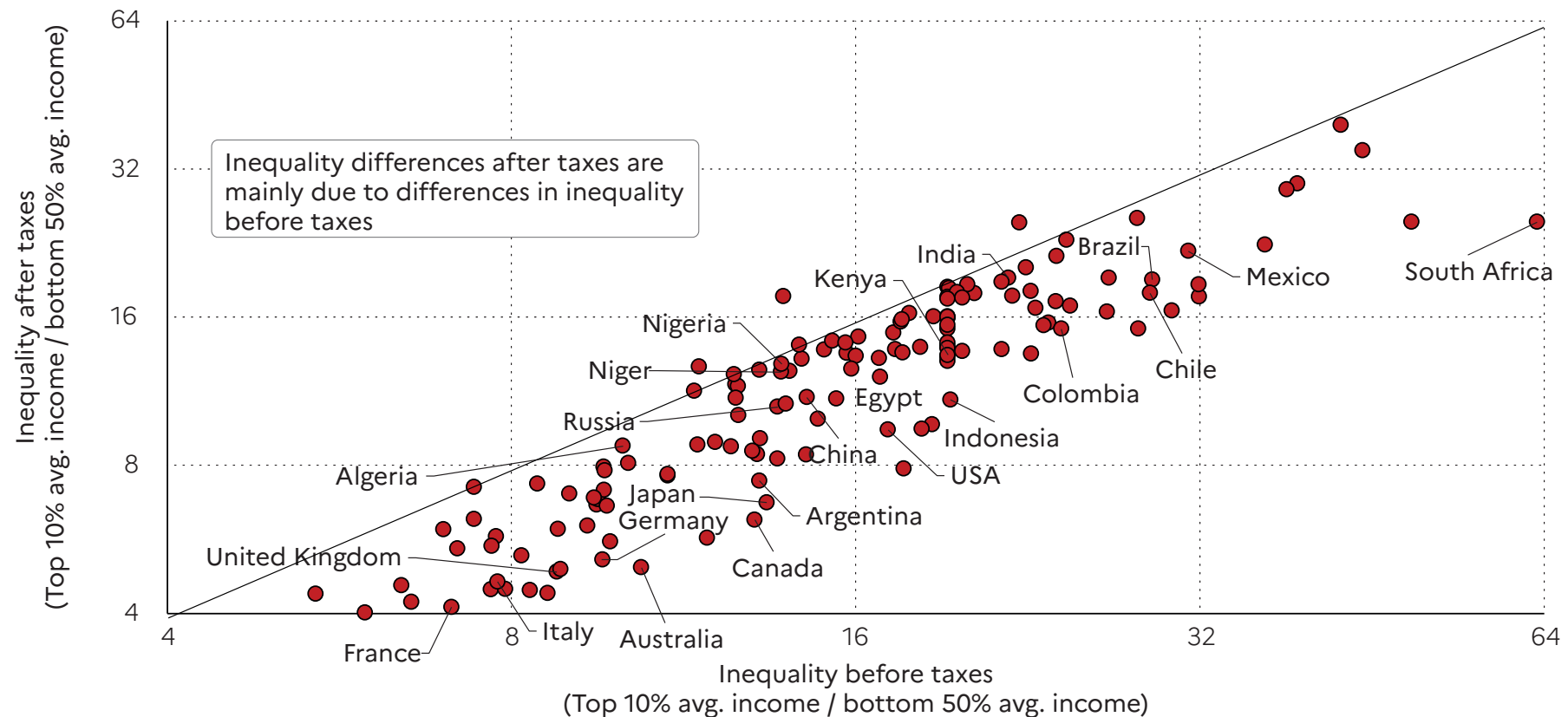
Figure 2 The poorest half lags behind: Bottom 50%, middle 40% and top 10% income shares across the world in 2021



Interpretation: In Latin America, the top 10% captures 55% of national income, compared to 36% in Europe. Income is measured after pension and unemployment contributions and benefits paid and received by individuals but before income taxes and other transfers. **Sources and series:** www.wir2022.wid.world/methodology.

Inequality differences before taxes are critical to understand diversity of inequality regimes: role of predistribution (min. wage, regulations, public services)

Figure 1.10 Inequality before and after taxes 2018-2021: Top 10/Bottom 50 income gap

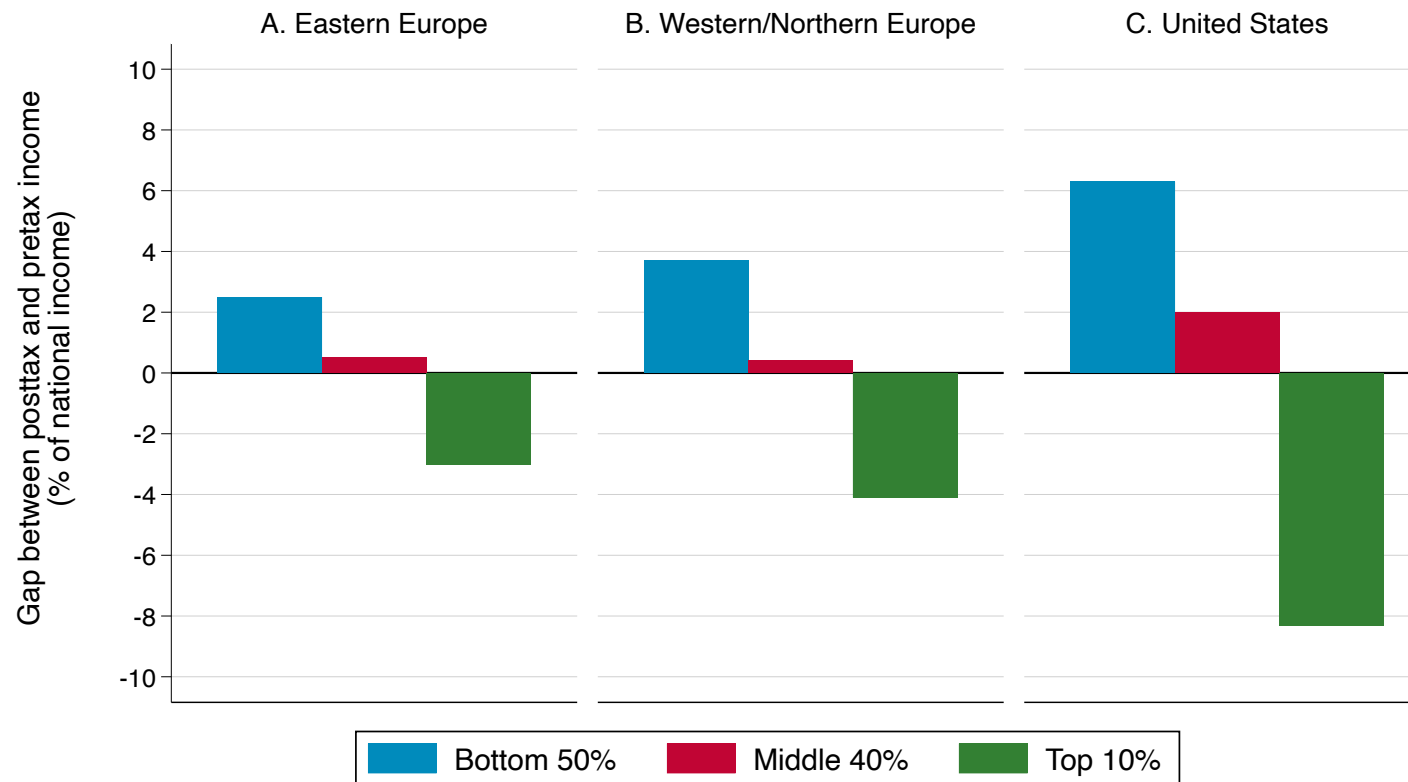


Interpretation: Before taxes, the bottom 50% in South Africa earns 63 times less than the top 10%, whereas after taxes, the bottom 50% earns 24 times less than the top 10%. Income is measured after pension and unemployment payments and benefits received by individuals but before other taxes they pay and transfers they receive. Data for 2018-2021. **Sources and series:** wir2022.wid.world/methodology

US redistributes more to bottom 50% via its tax & transfer system than Europe, but it is highly insufficient.

Net Redistribution in Europe and the United States

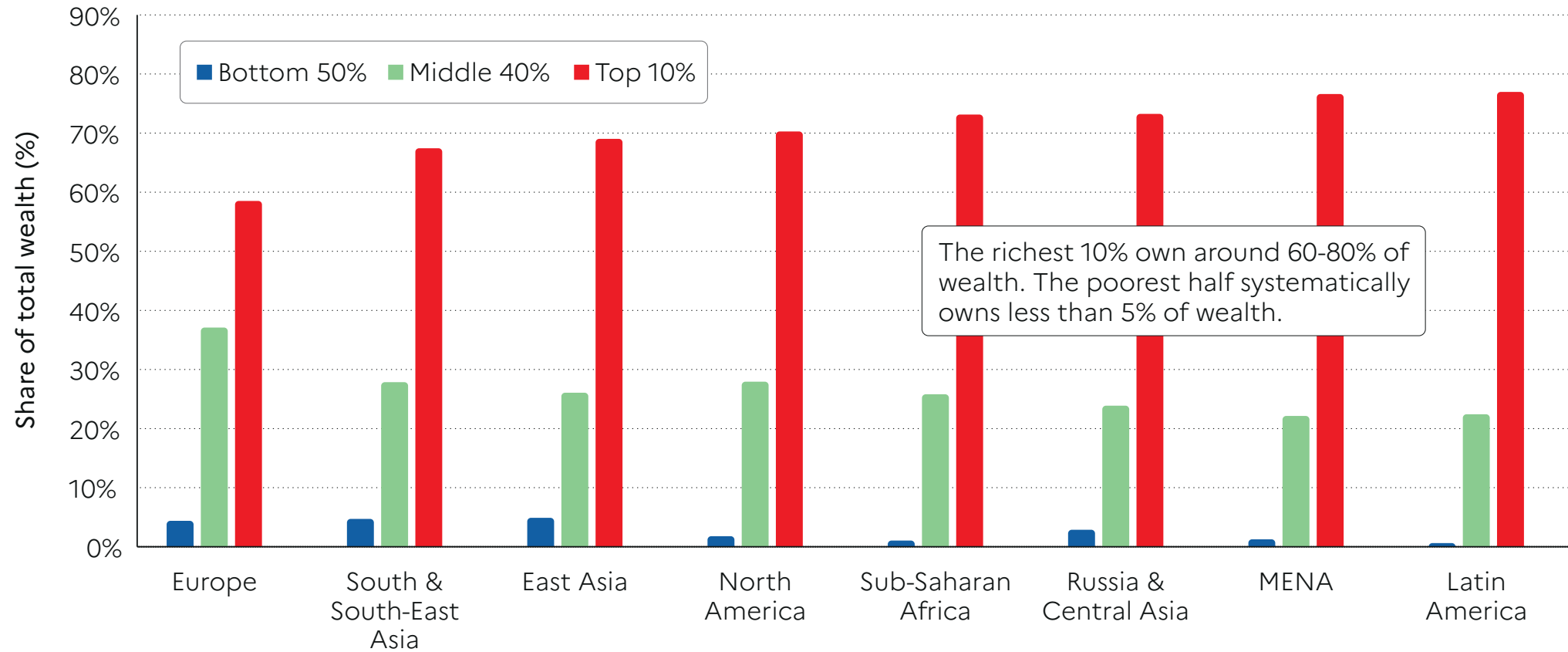
(a) Net Transfers Operated by the Tax-and-Transfer System
Between Pretax Income Groups (% of National Income)



Source: Authors' computations combining surveys, tax data and national accounts for European countries; [Piketty, Saez, and Zucman, 2018](#) for the US. *Notes:* Panel (a) represents the net transfer received or paid by pretax income group in Eastern Europe, Western and Northern Europe, and the United States in 2017. Panel (b) represents the net transfer received by the bottom 50% by country, expressed as a share of national income, in 2017. The unit of observation is the adult individual aged 20. Income is split equally among spouses. See online appendix table A.2.7.1 for the composition of European regions.

Wealth inequality is extreme everywhere: no region with a bottom 50% owning more than 5% of wealth. Top 10% = 60-80%.

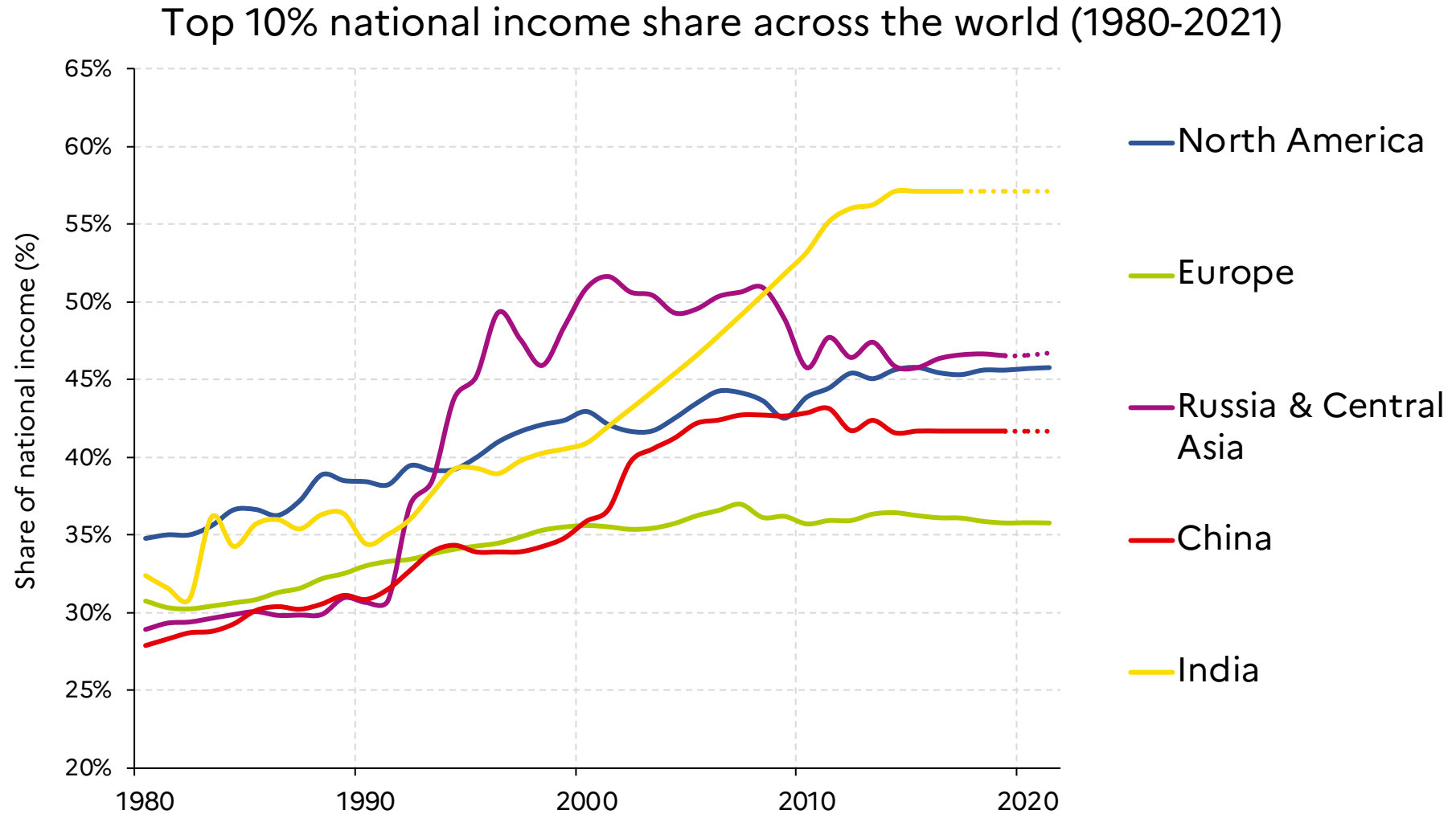
Figure 4 The extreme concentration of capital: wealth inequality across the world, 2021



Interpretation: The Top 10% in Latin America captures 77% of total household wealth, versus 22% for the Middle 40% and 1% for the Bottom 50%. In Europe, the Top 10% owns 58% of total wealth, versus 38% for the Middle 40% and 4% for the Bottom 50%. **Sources and series:** wir2022.wid.world/methodology.

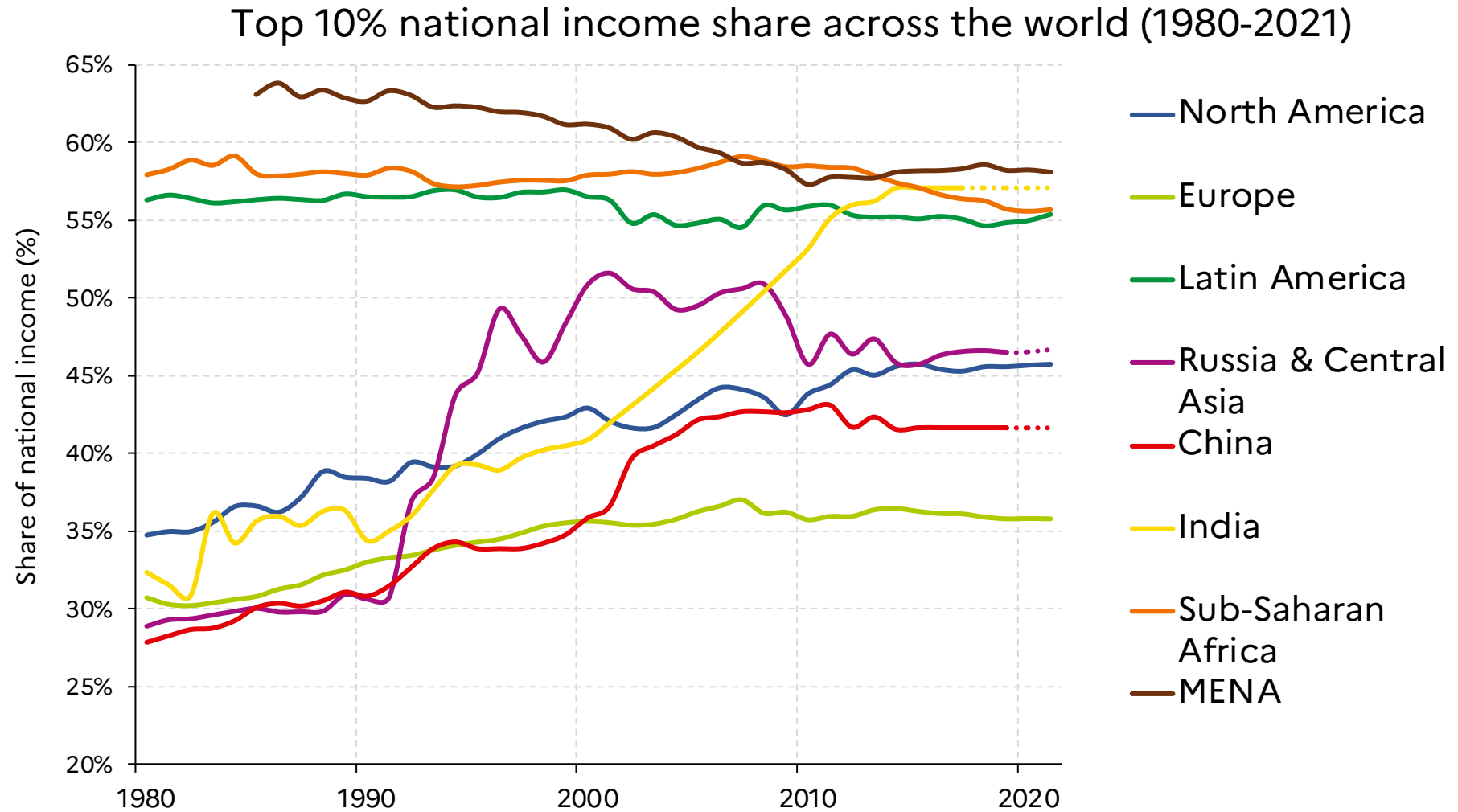
Global inequality since the 1980s

Income inequality rose at different speeds: policy matters



Interpretation: The top 10% share rose from around 28% in China in 1980 to 42% in 2021. **Sources and series:** wid.world/wir2022

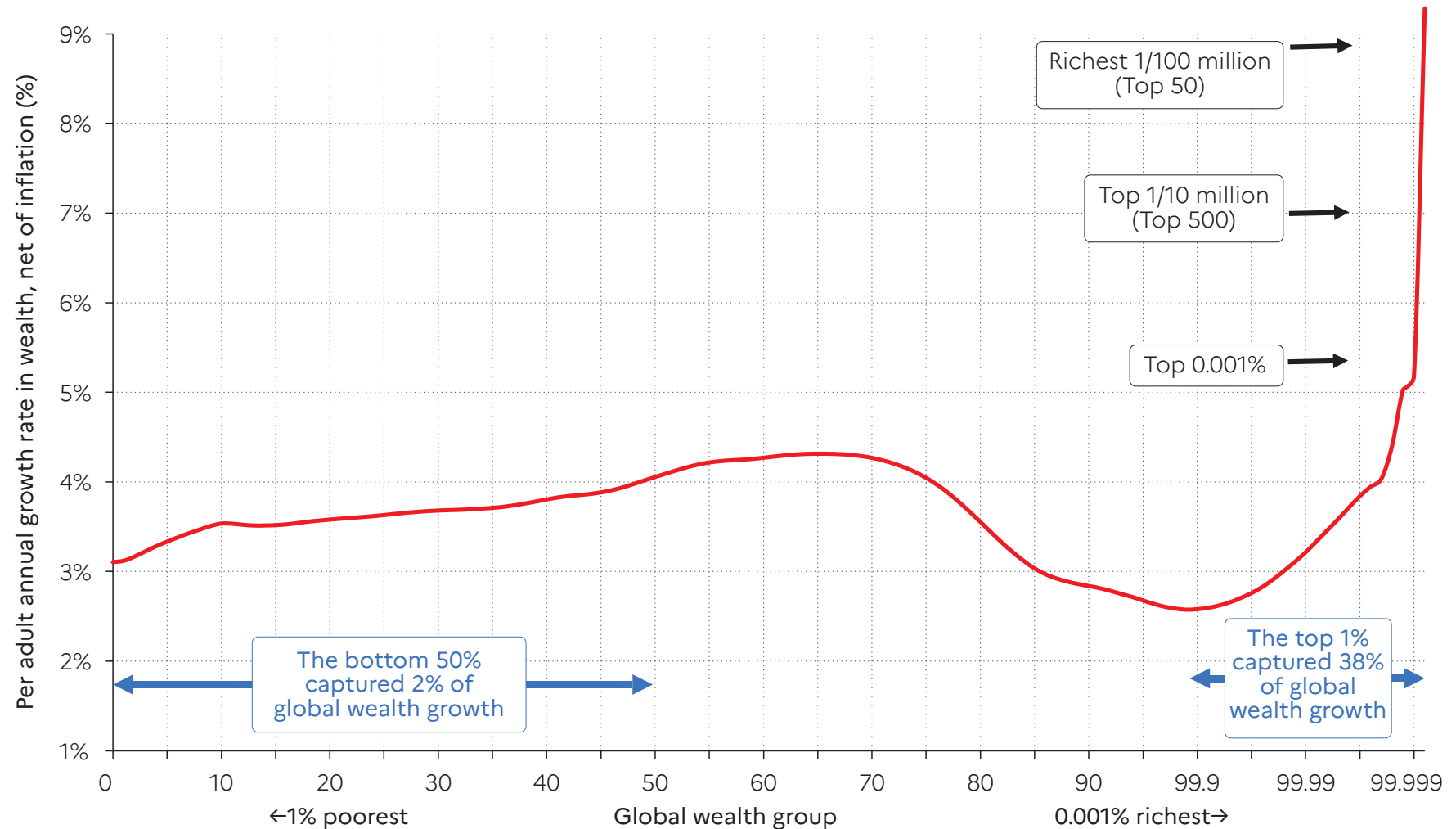
Income inequality rose at different speeds: policy matters



Interpretation: The top 10% share rose from around 28% in China in 1980 to 42% in 2021. **Sources and series:** wid.world/wir2022

Global wealth inequality since 1995: the top 1% captured 38% of total wealth growth, the bottom 50% got 2%.

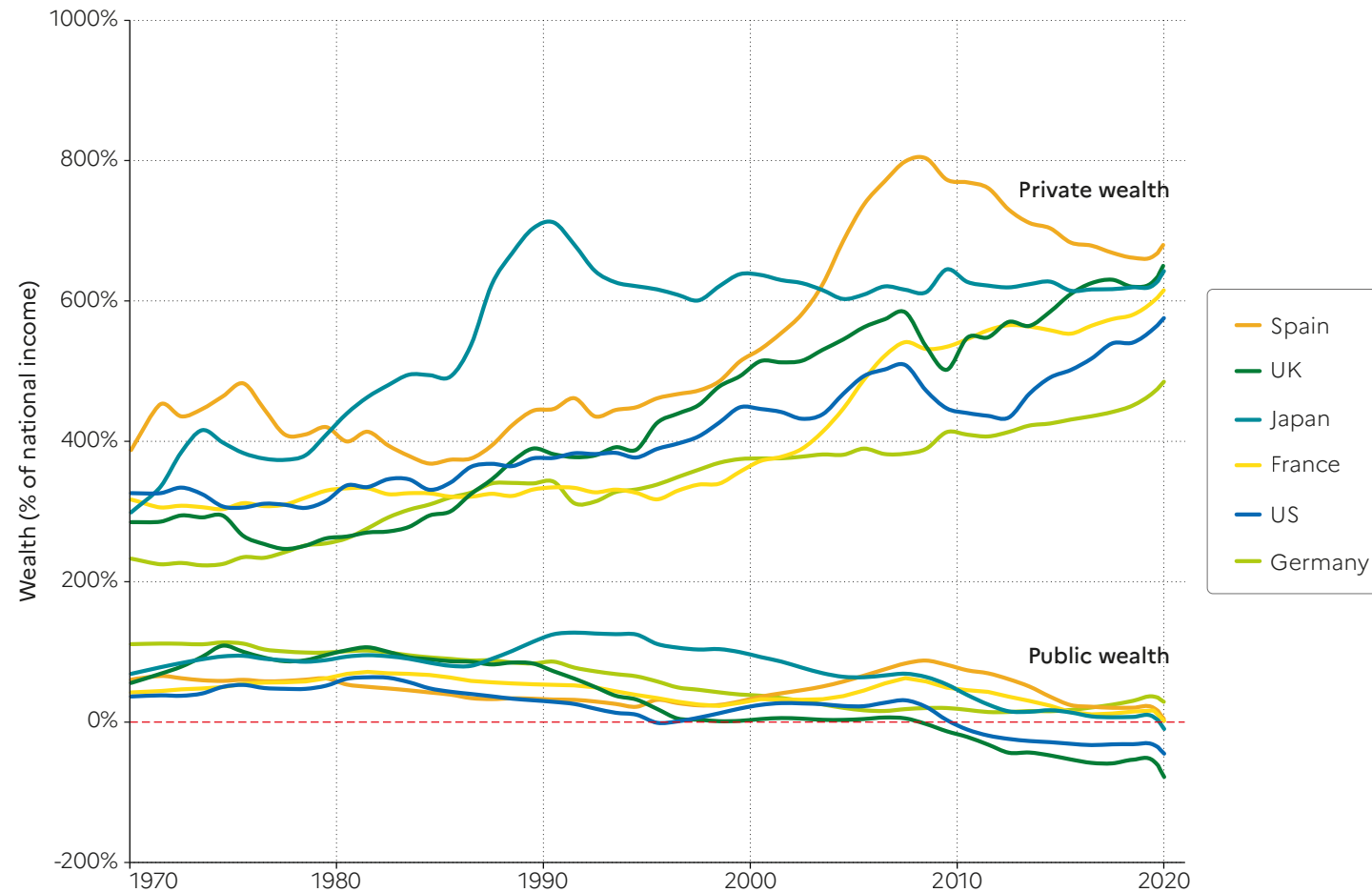
Figure 9 Average annual wealth growth rate, 1995-2021



Interpretation: Growth rates among the poorest half of the population were between 3% and 4% per year, between 1995 and 2021. Since this group started from very low wealth levels, its absolute levels of growth remained very low. The poorest half of the world population only captured 2.3% of overall wealth growth since 1995. The top 1% benefited from high growth rates (3% to 9% per year). This group captured 38% of total wealth growth between 1995 and 2021. Net household wealth is equal to the sum of financial assets (e.g. equity or bonds) and non-financial assets (e.g. housing or land) owned by individuals, net of their debts. **Sources and series:** [wir2022.wid.world/methodology](https://www.wir2022.wid.world/methodology).

Nations have become richer, governments have become poor

Figure 3.2 The rise of private wealth and the decline of public wealth in rich countries, 1970-2020



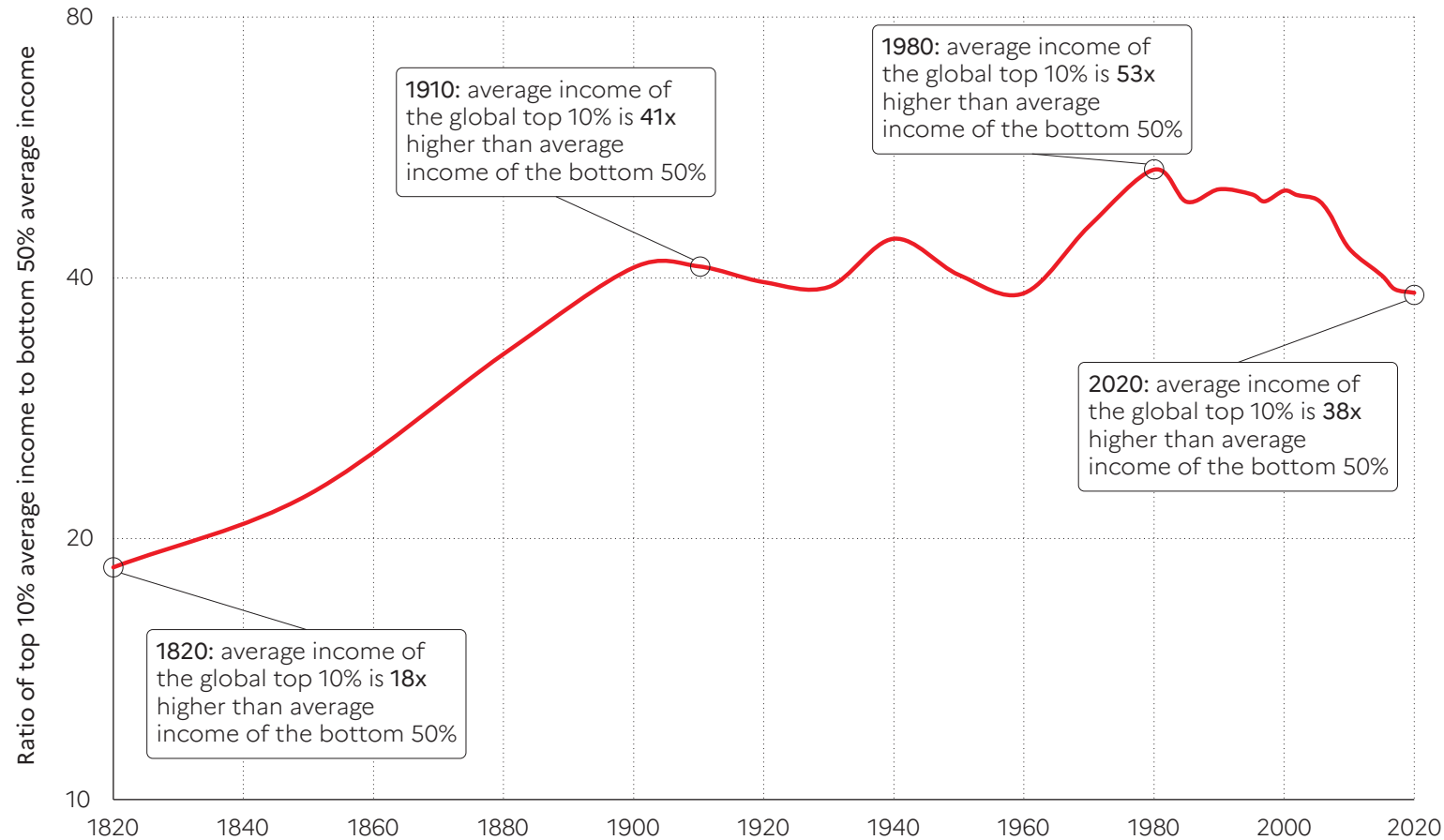
Interpretation: In UK, public wealth dropped from 60% of national income in 1970 to -106% in 2020. Public wealth is the sum of all financial and non-financial assets, net of debts, held by governments. **Sources and series:** wir2022.wid.world/methodology, Bauluz et al. (2021) and updates.

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Global inequality in the long run

Global income inequality is about as high today as at the peak of Western imperialism

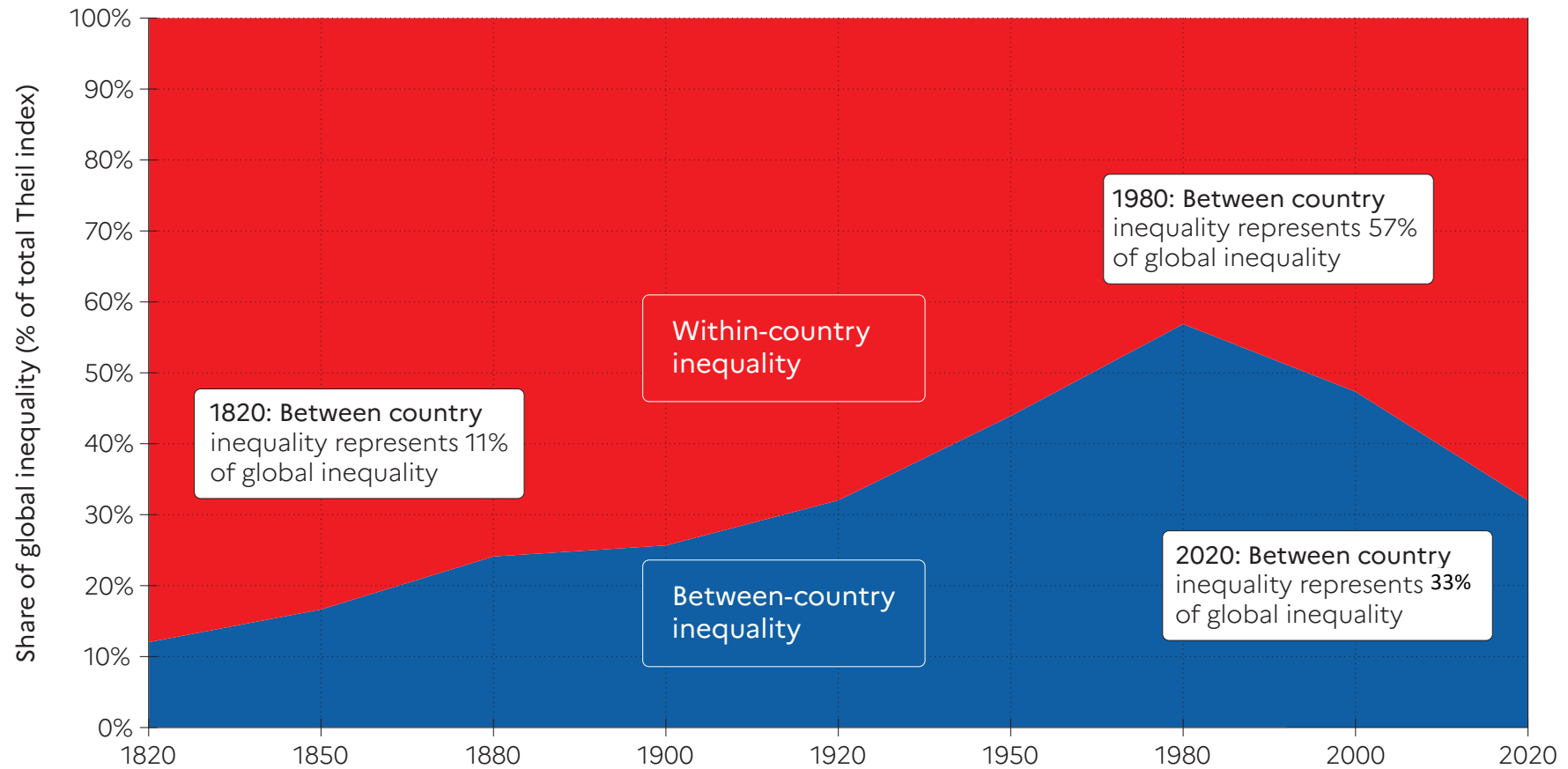
Figure 5 Global income inequality: T10/B50 ratio, 1820-2020



Interpretation: Global inequality, as measured by the ratio T10/B50 between the average income of the top 10% and the average income of the bottom 50%, more than doubled between 1820 and 1910, from less than 20 to about 40, and stabilized around 40 between 1910 and 2020. It is too early to say whether the decline in global inequality observed since 2008 will continue. Income is measured per capita after pension and unemployment insurance transfers and before income and wealth taxes. **Sources and series:** wir2022.wid.world/methodology and Chancel and Piketty (2021)..

Inequality within countries is even larger than inequality between countries

Figure 6 Global income inequality: Between vs. within country inequality (Theil index), 1820-2020



Interpretation: The importance of between-country inequality in overall global inequality, as measured by the Theil index, rose between 1820 and 1980 and strongly declined since then. In 2020, between-country inequality makes-up about a third of global inequality between individuals. The rest is due to inequality within countries. Income is measured per capita after pension and unemployment insurance transfers and before income and wealth taxes. **Sources and series:** wir2022.wid.world/methodology and Chancel and Piketty (2021).

This presentation

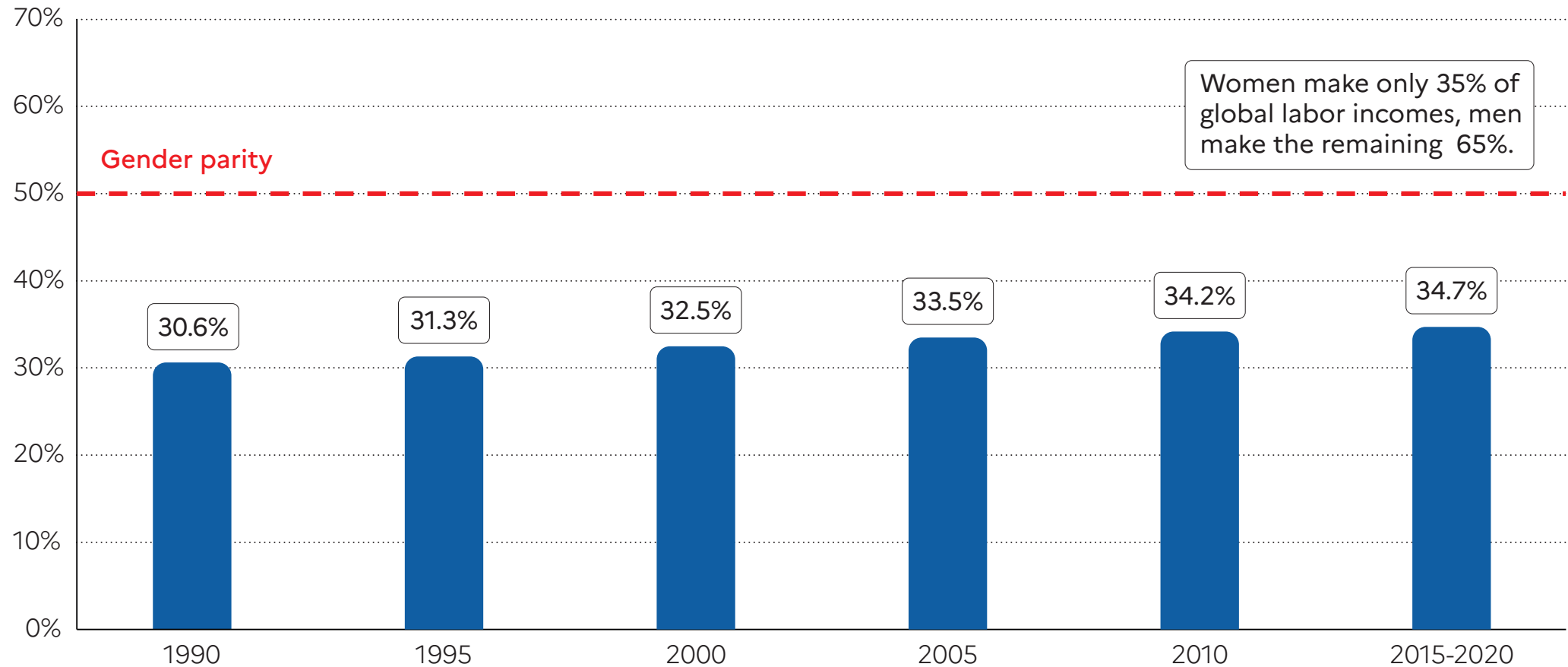
- Inequality data as a public good: the World Inequality Database project
- What have we learned from recent research on global income & wealth dynamics?
- Exploring the new frontiers of global inequality research : gender & carbon injustices

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Measuring progress towards earnings parity: Global gender inequality

Women earn just a third of all earnings worldwide. 100+ years to reach global parity at current rate

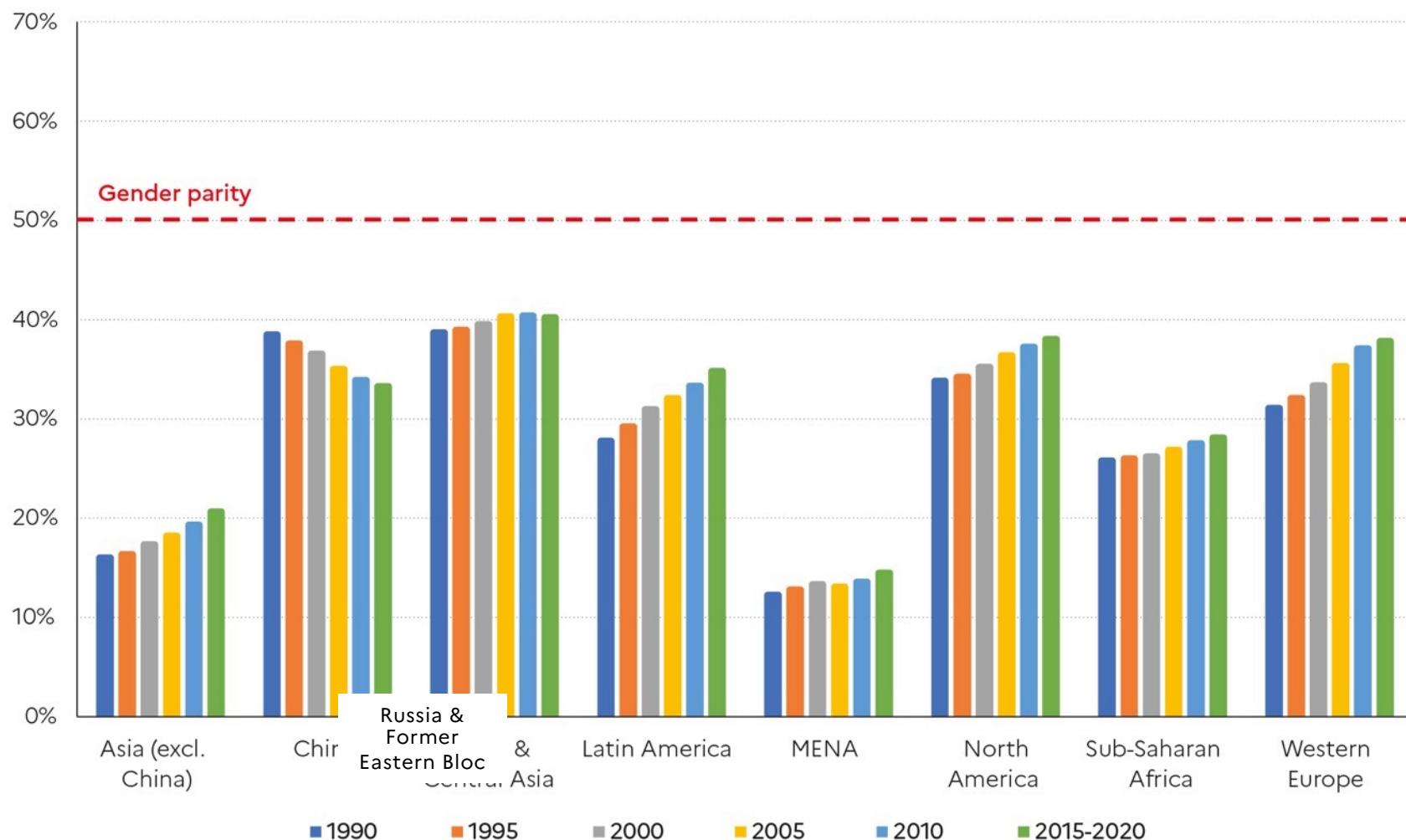
Figure 12 Female share in global labor incomes, 1990-2020



Interpretation: The share of female incomes in global labour incomes was 31% in 1990 and nears 35% in 2015-2020. Today, males make up 64% of total labor incomes. **Sources and series:** wir2022.wid.world/methodology and Neef and Robilliard (2021).

Gender inequality across world regions: diverse trajectories highlighting role of institutions /

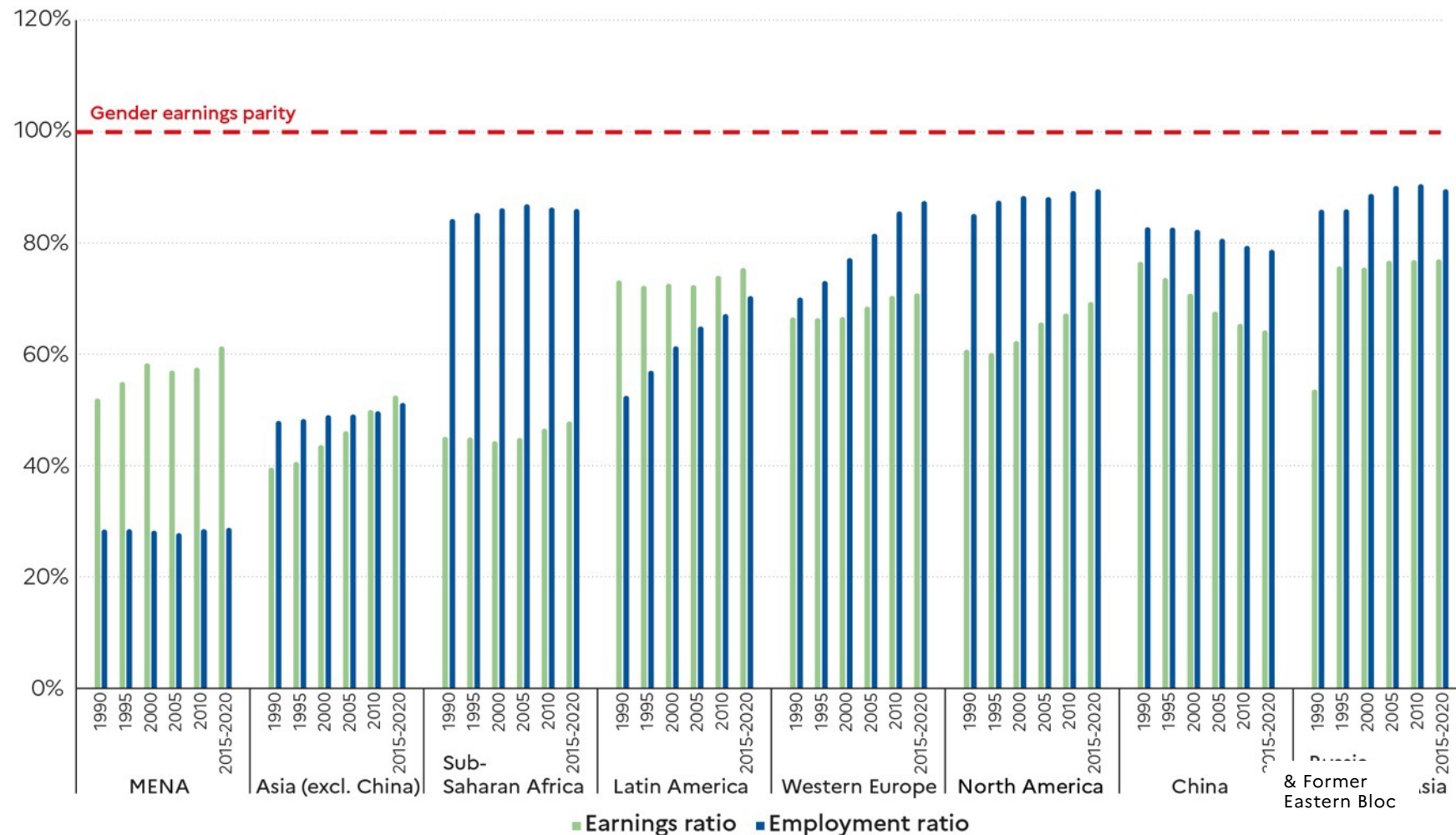
Figure 5.2 Female labor income share across the world, 1990-2020



Interpretation: The female labour income share rose from 34% to 38% in North America between 1990 and 2020. **Sources and series:** wir2022.wid.world/methodology and Neef and Robilliard (2021).

Diverse trajectories due to gaps in gender earnings (green bars) and employment (blue bars)

Figure 5.4 Regional trends in earnings and employment ratios, 1990-2020



Interpretation: In the MENA region, a woman earns 61% of what a man earns in 2020, whereas the ratio of employed women to employed men is only 29%. **Sources and series:** [wir2022.wid.world/methodology](https://www.wir2022.wid.world/methodology) and Neef and Robilliard (2021)

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Protecting the environment in a unequal world: Global carbon inequality

Carbon inequality is not just a rich vs. poor country issue.

Disclaimer: different ways to count individual emissions!

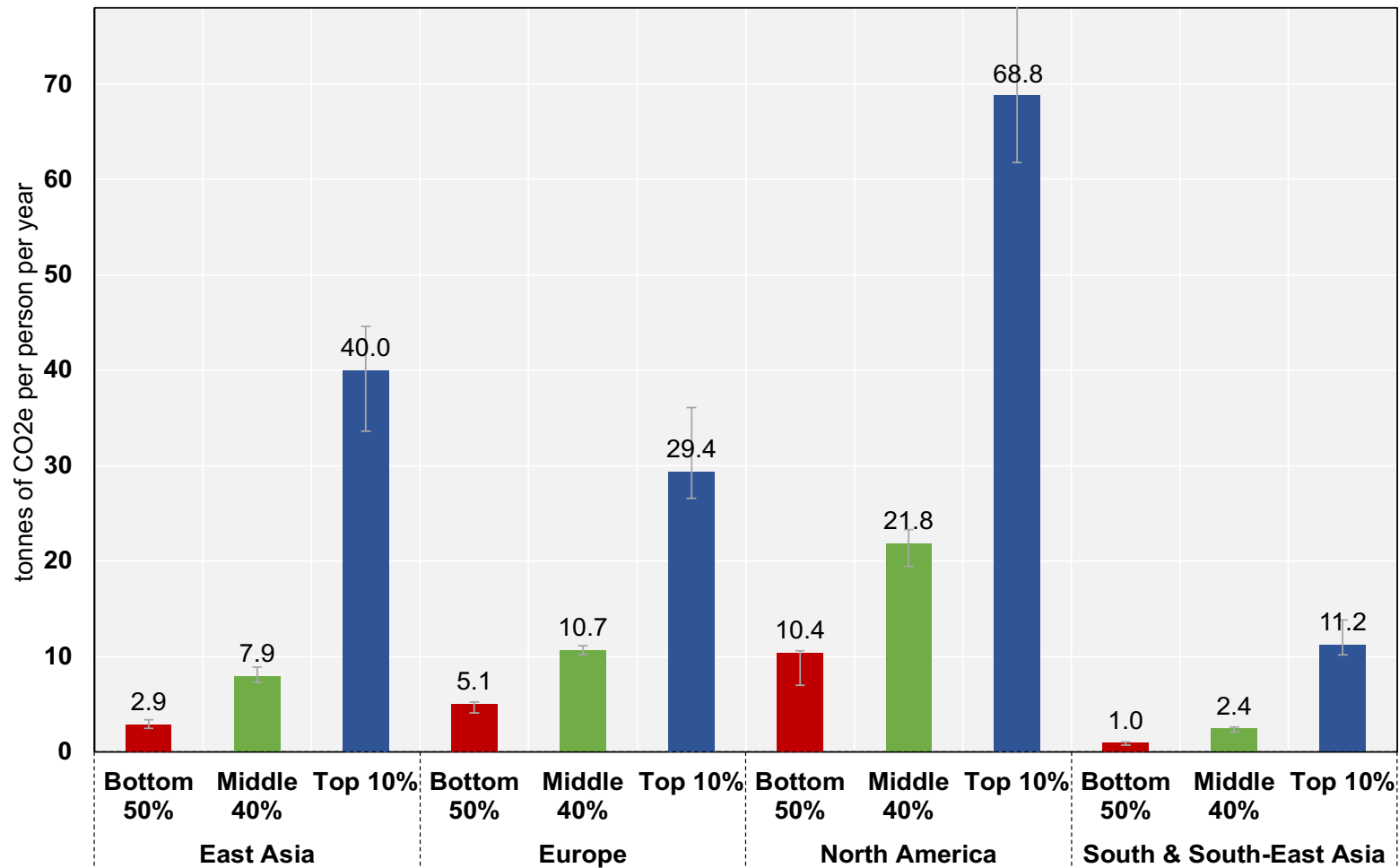


Figure 2A. Per capita GHG footprints by group, 2019

Notes: Individual carbon footprints include emissions from domestic consumption, public and private investments, and imports and exports of carbon embedded in goods and services traded with the rest of the world. Benchmark scenario with modeled estimates based on the systematic combination of tax data, household surveys and input-output tables. Emissions split equally within households. Error bars show estimates for extreme scenarios (with $\alpha=0.4$ and $\alpha=0.8$ in the other). **Source and series:** Author, see Methods and Supplementary Information

Global top 10% emits close to half of all emissions, bottom 50% close to 10%

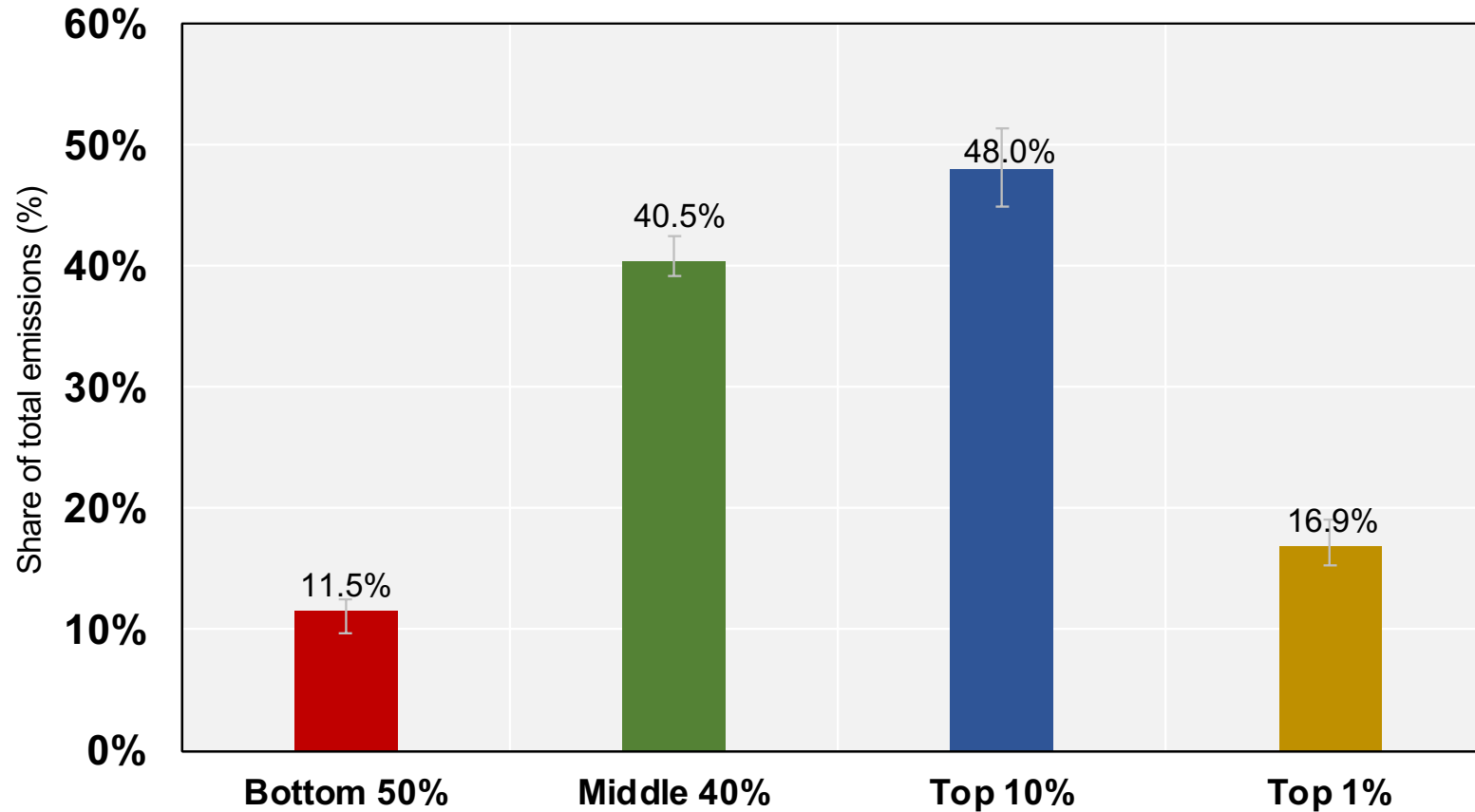


Figure 3B. GHG footprints by global emitter group, 2019
(% world total)

Notes: Personal carbon footprints include emissions from domestic consumption, public and private investments as well as imports and exports of carbon embedded in goods and services traded with the rest of the world. Modeled estimates are based on the systematic combination of tax data, household surveys and input-output tables. Emissions split equally within households. Benchmark scenario. Error bars show estimates for extreme scenarios (with $\alpha=0.4$ in one case and $\alpha=0.8$ in the other). **Source and series:** Author, see Methods and Supplementary Information.

Poorest half of the world population emits 1.4t/cap vs. 101t/cap for the top 1%

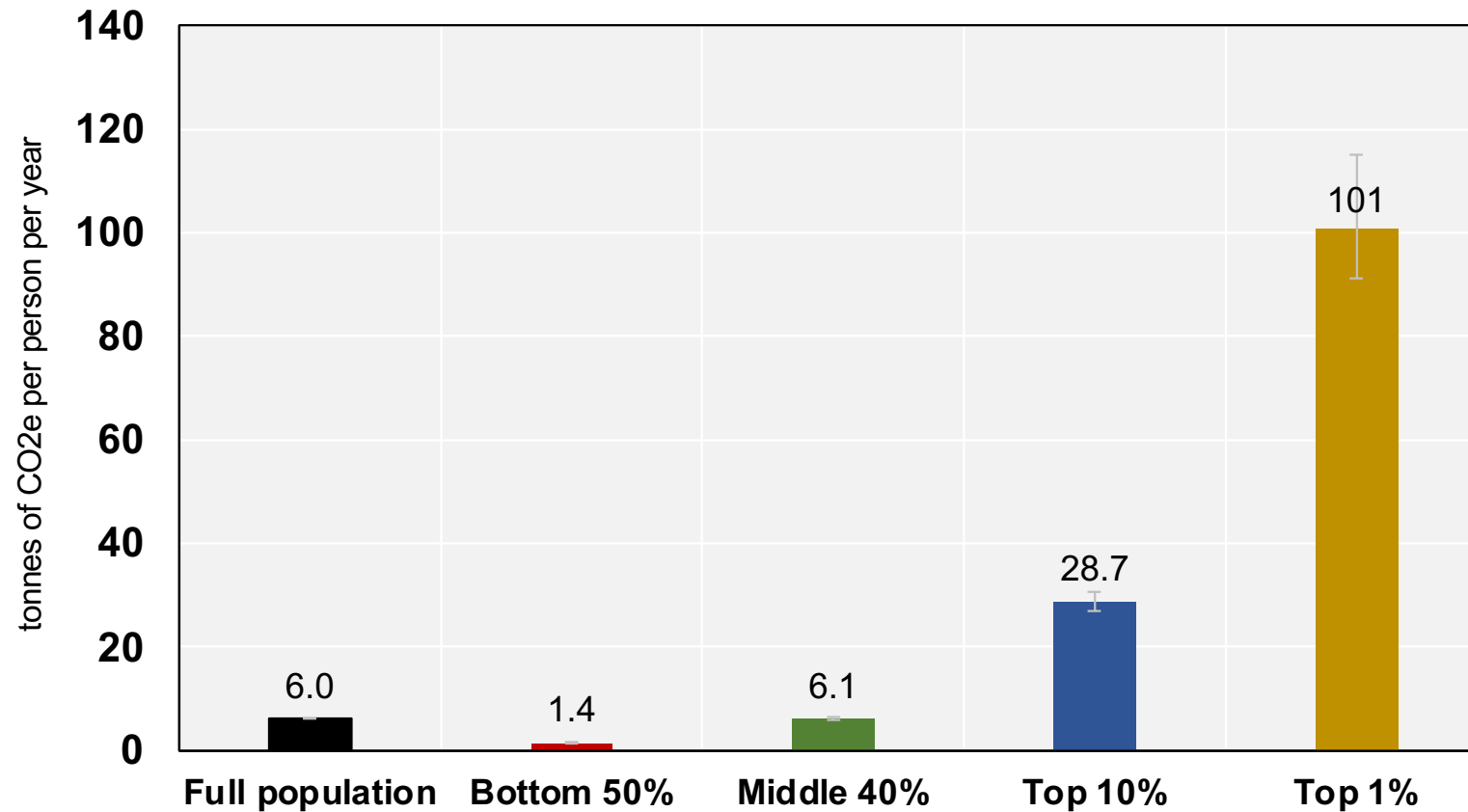


Figure 3A. GHG footprints by global emitter group, 2019
(tCO₂e per capita)

Notes: Personal carbon footprints include emissions from domestic consumption, public and private investments as well as imports and exports of carbon embedded in goods and services traded with the rest of the world. Modeled estimates are based on the systematic combination of tax data, household surveys and input-output tables. Emissions split equally within households. Benchmark scenario. Error bars show estimates for extreme scenarios (with $\alpha=0.4$ in one case and $\alpha=0.8$ in the other).
Source and series: Author, see Methods and Supplementary Information.

Wrapping up: Methodological lessons

- **Universal standard for inequality**

Global approach made us define inequality measures consistent across countries and times

- **Pragmatic use of data available**

Great heterogeneity in data available and hence need for flexible methodology

- **Impressive coordination of academics in recent years**

Both in terms of country coverage and method dev

Wrapping up: Methodological perspectives

- **Historically: govt and international agencies take over**
Example: national accounts done by each country following international standard
- **Value in on-going academic/agency partnerships**
Agencies play crucial role in data collection/access
Academics can/should contribute more to inequality measurement
Dialogue needed to constantly improve inequality estimates

Data transparency: concrete proposals to assess recent progress

Properly assessing the road towards tax transparency: publishing basic information

Table 9.1A Number of individuals, Wealth and Taxes paid by wealth bracket

Net wealth bracket (€)							Wealth taxes				Income taxes		
	Number of individuals	incl. number of residents	incl. number of non-residents	Total net wealth	incl. residents	incl. non-residents	Total wealth taxes	incl. wealth and property tax	incl. capital gains tax	incl. inheritance & estate tax	Total income taxes	incl. personal income tax	incl. corp. income taxes
0-10k													
10k-100k													
100k-1m													
1m-10m													
10m-100m													
100m-1bn													
1bn-5bn													
5bn-10bn													
10bn+													

Data to be systematically published by governments

Wrapping up: Substantive lessons

- **Inequality varies a lot across countries and over time**
Tied to social organization rather than “natural” economic laws.
- **Low inequality is possible with high economic prosperity**
Rich countries post-WW2: low pretax and post-tax inequality and social state growth thanks to highly progressive taxes *and* strong predistribution
- **Globalization still very far from equalizing world incomes**
Inequality levels remain large either within country or between countries

Wrapping up : Substantive perspectives

-
- **Economic development is good but not enough**
Distribution of growth is key
- **Post-tax redistribution is good but not enough**
Social states in richer countries remain big
Social states in dev. countries are not growing enough
Need more equal pre-distribution within countries
- **Recent years changed the policy playbook**
Global minimum tax agreement; large-scale social programs, strategic planning of the economy, partial seizure of assets, etc.
→ Much to learn from and build-on