Microeconomics of Public Policy
Part III: Inequality

Wouter Leenders

Sciences Po

MPA 2023-2024

Introduction

What is inequality and why do we care?

Income inequality

Wealth inequality

Intergenerational mobility

Introduction

I am a PhD candidate at the University of California, Berkeley, currently visiting the EU Tax Observatory in Paris

My research is in public economics and focuses on inequality and taxation. You can find my research on https://wouterleenders.eu

Course material will be uploaded to https://wouterleenders.eu/KMPA2885/

I have worked on the following topics:

1. *The measurement of inequality and redistribution*: How large is inequality and what do governments do to reduce it?
2. *Taxation of the rich*: How much do they pay? Can we design policies to better tax them?
3. *The distribution of tax evasion*: Who evades taxes and why?

What is inequality and why do we care?

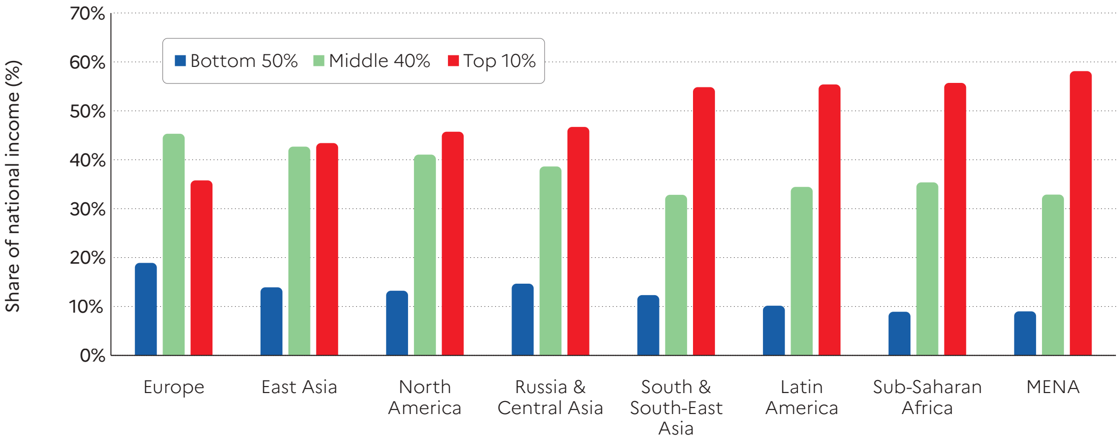
What is inequality?

In economics, inequality refers to the differences in resources between individuals or groups

- **Type of resources**: Income, wealth, consumption, “opportunity’
- **Type of groups**: Class, gender, race, geography, ...
- **Scope**: Global, national, regional

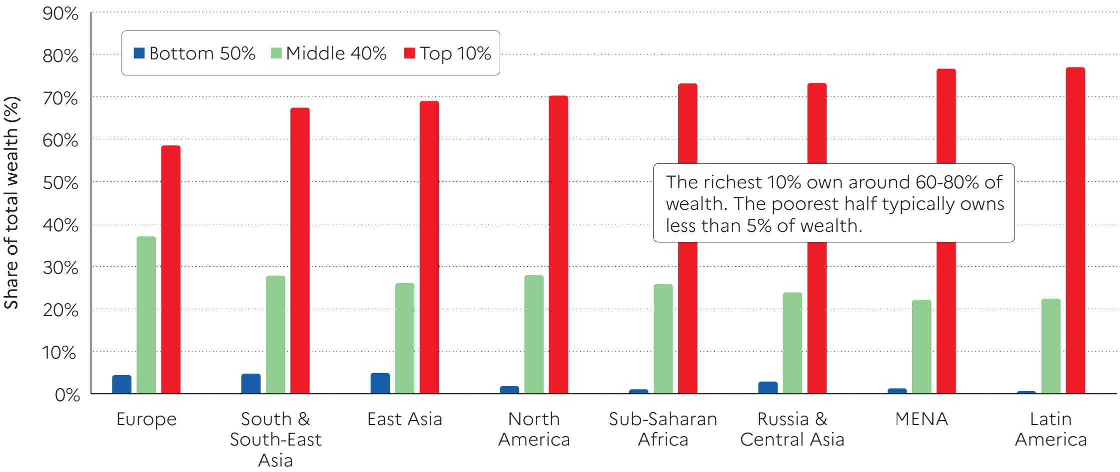
The World Inequality Lab collects the most up-to-date research in the World Inequality Report 2022 and on wid.world

Bottom 50%, middle 40% and top 10% income shares across the world in 2021



Source: World Inequality Report 2022

Wealth inequality across the world, 2021



Source: World Inequality Report 2022

Why do we care?

Pew Research Center: 61% of Americans say there is too much economic inequality

Gallup: 75% of Americans is dissatisfied with "the way income and wealth are distributed in the U.S.

Eurobarometer: 81% of EU citizens agree that differences in income are too great

Biologists have documented an aversion to inequality among capuchin monkeys, apes, dogs and birds (Brosnan and De Waal, 2014)

Humans engage in joint production with others through families, tribes, corporations, the government. The fruits of this production need to be distributed, which explains why sentiments around inequality are so deeply rooted

$\Rightarrow$ 2021 AEA Distinguished Lecture by Emmanuel Saez: "*Public Economics and Inequality: Uncovering Our Social Nature*" [video, 27:00]

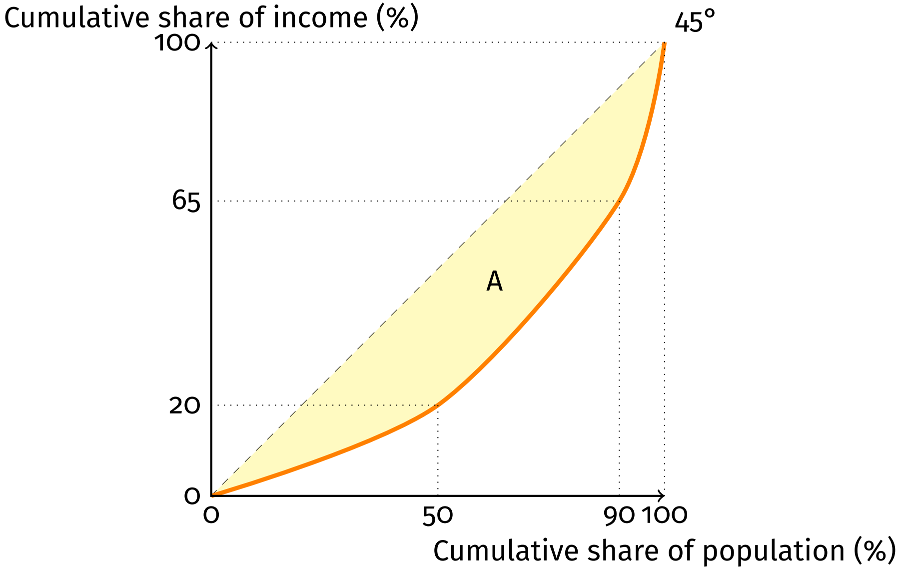
Inequality is distinct from poverty in that it is concerned with the *relative* distribution of resources.

Income shares measure the share of total income that accrues to a specific group, e.g., the bottom 50%, the top 10%, the top 0.0001%.

Statisticians and economists have developed **indices** to summarise inequality in a single number: Gini coefficient, Atkinson index, Theil index

The simplicity of indices is also their most important downside: they reduce a complex and multidimensional concept such as inequality to a single number. Secondly, (changes in) indices are abstract and often difficult to interpret for non-experts (see also "*Problems of Synthetic Indices*" in *Capital in the 21st Century*, p.266-267)

Gini coefficient = 2A



Data on inequality

A popular source to study inequality are **surveys** where income or wealth are reported for a sample of individuals. Surveys have a number of problems:

1. The sample size is often too small to study the top
2. Income/wealth is often top coded
3. Very few surveys existed before the 1950s

There is a long tradition of economists (Pareto, Kuznets, Piketty/Saez) using **tax data**, which avoid some of these problems, but have their own...

1. Data is distorted by tax evasion
2. Differences in tax laws across time and countries complicate comparisons
3. Income concept inconsistent with macroeconomic aggregates (GDP, national income)

$\Rightarrow$ **Distributional national accounts**

- Consistent and comprehensive definition of income and wealth
- Inequality before and after redistribution

Income inequality

What is income?

National income consists of domestic output net of capital depreciation plus net foreign income. It is made up of labour income (70-75%) and capital income (25-30%).

Labour income is made up of salaries, pension contributions, fringe benefits. Inequality in labour income is due to

- Education and skills
- Labour market institutions (unions, minimum wages)
- Work effort
- Social norms and discrimination

Capital income consists of corporate profits, interest, rental income. Inequality in capital income is due to

- Wealth inequality
- Inequality in rates of return

Pre-tax and post-tax (and spending) inequality

Governments **redistribute** income through taxation and government spending

We will discuss **taxation** tomorrow!

Government spending amounts to 30-50% in the US and Europe

- Cash transfers: Social security, social assistance
- In-kind transfers: Goods and services provided for free or at economically insignificant prices
- Collective expenditure: Non-rival, consumed passively, delivered to all members of a community simultaneously

Why Is Europe more equal than the United States?

	Pre-tax		Post-tax	
Top 1% income share	1980	2017	1980	2017
United States	11	21	9	16
Europe	8	11	7	9

Blanchet, Chancel and Gethin (2022) construct distributional national accounts for 26 European countries from 1980 to 2017

European countries redistribute a larger fraction of output, but redistribution is more targeted at the bottom 50% of earners in the United States

Predistribution rather than **redistribution** explains why Europe is more equal than the United States

Real-time inequality

Real income growth per adult in the last quarter (2023-Q1)

Growth rates, gains, and income levels are annualized.

Period: ○ Last Calendar Year ◉ Last Quarter

Sort by: Group ↓ Growth (%) Gain ($) Income

Group	Growth (%)	Gain ($)	Avg. Income
Total	2.2%	$1.9k	$89k
Bottom 50%	1.5%	$270	$18k
Middle 40%	1.7%	$1.6k	$92k
Top 10%	2.7%	$12k	$430k
Top 1%	4.3%	$78k	$1.9M
Top 0.1%	4.5%	$400k	$8.9M
Top 0.01%	5%	$2.1M	$42M

Wealth inequality

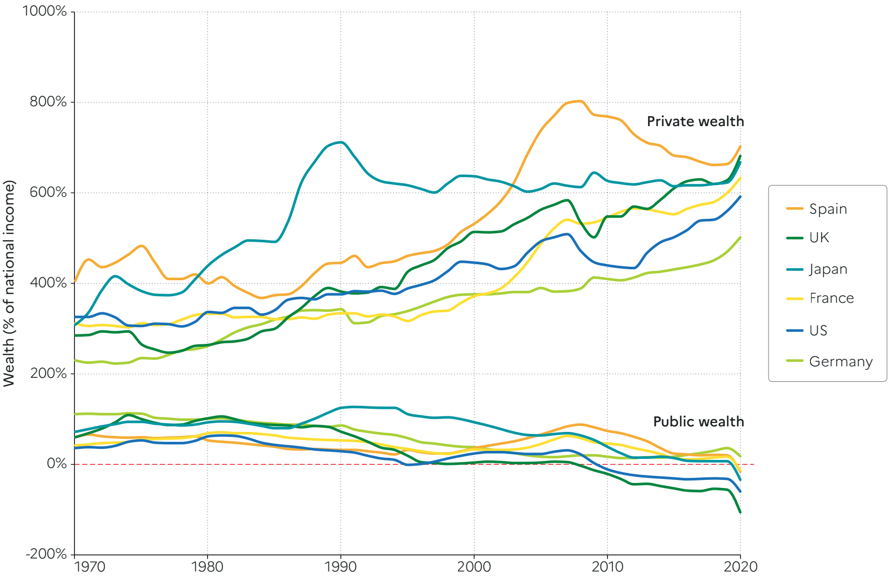
What is wealth?

Wealth is the difference between the sum of all assets and the sum of all liabilities

An **asset** is a store of value that represents the expected economic benefits of owning an entity: e.g., real estate, equity, bonds, deposits. **Liabilities** are the converse and take the form of mortgages, student loans, consumer debt.

Wealth can be owned by private individuals or by the government

Private and public wealth in rich countries, 1970-2020



How do we measure wealth?

The ideal source for measuring wealth would be the data provided by a well-enforced, comprehensive **wealth tax**, but few countries levy these...

In the absence of such a tax, a few **surveys** contain information about wealth such as the *Eurosystem Household Finance and Consumption Survey* and the *Survey of Consumer Finances*

An old method treats **inheritance tax records** as a non-random sample of wealth and tries to correct for the non-randomness

Capital income can be "**capitalised**": $Y_k = rK \Rightarrow Y_k/r = K$

In many countries, journalists have compiled **rich lists** with estimates of the wealth owned by the richest individuals (e.g., Forbes 400, Bloomberg Billionaires Index)

Wealth owned by individual i in period $t+1$ is determined by the level of wealth in period t, the share of income saved and the rate of return:

$$W_{t+1}^{i} = (1 + r_t^i) \cdot (W_t^i + s_t^i \cdot Y_t^i)$$

Differences in wealth can thus be caused by:

1. Pre-existing differences in wealth
2. Labour income inequality
3. Differential savings rates
4. Differential rates of return

Wealth inequality dynamics in Europe and the United States

Top 1% wealth share	1970	2020
United States	27	35
Europe	24	24

Blanchet and Martínez-Toledano (2023) construct distributional wealth accounts for 31 European countries from 1970 to 2020

Wealth concentration has recently increased in both Europe and the United States, but more so in the latter

The main explanations for this are that in Europe 1) house prices increased by more and 2) labour income inequality increased by less than in the United States

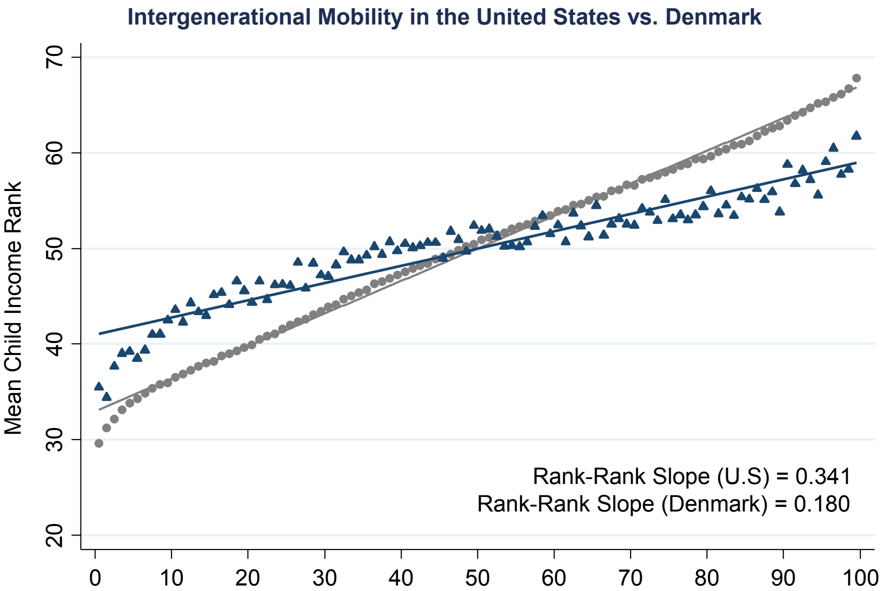
Intergenerational mobility

How do we measure mobility?

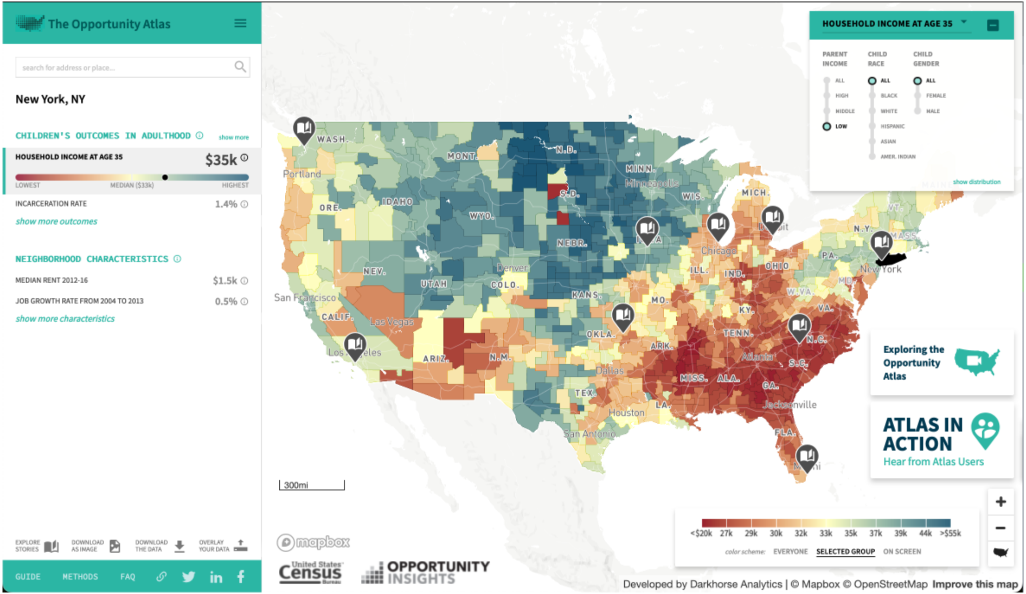
The influence that parental income has on a child's economic success is often taken as an indicator for the poorly defined "inequality of opportunity".

The degree of this influence can be expressed in a number of ways:

1. **Intergenerational elasticity of income**: By how much does the child's income increases if the parents' income increases by 1%?
2. **Rank-rank correlation**: The correlation between the income rank of the parents and that of the child
3. **Absolute mobility**: What is the expected income rank of children from families at percentile p?


Intergenerational Mobility in the United States vs. Denmark
Mean Child Income Rank
20
30
40
50
60
70
0
10
20
30
40
50
60
70
80
90
100
Rank-Rank Slope (U.S) = 0.341
Rank-Rank Slope (Denmark) = 0.180

The Opportunity Atlas



Blanchet, Thomas, and Clara Martínez-Toledano. 2023. “Wealth Inequality Dynamics in Europe and the United States: Understanding the Determinants.” *Journal of Monetary Economics*, 133: 25–43.

Blanchet, Thomas, Emmanuel Saez, and Gabriel Zucman. 2022. “Real-Time Inequality.” working paper.

Blanchet, Thomas, Lucas Chancel, and Amory Gethin. 2022. “Why Is Europe More Equal than the United States?” *American Economic Journal: Applied Economics*, 14(4): 480–518.

Brosnan, Sarah, and Frans De Waal. 2014. “Evolution of responses to (un)fairness.” *Science*, 346: 1251776.

Chancel, Lucas, Thomas Piketty, Emmanuel Saez, and Gabriel Zucman. 2022. *World Inequality Report 2022.* Harvard University Press.

Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. 2014. “Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States.” *The Quarterly Journal of Economics*, 129(4): 1553–1623.

Piketty, Thomas. 2014. *Capital in the 21st Century.* Harvard University Press.