

**Introduction to Economic History :**  
**Capital, Inequality, Growth**

*(Master APE & PPD)*

*(EHESS & Paris School of Economics)*

Thomas Piketty

Academic year 2026-2027

**Lecture 6: Equality, Inequality and Development:**  
**Class Structures and Wealth in Historical Perspective**

# Roadmap of the lecture

- The Early Measurement of Inequality: the Annales School & the Birth of « Serial History » (Labrousse 1933)
- Combining National Accounts with Fiscal & Survey Data: from Kuznets 1953 to Distributional National Accounts
- Equality & Development 1800-2025: A Positive Relation
- Political Equality as a Key Determinant of Socioeconomic Equality in the Long-Run
- Are We On the Road for Global Equality? The Global Justice Report in Historical & Comparative Perspective

# Brief Bibliography

- S. Kuznets, [Shares of Upper Income Groups in Income & Savings](#), 1953
- T. Piketty, E. Saez, [Income Inequality in the US, 1913-1998](#), QJE 2003
- T. Piketty, E. Saez, G. Zucman, [Distributional National Accounts: Methods & Estimates for the US](#), QJE 2018
- E. Bengtsson, [The Swedish Sonderweg in Question: Democratization & Inequality in Comparative Perspective 1750–1920](#), Past & Present 2019
- T. Piketty, [A Brief History of Equality](#), HUP 2022
- **\*M. Andreescu et al, [Equality and Development: A Comparative and Historical Perspective 1800-2025](#), WIL WP 2025**
- G. Alfani, [The Lion's Share. Inequality & the Rise of the Fiscal State in Preindustrial Europe](#), Cambridge UP 2019

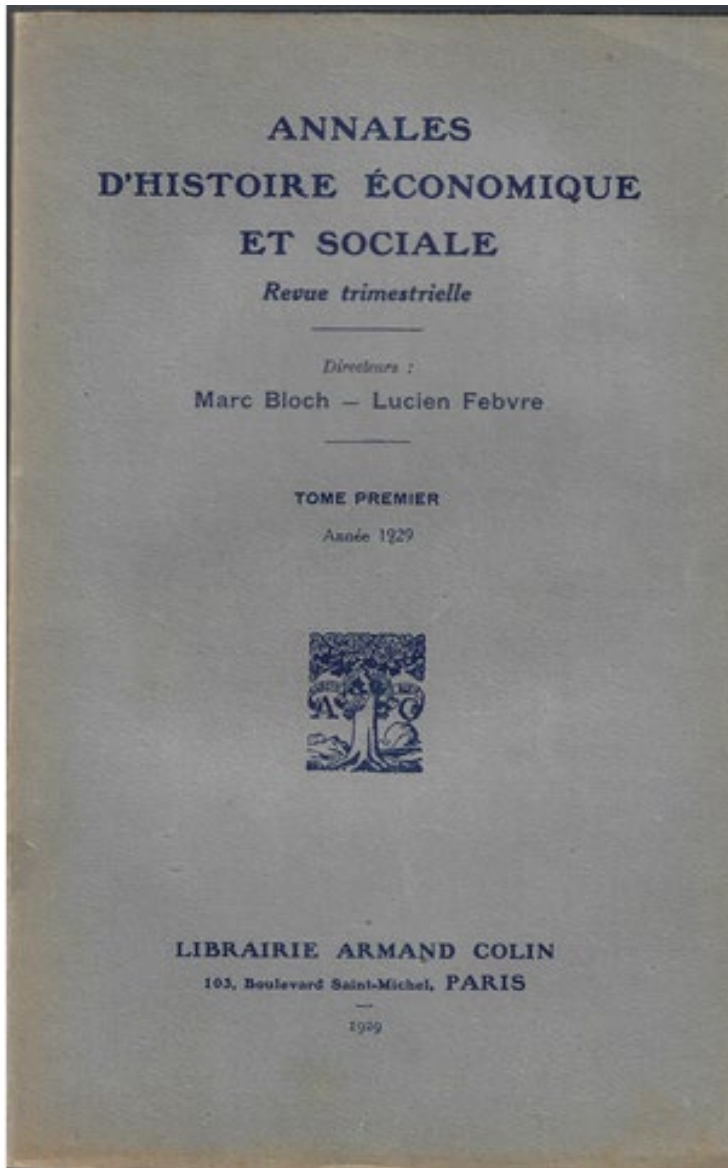
# The Early Measurement of Inequality: the Annales School and the Birth of « Serial History » (Labrousse 1933)

**Economic and social history**, together & inextricably linked with the “**history of mentalities**”, were at the **origins of *Annales* school** in the interwar and post-war periods. **Very influential school in history & other social sciences since interwar period in France and beyond.**

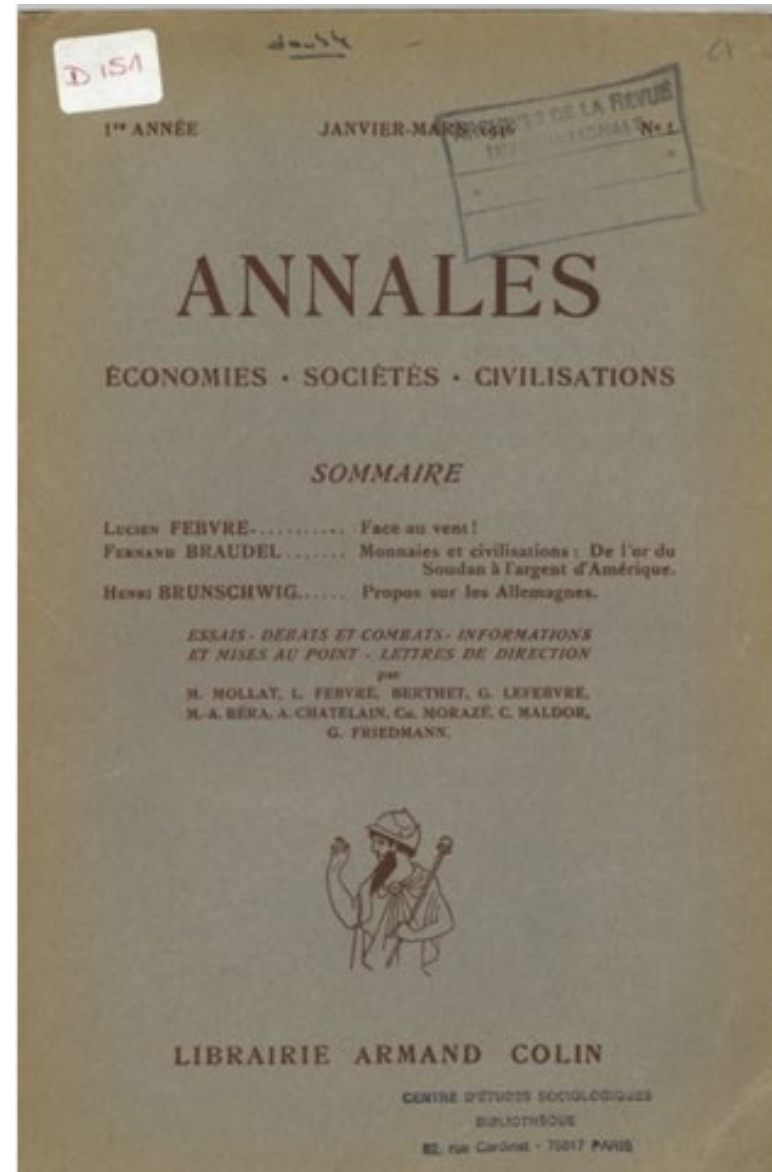
Maybe the best exemple of “serial history”: Labrousse 1933 on wages, prices and land rents in 18c France, leading to French Revolution

Bruguière 2006 (*L'Ecole des Annales. Une histoire intellectuelle*): *Annales* school as the study of the “**mental self-transformation of societies**”, away from any kind of socioeconomic deterministic approach, but with a key role for quantitative methods & the study of socioeconomic transformation (more ambitious than “serial history”)

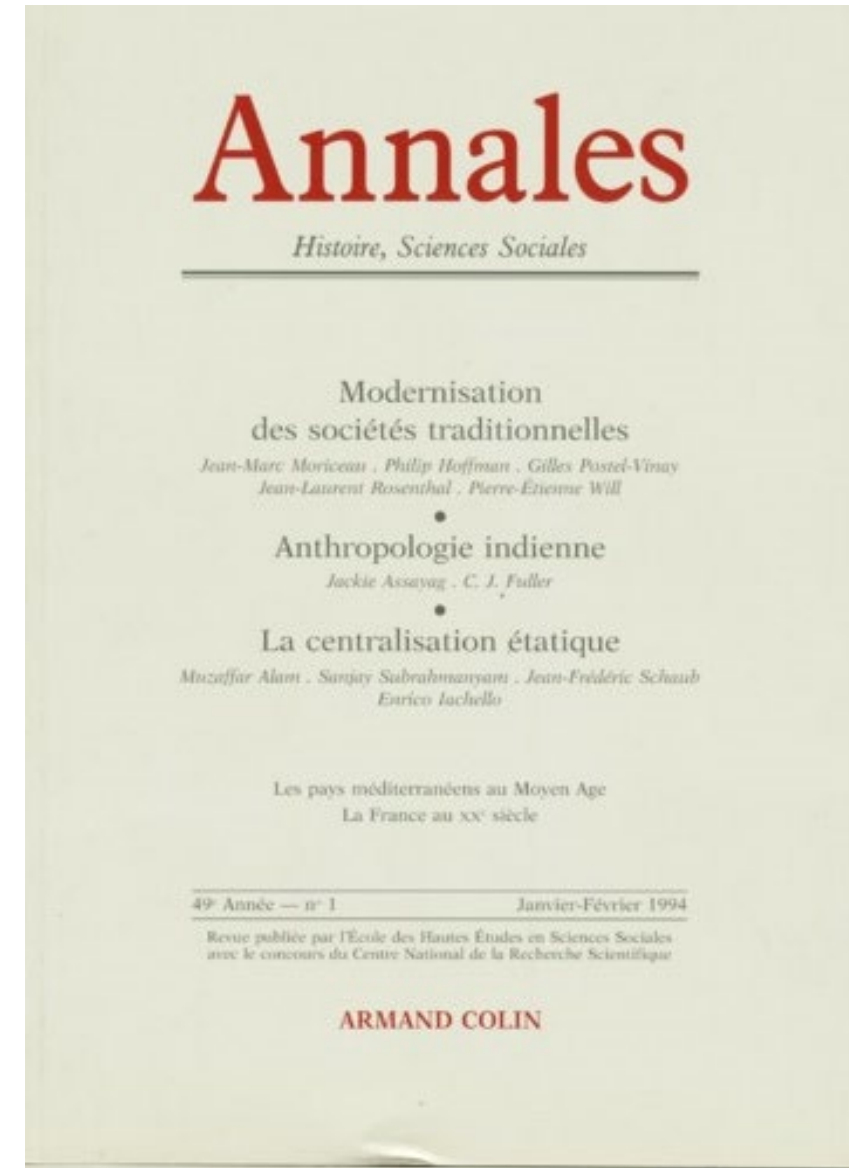
# Annales School: can we combine economic and cultural history?



1929: Annales HES



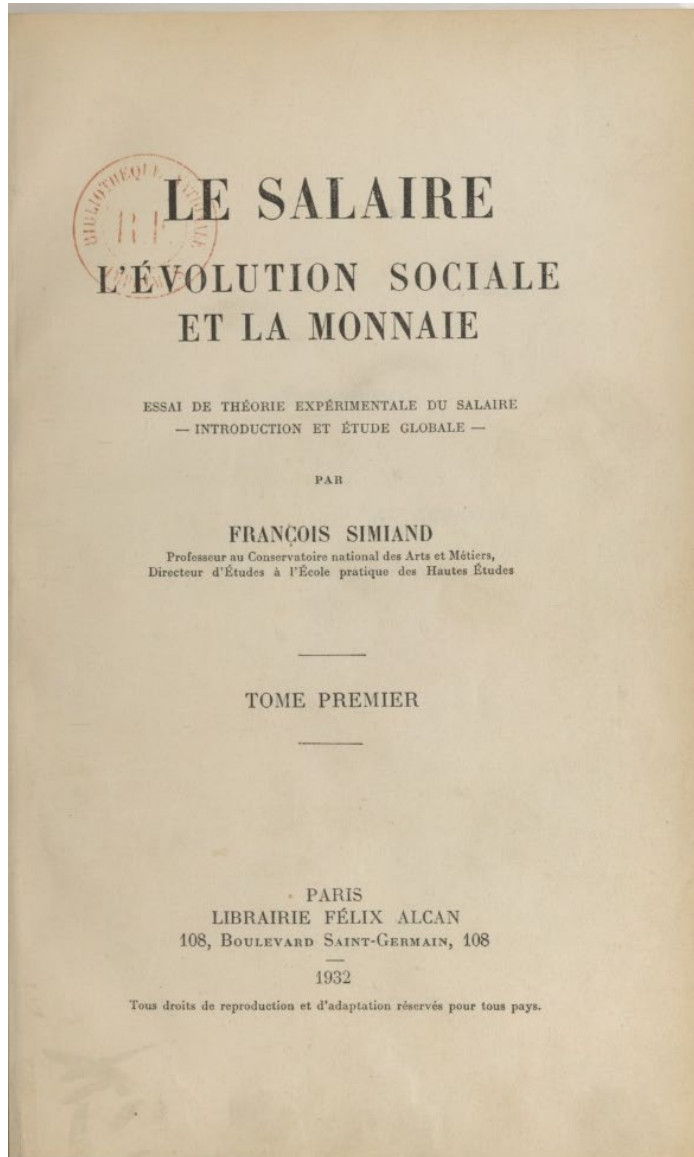
1946: Annales ESC



1994: Annales HSS

A possible manifesto for a new Annales school and for 21c social science research: **the “quantitative-deconstructionist” synthesis:** (1) we should not shy away from the **quantitative study of social classes and economic & material realities** (including by using statistical series, when needed), (2) but **at the same time we should permanently deconstruct & reconstruct all existing categories** (which always reflect specific socio-political processes and power relations and struggles, and should never be taken as given)

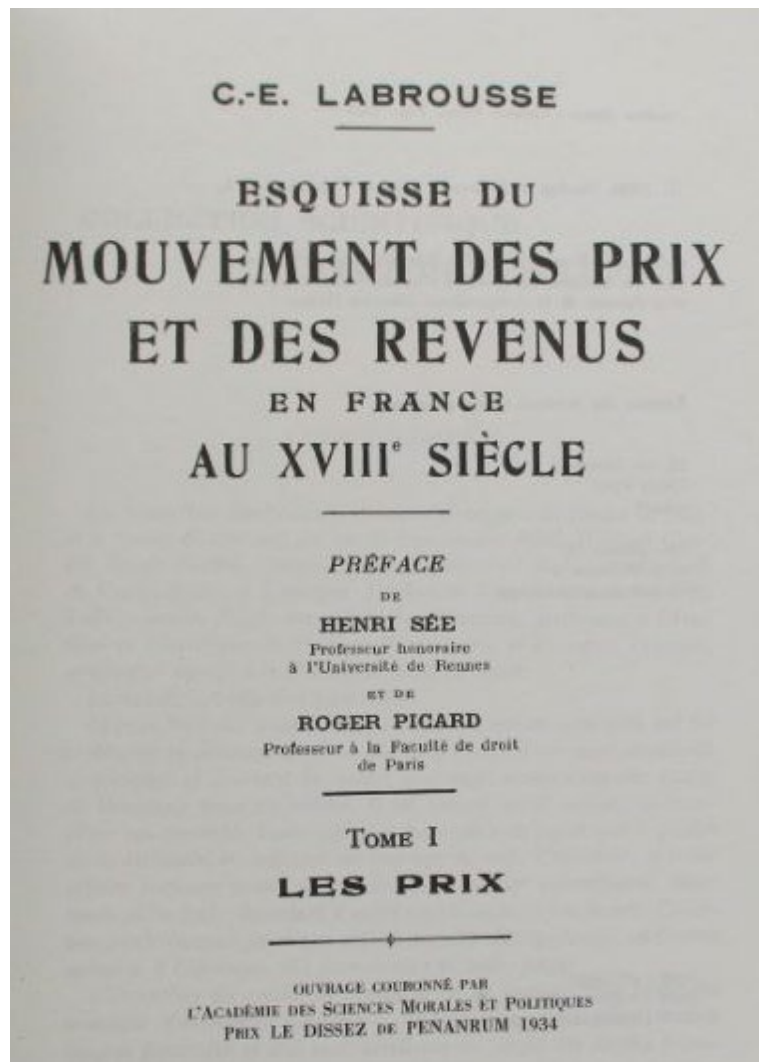
**This “quantitative-deconstructionist” synthesis should be further developed in the future:** more than ever, socioeconomic approaches and sociocultural-sociopolitical approaches should be combined together, hopefully with a more global perspective



**Creation of Annales HES (Annales d'histoire économique et sociale) in 1929 by M. Bloch and L. Febvre : an attempt to bring closer historical research and the new research developed in sociology and economics btw 1890s & 1920s, in particular by E. Durkheim & F. Simiand (including the use of new methods like statistical series)**

Simiand 1932: a first attempt to construct historical series on wages in France 1789-1914 and explain the succession of periods of wage stagnation and wage rise

**F. Simiand, 1932**

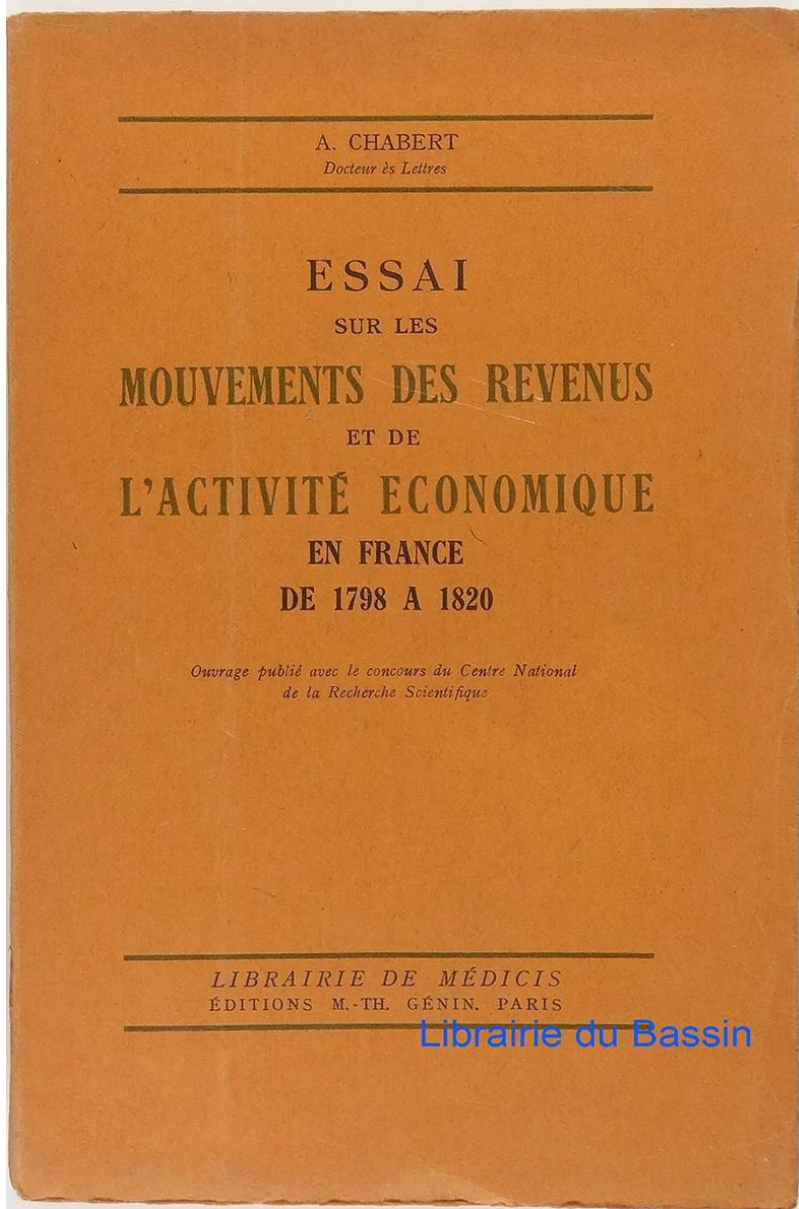


1933: Labrousse's Esquisse

**Labrousse 1933:** very careful attempt to put together existing historical sources on grain prices, agricultural wages and land rents in France btw 1720s & 1780s

Main result: wages were lagging behind prices and even more so were lagging behind land rents in 18c France. **Rising inequality in the decades preceding French Revolution**, with lots of regional variations. Strong basis for political mobilisation.

Huge influence in the 1950s-1960s. **Symbol of the strengths and limitations of the Annales school.**



A. Chabert, 1949



J. Bouvier et al, 1960

« Tant que les revenus des classes de la société contemporaine demeureront hors de portée de l'enquête scientifique, il sera vain de vouloir entreprendre une histoire économique et sociale valable »  
(Bouvier et al, 1960)

# From Prices, Wages and Incomes to Political Mobilisations

ASSOCIATION FRANÇAISE DES HISTORIENS ÉCONOMISTES  
PREMIER CONGRÈS NATIONAL - PARIS 11-12 JANVIER 1969

## LES FLUCTUATIONS DU PRODUIT DE LA DÎME

Conjoncture décimale et domaniale  
de la fin du Moyen Age au XVIII<sup>e</sup> siècle

*Communications et travaux  
rassemblés et présentés*

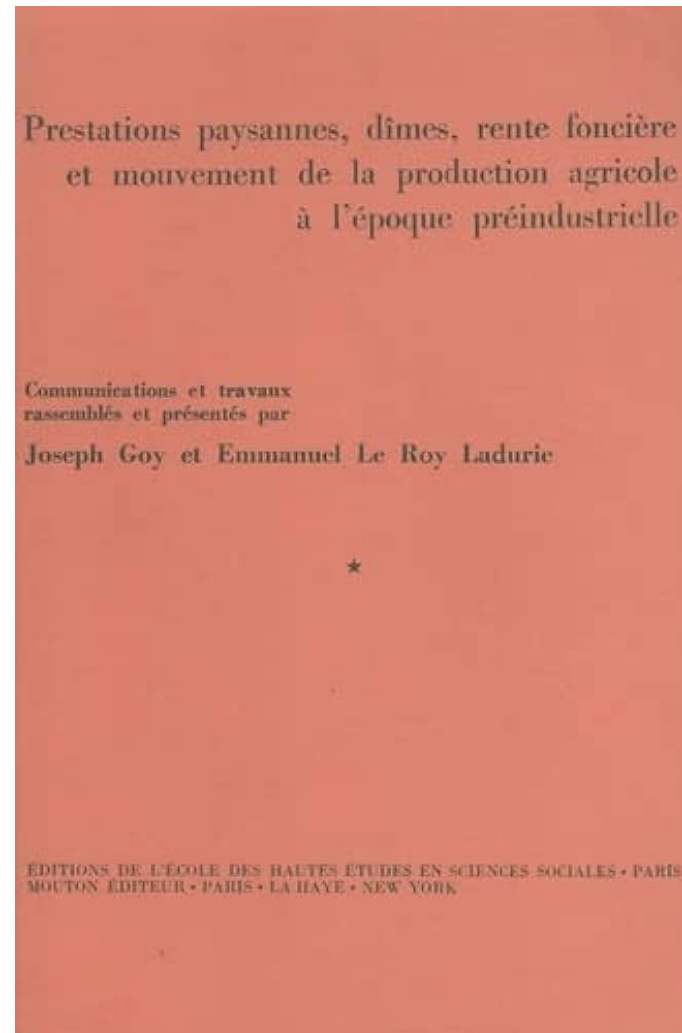
*par*

JOSEPH GOY ET EMMANUEL LE ROY LADURIE

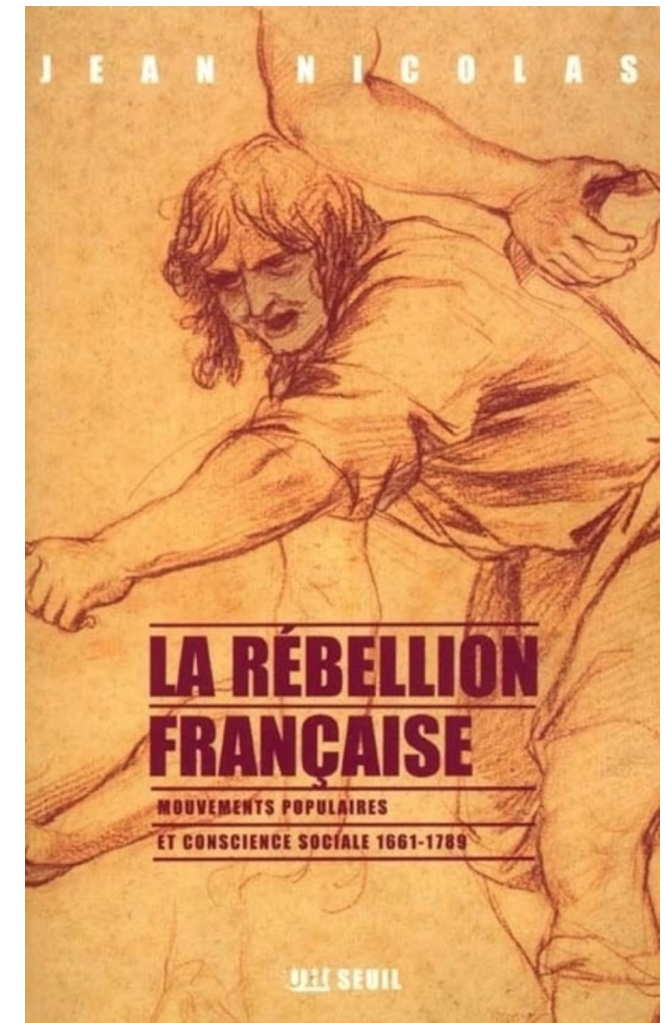
PARIS

MOUTON & CO  
MCLXXII

LA HAYE

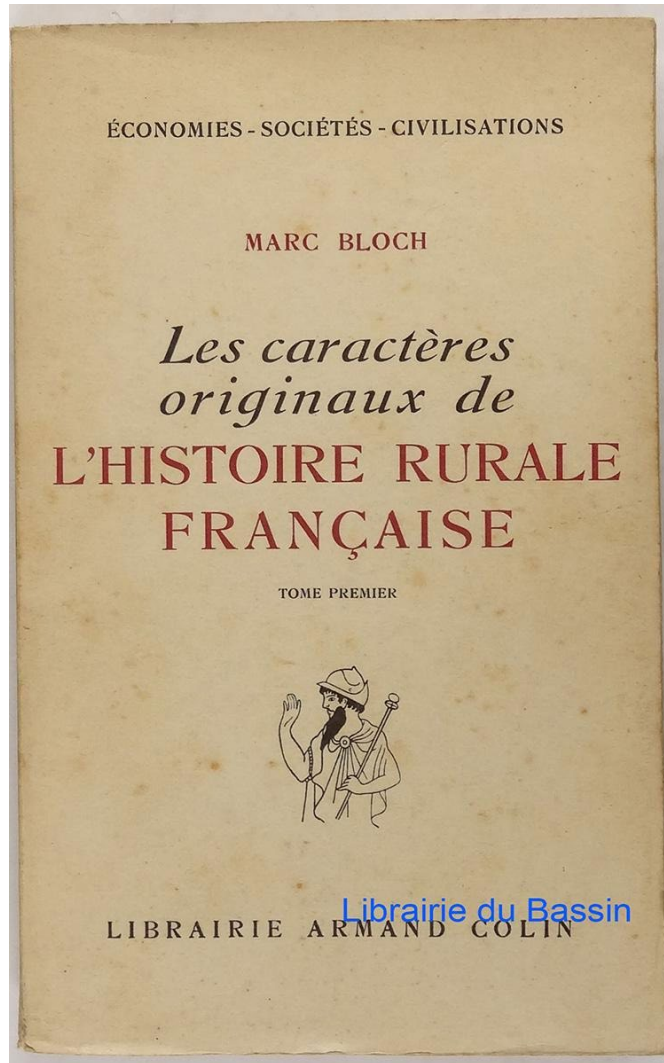


Goy & Le Roy Ladurie,  
1982



J. Nicolas, 2002

# From Prices and Incomes to the Study of Property Structures



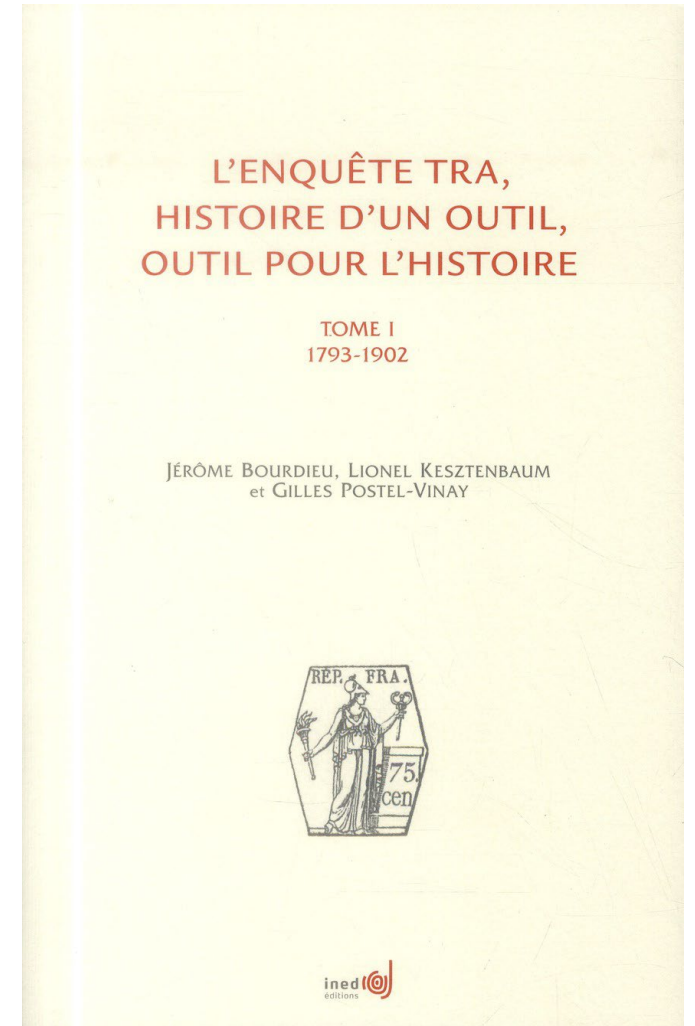
M. Bloch, 1931

## LES FORTUNES FRANÇAISES AU XIX<sup>E</sup> SIÈCLE

enquête dirigée par  
**ADELINE DAUMARD**  
avec la collaboration de  
**F. CODACCIONI, G. DUPEUX et J. HERPIN,**  
**J. GODECHOT et J. SENTOU**

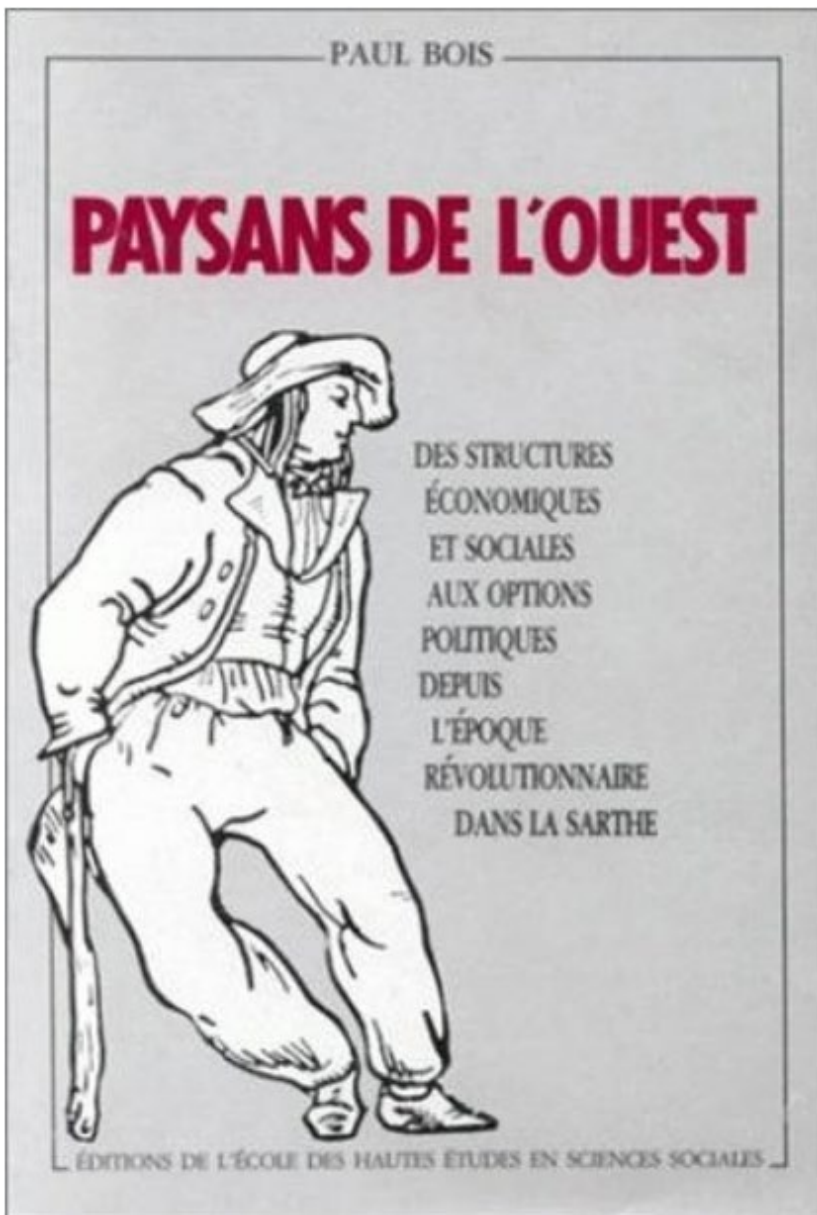


A. Daumard, 1973

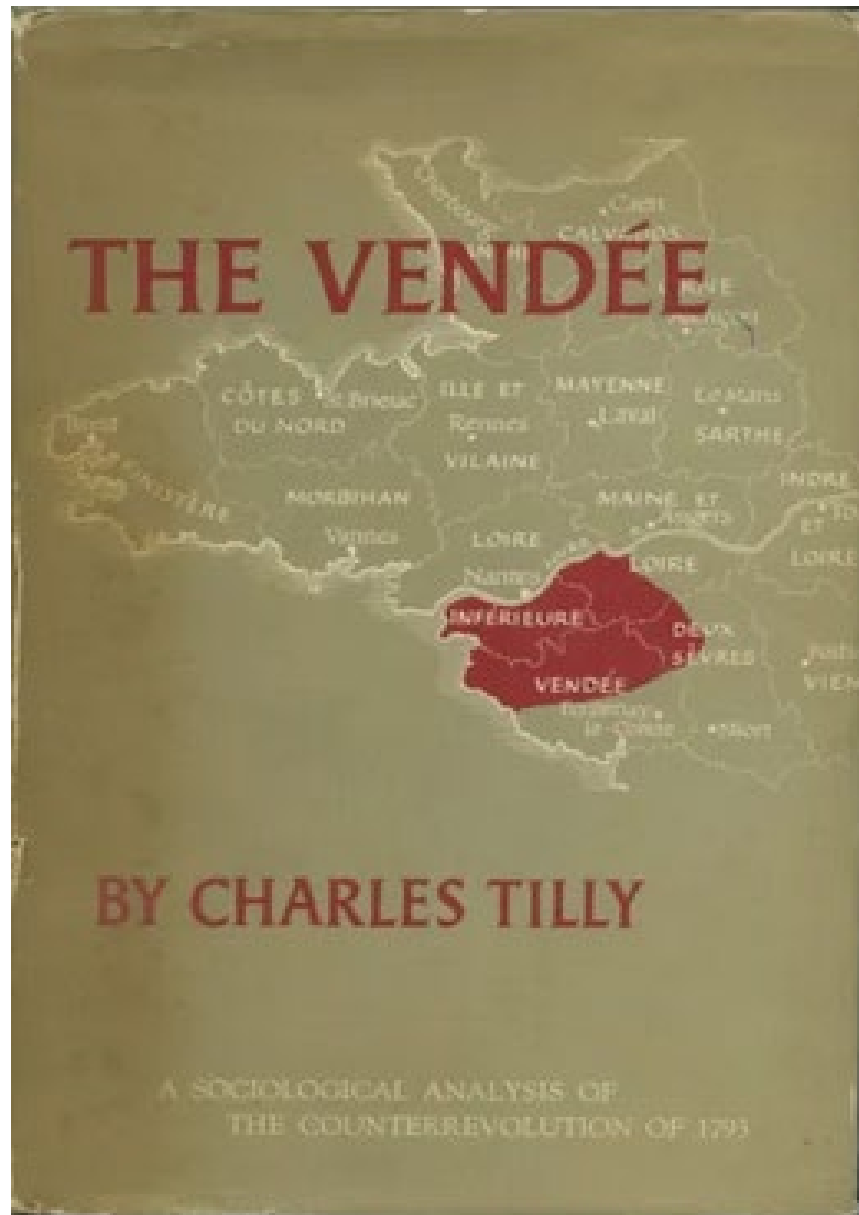


J. Bourdieu et al, 2014

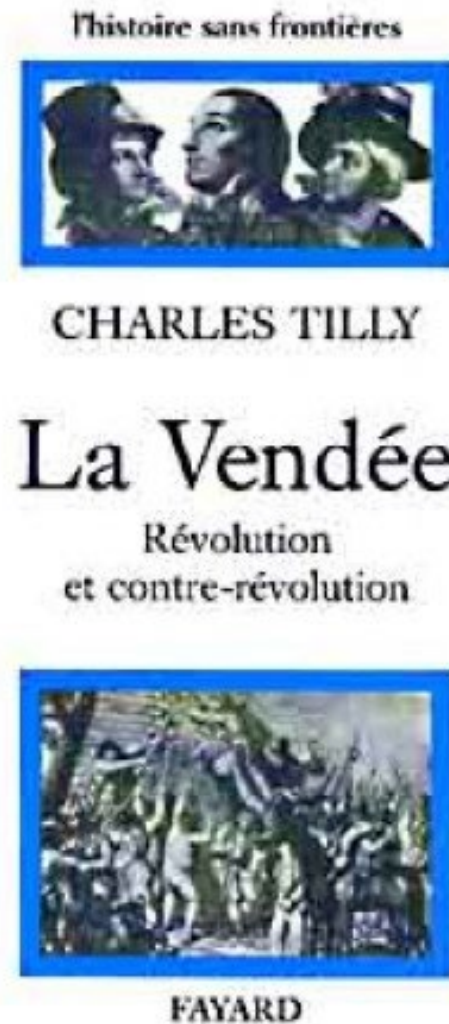
# Combining Economic & Political History: Bois 1960-Tilly 1964



P. Bois, 1960



C. Tilly, 1964



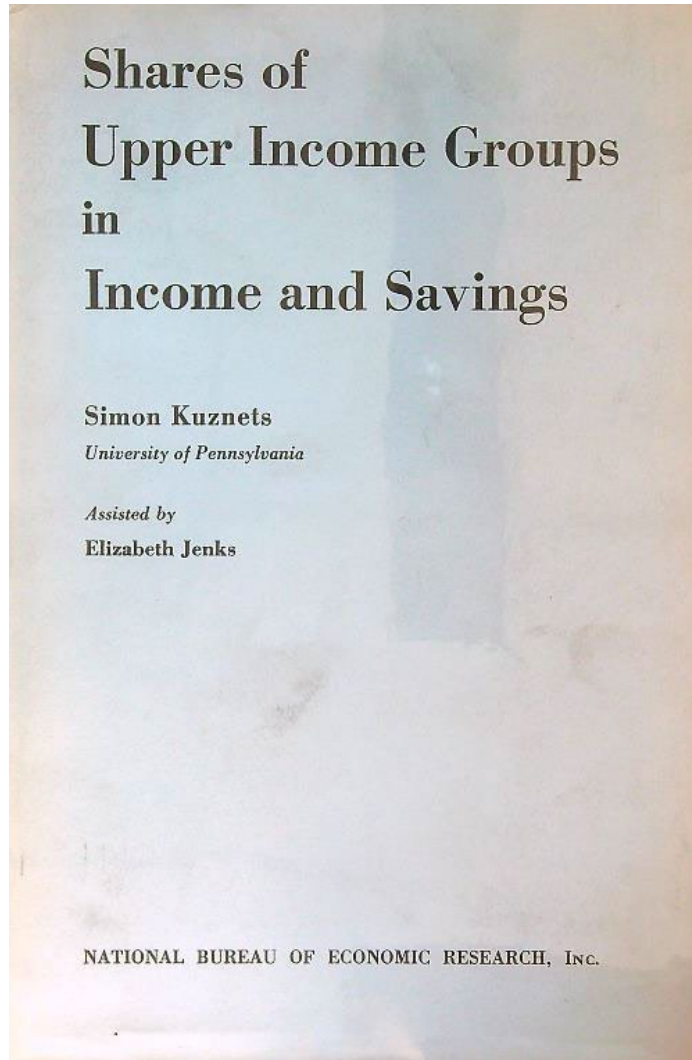
C. Tilly, 1970

**Beginning in the 1980s-1990s, the Annales school has sometime given the impression to loose steam, and/or to distance itself from economic and social history & from the « quantitative-deconstructionist » synthesis.**

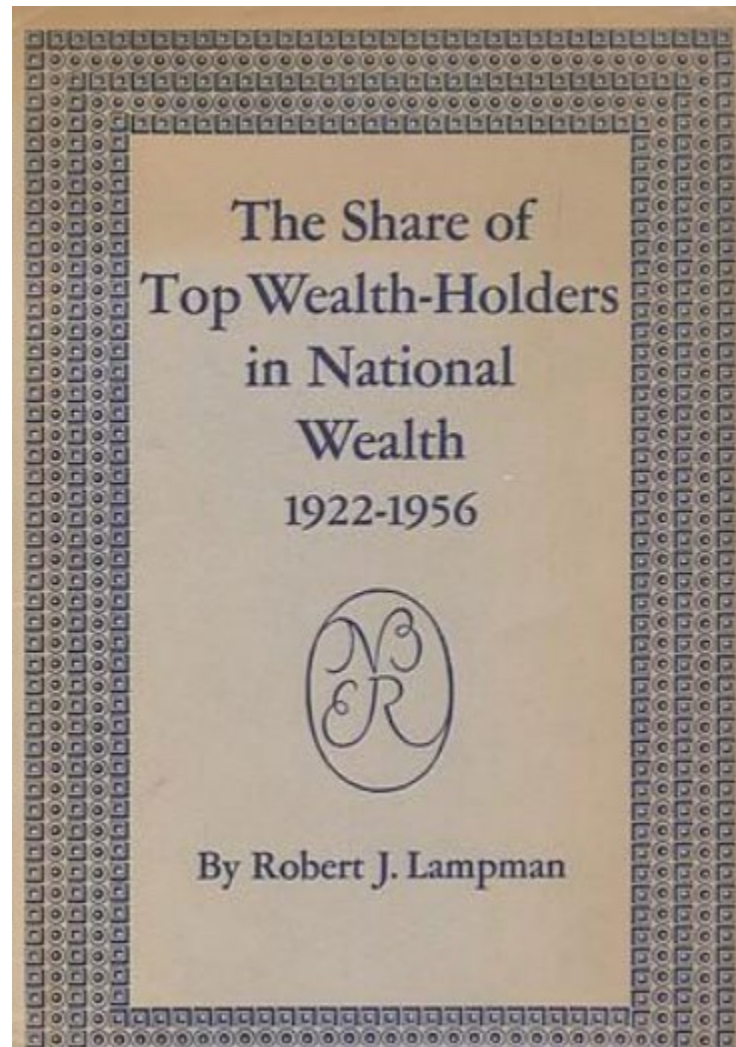
**Why? Partly for good reasons, but mostly for bad & reversible reasons.**

- **1. Pure « serial history » can be quite boring.** But it is now possible to put all technical material online & to concentrate on historical processes.
- **2. Lack of global perspective.** But recent rise of new history of capitalism.
- **3. Political shift.** The rise of neoliberalism and anticommunism in the 1980s-1990s has reduced interest in the study of social classes (see e.g. Furet). But the weakening of neoliberalism since the 2000s-2010s spurred new interest in inequality studies and long-run perspectives on social classes. End of soviet communism is not the end of history.
- **4. Disciplinary drift.** Economics vs rest of social sciences. Kuznets 1953 – combining national accounts & fiscal data – contributed to the split between economists & historians. Still difficult to overcome today. On the other hand the « quantitative-deconstructionist » agenda is technically easier to develop today than before. The reconciliation would require big effort on both sides.

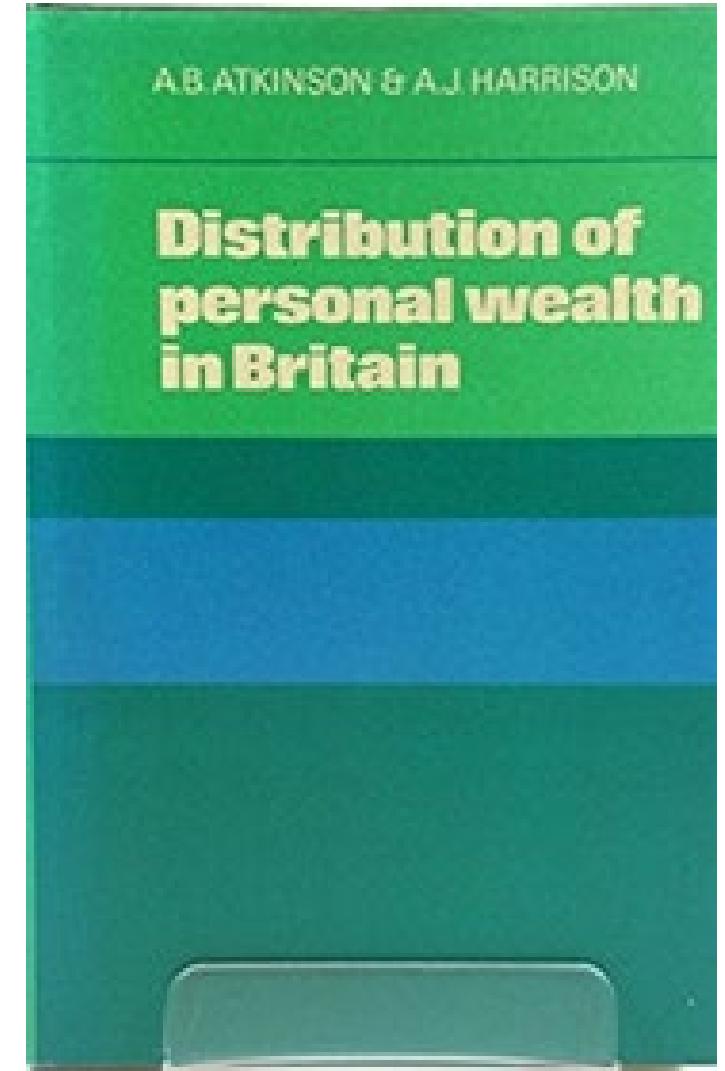
# Kuznets 1953: the Birth of Distributional National Accounts



S. Kuznets, 1953

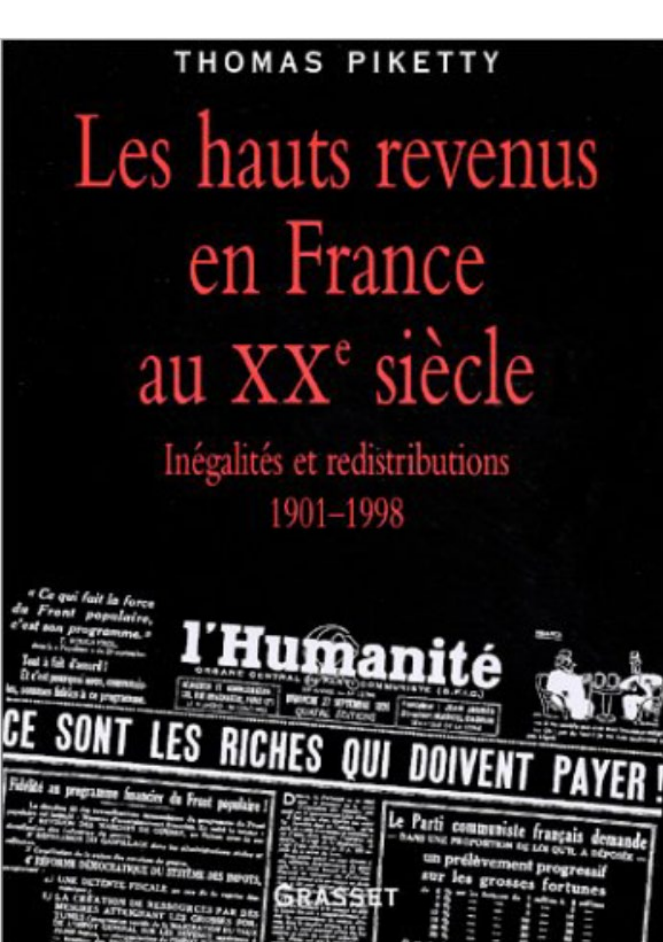


R. Lampman, 1962

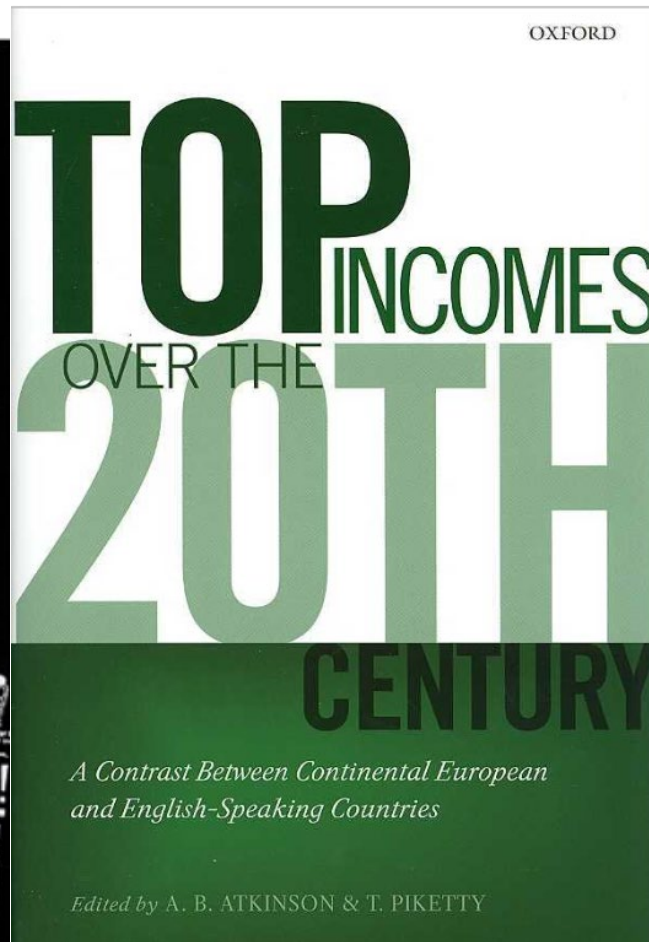


Atkinson & Harrison, 1978

# Following Kuznets-Atkinson: the Rise of Historical Inequality Studies



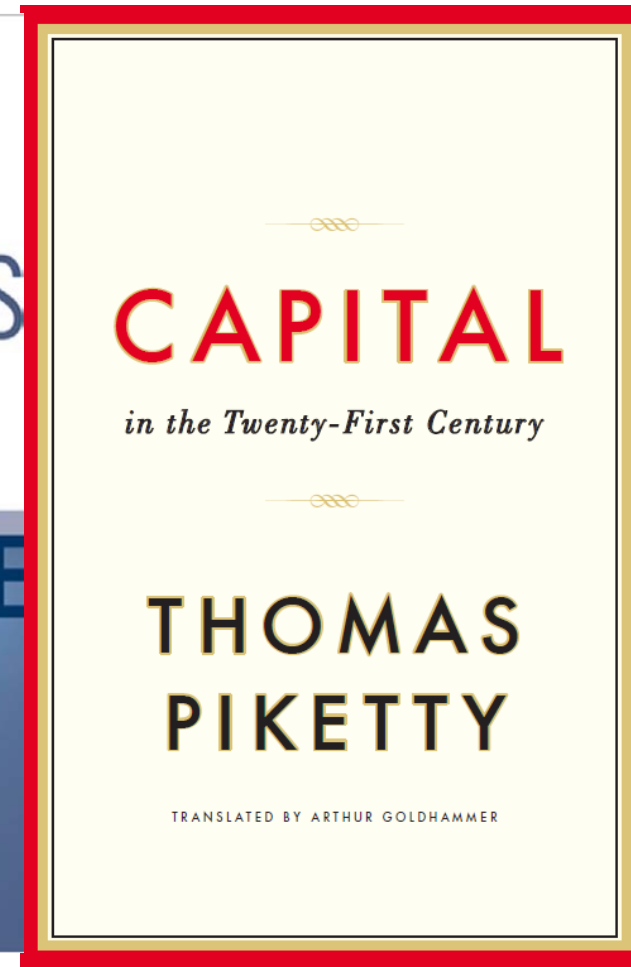
2001



Atkinson-Piketty 2007



Atkinson-Piketty 2010



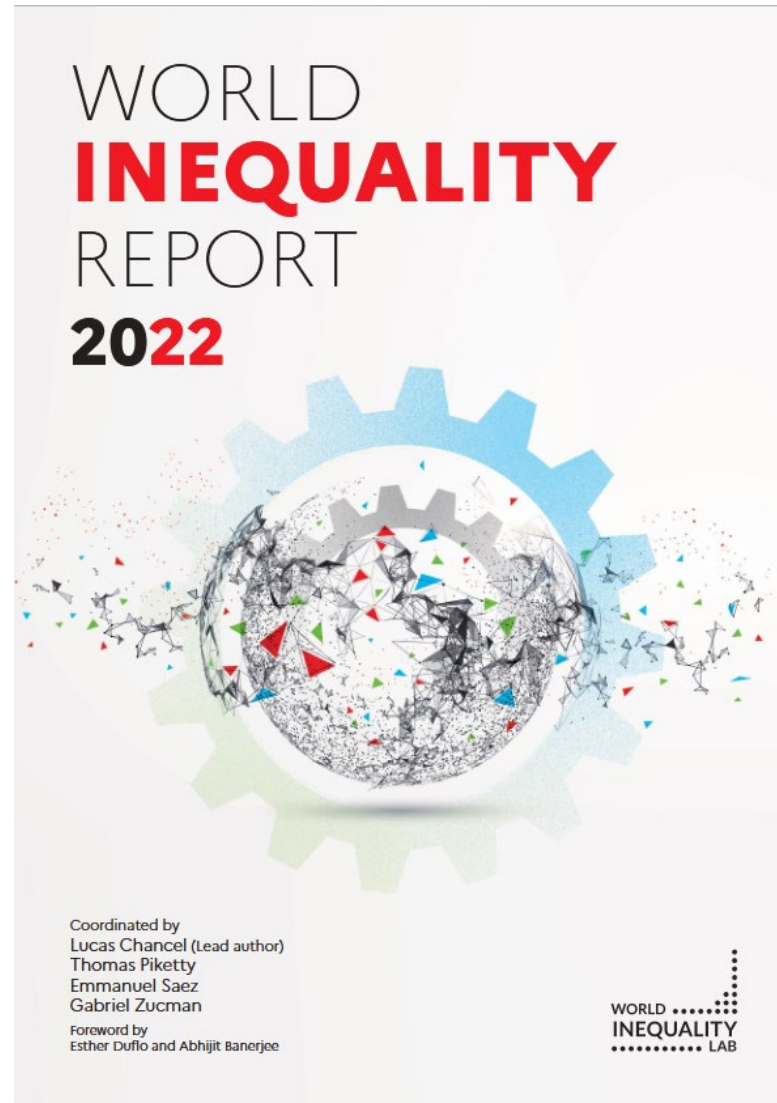
2013

(+ 30 co-authors)

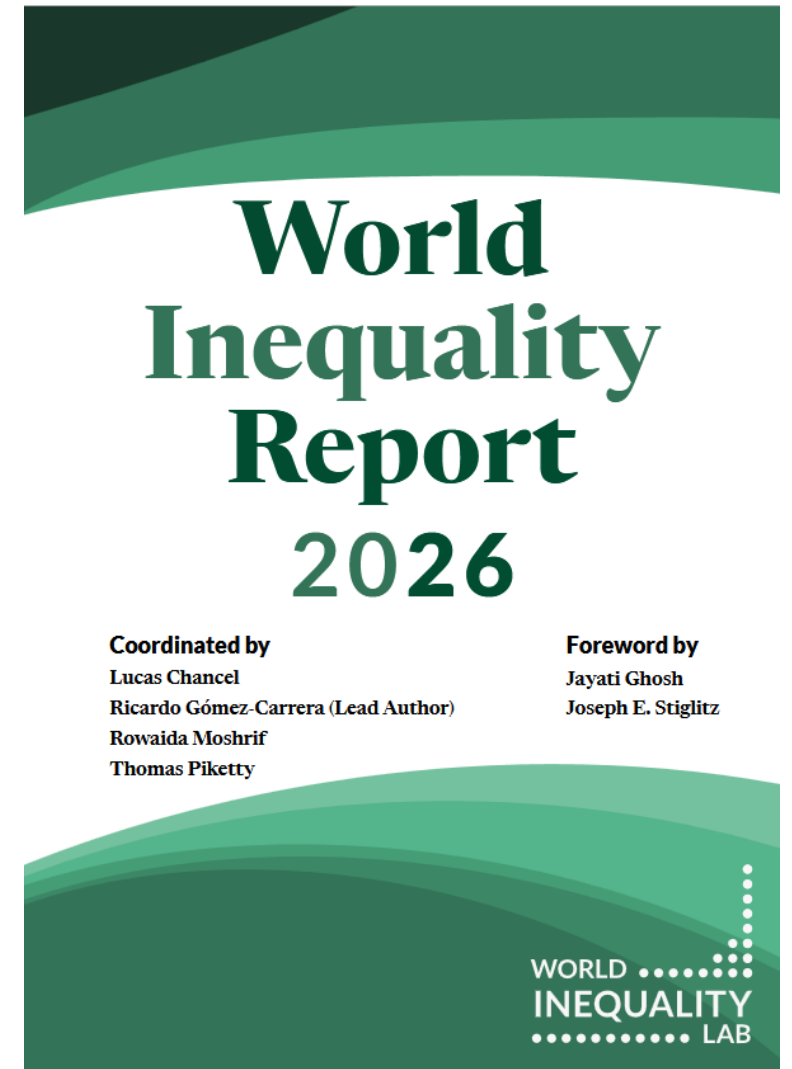
# World Inequality Database & World Inequality Reports: 200+ Involved



2018



2022



2026

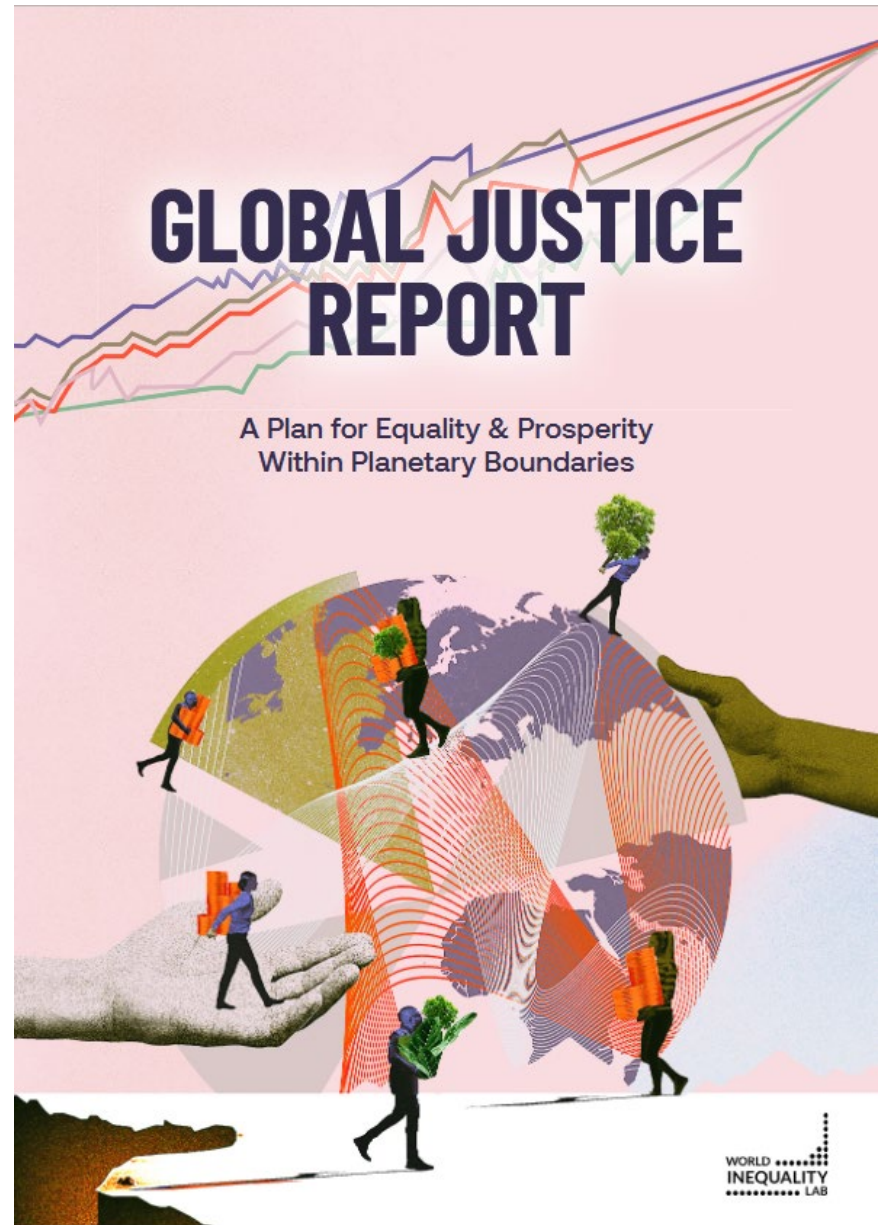
# DISTRIBUTIONAL NATIONAL ACCOUNTS GUIDELINES

Methods and Concepts  
used in the World  
Inequality Database

VERSION: OCTOBER 2025

WORLD .....  
INEQUALITY  
..... LAB

2025



2026

# EQUALITY AND DEVELOPMENT: A COMPARATIVE & HISTORICAL PERSPECTIVE 1800-2025

MARIE ANDREESCU    MANUEL ARIAS-OSORIO  
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MORITZ ODERSKY    THOMAS PIKETTY  
ANNE-SOPHIE ROBILLIARD    EMMANUEL SAEZ  
ALICE SODANO    ANMOL SOMANCHI    LI YANG  
GABRIEL ZUCMAN    ÁLVARO ZUÑIGA-CORDERO

WORKING PAPER N°2025/25

OCTOBER 2025

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## Equality & Development 1800-2025

This work uses WID series on global income & wealth inequality and productivity growth 1800-2025 in order to reinvestigate the relation between equality and development.

We find a strong positive association between equality & growth: more inclusive and egalitarian societies are also more productive

**Of course, the compression of income & wealth scales is not supposed to be in itself a sufficient condition for prosperity: productivity growth requires investment in human capital (education, health), a decentralized economic system (social-democracy rather than central planning), stable political & legal institutions (electoral democracy), etc.**

But assuming that these other conditions are met, then **equality appears to have a positive long-run impact on growth, in addition to the positive effect of human capital & other factors** (albeit probably of a smaller magnitude & difficult to distinguish empirically: one should be modest about causality & identification)

Best example of **high-quality, high-productivity countries: Western Europe (DE FR GB) & esp. Nordic Europe (SE DK NO NL)**. Our estimates of ideal income & wealth scale are largely based on the analysis of the development trajectory of these 7 countries compared to others.

**Western & Nordic Europe: more equal than US & similar productivity** (or higher), in spite of smaller human k expenditure (& smaller material footprint). Public education & health more equal & more efficient?

**Western & Nordic Europe: more equal than Soviet Russia or Mao China, & a lot more productive.** Pb with Soviet Russia or Mao China was central planning & authoritarian regime, not excessive equality.

# **Ideal income and wealth scale: simulations for the future**

On the basis of comparative-historical evidence, we propose an **ideal income scale ( $\approx 1$ -to- $5$ )** and **ideal wealth scale ( $\approx 1$ -to- $10$ )** for future sustainable development trajectories 2025-2100

Our ideal world income scale stands in the **continuation of the rise of equality in Europe 1910-2025**, and is relatively close to **Nordic Europe 1990**

**Nothing very revolutionary: continuation of 20c European social democracy, but with a global and sustainable 21c dimension**

# World maps & descriptive comparative-historical evidence

**Basic fact 1.** The most equal countries in the world in 2025 are also the richest and most productive.

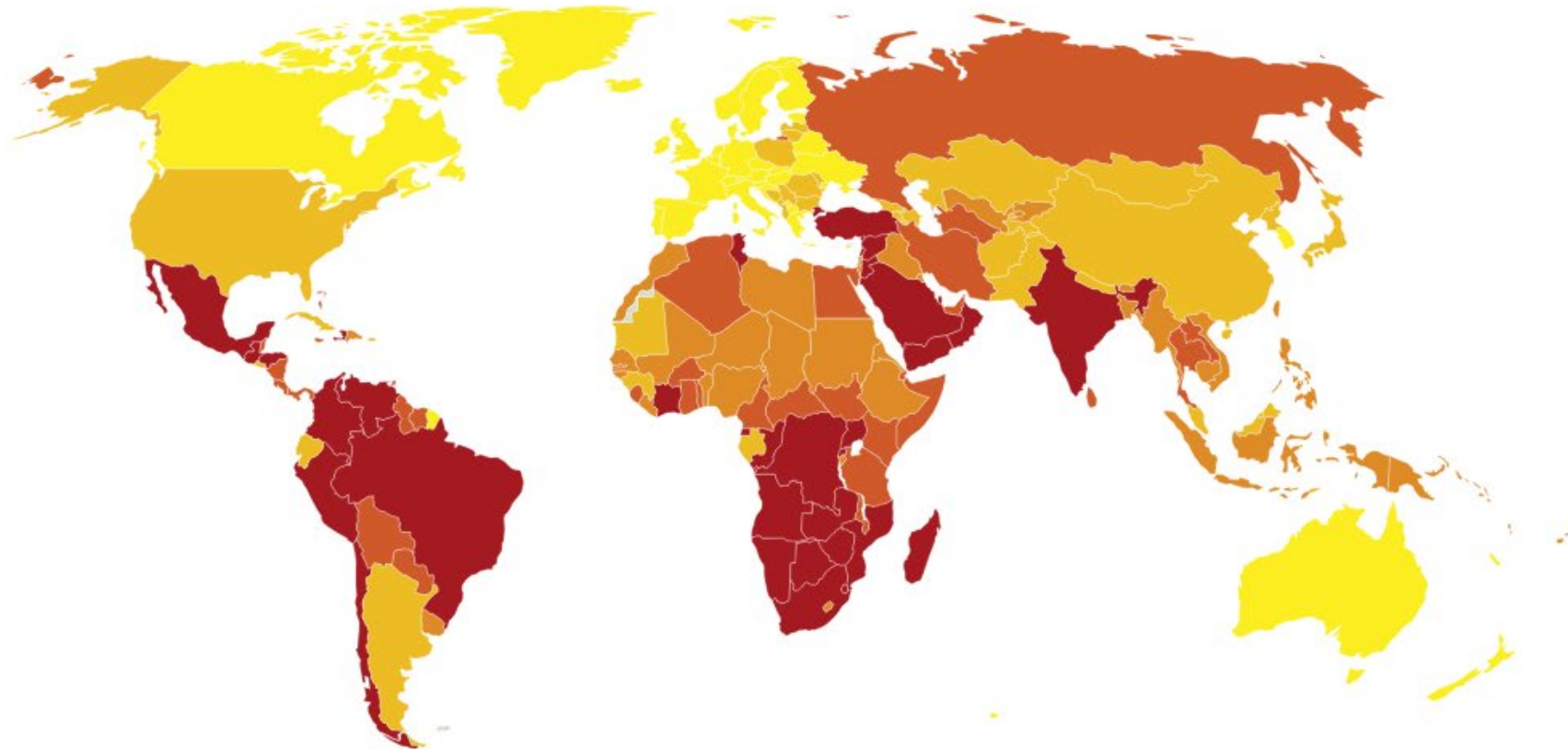
Europe, North America/Oceania: posttax income ratio T10/B50 $\approx$ 5 or less vs T10/B50  $\approx$ 20-30 or more in global South

**Basic fact 2.** Today's rich countries have not always been more equal: they became more equal during 20c (especially postwar period) & this is when they enjoyed the fastest productivity growth. I.e. this helped them to become rich (or at the very least this did not hurt).

**Ratio P99/P10 Nordic Europe:  $\approx$ 50 1910 to  $<$ 5 1990-2025**

**Ratio P99.9/P10 Nordic Europe:  $\approx$ 150 1910 to  $<$ 10 1990-2025**

## Top 10% post-tax national income share (2024)

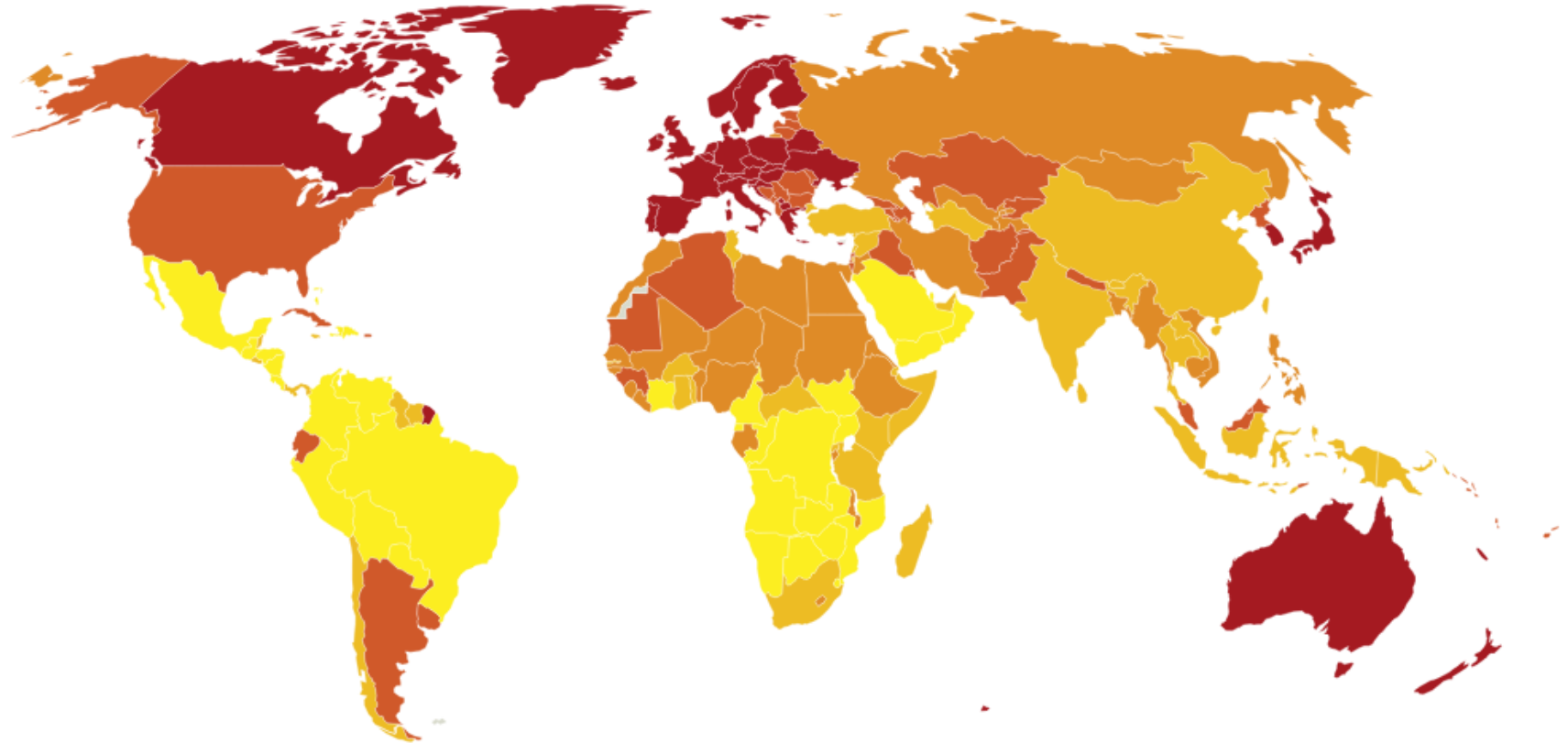


Share of total (%)



Graph provided by [www.wid.world](http://www.wid.world)

## Bottom 50% post-tax national income share (2024)



Share of total (%)

9.4 - 13.1

13 - 15

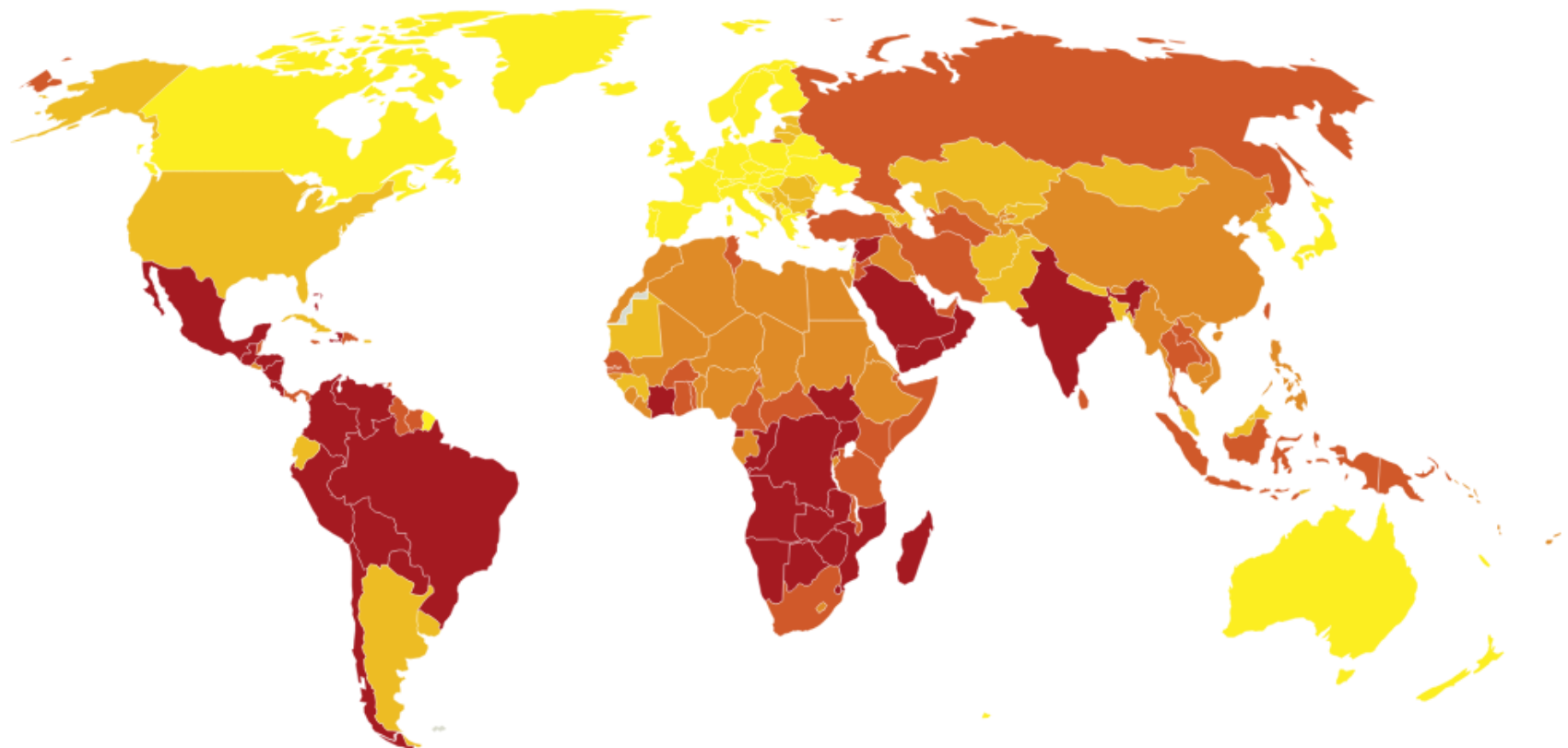
15 - 18

18 - 23

23 - 36

Graph provided by [www.wid.world](http://www.wid.world)

## Top10/Bottom50 ratio of post-tax national income (2024)



**Top 10 / Bottom 50 ratio**

2.7 - 6.6

6.6 - 11.8

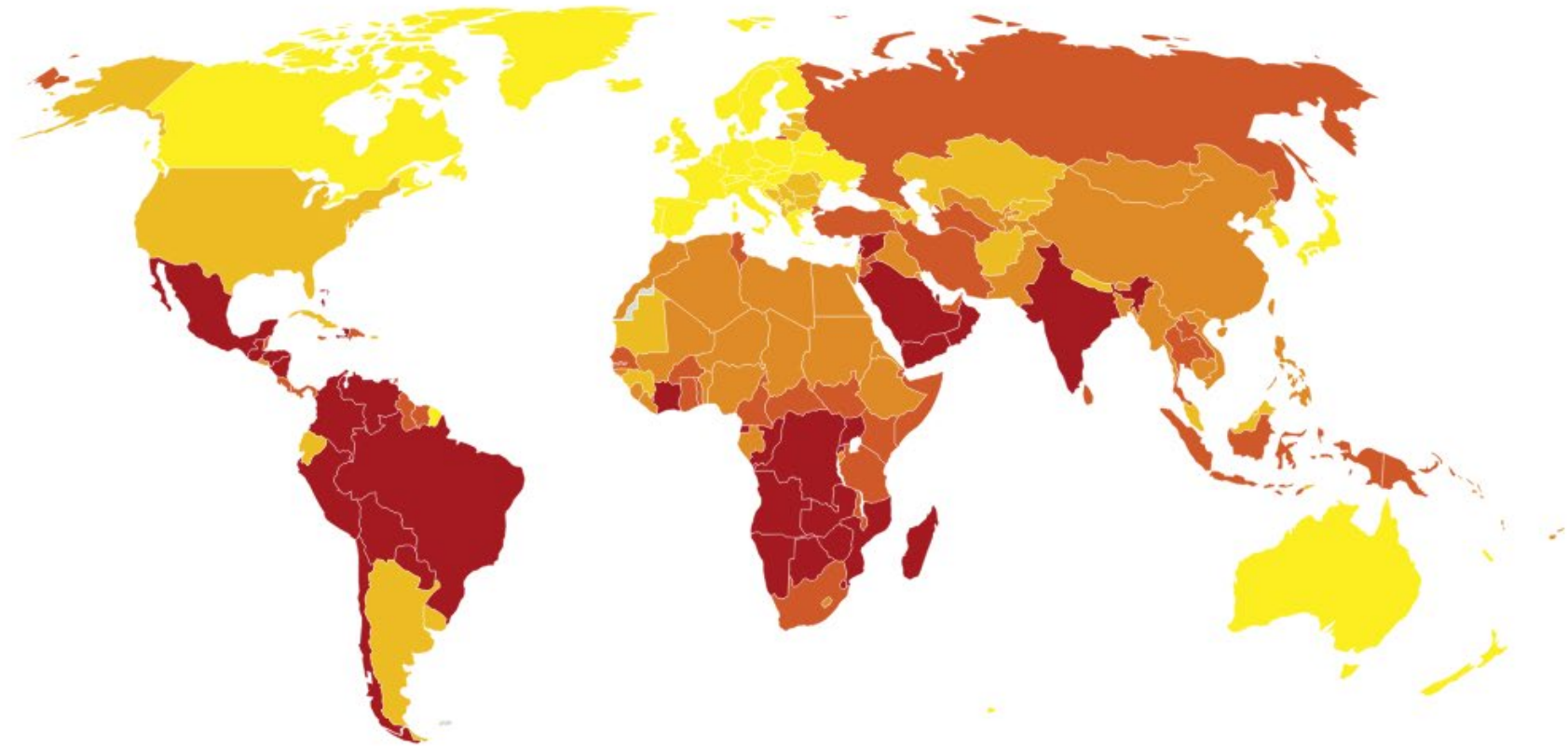
12 - 14

14 - 19

19 - 31

Graph provided by [www.wid.world](http://www.wid.world)

## Gini index of post-tax national income (2024)

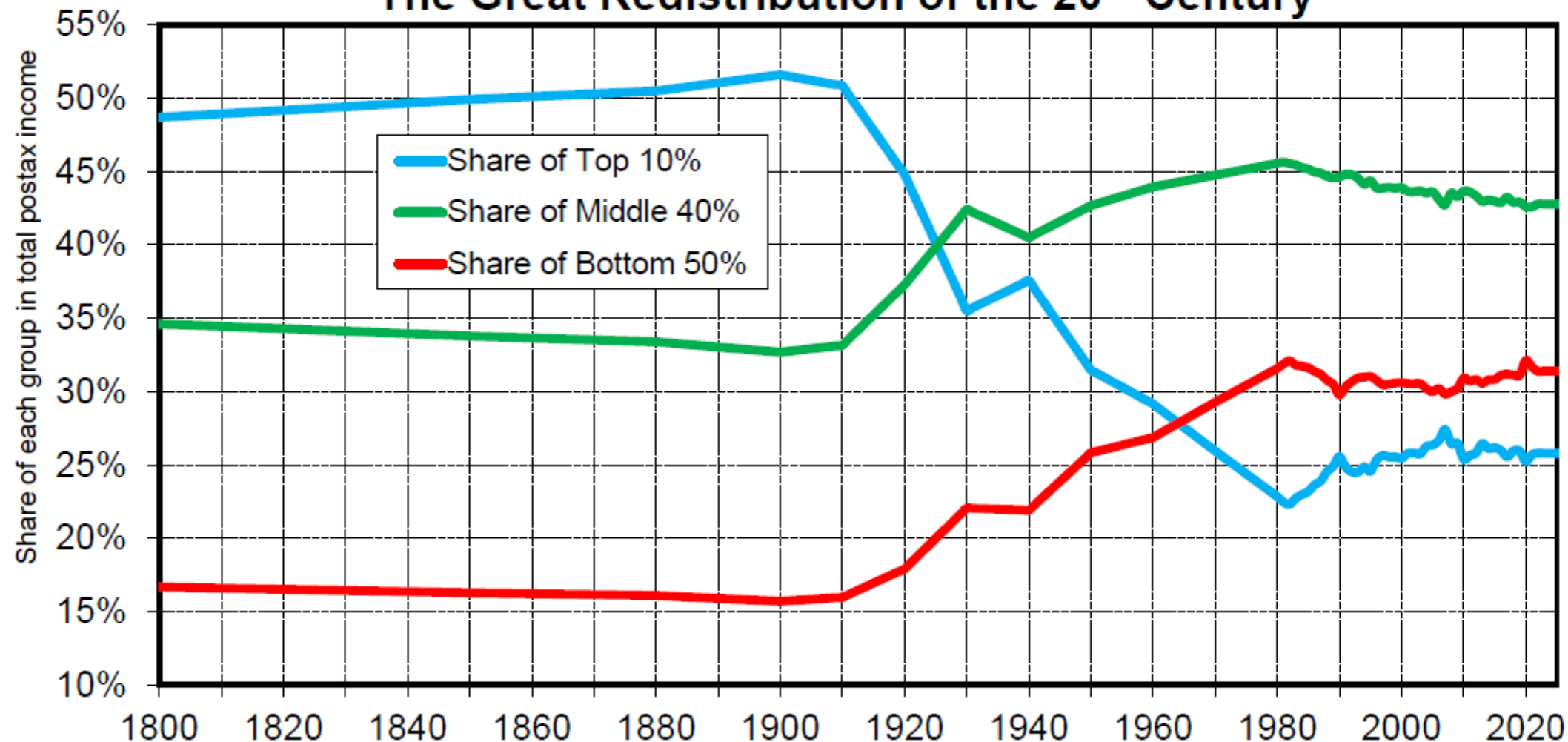


### Gini coefficient



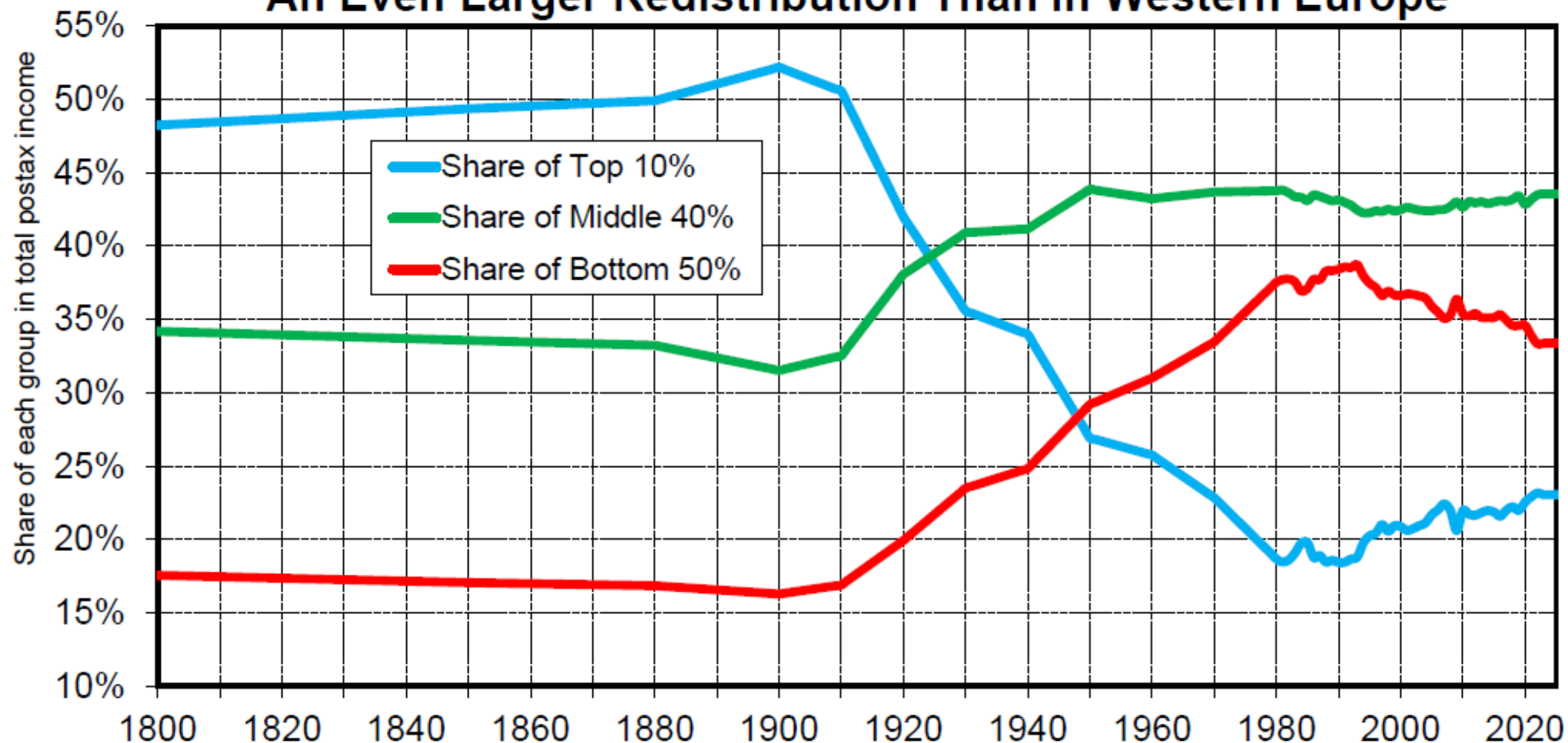
Graph provided by [www.wid.world](http://www.wid.world)

## Income Shares in Western Europe: The Great Redistribution of the 20<sup>th</sup> Century



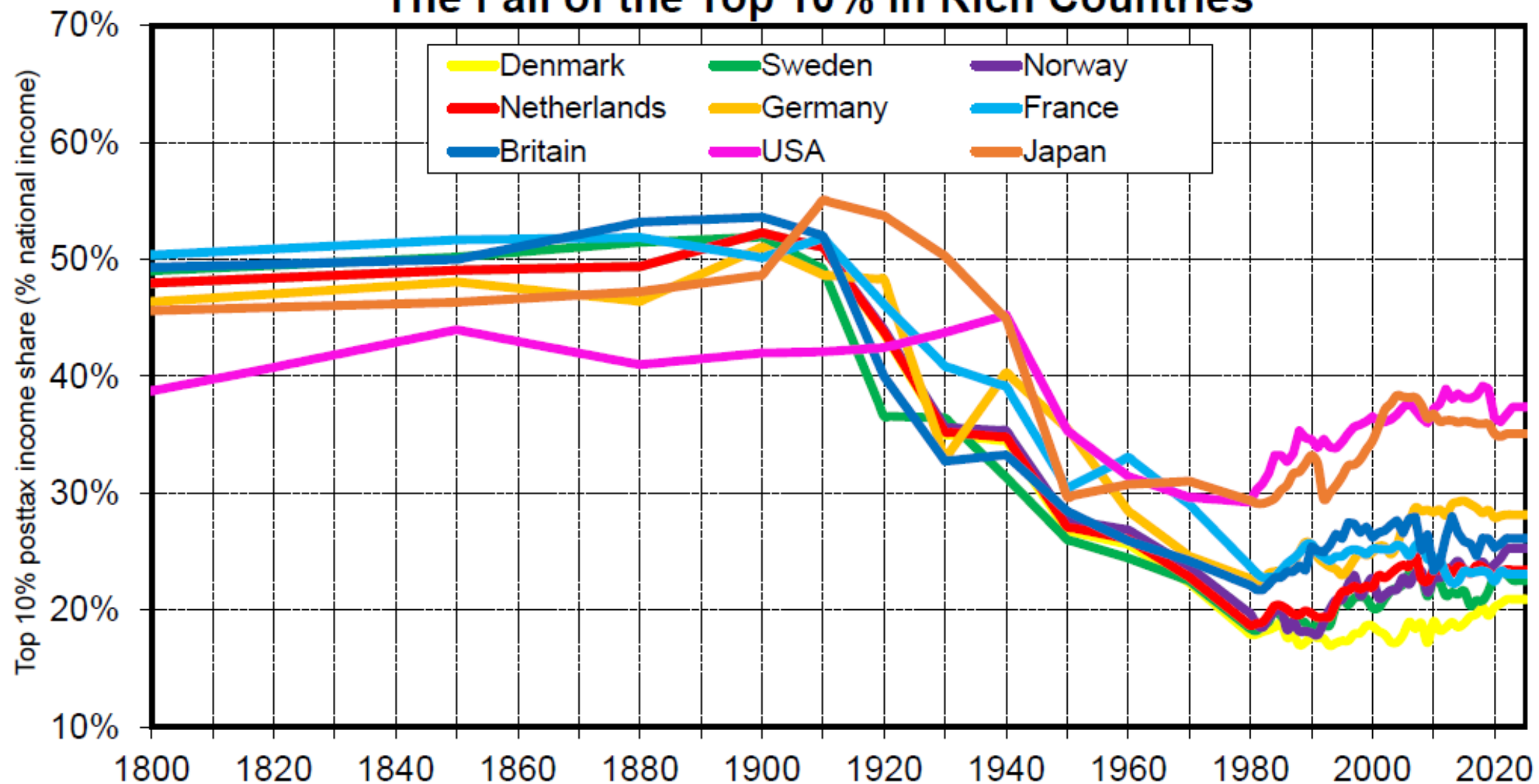
**Interpretation.** In Western Europe (which we define as the average Germany-France-Britain), the share of the top 10% highest incomes in total posttax income (including capital income - rent, dividends, interest, profits - & labour income - wages, self-employment income, pensions, unemployment benefits, other transfers) fell from over 50% in 1910 to less than 25% in 1980. It has stabilized around 25% since 1980-1990 (with a moderate increase), i.e. at a lower level than the share of the bottom 50% (about 30%). **Sources and series:** wid.world (A1a)

## Income Shares in Nordic Europe: An Even Larger Redistribution Than in Western Europe



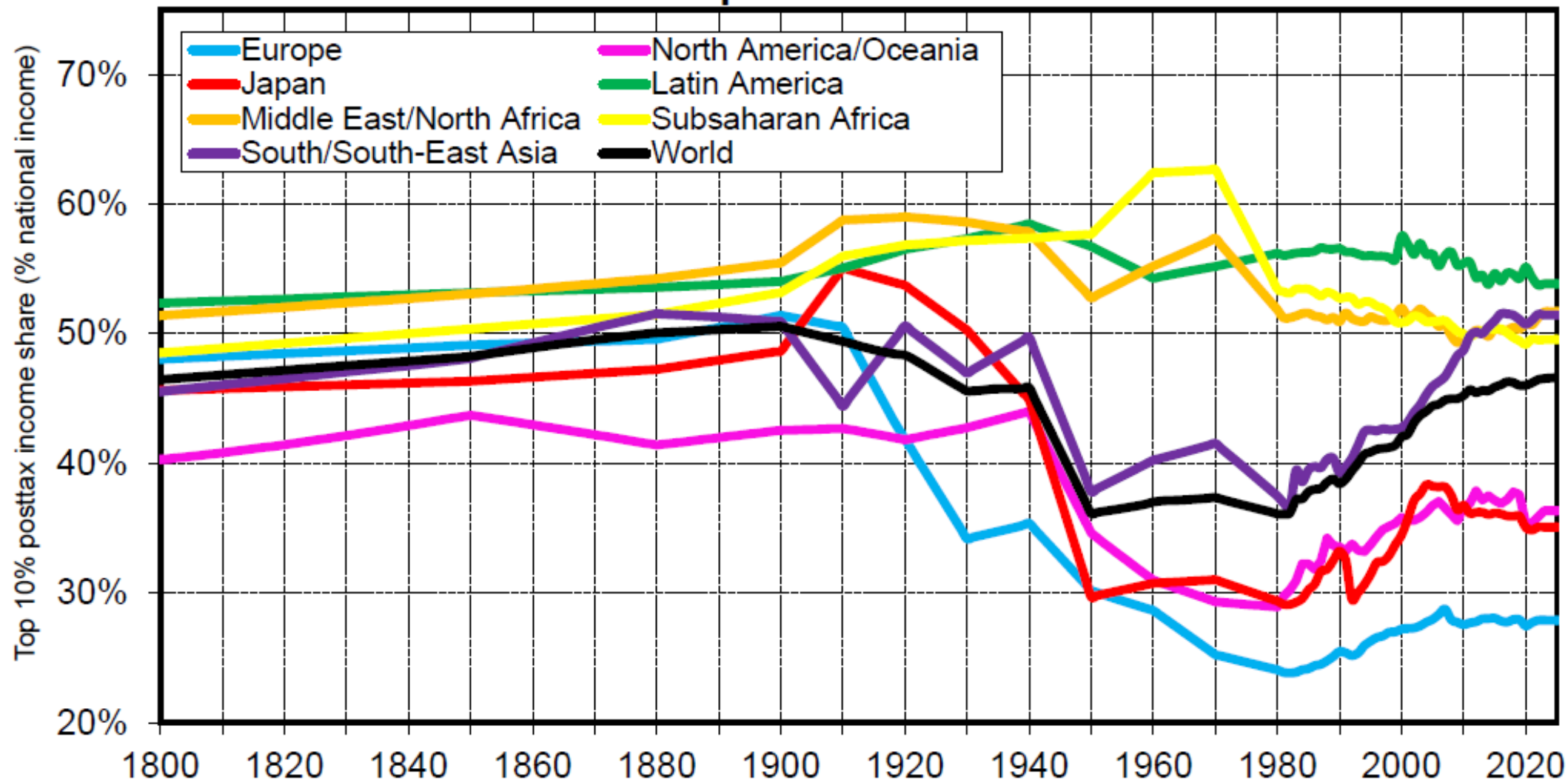
**Interpretation.** In Nordic Europe (which we define as the average Sweden-Denmark-Norway-Netherlands), the top 10% posttax income share fell from over 50% in 1910 to less than 20% in 1980-1990 (i.e. even more than in Western Europe). It has increased since 1990, but it remains at a lower level than in Western Europe, and at a much lower level than the bottom 50% income share. **Sources and series:** wid.world (A1b)

## The Fall of the Top 10% in Rich Countries



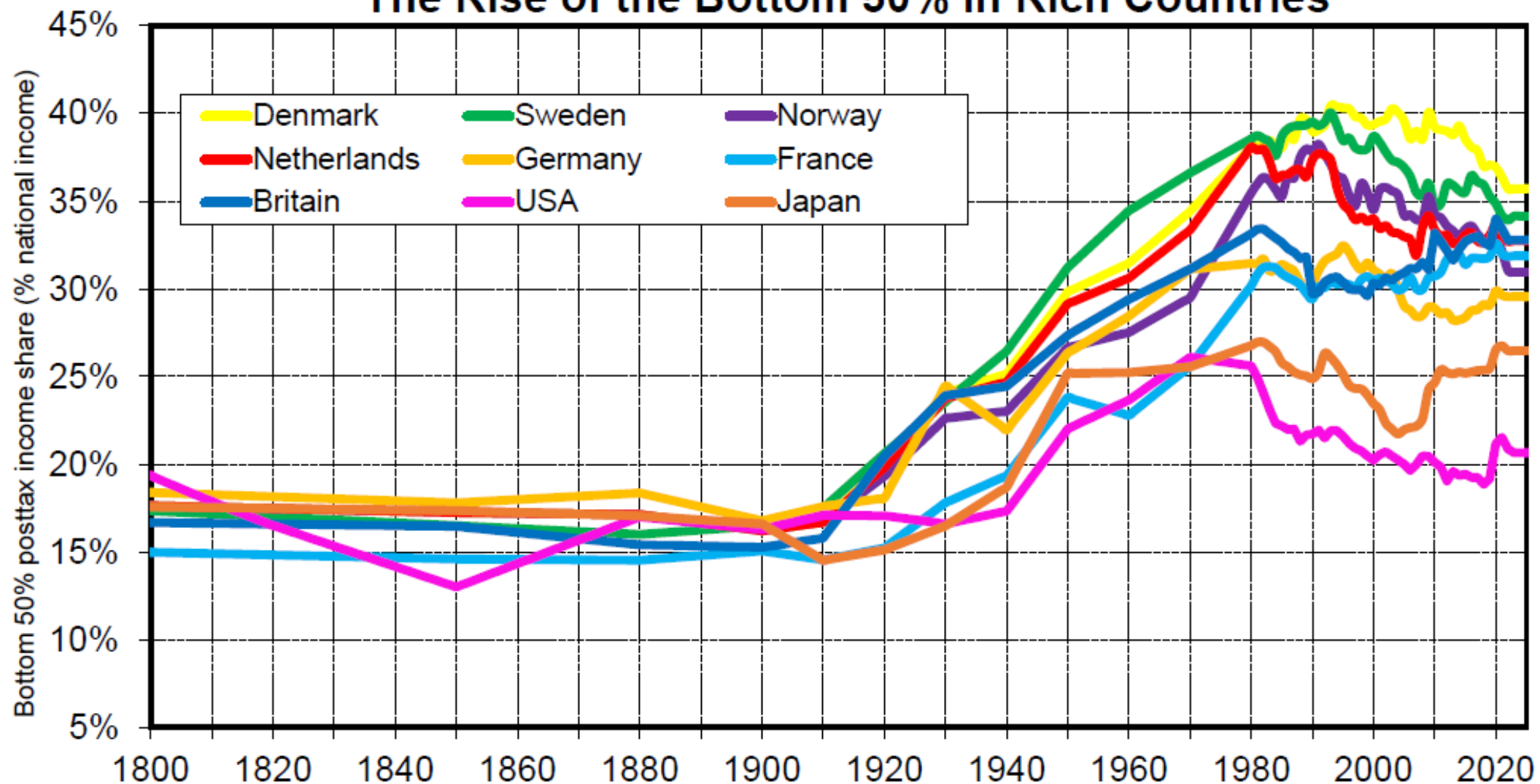
**Interpretation.** We observe a substantial decline of the top 10% posttax income share in all rich countries in the long-run (including in the USA, and in spite of rising inequality since 1980-1990). The fall was particularly strong in Western and Nordic Europe, and especially in Nordic Europe, with a decline from over 50% of total income in 1900-1910 to about 20-25% in 2010-2025 (with a modest increase since 1980-1990). **Sources and series:** wid.world (A1c)

## The Fall of the Top 10%: Rich Countries vs Others



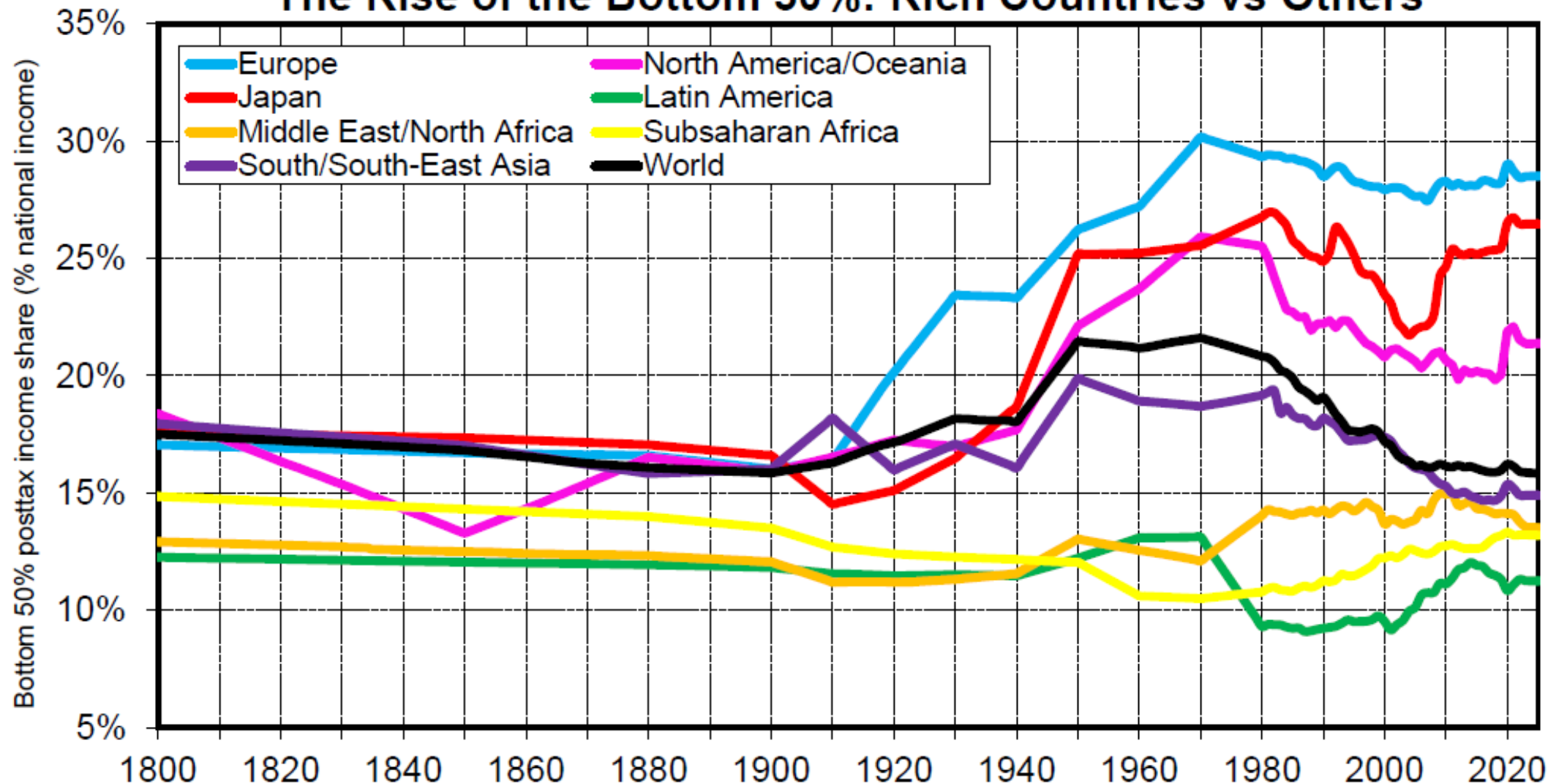
**Interpretation.** In Europe, the top 10% posttax income share was over 50% of total income until WW1 and was divided by two between 1910 & 1980, before stabilizing around 25-30% since 1980-1990 (with a moderate increase). We also observe a significant long-run decline in North America/Oceania and Japan (from about 45-50% to 35%). In contrast, the top 10% income share almost did not decline at all in the long-run in Latin America, Subsaharan Africa and Middle East/North Africa (around 50-55% throughout the period). **Sources and series:** wid.world (A1d)

## The Rise of the Bottom 50% in Rich Countries



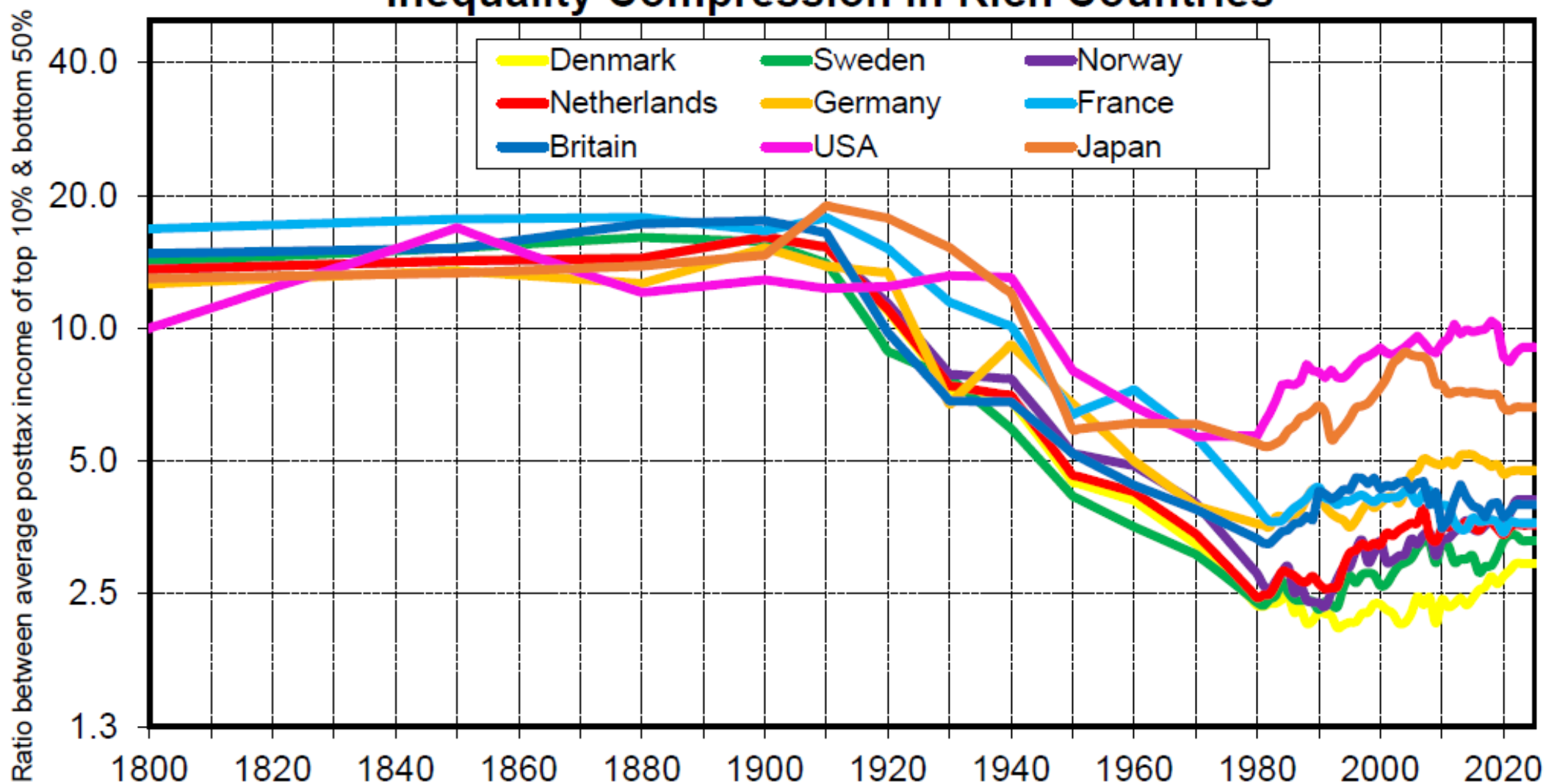
**Interpretation.** We observe a substantial rise of the bottom 50% posttax income share in all rich countries over the past 100 years (including in the USA, and in spite of rising inequality since 1980-1990). The rise was particularly strong in Western and Nordic Europe, and especially in Nordic Europe, with an increase from from about 15% of total income in 1900-1910 to about 30-40% in 2010-2025 (with a modest decline since 1980-1990). **Sources and series:** wid.world (A1e)

## The Rise of the Bottom 50%: Rich Countries vs Others



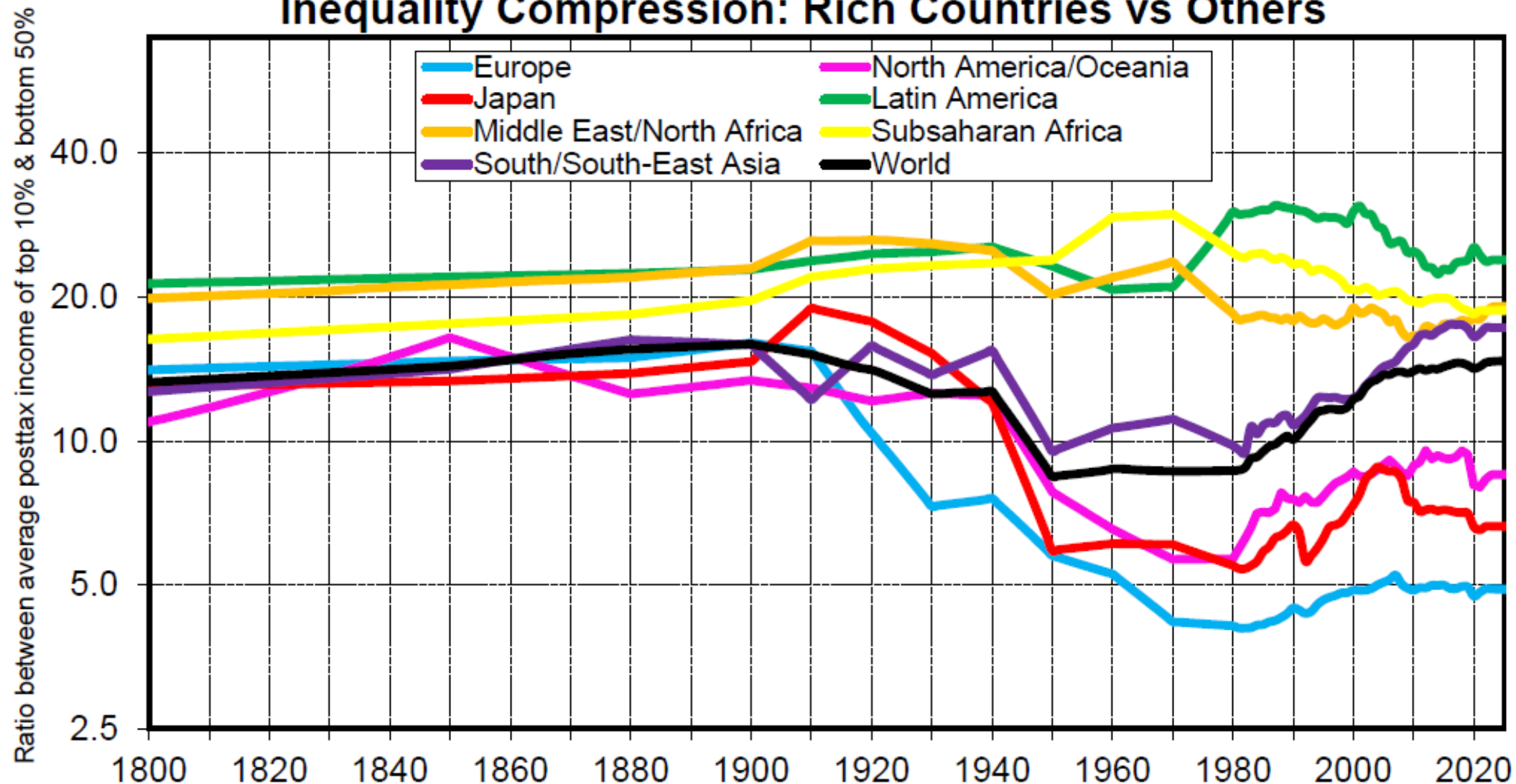
**Interpretation.** In Europe, the bottom 50% posttax income share rose from about 15% until 1910 to about 30% by 1980, before stabilizing around 30% since 1980-1990 (with a moderate decline). We also observe a significant long-run rise in North America/Oceania and Japan (from about 15% to 20-25%). In contrast, the bottom 50% income share almost did not rise at all in the long-run in Latin America, Subsaharan Africa and Middle East/North Africa (around 10-15% throughout the period). **Sources and series:** wid.world (A1f)

## Inequality Compression in Rich Countries



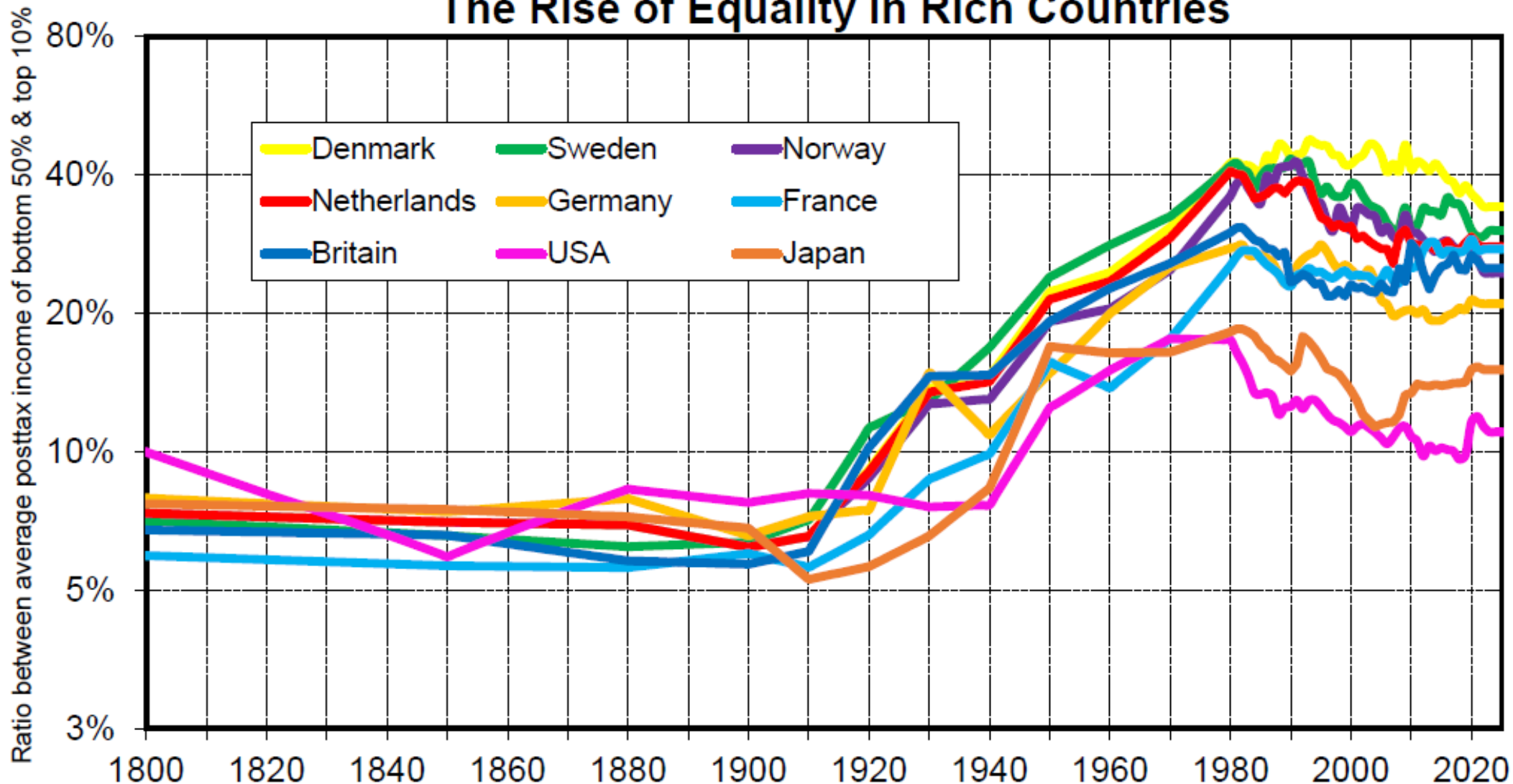
**Interpretation.** The long-run compression of the income scale has been particularly strong in Western and Nordic Europe, and especially in Nordic Europe. E.g. the T10/B50 income ratio between the average posttax incomes of the top 10% and bottom 50% fell from about 15-20 in all countries before WW1 to about 2.5-3 in recent decades in Sweden, Denmark, Norway and the Netherlands (and around 4-5 in Germany, France and Britain). We also observe a substantial long-run compression of the income scale in other rich countries, including US and Japan (with a ratio T10/B50 around 7-9 in recent decades), albeit of smaller magnitude. **Sources and series:** wid.world (A2a)

## Inequality Compression: Rich Countries vs Others



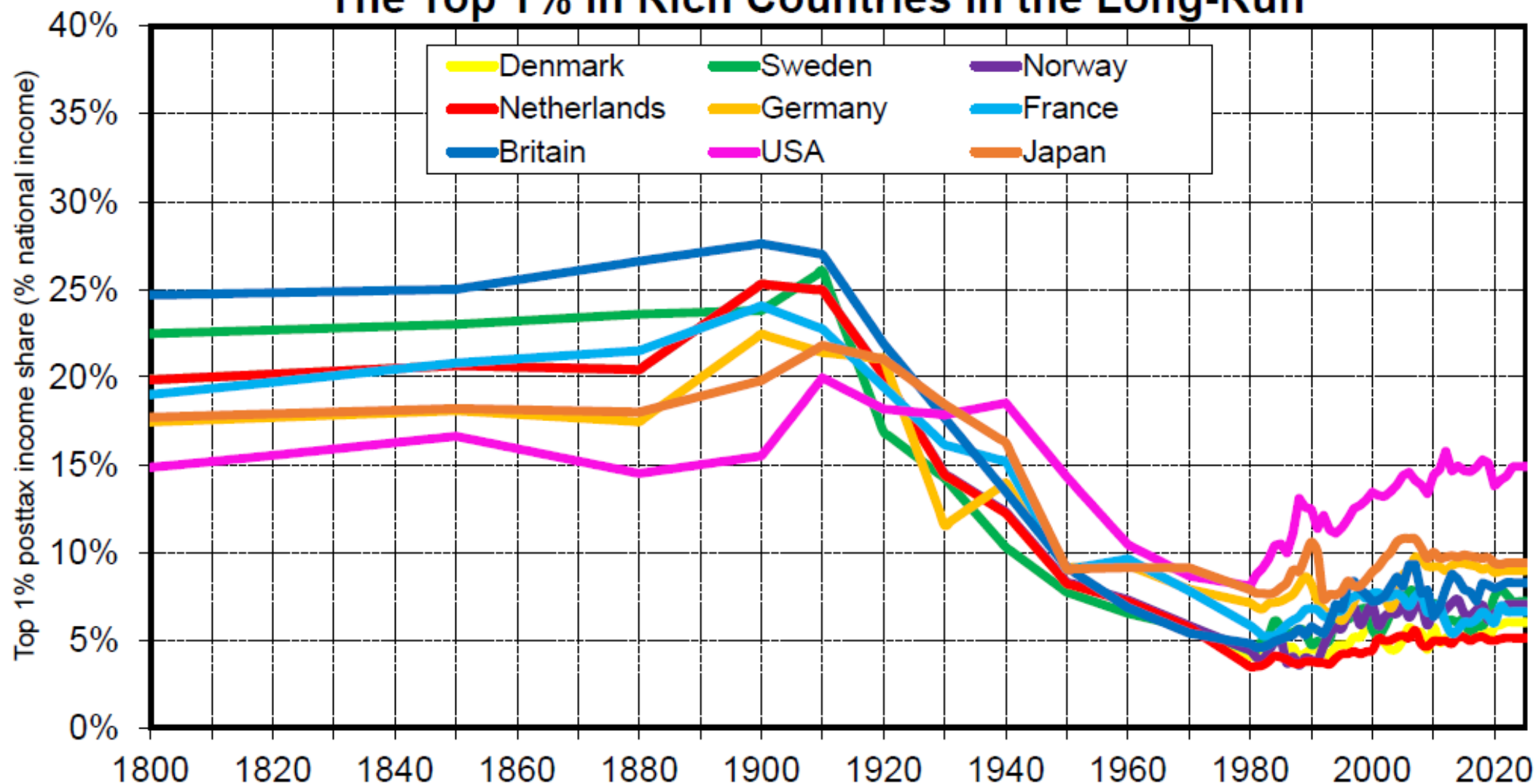
**Interpretation.** The income scale was substantially compressed during the 20th century in the world's richest countries. I.e. the ratio T10/B50 between the average posttax incomes of the top 10% and the bottom 50% was about 15-20 in Europe, North America/Oceania and Japan until WW1, and it is about 5 in Europe and 6-8 in NAOC and Japan in 2020-2025. In contrast, the 10/B50 ratios almost did not change at all in the long-run in Latin America, Subsaharan Africa or Middle East/North Africa (around 20 throughout the period). **Sources and series:** wid.world (A2b)

## The Rise of Equality in Rich Countries



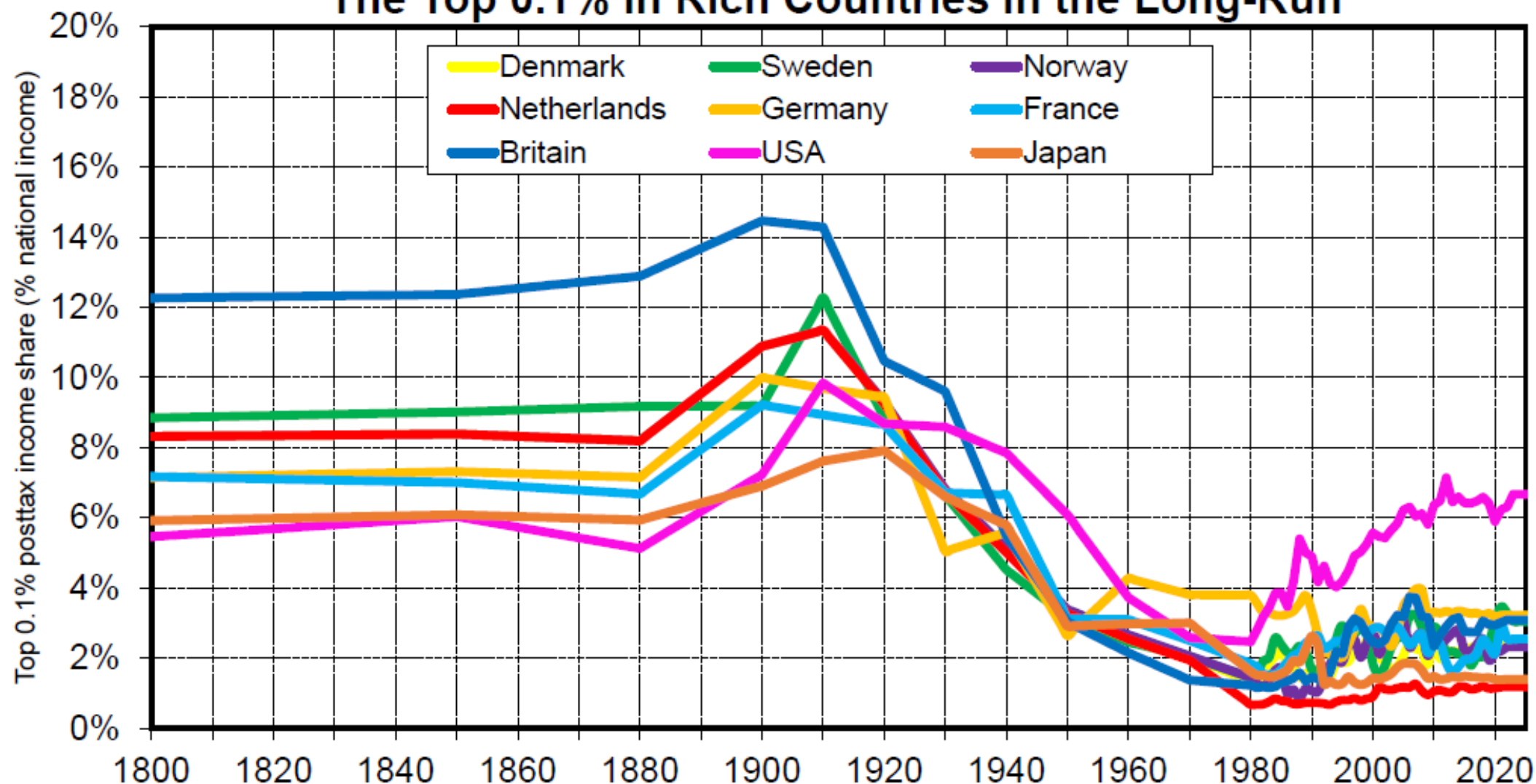
**Interpretation.** The average posttax income of the bottom 50% was about 5-8% of the average posttax income of the top 10% in most countries before WW1 (corresponding to an income scale of 1-to-15 or 1-to-20). During the 20th century, the ratio between the average posttax income of bottom 50% and top 10% rose to as much as 40% in a number of European countries (corresponding to an income scale of 1-to-2.5). **Sources and series:** wid.world (A2c)

## The Top 1% in Rich Countries in the Long-Run



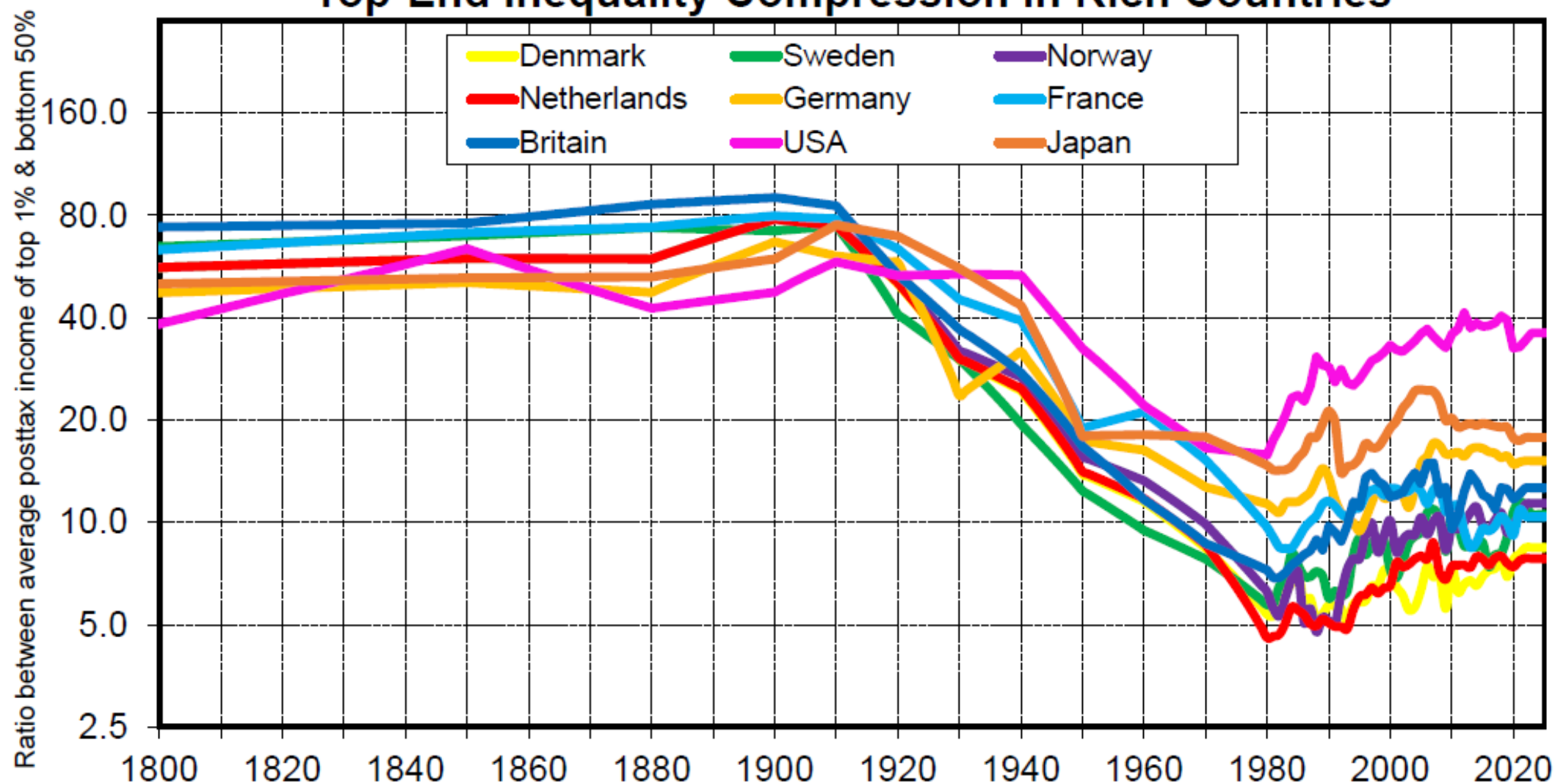
**Interpretation.** We observe a decline of the top 1% posttax income share in all rich countries in the long-run (including in the USA, and in spite of a large rise in inequality since 1980-1990). The fall was particularly strong in Western and Nordic Europe, and especially in Nordic Europe, with a decline from over 20% of total income in 1900-1910 to about 5-10% in 2010-2025 (in spite of the significant increase since 1980-1990). **Sources and series:** wid.world (A1n)

## The Top 0.1% in Rich Countries in the Long-Run



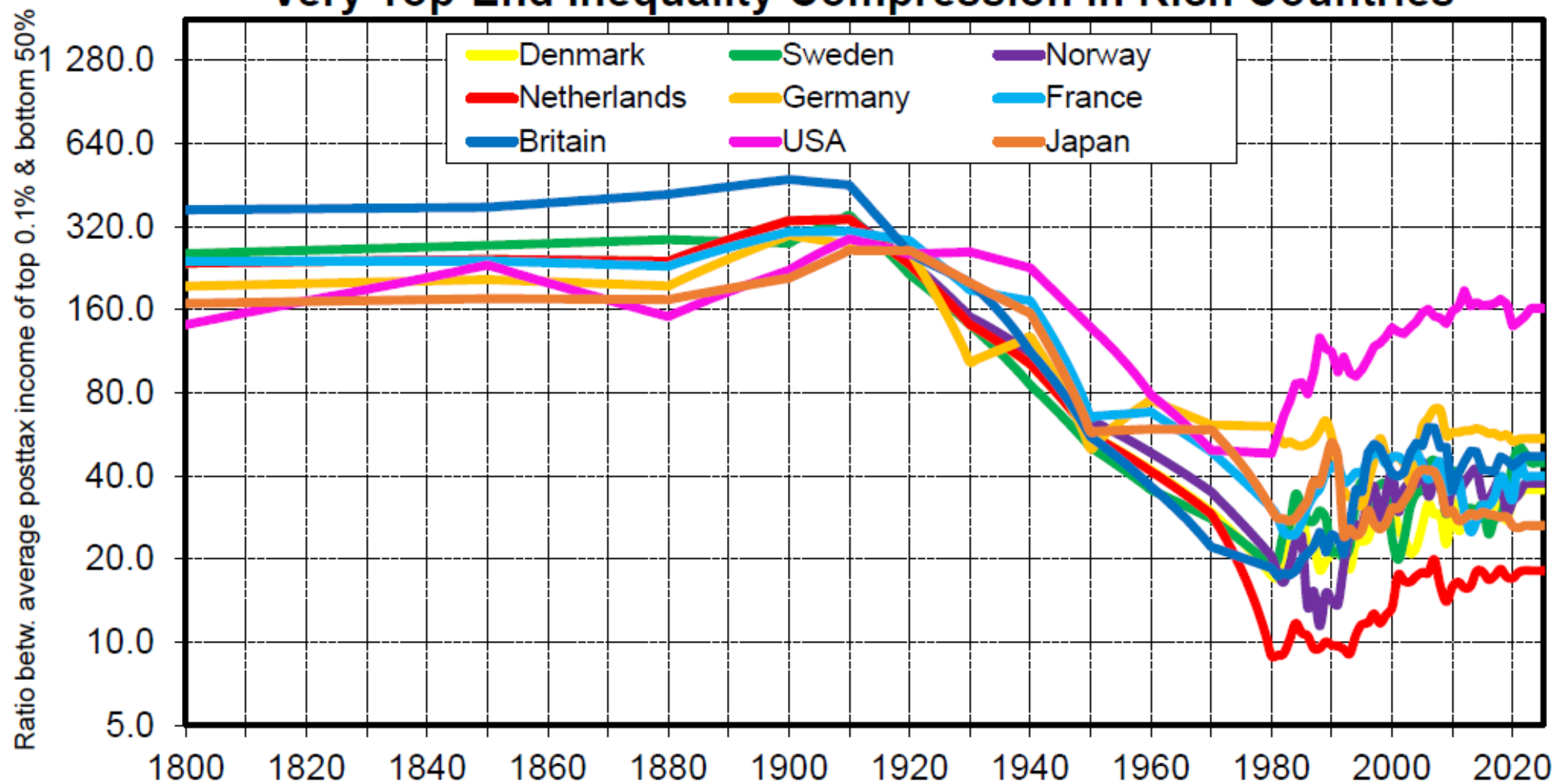
**Interpretation.** We observe a decline of the top 0.1% posttax income share in all rich countries in the long-run (except in the USA, where this has been almost completely undone by the large rise in inequality since 1980-1990). The fall was particularly strong in Western and Nordic Europe, and especially in Nordic Europe, with a decline from about 10-12% of total income in 1900-1910 to about 1-3% in 2010-2025 (in spite of the significant increase since 1980-1990). **Sources and series:** wid.world (A1o)

## Top-End Inequality Compression in Rich Countries



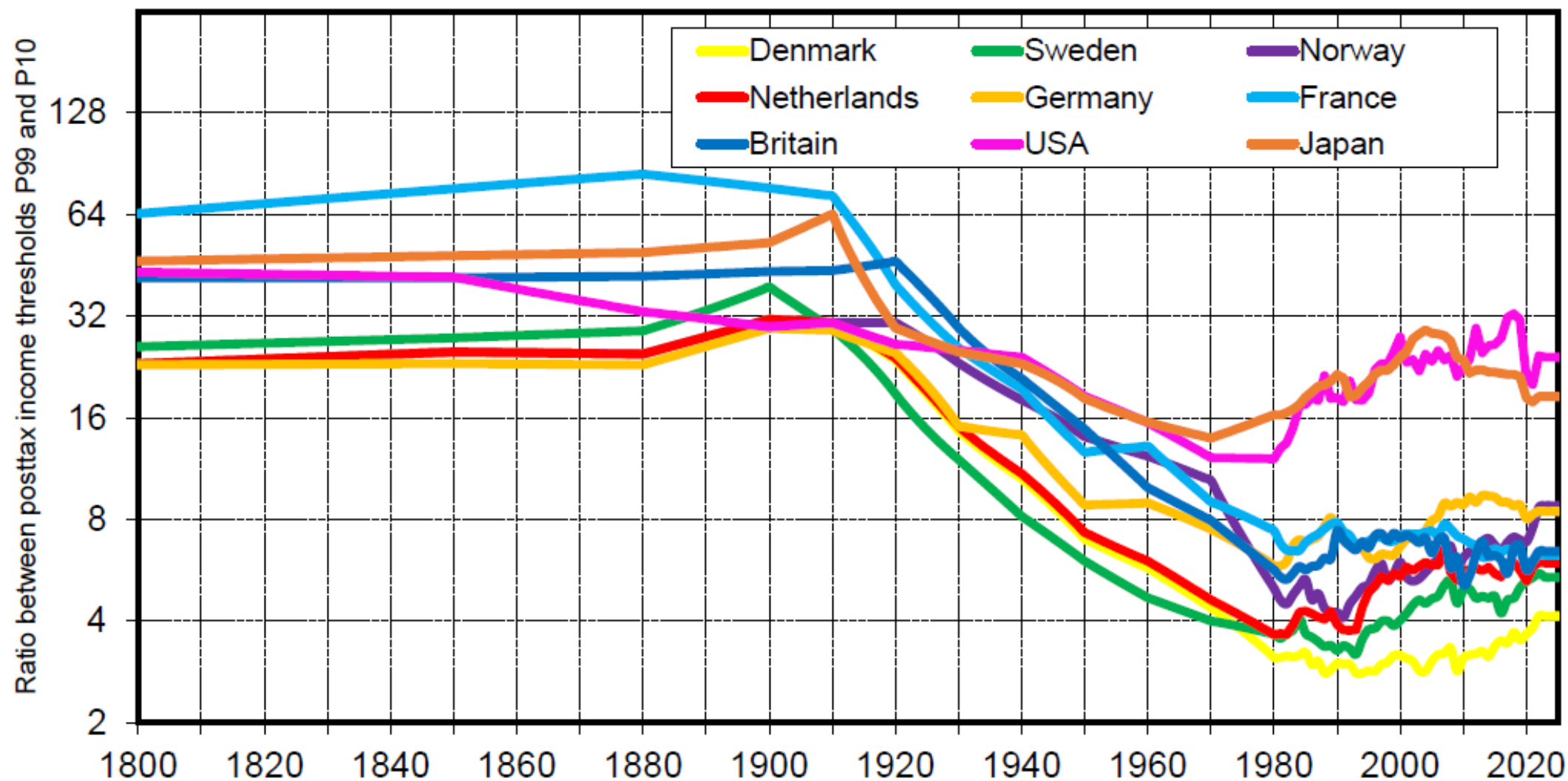
**Interpretation.** The long-run compression of the income scale has been particularly strong in social-democratic Europe, and especially in nordic countries. E.g. the T1/B50 income ratio between the average posttax incomes of the top 1% and bottom 50% fell from about 60-80 in all countries before WW1 to about 5-8 in recent decades in Sweden, Denmark, Norway and the Netherlands (and around 10-15 in Germany, France and Britain). We also observe a long-run compression of the T1/B50 in other rich countries, albeit of smaller magnitude (especially in the USA, where recent rise in inequality has almost completely offset the long-run fall). **Sources and series:** wid.world (A2i)

## Very Top-End Inequality Compression in Rich Countries



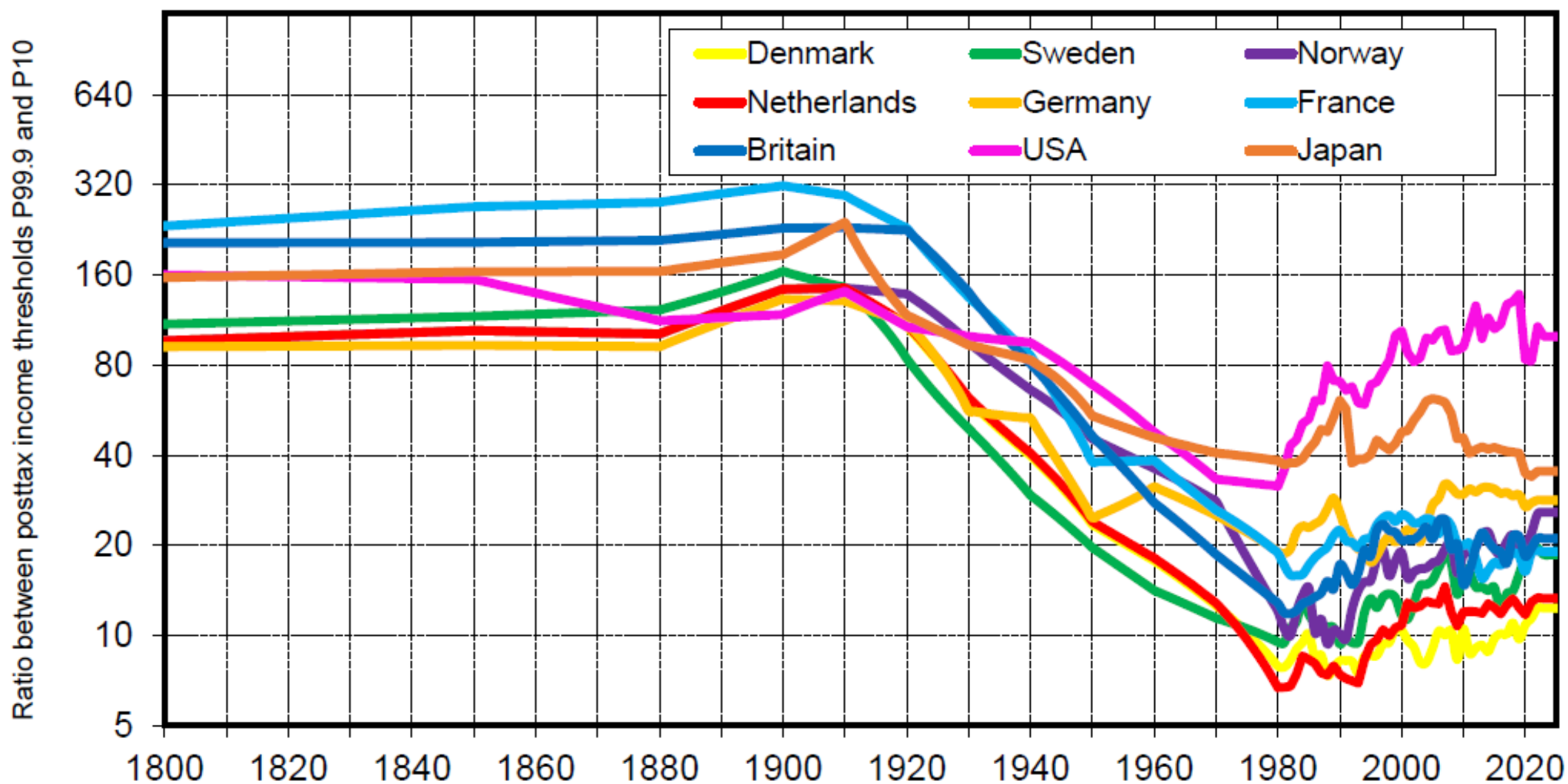
**Interpretation.** The long-run compression of the income scale has been particularly strong in social-democratic Europe, and especially in Nordic countries. E.g. the T0.1/B50 income ratio between the average posttax incomes of the top 0.1% and bottom 50% fell from about 300-400 in all countries before WW1 to about 10-20 in recent decades in Sweden, Denmark, Norway and the Netherlands (and around 20-50 in Germany, France and Britain). We also observe a long-run compression of the T0.1/B50 in other rich countries, albeit of smaller magnitude (especially in the USA, where recent rise in inequality has almost completely offset the long-run fall). **Sources and series:** wid.world (A2j)

## The Fall of the P99/P10 Ratio in Rich Countries



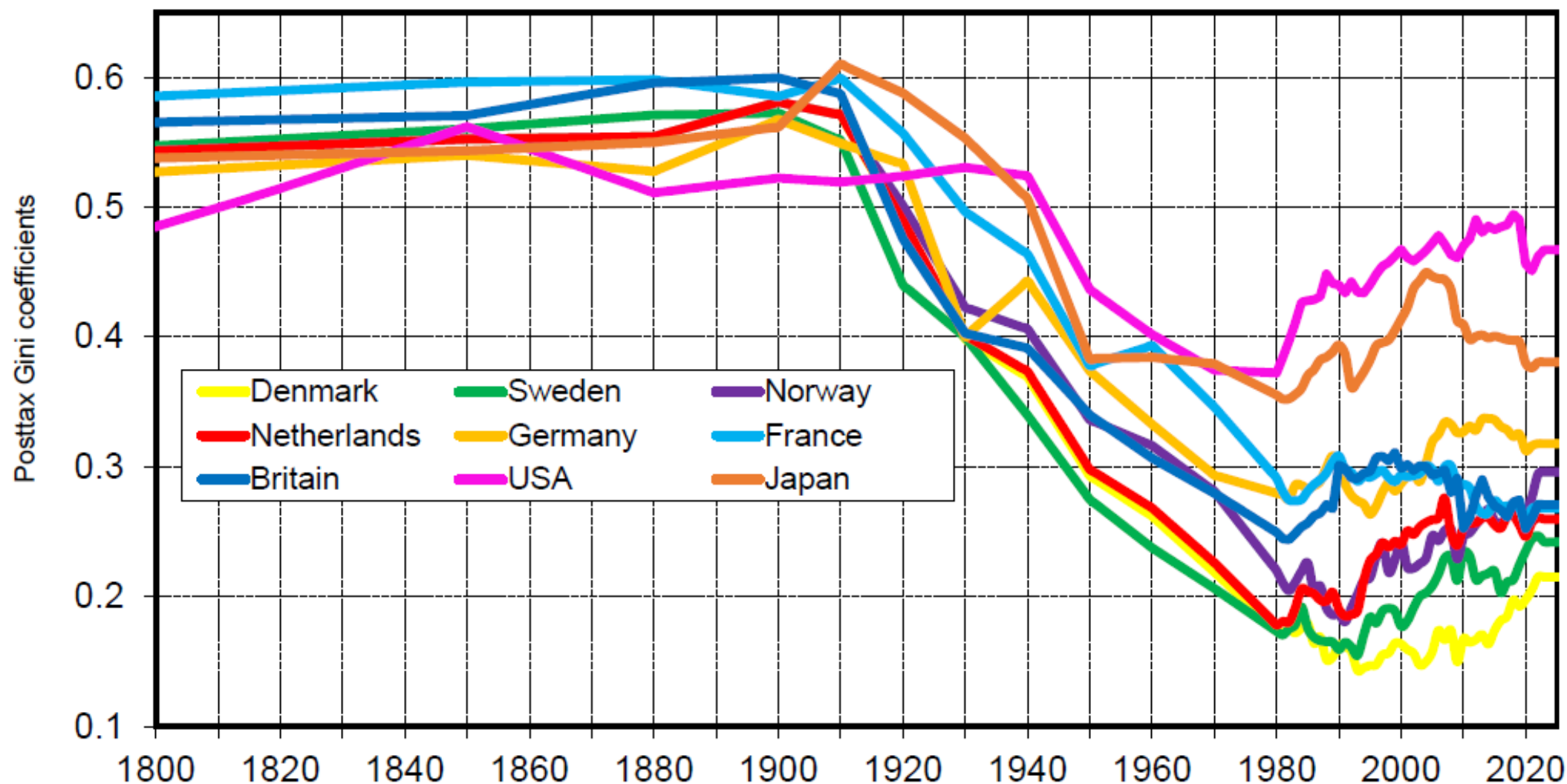
**Interpretation.** The long-run compression of the income scale has been particularly strong in social-democratic Europe, and especially in Nordic countries. E.g. the P99/P10 ratio between the 99th and 10th percentile thresholds fell from about 30-60 in all countries before WW1 to about 3-6 in recent decades in Sweden, Denmark, Norway and the Netherlands (and around 5-8 in Germany, France and Britain). We also observe a long-run compression of the P99/P10 ratio in other rich countries, albeit of much smaller magnitude (especially in the USA, where recent rise in inequality has almost completely offset the long-run fall). **Sources and series:** wid.world (A4a)

## The Fall of the P99.9/P10 Ratio in Rich Countries



**Interpretation.** The long-run compression of the income scale has been particularly strong in social-democratic Europe, and especially in Nordic countries. E.g. the P99.9/P10 ratio between the 99.9th and 10th percentile thresholds fell from about 150-250 in all countries before WW1 to about 8-15 in recent decades in Sweden, Denmark, Norway and the Netherlands (and around 15-20 in Germany, France and Britain). We also observe a long-run compression of the P99.9/P10 ratio in other rich countries, albeit of much smaller magnitude (especially in the USA, where recent rise in inequality has almost completely offset the long-run fall). **Sources and series:** wid.world (A4b)

## Posttax Gini Coefficients in Rich Countries



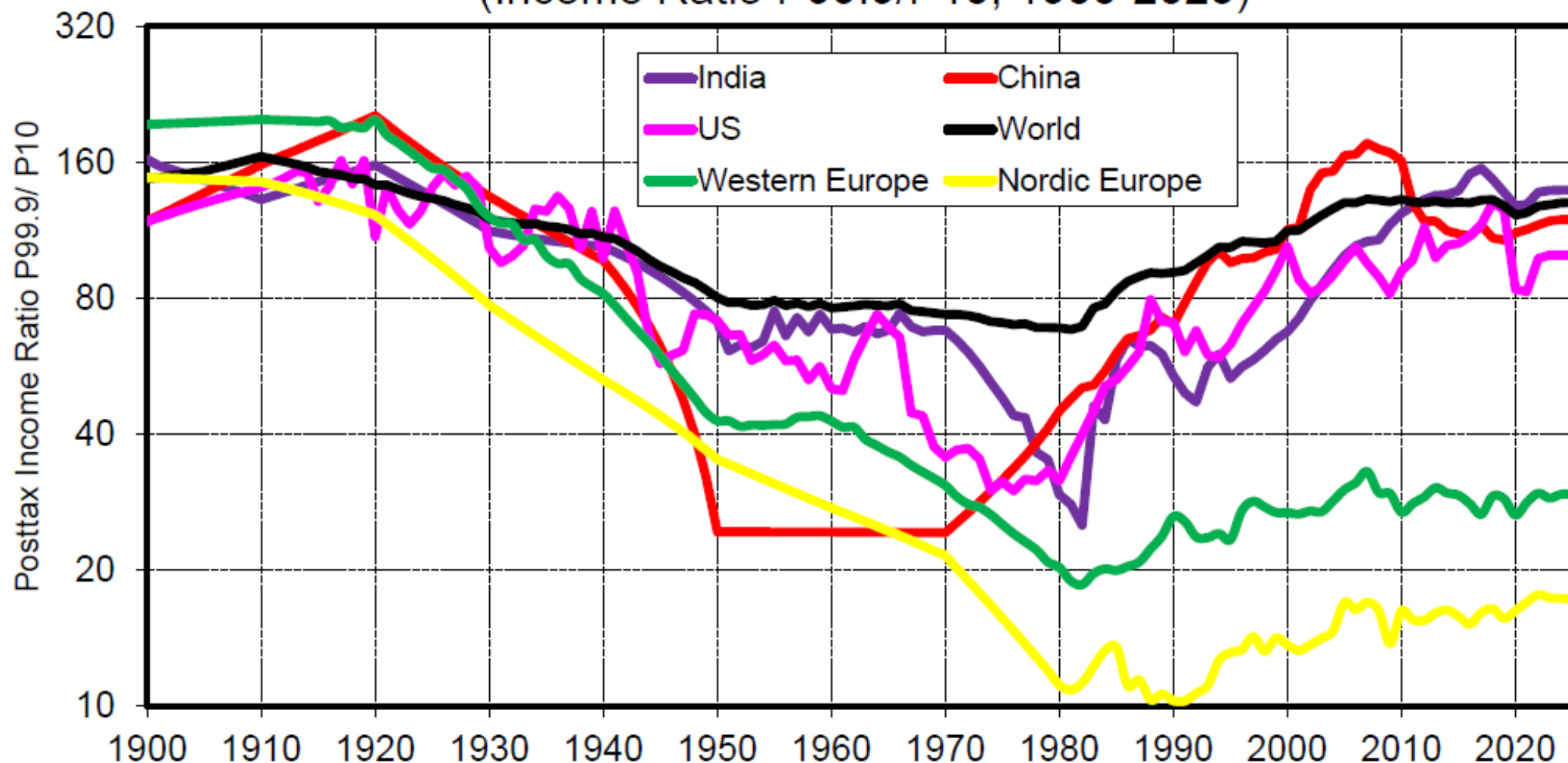
**Interpretation.** The long-run compression of the income scale has been particularly strong in Western and Nordic Europe, and especially in Nordic Europe. E.g. the posttax Gini coefficient fell from about 0.5-0.6 in all countries before WW1 to about 0.15-0.25 in recent decades in Sweden, Denmark, Norway and the Netherlands (and around 0.25-0.3 in Germany, France and Britain). We also observe a substantial long-run compression of the posttax Gini coefficient in other rich countries, including US and Japan (with a Gini coefficient around 0.4-0.5 in recent decades), albeit of smaller magnitude. **Sources and series:** wid.world (A6a)

# Assessing the social-democratic narrative

**Basic fact:** The enormous compression of income scale in Nordic Europe did not prevent Nordic countries from reaching the highest productivity level in the world (higher than the US in spite of lower total public + private expenditure in education)

**Challenges to the equality narrative:** the communist legacy, and the US vs Europe comparison

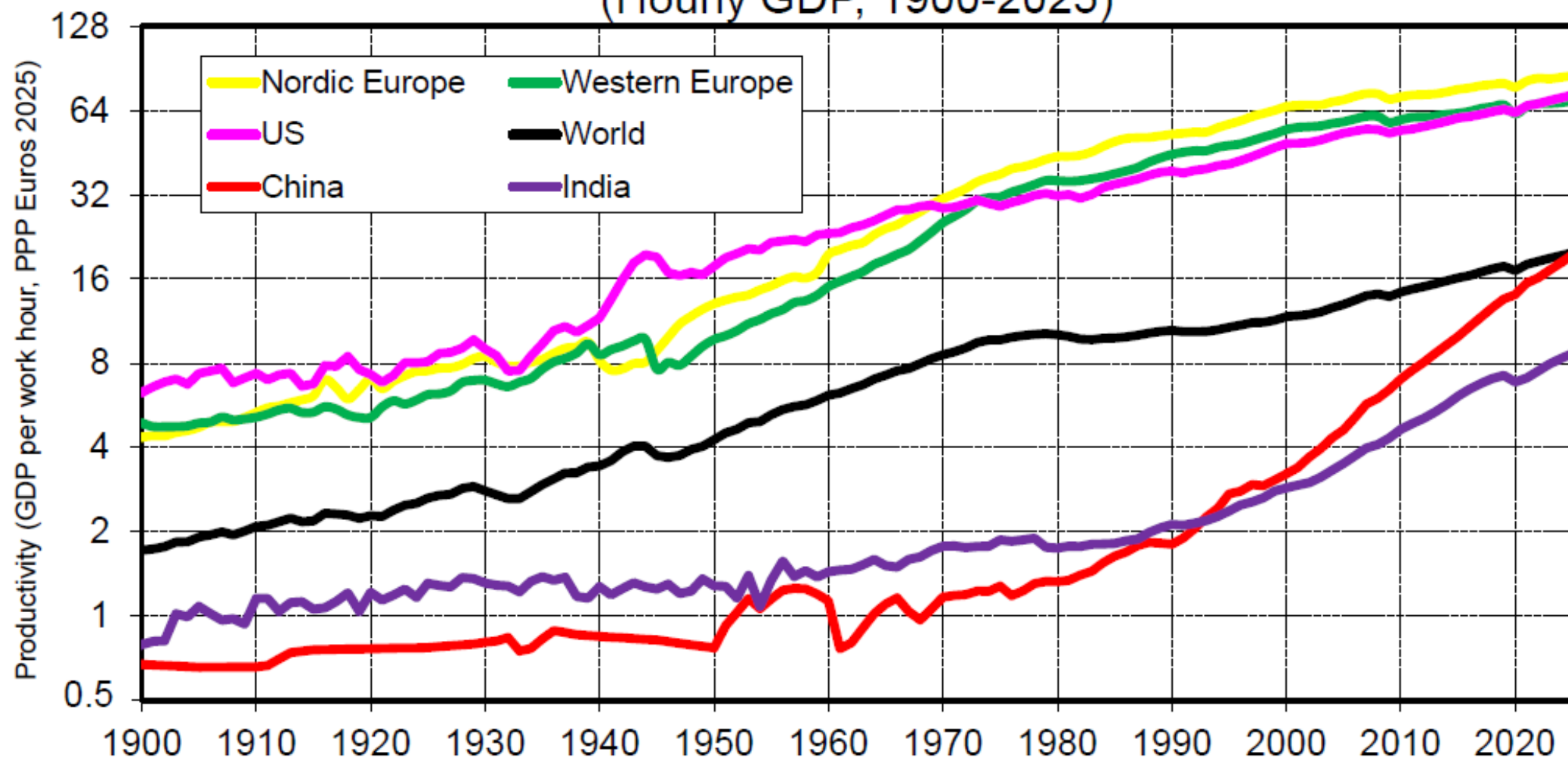
# High Inequality Is Not Necessary for Prosperity (Income Ratio P99.9/P10, 1900-2025)



**Interpretation.** The income scale, expressed as the ratio of the income thresholds P99.9 and P10, has gone through an enormous compression in Nordic Europe (from 150 in 1900 to 11 in 1990 and 17 in 2025) & Western Europe (from 190 in 1900 to 20 in 1980 and 29 in 2025) during the 20th century. This did not prevent productivity - as measured by hourly GDP - to rise to unprecedented levels over the same period.

**Note:** Western Europe: DE-FR-GB. Nordic Europe: SE-DK-NO-NL. World: ratio of population-weighted country thresholds. **Sources and series:** gjp.wid.world (F2.16a)

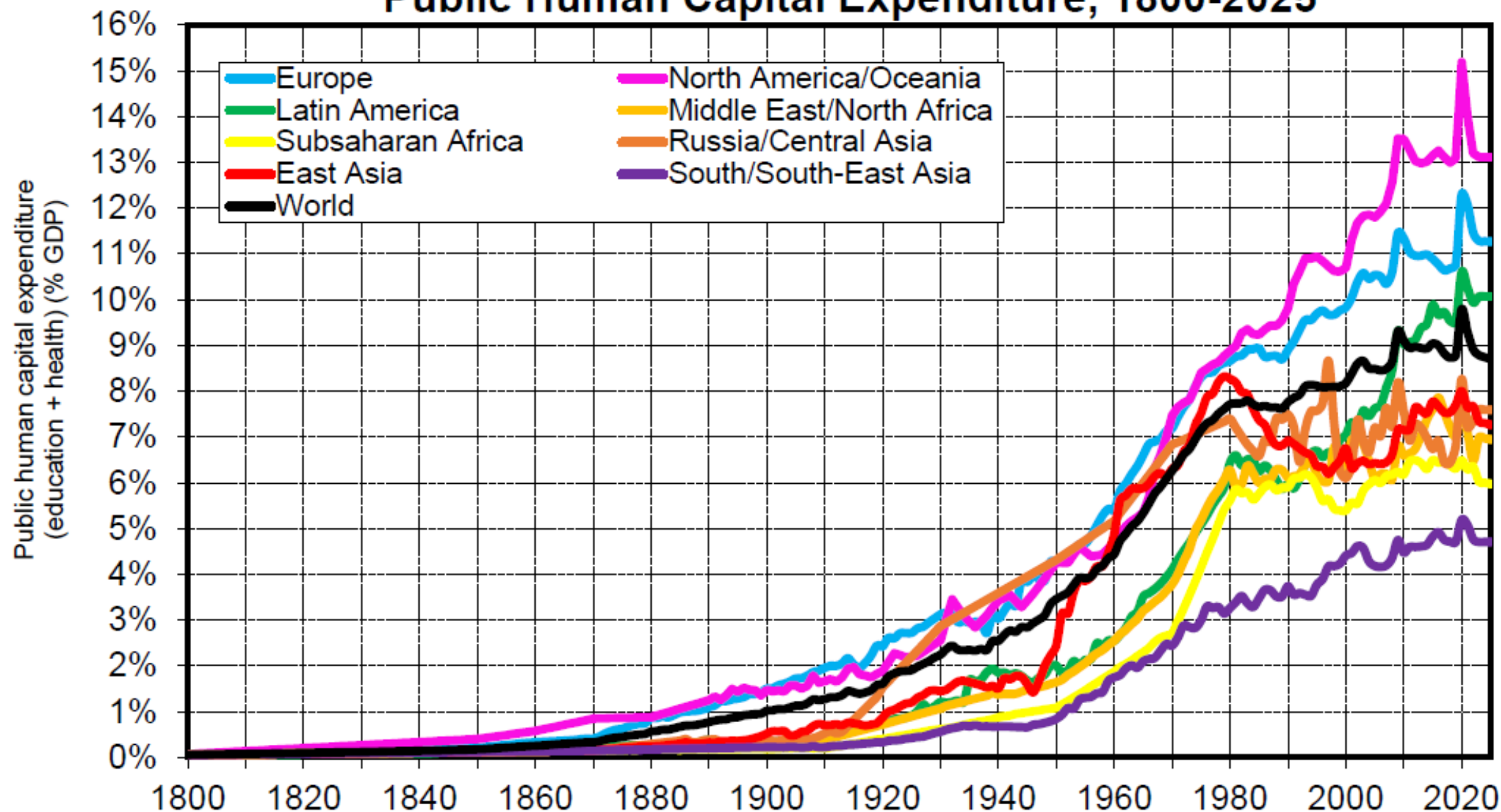
# High Inequality Is Not Necessary for Prosperity (Hourly GDP, 1900-2025)



**Interpretation.** The income scale, expressed as the ratio of the income thresholds P99.9 and P10, has gone through an enormous compression in Nordic Europe (from 150 in 1900 to 11 in 1990 and 17 in 2025) & Western Europe (from 190 in 1900 to 20 in 1980 and 29 in 2025) during the 20th century. This did not prevent productivity - as measured by hourly GDP - to rise to unprecedented levels over the same period.

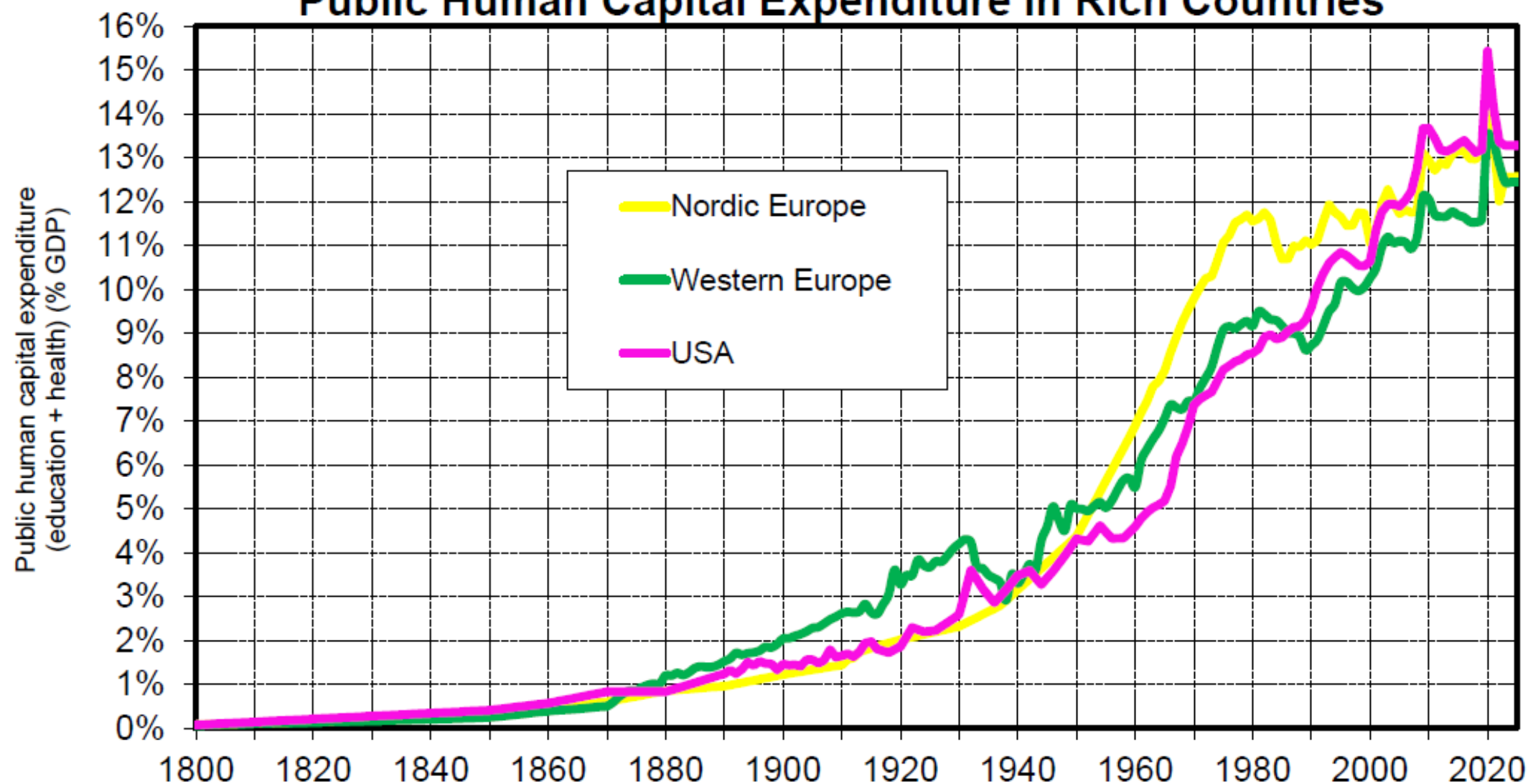
**Note:** Western Europe: DE-FR-GB. Nordic Europe: SE-DK-NO-NL. World: ratio of population-weighted country thresholds. **Sources and series:** gjp.wid.world (F2.16b)

## Public Human Capital Expenditure, 1800-2025



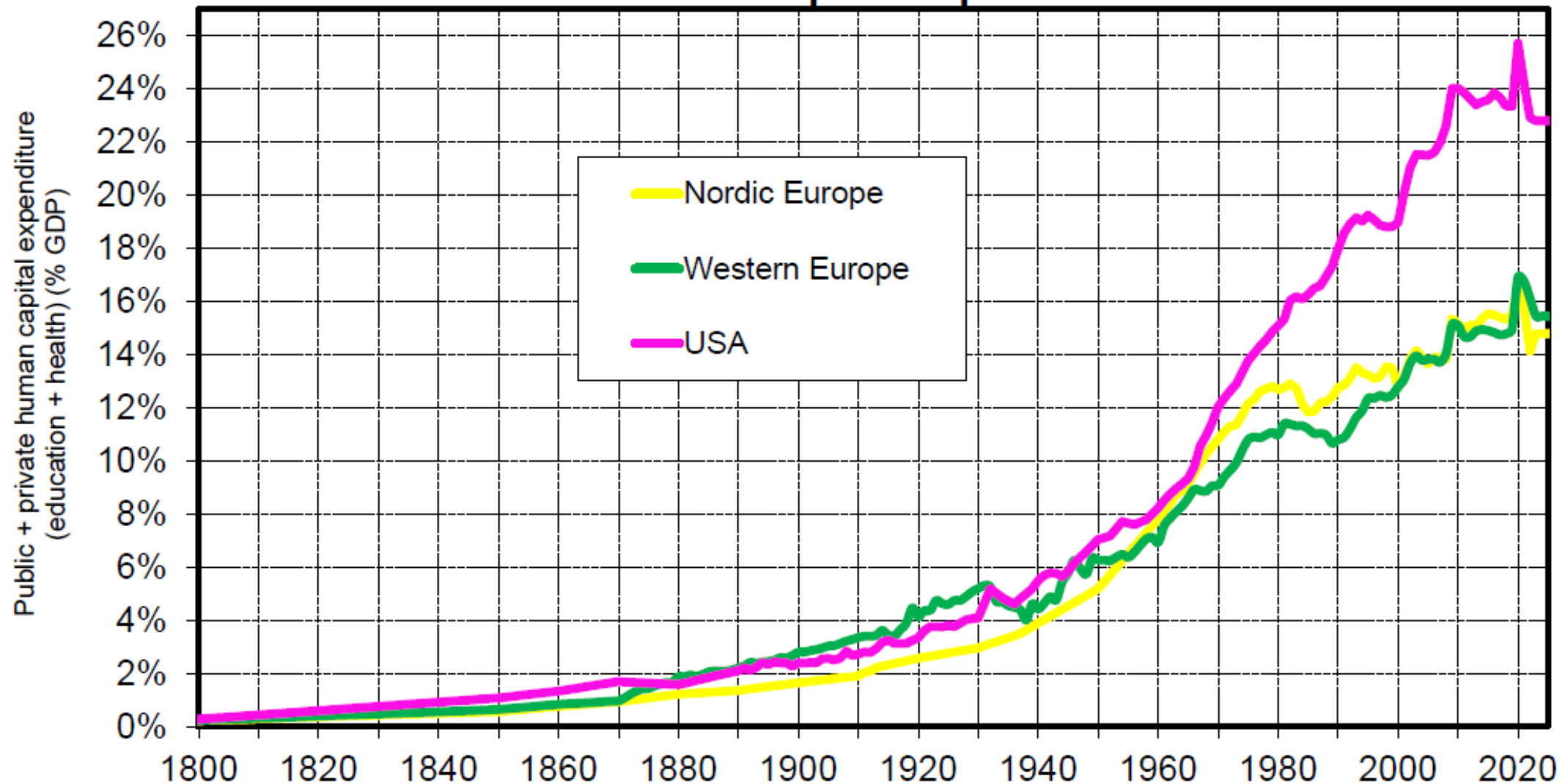
**Interpretation.** Public human capital expenditure (education and health) has risen enormously as a fraction of GDP in all world regions in the long run. The rise has been the strongest in North America/Oceania and Europe and the smallest in Subsaharan Africa and South & South-East Asia, which can contribute to explain the large differential in productivity growth rates. **Sources and series:** wid.world (B2a)

## Public Human Capital Expenditure in Rich Countries



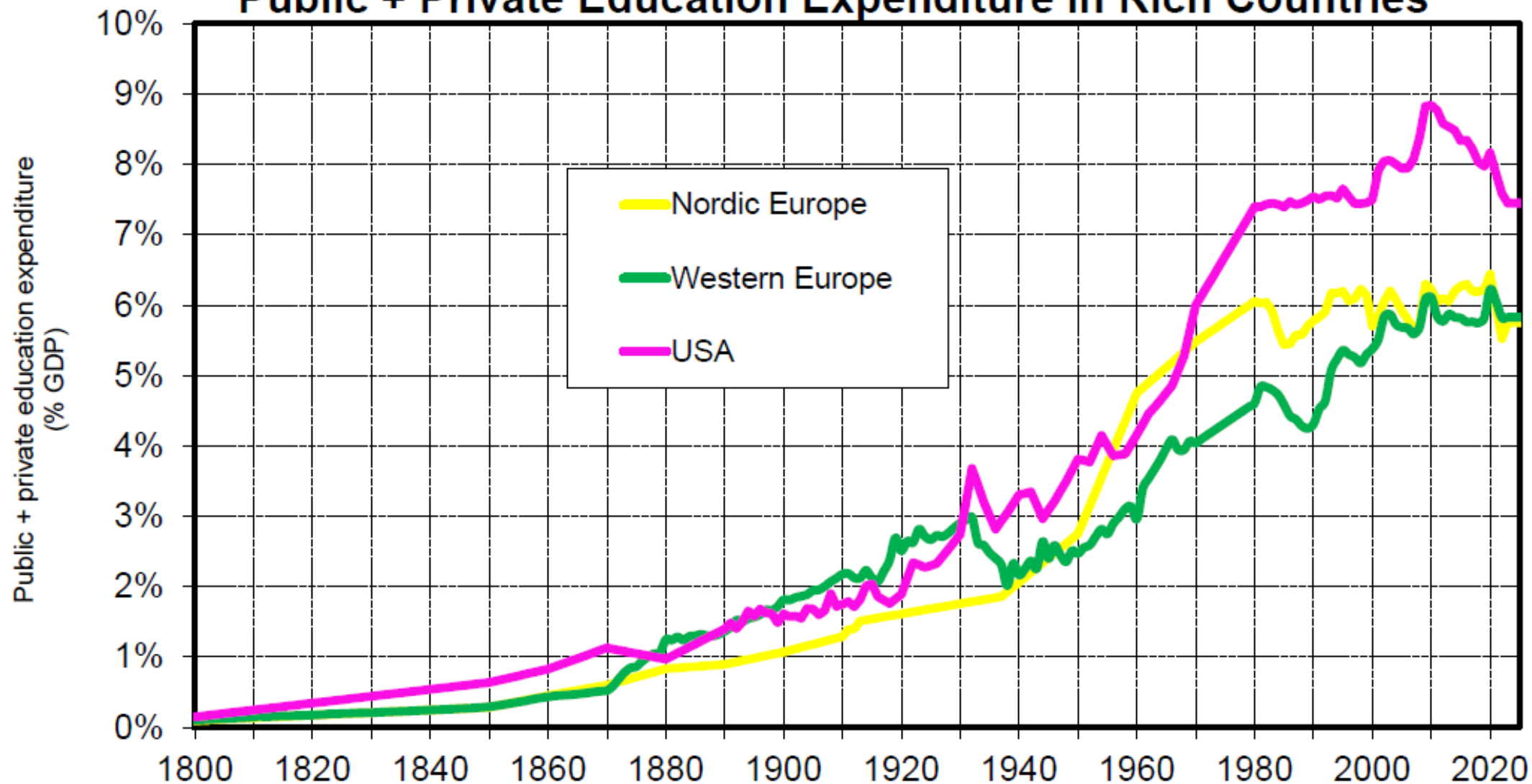
**Interpretation.** Public human capital expenditure (education and health) has risen enormously as a fraction of GDP in the world's richest regions in the long run. Between the 1950s and the 1990s, the rise has been stronger in Nordic Europe (Sweden-Denmark-Norway-Netherlands) than in Western Europe (Germany-France-Britain) and the USA, which can contribute to explain why productivity has reached particularly high levels in Nordic Europe. **Sources and series:** wid.world (B2b)

## Public + Private Human Capital Expenditure in Rich Countries



**Interpretation.** If we include both public and private human capital expenditure (education and health), we find that the rise in total human capital expenditure has been much larger in the USA than in Europe, due to very high private health expenditure (and to a lesser extent to private education expenditure). **Sources and series:** wid.world (B2c)

## Public + Private Education Expenditure in Rich Countries



**Interpretation.** If we include both public and private education expenditure, we find that the rise in total education expenditure has been larger in the USA than in either Nordic Europe (Sweden-Denmark-Norway-Netherlands) or Western Europe (Germany-France-Britain).

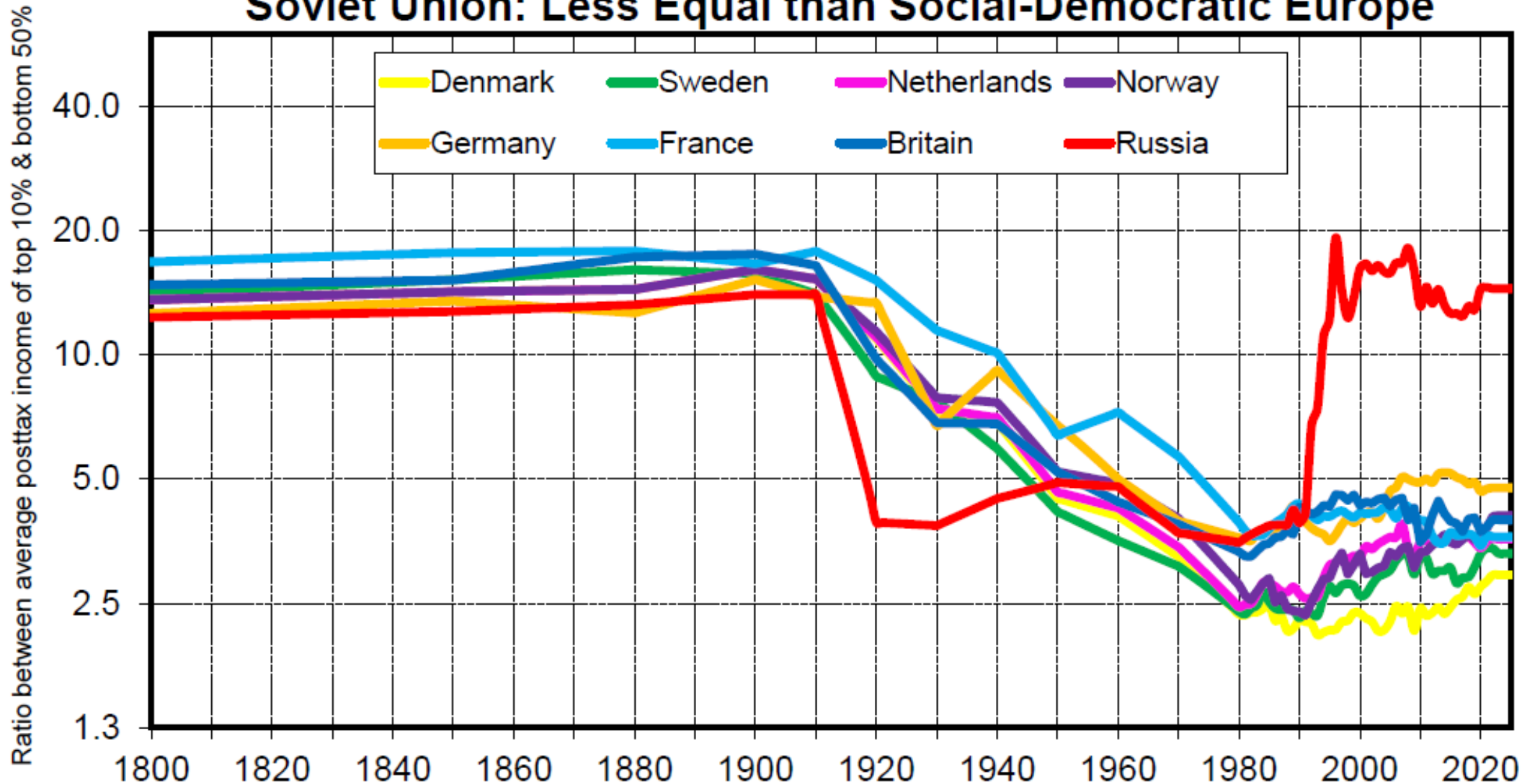
**Sources and series:** wid.world (B2d)

**“Communism in USSR or in Mao China was a disaster. This proves that inequality is good and that excessive equality leads to poverty”**

**Except that USSR was not particularly egalitarian: in the 1980s, income scale was more compressed in Sweden (and other social-democratic European countries) than in USSR, and Sweden had one of the highest productivity in the world. Soviet failure was not due to excessive equality, but rather to authoritarian political & economic system, lack of decentralization, rigid central planning, etc.**

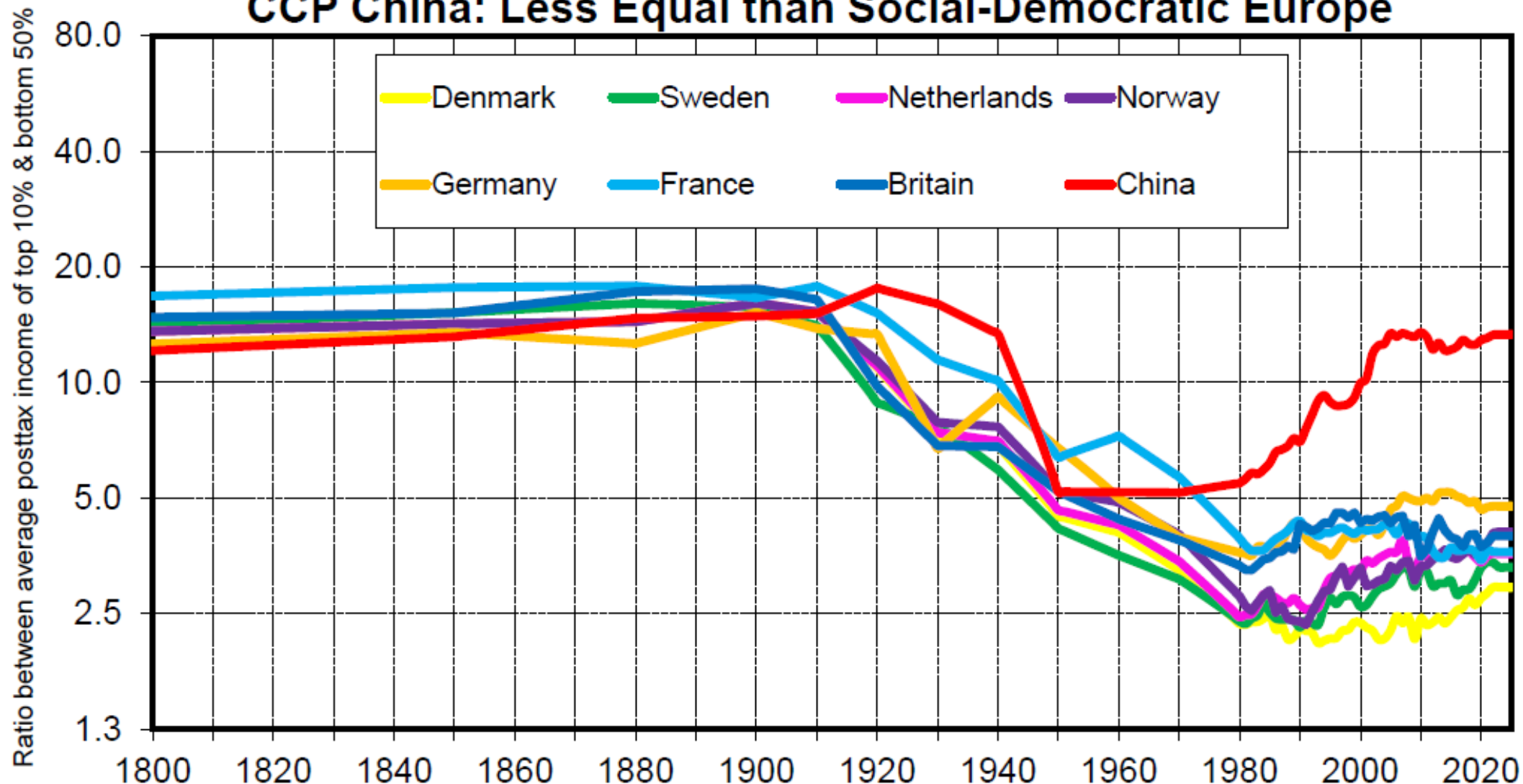
**Regarding socioeconomic equality, 20c European social-democracy (democratic socialism) was both more radical and a lot more successful than Russian-Chinese communism**

## Soviet Union: Less Equal than Social-Democratic Europe



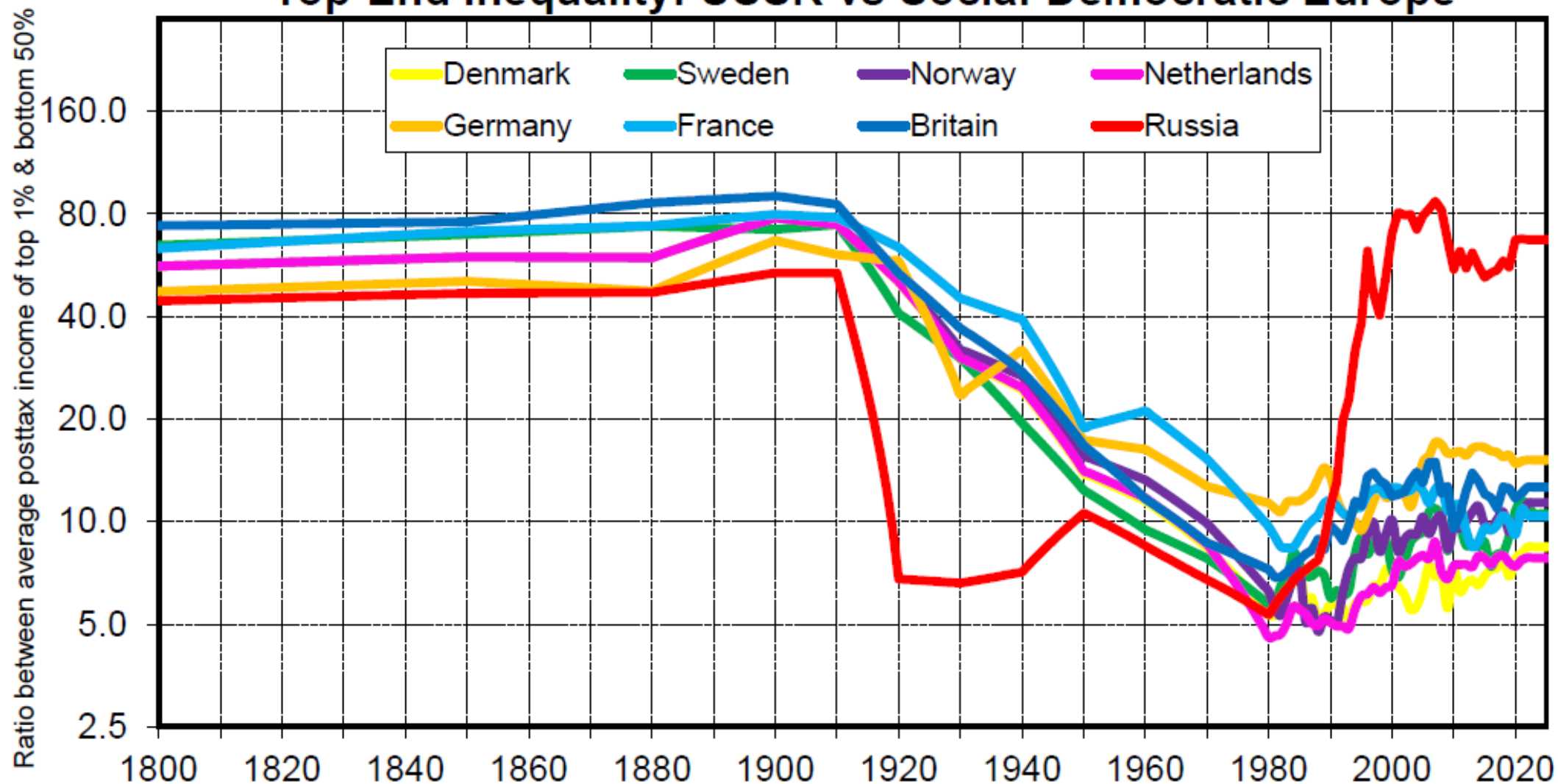
**Interpretation.** The income scale between the top 10% and the bottom 50% was substantially compressed in Soviet Russia (with a T10/50 income ratio around 5, vs about 15-20 in Tsarist Russia and post-communist Russia). However it remained higher than the income scale around 2,5-3 observed since the 1980s in Sweden, Denmark, Norway or the Netherlands (and around 4-5 in Germany, France and Britain).  
**Sources and series:** wid.world (A2n)

## CCP China: Less Equal than Social-Democratic Europe



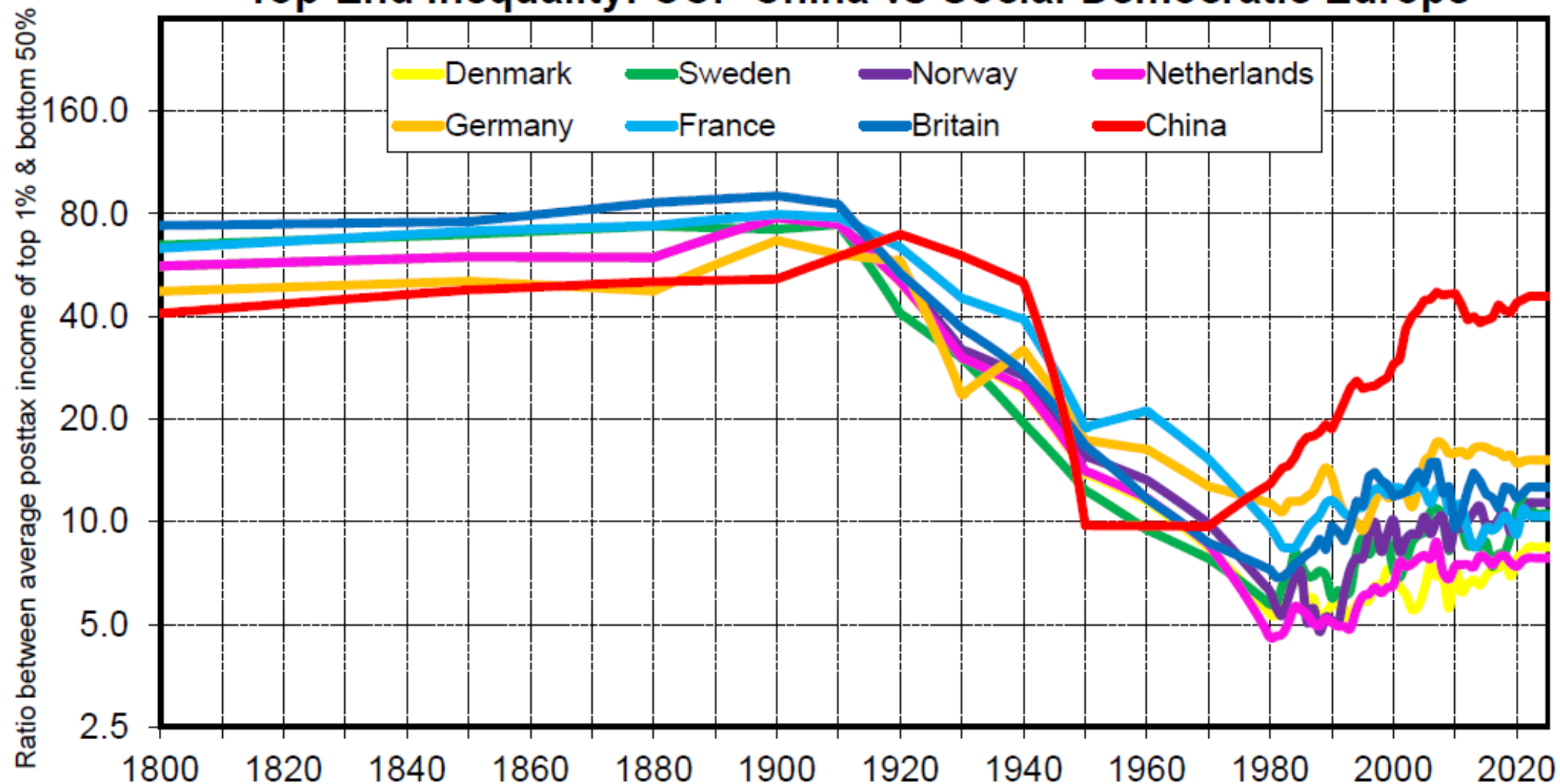
**Interpretation.** The income scale between the top 10% and the bottom 50% was substantially compressed in CCP China during Maoist period (with a T10/50 income ratio around 5, vs about 15-20 in pre-CCP China and 10-15 post-reform CCP China). However it remained higher than the income scale around 2,5-3 observed since the 1980s in Sweden, Denmark, Norway or the Netherlands (and around 4-5 in Germany, France and Britain). **Sources and series:** wid.world (A2o)

## Top-End Inequality: USSR vs Social-Democratic Europe



**Interpretation.** The income scale between the top 1% and the bottom 50% was substantially compressed in Soviet Russia (with a T1/B50 income ratio around 7-9, vs about 50-80 in Tsarist Russia and post-communist Russia). However it remained higher than the T1/B50 income scale around 5-6 observed in Nordic countries in the 1980s-1990s. **Sources and series:** wid.world (A2p)

## Top-End Inequality: CCP China vs Social-Democratic Europe



**Interpretation.** The income scale between the top 1% and the bottom 50% was substantially compressed in CCP China during Maoist period (with a T1/B50 income ratio around 10-12, vs about 50-80 in pre-CCP China and post-reform CCP China). However it remained higher than the T1/B50 income scale around 5-6 observed in Nordic countries in the 1980s-1990s. **Sources and series:** wid.world (A2q)

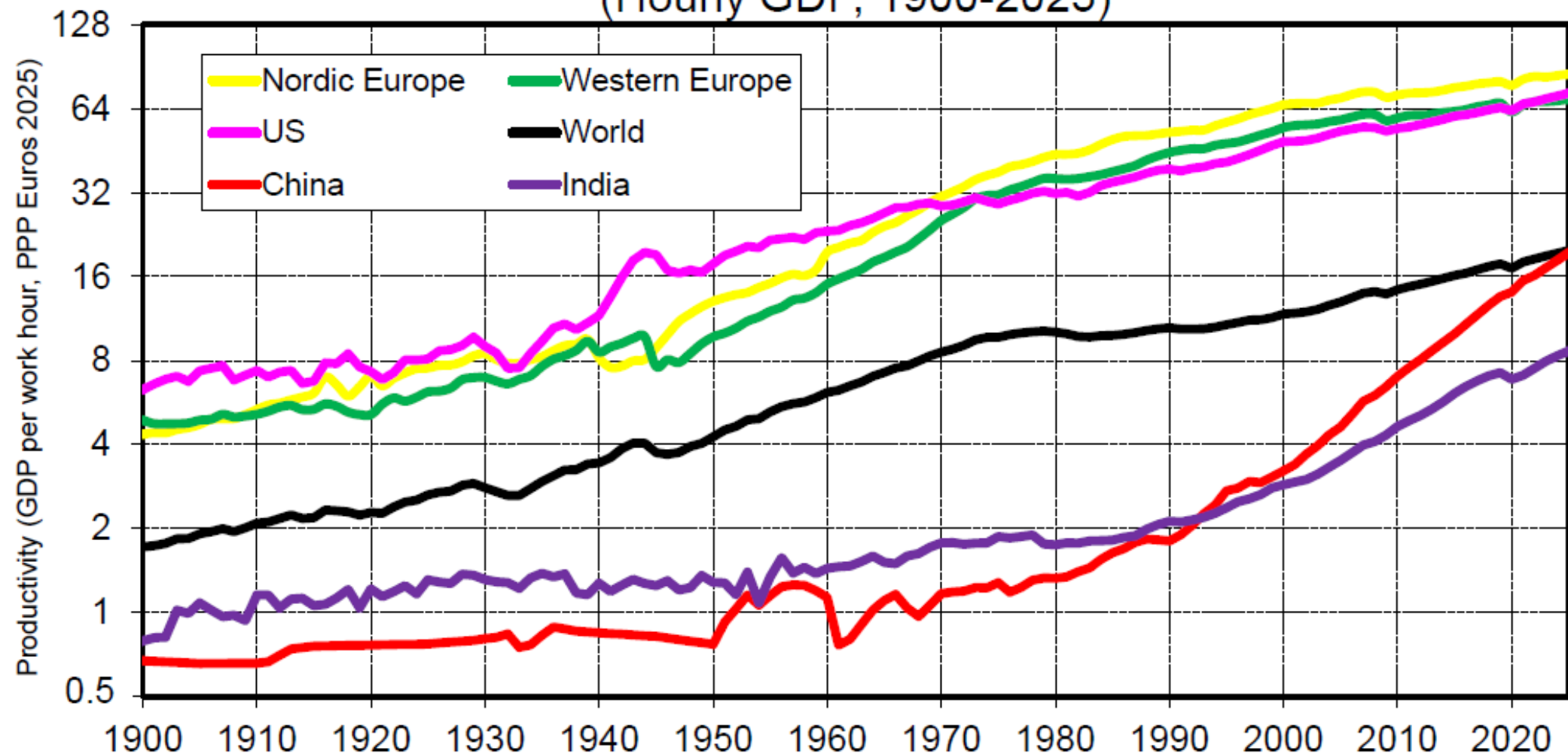
**“US is more unequal than Europe and is more productive and innovative, therefore inequality is good”**

**Except that US is not more productive than Europe:** higher US per capita GDP is obtained only via longer working hours (and bad well-being outcomes) and high exchange rate. If one looks at **PPP hourly productivity (GDP per work hour)**, then the most productive and most equal European countries (DK DE FR GB NL NO SE) have the same productivity as the US since the 1980s-1990s, if not higher, in spite of lower education and health investment (public+private)

**High US productivity in 19-20c came from educational advance over Europe (& relatively low inequality at the time)**

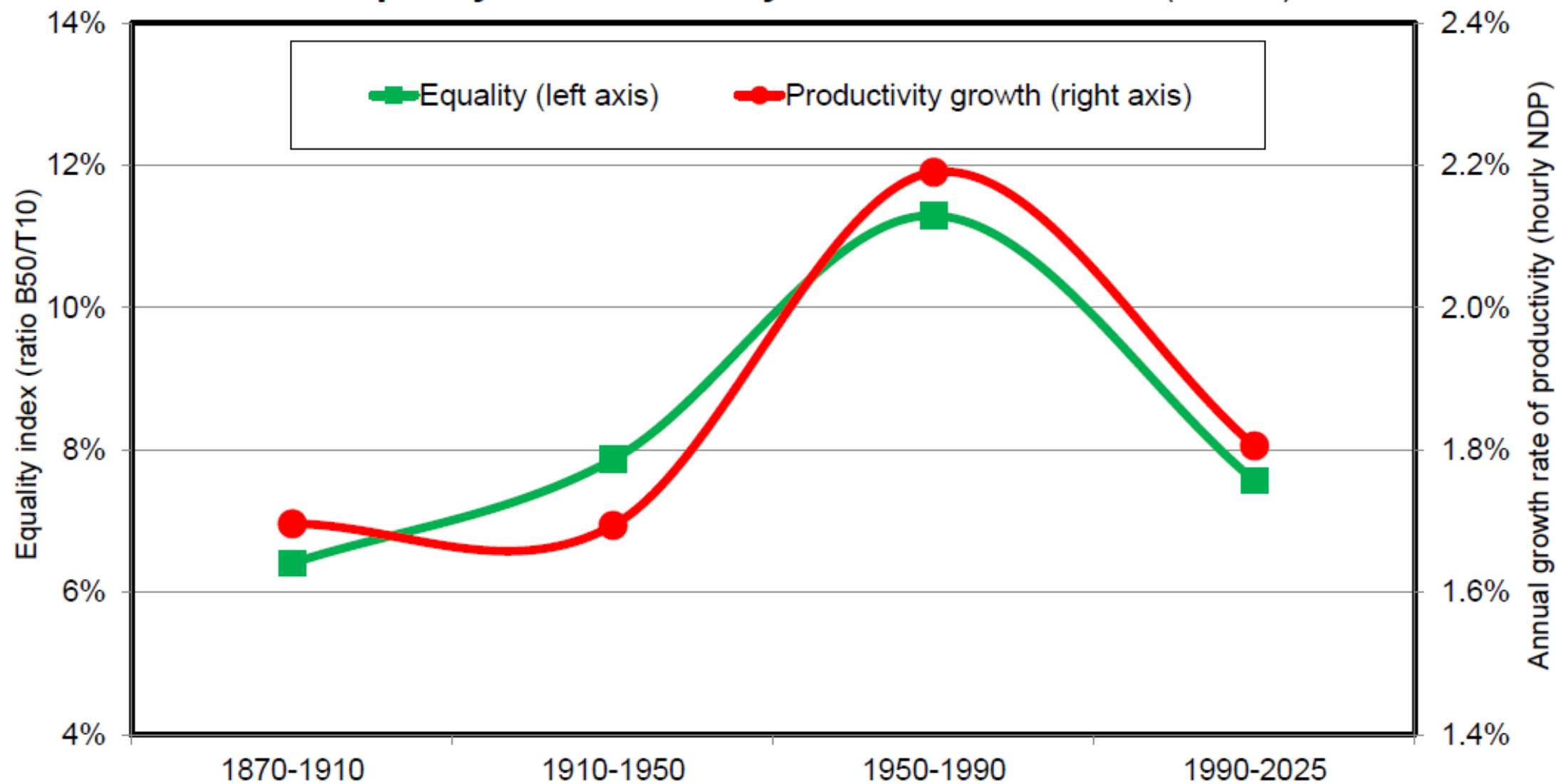
**Rising inequality since 1980s-1990s did not lead to higher growth**

# High Inequality Is Not Necessary for Prosperity (Hourly GDP, 1900-2025)



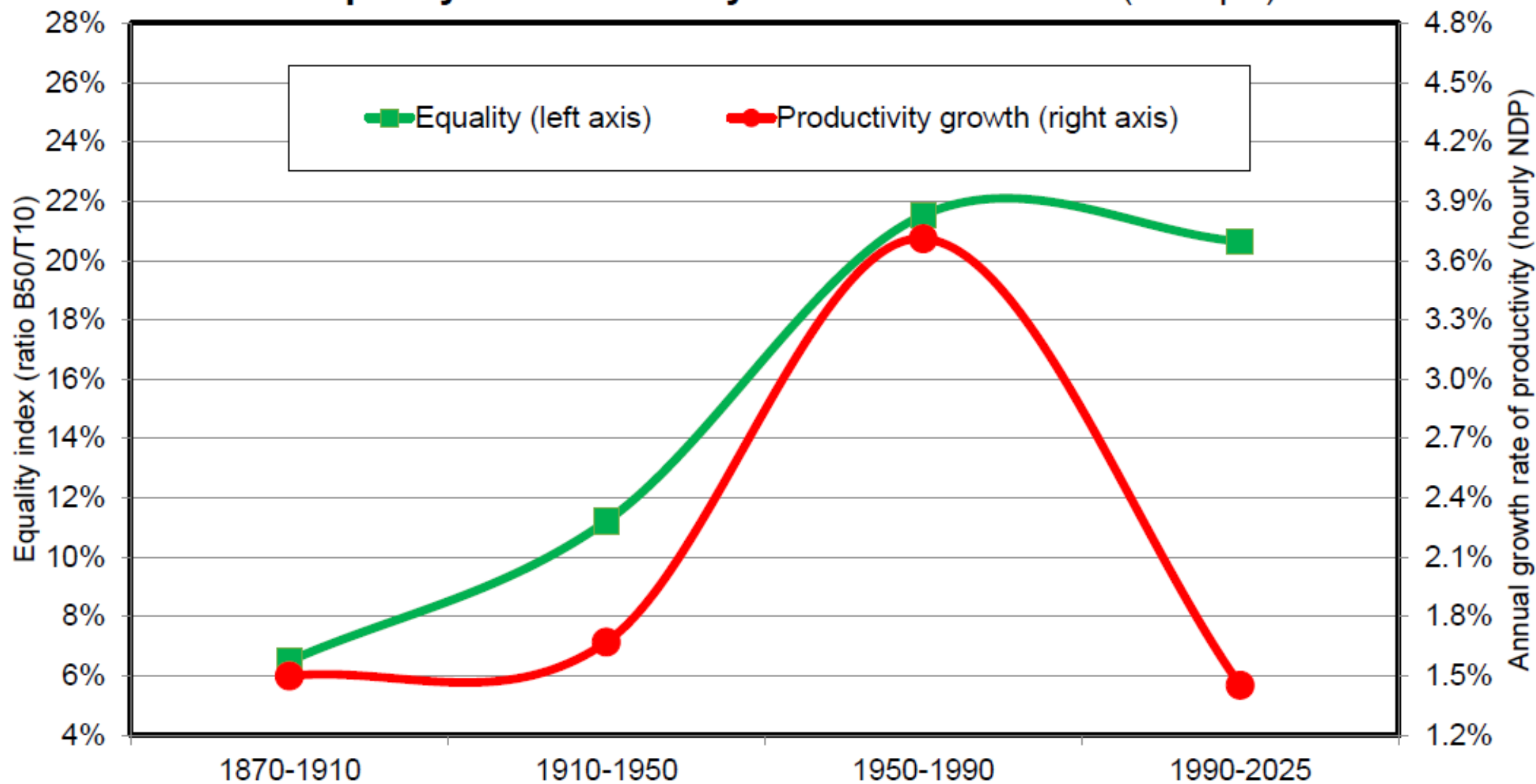
**Interpretation.** The income scale, expressed as the ratio of the income thresholds P99.9 and P10, has gone through an enormous compression in Nordic Europe (from 150 in 1900 to 11 in 1990 and 17 in 2025) & Western Europe (from 190 in 1900 to 20 in 1980 and 29 in 2025) during the 20th century. This did not prevent productivity - as measured by hourly GDP - to rise to unprecedented levels over the same period.  
**Note:** Western Europe: DE-FR-GB. Nordic Europe: SE-DK-NO-NL. World: ratio of population-weighted country thresholds. **Sources and series:** gjp.wid.world (F2.16b)

## Equality & Productivity Growth 1870-2025 (World)



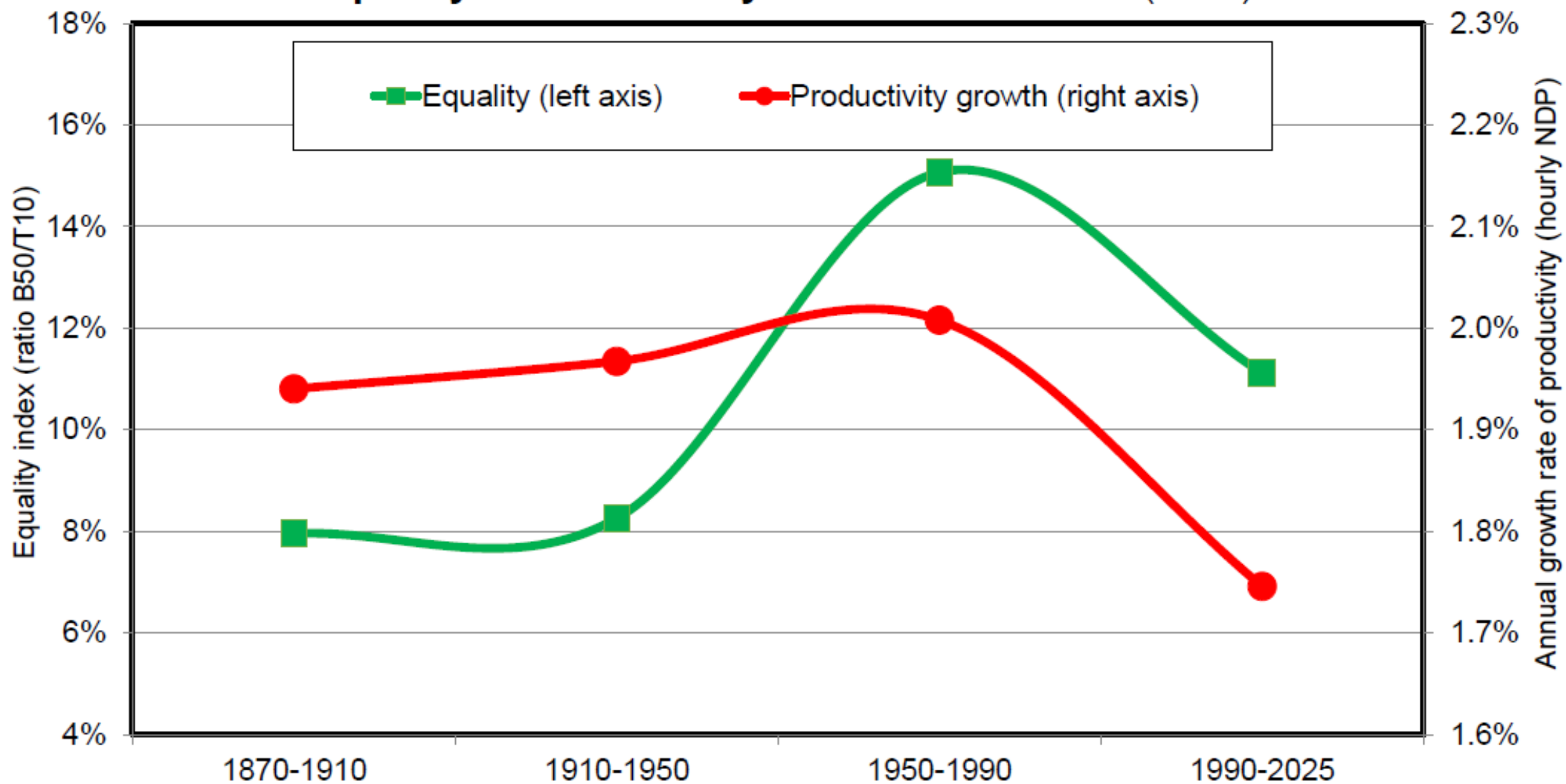
**Interpretation.** Generally speaking, more equality tends to be associated to more productivity growth, either in time-series or in cross section. In particular, rising inequality since 1990 was supposed to boost productivity growth but led to a decline. The time-series relation holds at the world level as well as in high-income countries and low- and middle-income countries. **Sources and series:** wid.world (C1a)

## Equality & Productivity Growth 1870-2025 (Europe)



**Interpretation.** Generally speaking, more equality tends to be associated to more productivity growth, either in time-series or in cross section. In particular, rising inequality since 1990 was supposed to boost productivity growth but led to a decline. The time-series relation holds at the world level as well as in high-income countries and low- and middle-income countries. **Sources and series:** wid.world (C1b)

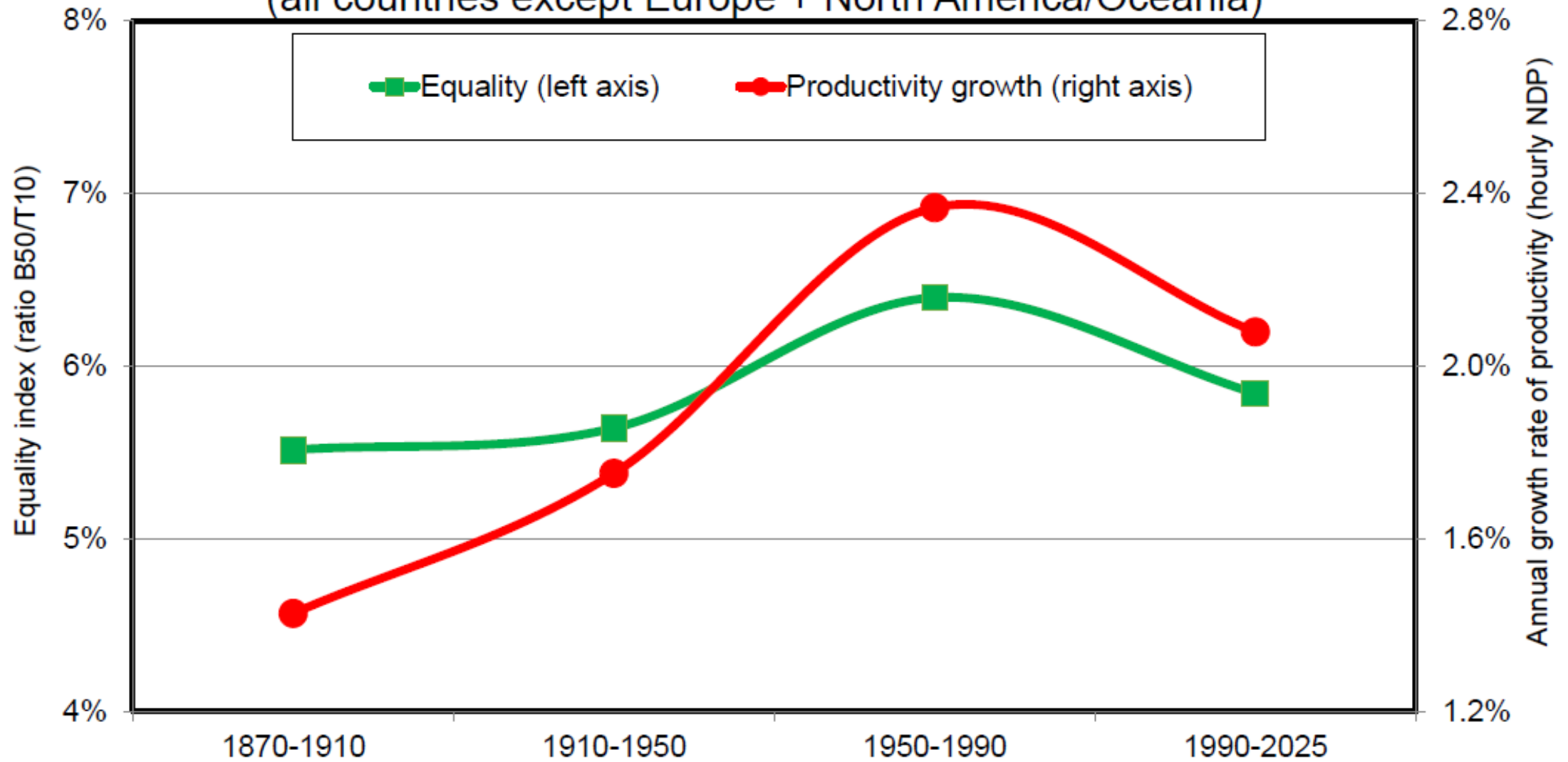
## Equality & Productivity Growth 1870-2025 (USA)



**Interpretation.** Generally speaking, more equality tends to be associated to more productivity growth, either in time-series or in cross section. In particular, rising inequality since 1990 was supposed to boost productivity growth but led to a decline. The time-series relation holds at the world level as well as in high-income countries and low- and middle-income countries. **Sources and series:** wid.world (C1c)

# Equality & Productivity Growth 1870-2025

(all countries except Europe + North America/Oceania)



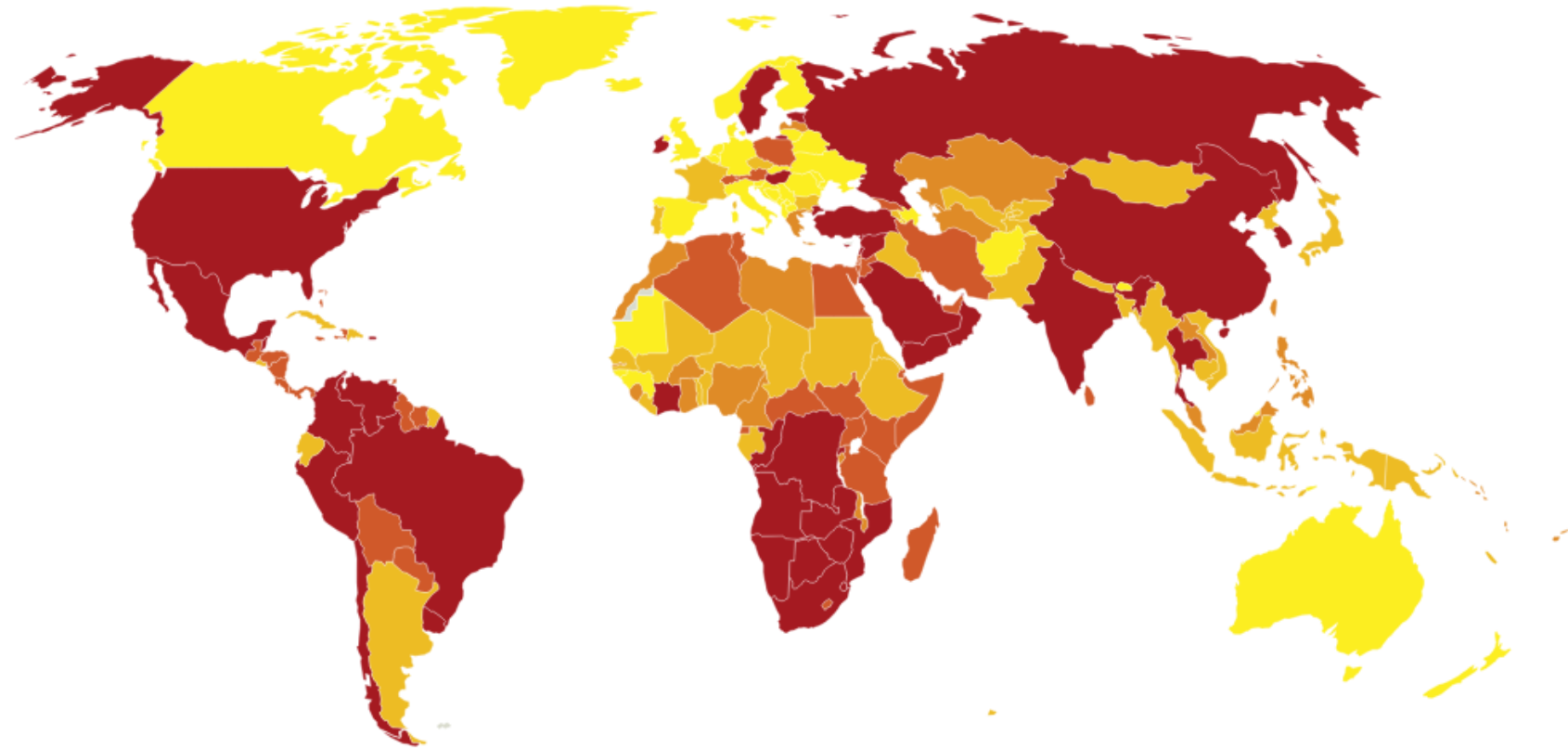
**Interpretation.** Generally speaking, more equality tends to be associated to more productivity growth, either in time-series or in cross section. In particular, rising inequality since 1990 was supposed to boost productivity growth but led to a decline. The time-series relation holds at the world level as well as in high-income countries and low- and middle-income countries. **Sources and series:** wid.world (C1d)

# The Limited Long-Run Compression of Wealth Scale

**Basic fact.** The long-run compression of the wealth scale in rich countries was less substantial than for the income scale (the bottom 50% wealth has remained close to zero everywhere), but still substantial if we look at the T10/M40 ratio or P90/P50 and P99/P50 ratios.

In the long-run, the rise of the patrimonial middle classe (middle 40%) was arguably good for mobility and efficiency. In the future, the same could happen with bottom 50%.

## Top 10% net personal wealth share (2024)

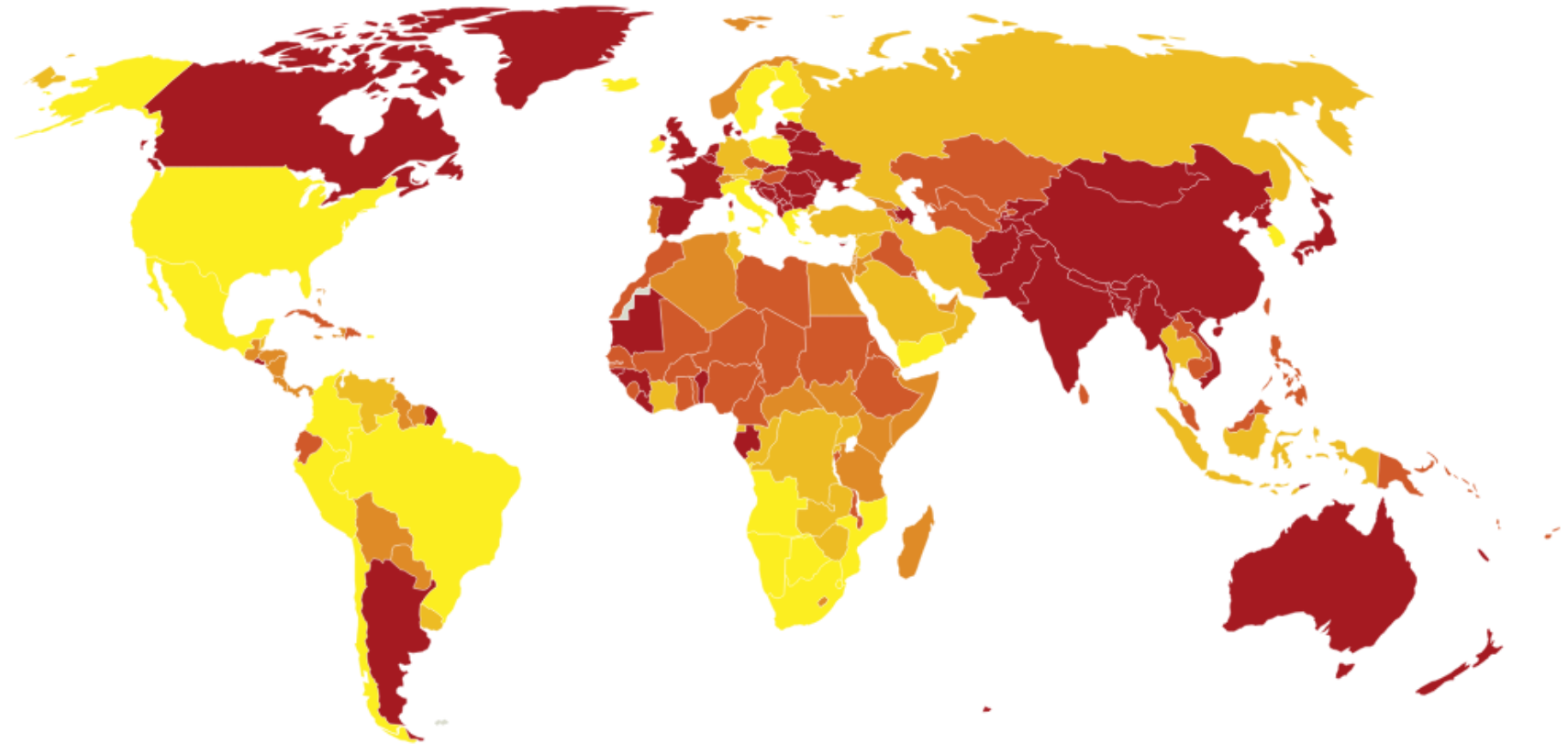


Share of total (%)

45 - 59    59 - 60    60 - 62    62 - 64    64 - 86

Graph provided by [www.wid.world](http://www.wid.world)

## Bottom 50% net personal wealth share (2024)



Share of total (%)

1.0 - 2.6

2.6 - 3.5

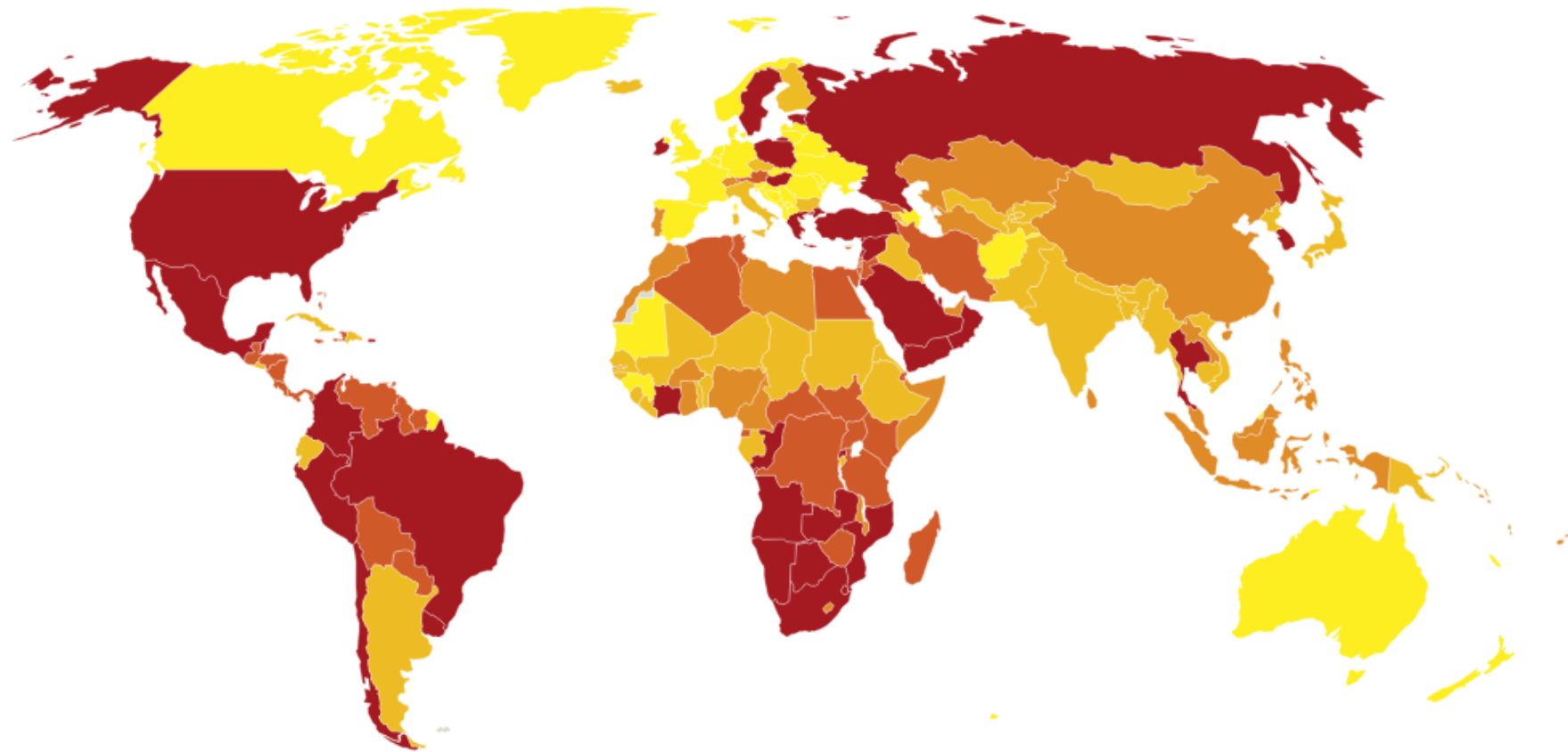
3.5 - 3.8

3.8 - 4

4 - 10.4

Graph provided by [www.wid.world](http://www.wid.world)

# Gini index of net personal wealth (2024)

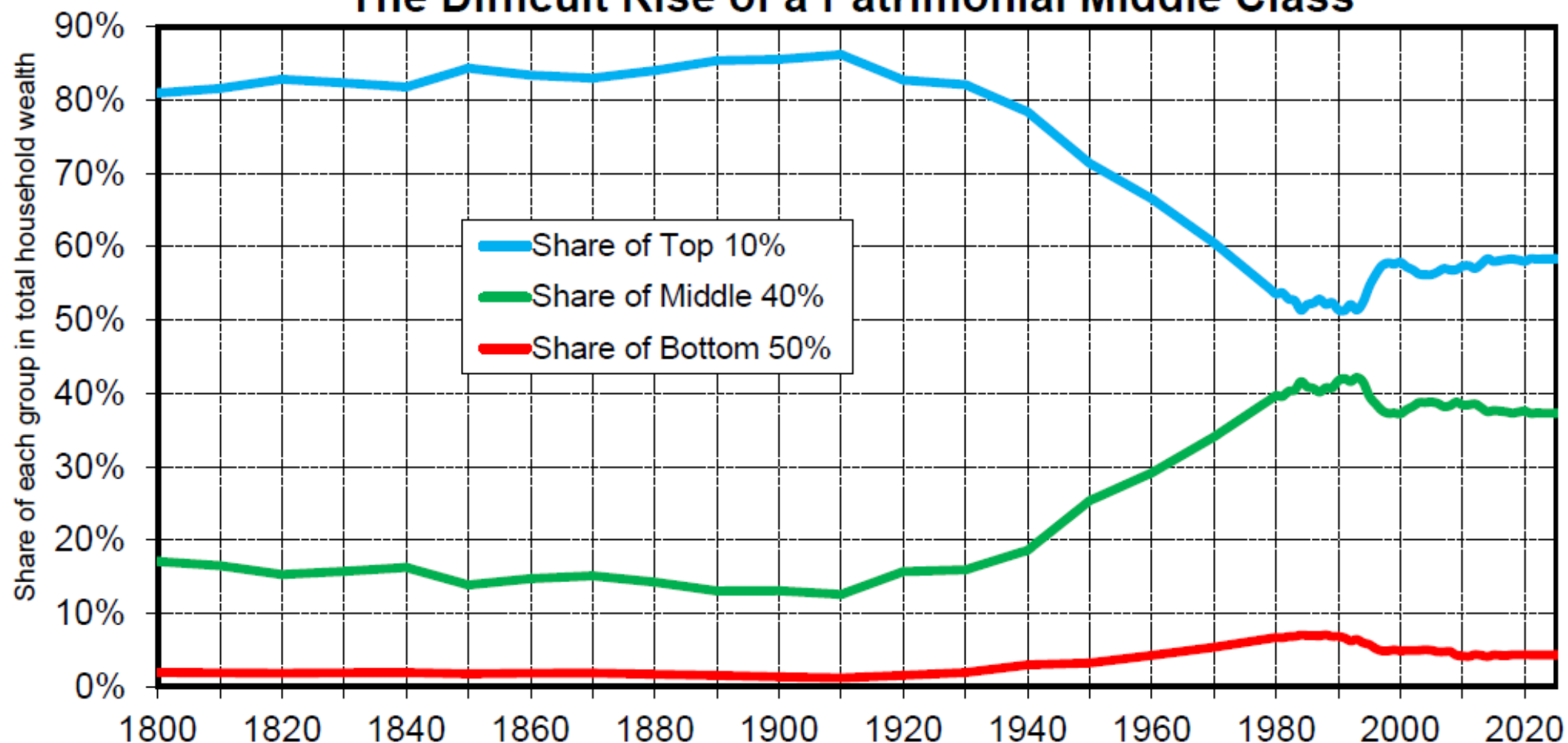


## Gini coefficient



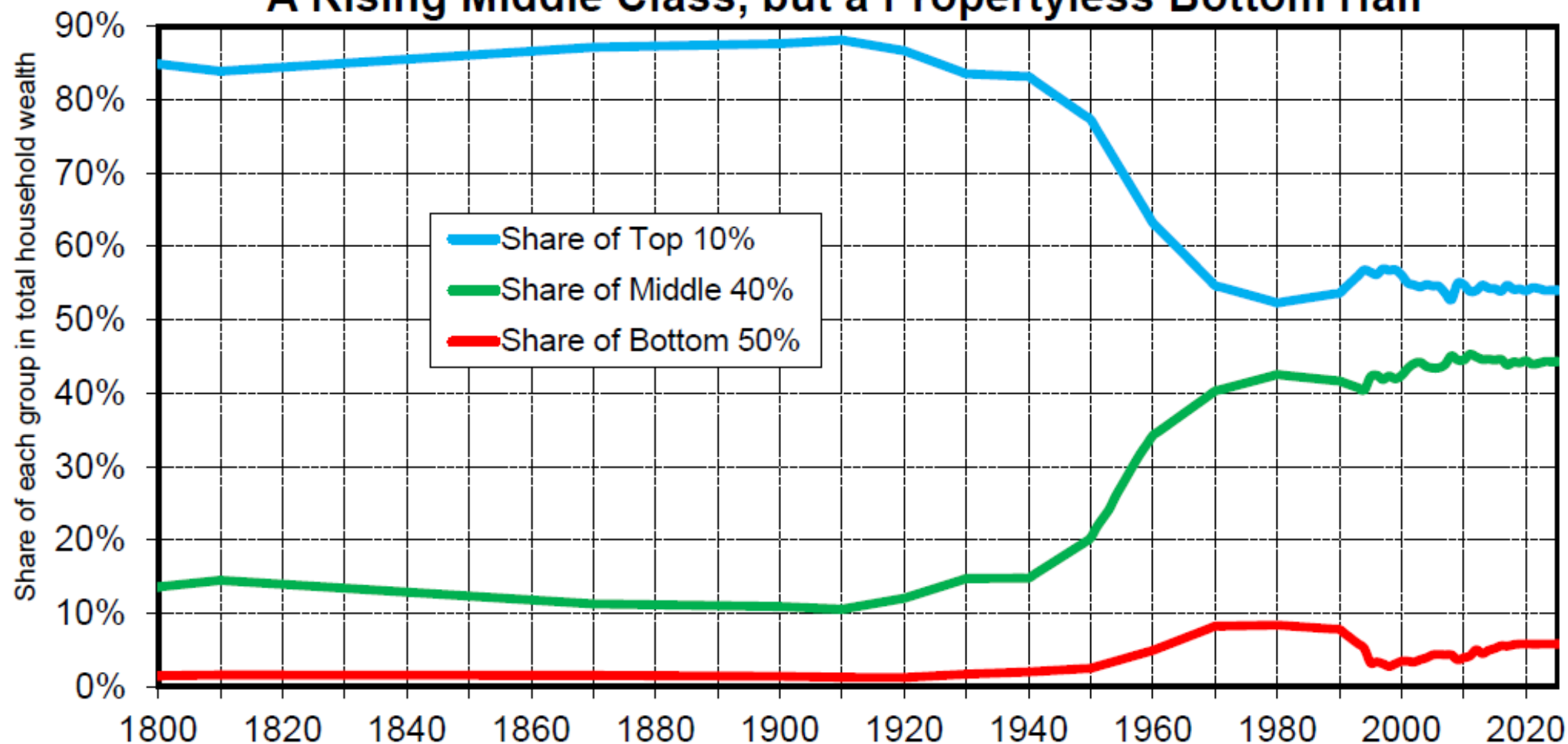
Graph provided by [www.wid.world](http://www.wid.world)

## Wealth Shares in Western Europe: The Difficult Rise of a Patrimonial Middle Class



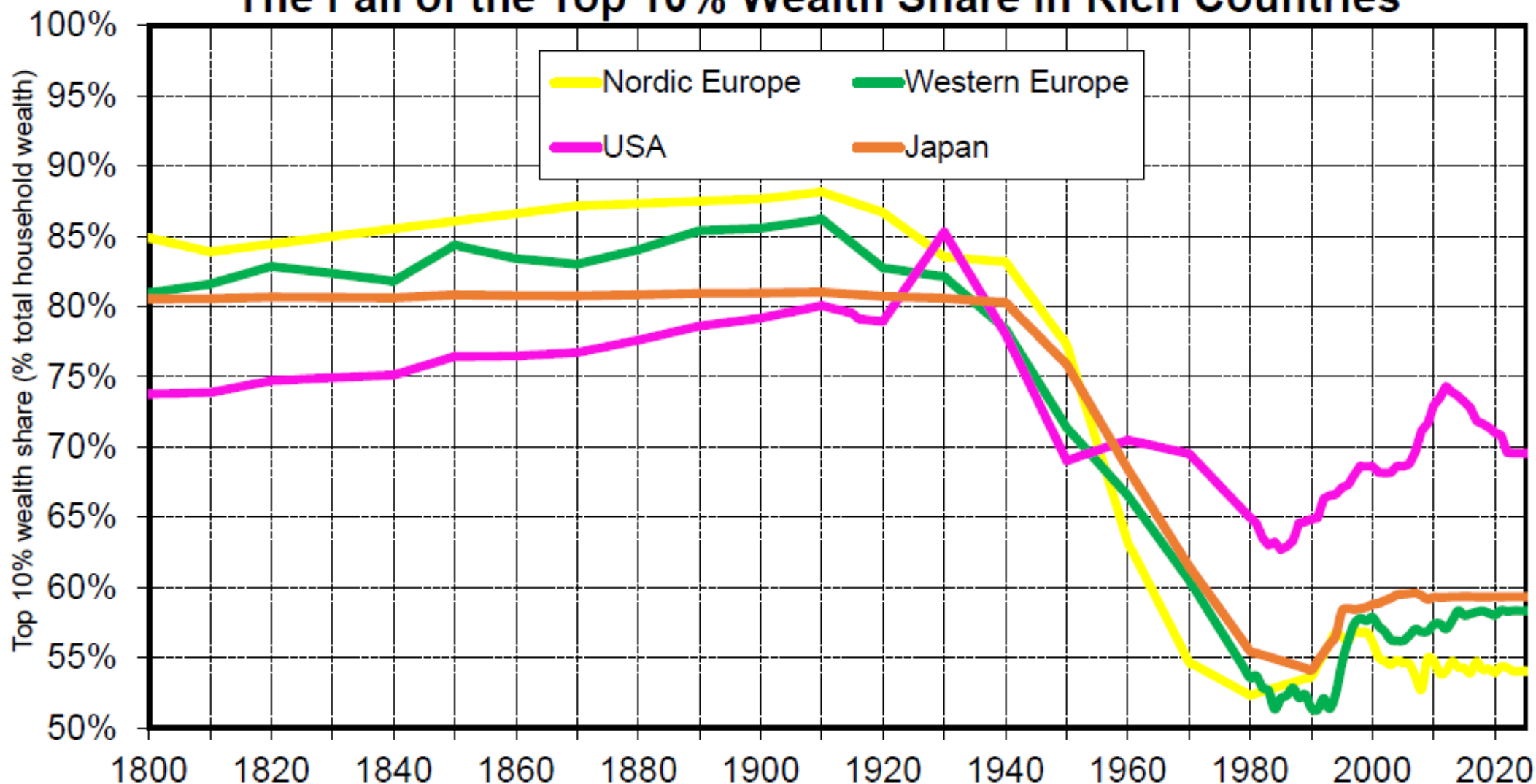
**Interpretation.** In Western Europe (which we define as the average Germany-France-Britain), the share of the top 10% highest wealth holders in total household wealth (including housing, business and financial assets, net of debt) fell from over 80% in 1910 to about 50-60% since 1980-1990, with a moderate rise in recent decades. The long-run fall of the top 10% share benefited mostly to the next 40% (the "patrimonial middle class") and very little to the bottom 50%. **Sources and series:** wid.world (E1a)

## Wealth Shares in Nordic Europe: A Rising Middle Class, but a Propertyless Bottom Half



**Interpretation.** In Nordic Europe (which we define as the average Sweden-Denmark-Norway-Netherlands), the share of the top 10% highest wealth holders in total household wealth (including housing, business and financial assets, net of debt) fell from over 80% in 1910 to about 50-55% since 1980-1990, with a moderate rise in recent decades. The long-run fall of the top 10% share benefited mostly to the next 40% (the "patrimonial middle class") and very little to the bottom 50%. **Sources and series:** wid.world (E1b)

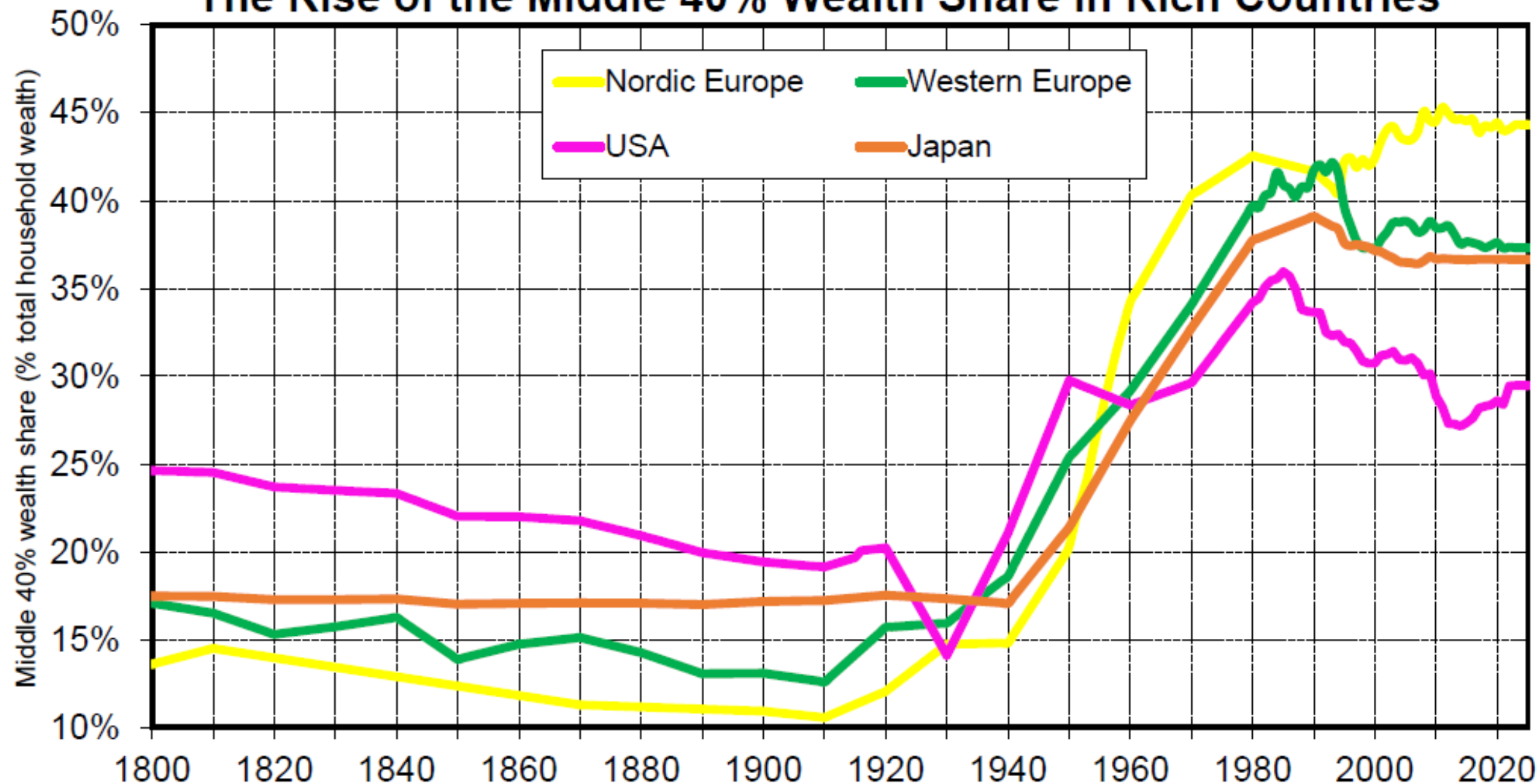
## The Fall of the Top 10% Wealth Share in Rich Countries



**Interpretation.** We observe in all rich countries a significant fall of the top 10% wealth share between 1910 and 1980. In the USA, the fall was less massive than in Western Europe or Nordic Europe, and was partly undone by rising wealth concentration since 1980-1990.

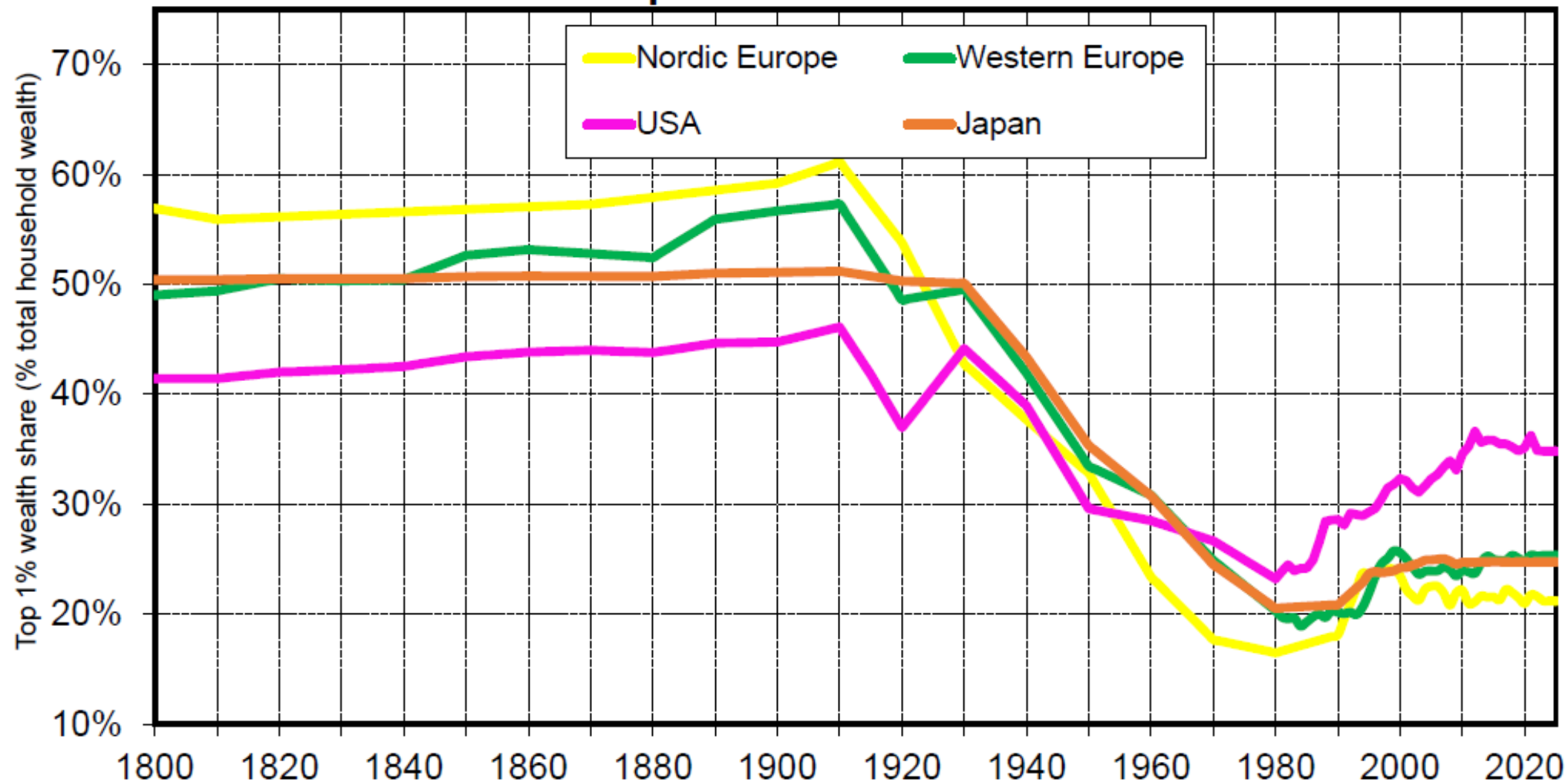
**Sources and series:** wid.world (E1c)

## The Rise of the Middle 40% Wealth Share in Rich Countries



**Interpretation.** Between 1910 and 1980, we observe in all rich countries a significant rise of the wealth share of the "patrimonial middle class" (the middle 40%, in between the top 10% and the bottom 50%). In the USA, the rise was less massive than in Western Europe or Nordic Europe, and was partly undone by rising wealth concentration since 1980-1990. **Sources and series:** wid.world (E1d)

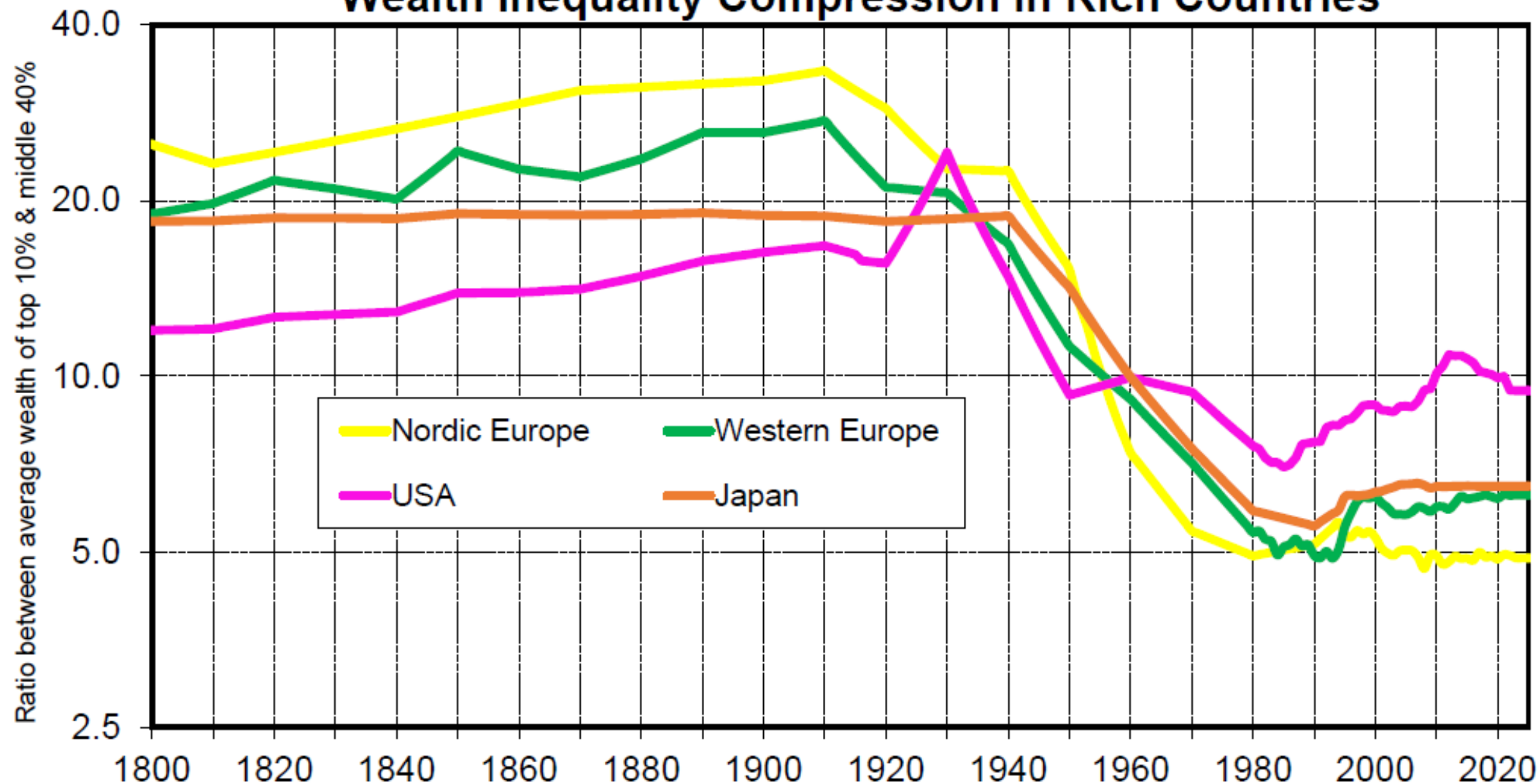
## The Fall of the Top 1% Wealth Share in Rich Countries



**Interpretation.** We observe in all rich countries a very large fall of the top 1% wealth share between 1910 and 1980. In the USA, the fall was less massive than in Western Europe or Nordic Europe, and was partly undone by rising wealth concentration since 1980-1990.

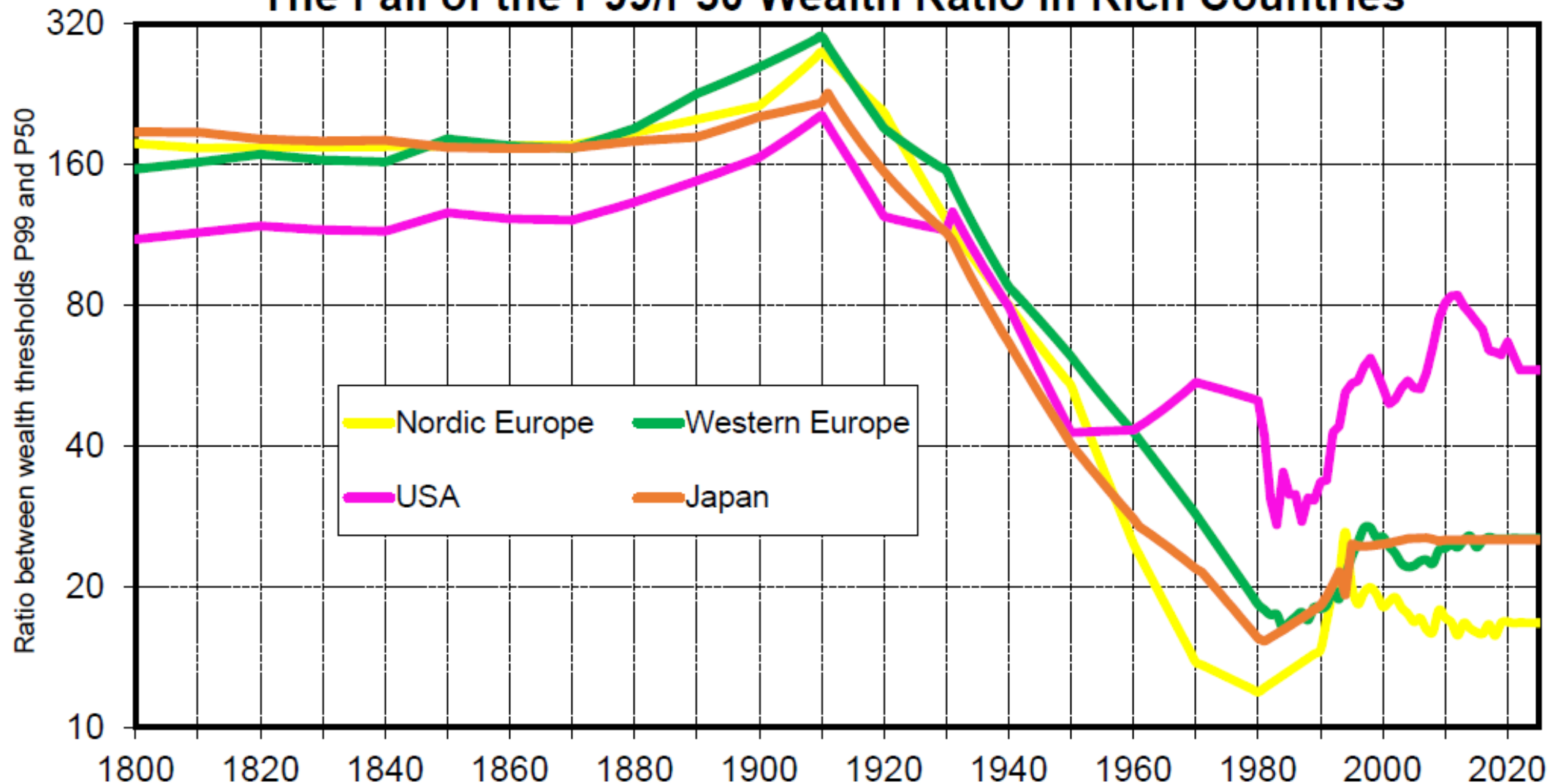
**Sources and series:** wid.world (E1e)

## Wealth Inequality Compression in Rich Countries



**Interpretation.** The ratio T10/M40 between the average wealth of the top 10% and the middle 40% has declined in all rich countries in the long run, from about 20-30 in 1900-1910 to about 5-7 in Nordic and Western Europe since 1980-1990. In the USA, the compression of the wealth scale was less massive than in Europe, and was partly undone by rising wealth concentration since 1980-1990. **Sources and series:** wid.world (E2a)

## The Fall of the P99/P50 Wealth Ratio in Rich Countries



**Interpretation.** The ratio P99/P50 between the 99th and the 50th wealth percentiles has declined in all rich countries in the long run, from about 200-300 in 1900-1910 to about 10-20 in Nordic and Western Europe since 1980-1990. In the USA, the compression of the wealth scale was less massive than in Europe, and was partly undone by rising wealth concentration since 1980-1990. **Sources and series:** wid.world (E4a)

# Regression results on the effect of equality on productivity

In theory the equality effect could be either  $<0$  (equality bad for incentives) or  $>0$  (equality good for inclusiveness, e.g. via more extended opportunities for poor children and adults)

We use multiple specifications in order to test for  $b < 0$  or  $b > 0$  :

$$\mathbf{Prod}_{it} = a + \mathbf{b Equal}_{it} + \epsilon_{it}$$

$$\mathbf{ProdGrowthRate}_{it} = a + \mathbf{b Equal}_{it} + \epsilon_{it}$$

(+ controls: education expenditure, country-fixed effects, etc.)

With  $\mathbf{Equal}_{it} = \text{B50/T10 posttax income ratio, wealth ratio (in-progress)}$

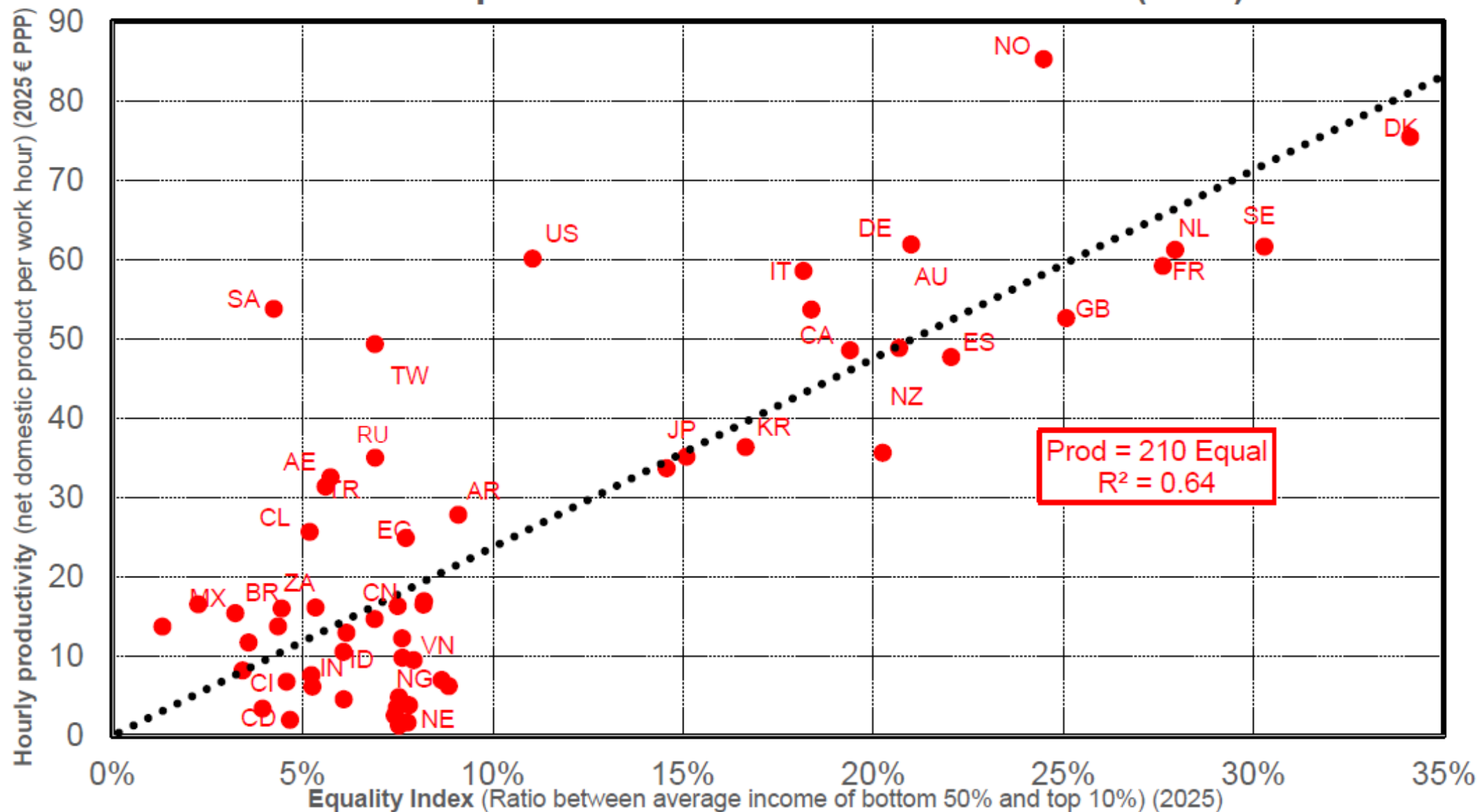
**Of course cross-country regression results will always be imperfect and disputed** (and should be).

However our **broad comparative-historical coverage** does deliver consistent results: **equality appears to have a positive impact on growth, in addition to the positive effect of human capital** (albeit probably of a smaller magnitude)

Consistent with experimental studies: [Banerjee et al 2021](#)  
(& land reform studies: [Banerjee-Ghatak 2002](#); [Banerjee-Iyer 2005](#))

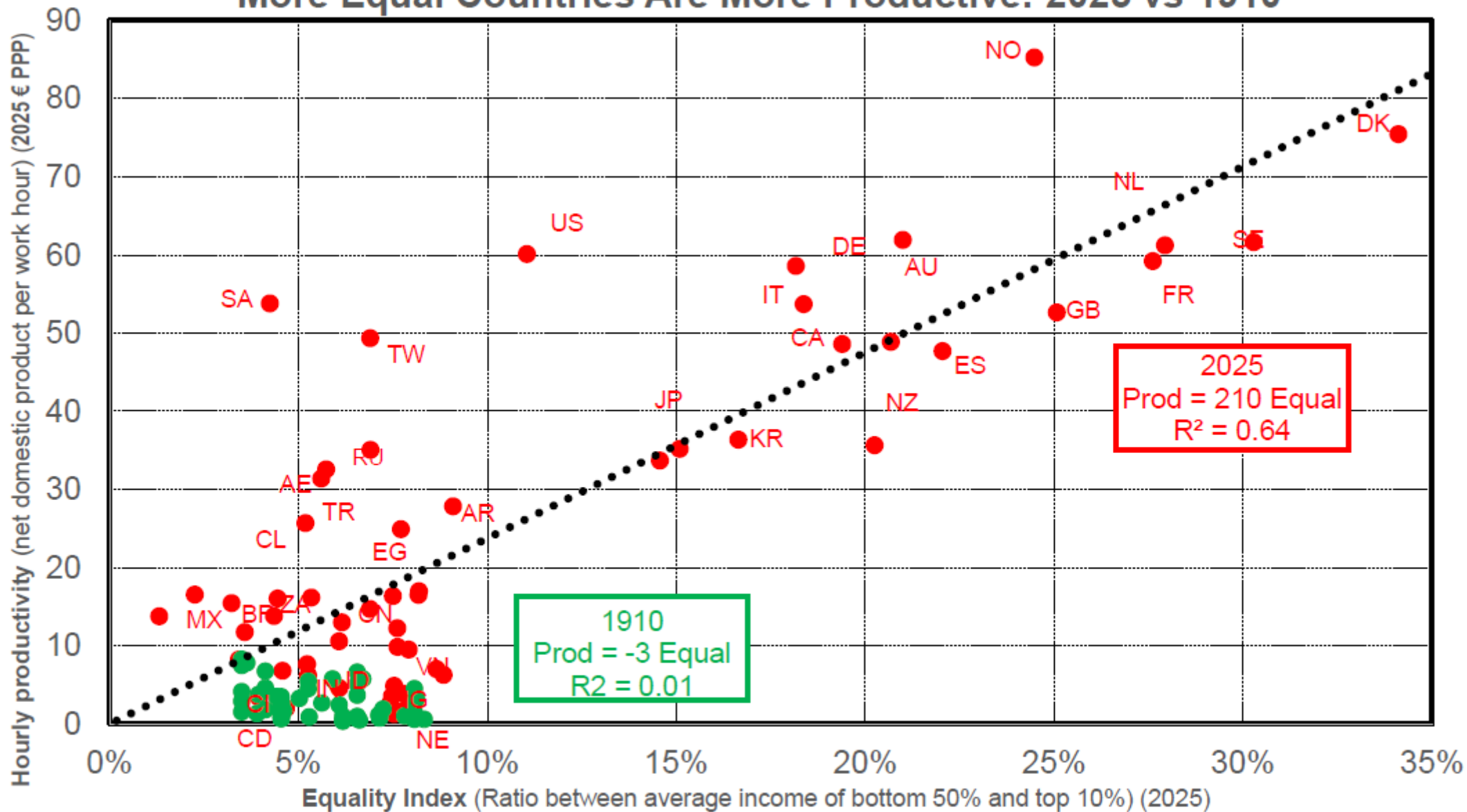
At the very least, everybody should agree that high equality ( $\approx$  Nordic Europe 1990-2025) is not necessarily bad for prosperity & is compatible with highest world productivity

## More Equal Countries Are More Productive (2025)



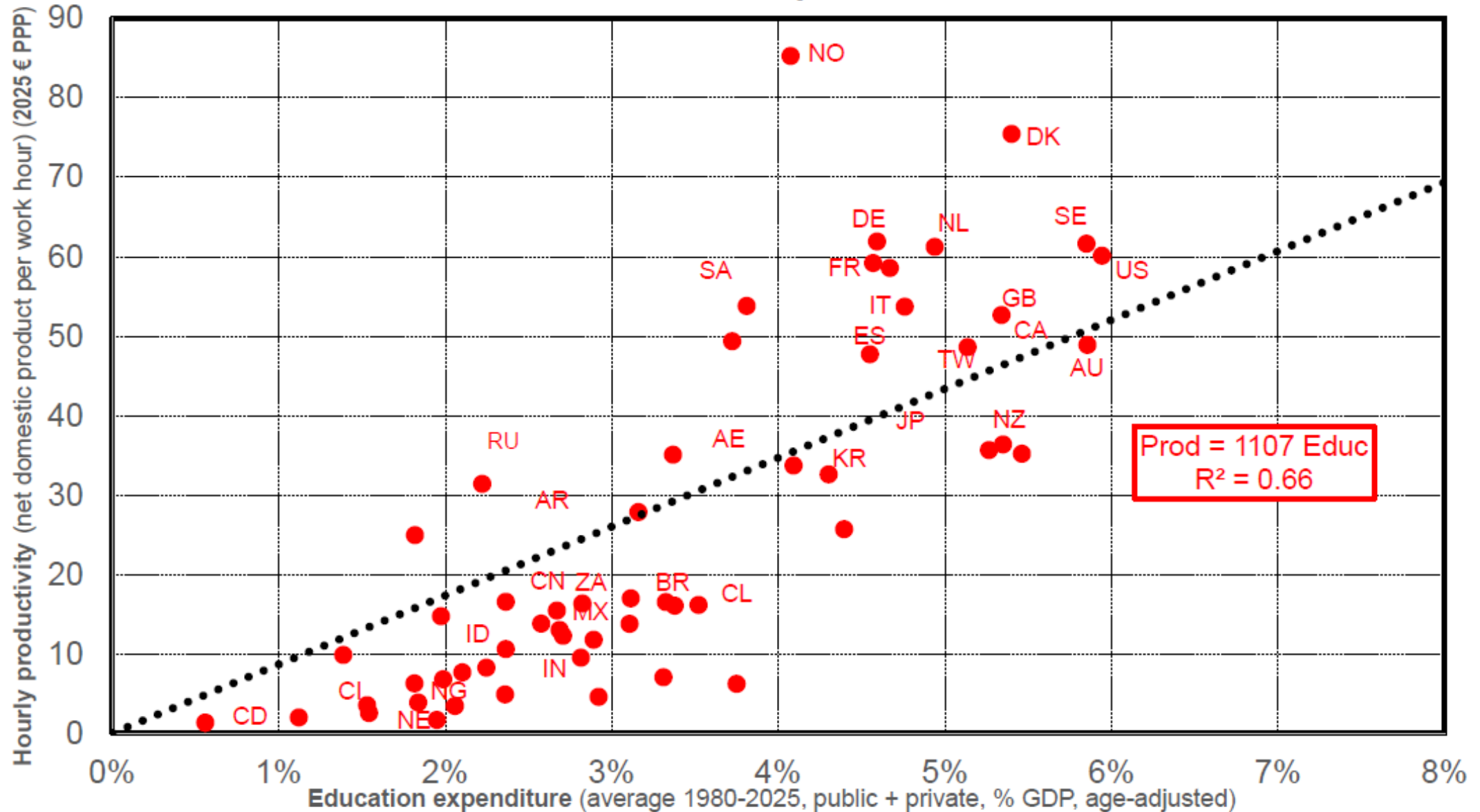
**Interpretation.** On average, more equal countries are also more productive. Using a simple cross-country linear regression in 2025 (48 main countries), we find that if the equality index B50/T10 rises by 10 percentage points (say from 10% to 20%, i.e. from an income scale of 1-to-10 to 1-to-5), then hourly productivity increases by 21€. **Note.** Oil-rich countries (SA, US, NO) have unusually high productivities. **Sources and series:** wid.world (C2a)

# More Equal Countries Are More Productive: 2025 vs 1910



**Interpretation.** In 2025, we see a highly significant positive relation between equality and productivity, reflecting the rising role of human capital and inclusiveness for prosperity. In 1910, there is no such relation (either positive or negative). Even the highest productivity countries (GB, US) were relatively poor by modern standards (less than 7-8€ in hourly productivity in 2025 PPP) and they were as unequal as other countries, reflecting the role of other factors (coal, cotton, colonies, etc.). **Sources and series:** wid.world (C2b)

# Countries with More Education Expenditure Are More Productive



**Interpretation.** On average, countries with larger education expenditures are also more productive. Using a simple cross-country linear regression in 2025 (48 main countries), we find that if the education expenditure rises by 1 percentage points (say from 4% to 5%, of GDP), then hourly productivity increases by 11€. **Sources and series:** wid.world (C2c)

## The Impact of Equality on Productivity (1990-2025)

	Prod <sub>it</sub> = a + b Equal <sub>it</sub> + e <sub>it</sub>			log(Prod <sub>it</sub> ) = a + b log(Equal <sub>it</sub> ) + e <sub>it</sub>		
Equality Index (B50/T10)	144.2***	104.9***	84.2***	0.926***	0.481***	0.197***
(s.e.)	(3.4)	(3.5)	(3.9)	(0.035)	(0.036)	(0.036)
Human Capital Expenditure (% GDP)		174.3***	103.7***		174.3***	103.7***
(s.e.)		(8.2)	(10.3)		(8.2)	(10.3)
incl. Education			343.5***			343.5***
(s.e.)			(31.4)			(31.4)
R2	0.52	0.62	0.64	0.27	0.47	0.55
N.obs	1728	1728	1728	1728	1728	1728

**Interpretation.** Using a cross-country regression (48 main countries) over 1990-2025 period, we find a positive impact of equality on productivity. I.e. hourly productivity increases by 14.42€ if the equality index B50/T10 rises by 10 percentage points (say from 10% to 20%, i.e. from an income scale of 1-to-10 to 1-to-5). If we use a log specification rather than a liner regression, we find that productivity rises by 0.926% if the equality index rises by 1%. The positive impact of equality on growth declines as we introduce human capital expenditure (education + health, public + private, % GDP, average over previous 30 years), and especially when we introduce education, but the equality effect remains positive and significant.

## The Impact of Equality on Productivity (1800-2025)

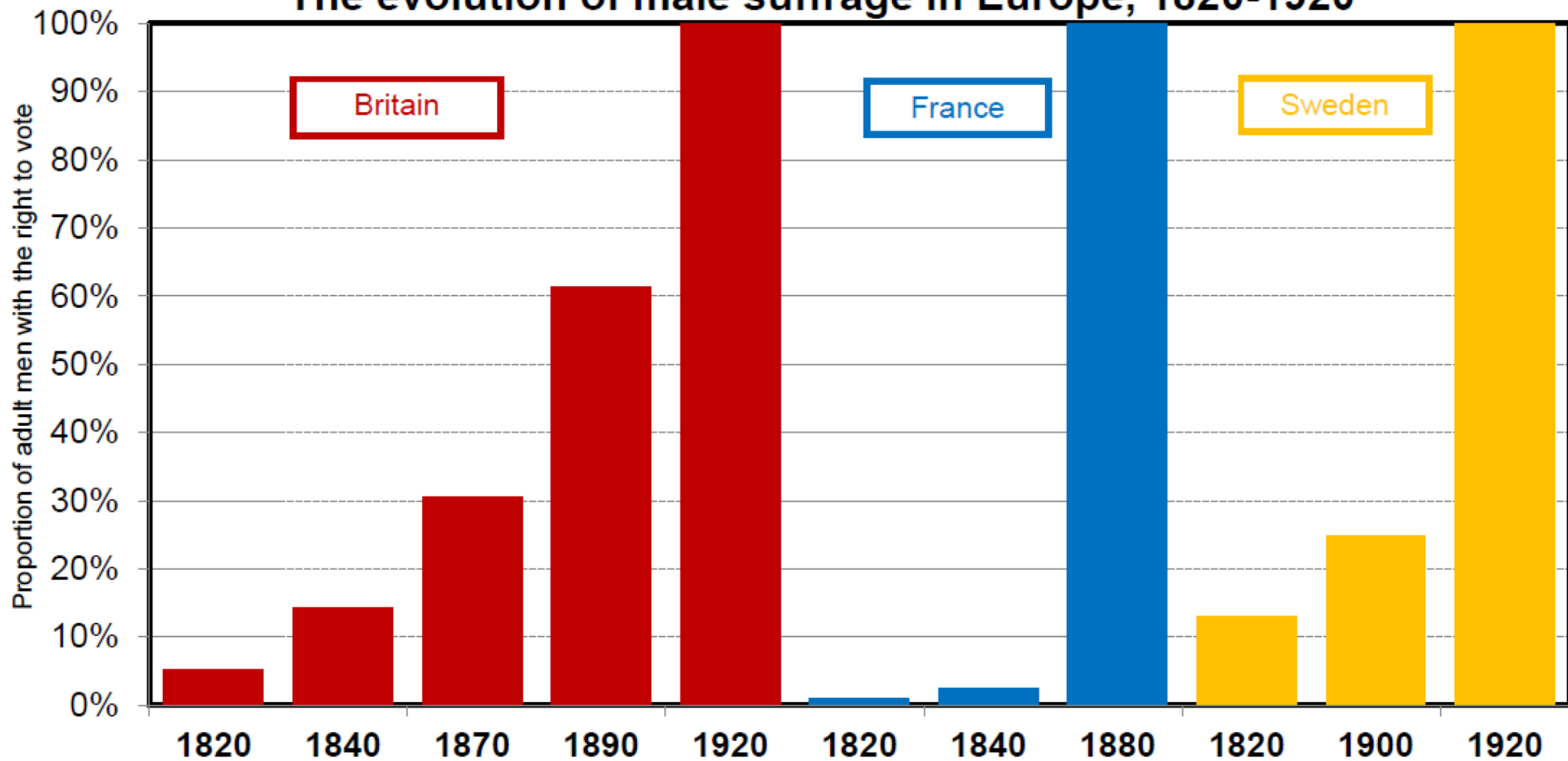
	$ProductivityGrowthRate_{it} = a + b Equal_{it} + e_{it}$		
Equality Index (B50/T10) (s.e.)	0.086*** (0.002)	0.094*** (0.002)	0.090*** (0.004)
Human Capital Expenditure (% GDP) (s.e.)			0.008* (0.004)
Country Fixed Effects	NO	YES	YES
R2	0.11	0.20	0.21
N.obs	9408	9408	9408

**Interpretation.** Using a panel regression (48 main countries) over the 1800-2025 period, we find that the annual productivity growth rate rises by about 0.9% per year (say from 1.0% to 1.9% per year) if the equality index B50/T10 rises by 10 percentage points (say from 10% to 20%, i.e. from an income scale of 1-to-10 to 1-to-5). The effect is virtually unaffected by the inclusion of country fixed effects and human capital expenditure. **Note.** Growth rates are computed as average growth rates over past 30 years. Equality index and human capital expenditure are also computed as averages over past 30 years.

# Political Equality as a Key Determinant of Socioeconomic Equality in the Long-Run

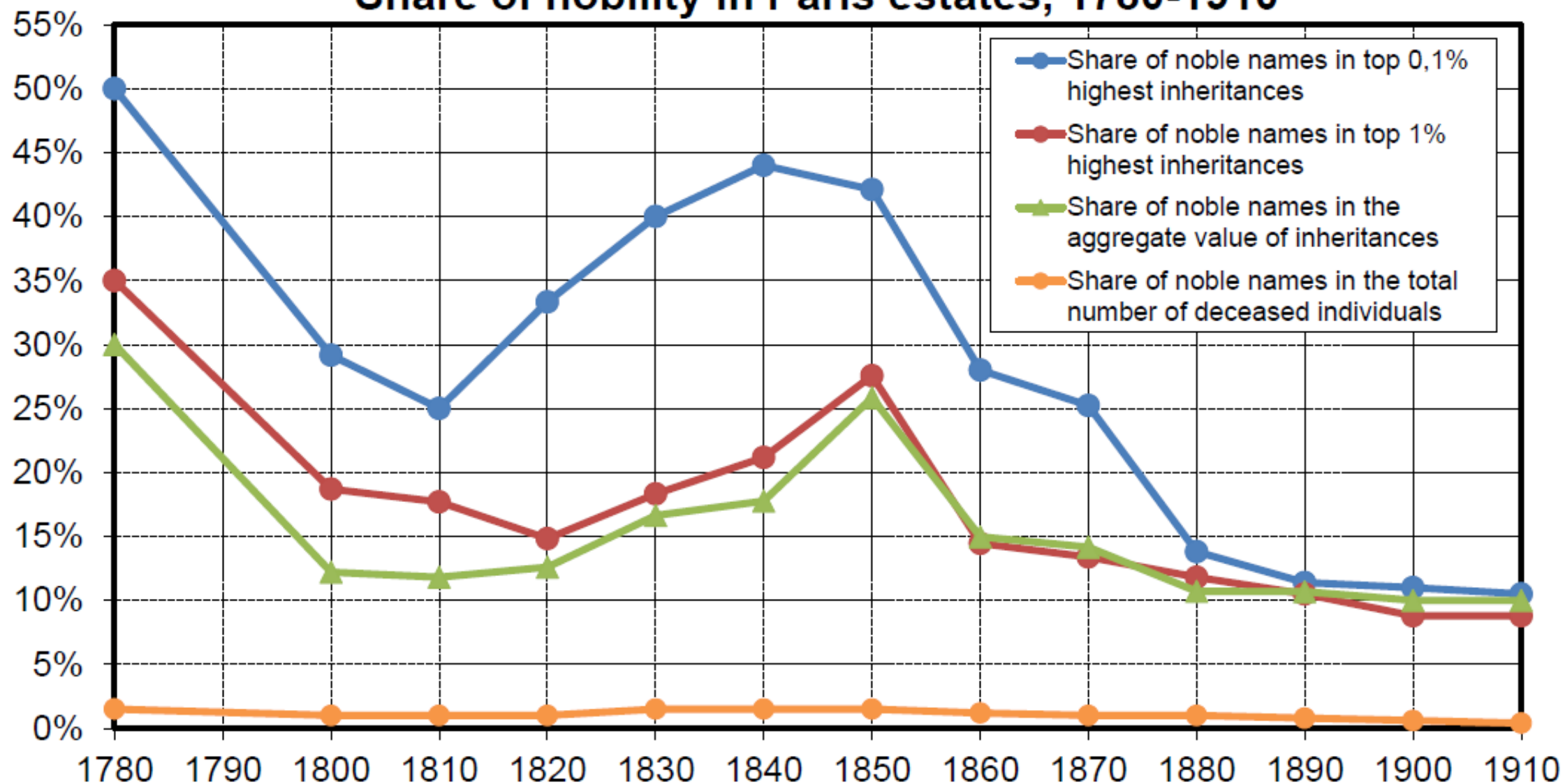
- **Historical evidence demonstrates the key role of political transformations for the rise of equality over time and across societies**
- **French Revolution 1789**: end of political privileges of the aristocracy & the clergy (new National Assembly) → immediate end of fiscal privileges, & major expropriation of church property
- Quasi-universal (male) suffrage 1792-1794: first progressive taxes
- **Censitary suffrage 1815-1848**: return of aristocrats, « milliard des émigrés » (1825), Haïti tribute, etc.
- **Universal male suffrage in 1848-1852 and 1871-1914, but insufficient to deliver major reduction in inequality**: it is the combination of **formal political equality & social struggles** (& sometime major shocks?) which have led to the long-run movement toward more socioeconomic equality

## The evolution of male suffrage in Europe, 1820-1920



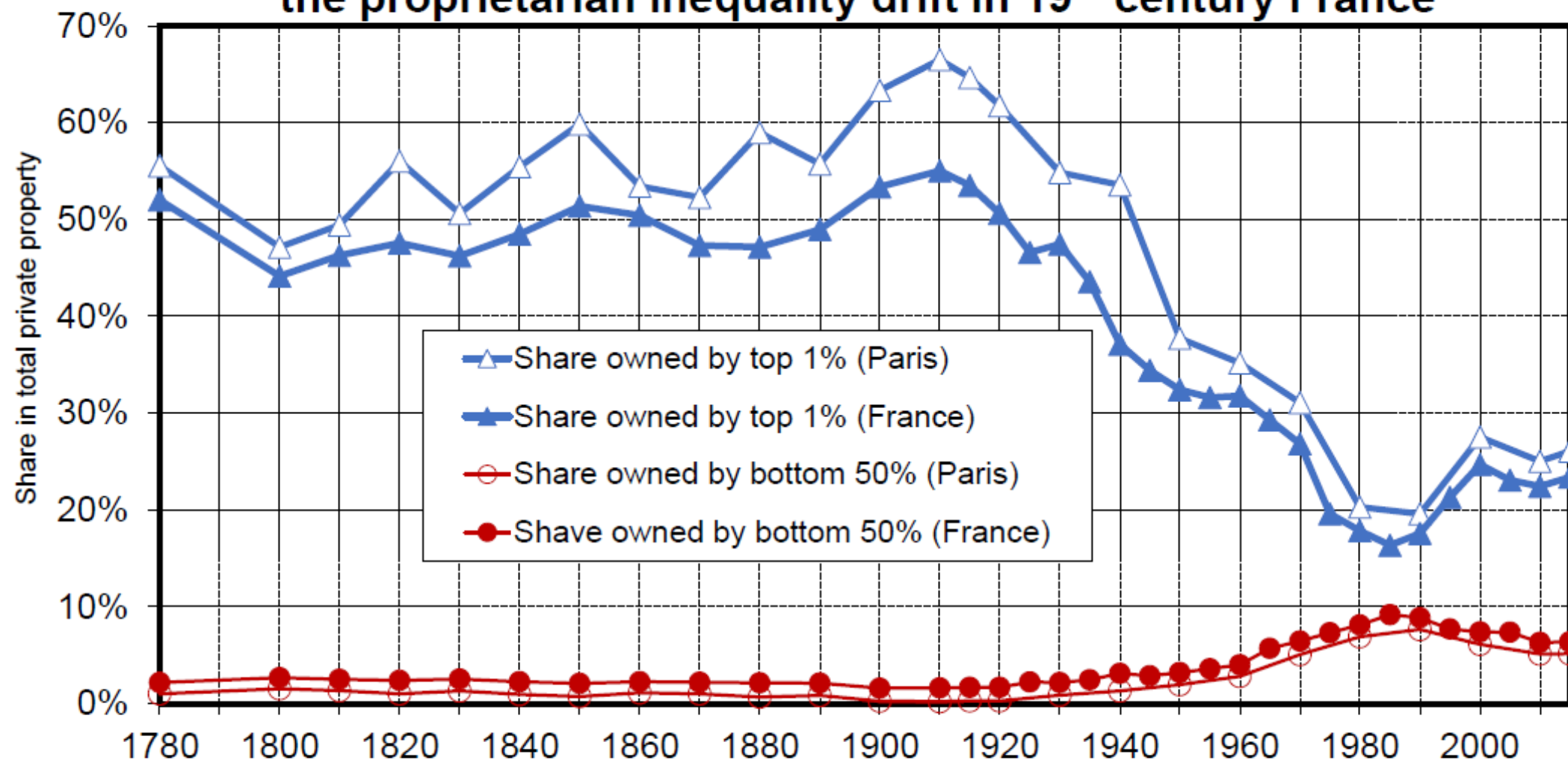
**Interpretation.** The proportion of adult men with the right to vote (taking into account the electoral franchise, i.e. the level of taxes to pay and/or of property to own in order to be granted this right) rose in Britain from 5% in 1820 to 30% in 1870 and 100% in 1920, and in France from 1% in 1820 to 100% in 1880. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 5.3).

## Share of nobility in Paris estates, 1780-1910



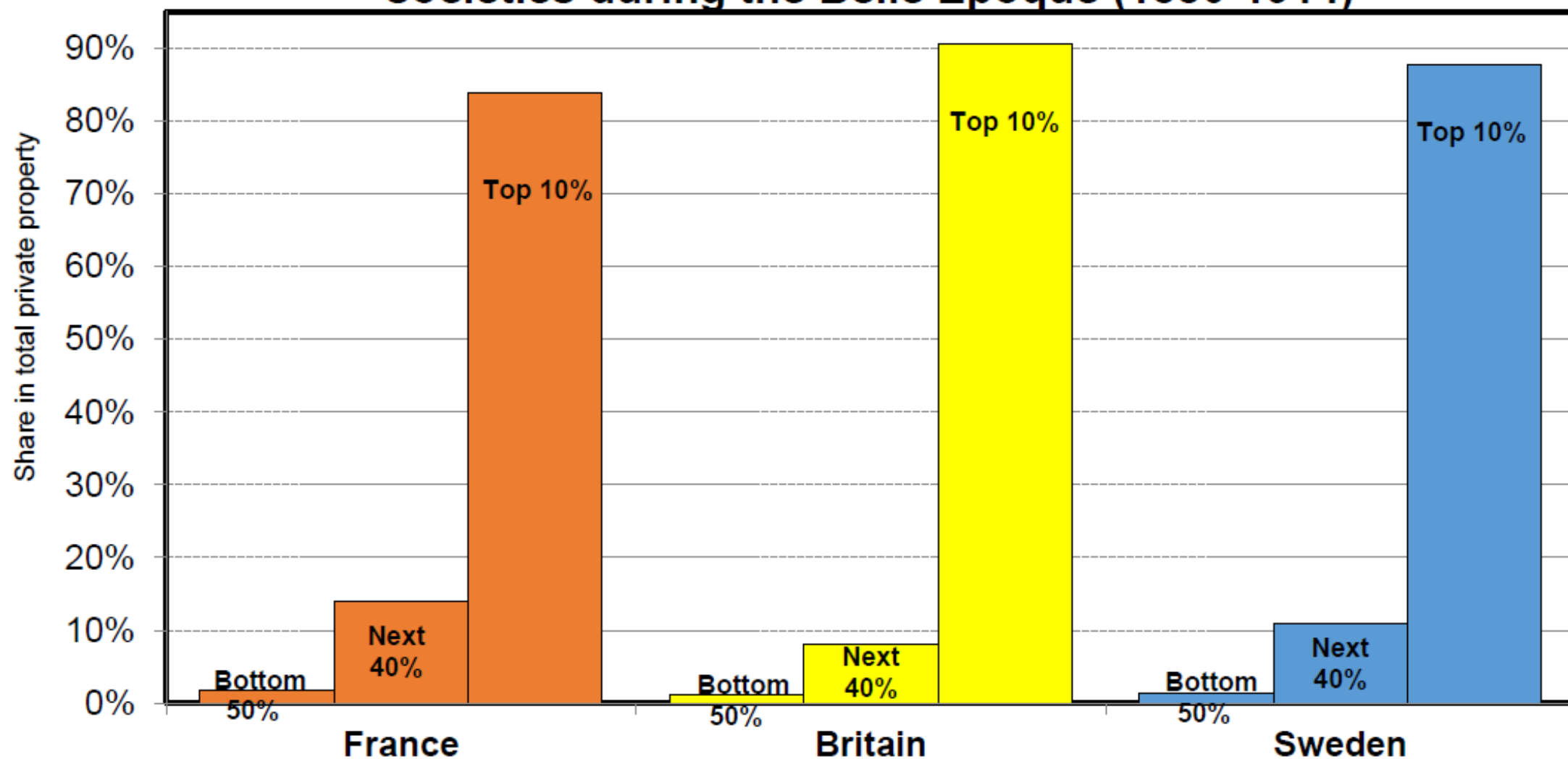
**Interpretation.** The share of noble names among the top 0,1% highest inheritances in Paris dropped from 50% to 25% between 1780 and 1810, before rising to about 40%-45% during the period of censitary monarchies (1815-1848), and finally declining to about 10% in the late 19th century and early 20th century. By comparison, noble names have always represented less than 2% of the total number of deceased individuals between 1780 and 1910. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 2.2).

## The failure of the French Revolution: the proprietarian inequality drift in 19<sup>th</sup> century France



**Interpretation.** In Paris, the richest 1% owned about 67% of total private property in 1910 (all assets combined: real, financial, business, etc.), vs. 49% in 1810 and 55% in 1780. After a small drop during the French Revolution, the concentration of property rose in France (and particularly in Paris) during the 19th century and until World War I. In the long run, the fall in inequality occurred following the world wars (1914-1945), rather than following the Revolution of 1789. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 4.1)..

## Extreme patrimonial inequality: Europe's proprietarian societies during the Belle Epoque (1880-1914)



**Interpretation.** The share the richest 10% in total private property (all assets combined: real estate, business and financial assets, net of debt) was on average 84% in France between 1880 and 1914 (vs. 14% for the next 40% and 2% for the bottom 50%), 91% in Britain (vs 8% and 1%) and 88% in Sweden (vs 11% and 1%). **Sources and series:** see piketty.pse.ens.fr/ideology (figure 5.6).

# The rise of political and socioeconomic equality : the case of the UK

- UK : interesting example of gradual evolution from ternary society to proprietarian society, and finally to social-democratic society (Labour party 1945) (and to neo-prorietarian society since Thatcher 1980s?), always with a Queen/King, a House of Lords and stable institutions (≠ France: opposite extreme: revolutions in 1789, 1848, 1871, etc)
- But British gradualism should not be exaggerated: key role played by major crisis and uncertain trajectories and offshoots, e.g. during the battle over the People's Budget in 1909-1911 (→rise of progressive taxation, fall of the House of Lords) and over Ireland 1860-1920 (→fall of proprietarian-colonial ideology)

- First major shock: Dissolution-expropriation of Monasteries 1530. Conflict between Henry VIII and the pope.
  - Ecclesiastical land and other property expropriated and sold to nobility and bourgeoisie ( $\approx$  French Revolution, but much earlier)
  - Huge reduction of the number of spiritual vs temporal lords in House of Lords: half-half in 14c-15c, as opposed to 460 temporal lords (nobility) vs 28 spiritual lords (bishops) in 17c-19c
- already a decisive step away from trifunctional society (based upon a relative balance of power between clergy and nobility) and toward proprietarian society and ideology

- More generally, Britain has long been characterized by an unusually high concentration of land and other property among a very tiny nobility
- Around 1880, 80% of UK land owned by 7000 families (<0,1% population), including over 50% of UK land owned by 250 families (<0,01% pop)  
(in comparison, French nobility owns only 25%-30% of land in 1789)
- The House of Lords (a few hundred families with hereditary seats) has veto power over all legislation until 1909-1911
- Almost all Prime Ministers come from House of Lords until late 19c-early 20c (Lord Salisbury, PM 1885-1892 and 1895-1902)
- The House of Commons also included many members of nobility: oldest sons of Lords waiting for their seat in House of Lords; youngest sons of Lords choosing a political career in the Commons; other members of titled nobility (baronets, knights) and untitled nobility (gentry)
- Until early 1860s, about 75% of the members of House of Commons belong to the nobility (<0,5% of the population)

- The battle for universal suffrage in Britain: about 5% of adult males have the right to vote in 1820s → 14% after the 1832 electoral reform → 30% after the 1867 reform → 60% after the 1884 reform
  - Other key reform: vote secrecy 1872 (before that: many uncontested seats)  
→ between the 1860s and 1880s, massive democratization of the House of Commons → increased political legitimacy of House of Commons, pro-people turn of the Liberal Party (ex-Whigs) (replaced by Labour Party during 20c)  
(→ 100% male suffrage UK 1918, female 1928)
- (more gradual process in the UK than in France: 1% 1815-1848 (censitary monarchies) → 100% 1871 Third Republic)

# The People's Budget, Ireland and the fall of the House of Lords (1909-1911)

- But House of Lords still had veto power over all laws until the crisis of 1909-1911
  - 1894: Lord Salisbury's referendum theory: « If the Commons pass a law that was not explicitly announced to the electorate before the election, then the Lords have the legitimacy to oppose it »
- Lords from Conservative Party (Tories) put their veto on Gladstone (Liberal) bill on Ireland and regain power in 1895
- But in 1909 Liberals (Lloyd George) are back to power and provoke the Lords by adopting the « People's Budget »: creation of a general progressive income tax, increased land tax and inheritance taxes on large property owners, so as to pay for a large rise in social spending (pensions etc.)
  - Very popular bill, but Lords choose to put their veto on the People's Budget
  - Lloyd George then asks the Commons to adopt a constitutional bill stating that Lords will not be able to veto money bills any more (and can veto other bills for at most one year) → new veto by the Lords → Lloyd George calls for new elections

- Liberals win again the elections, and the Lords finally accept in 1911 to vote the People's Budget and the constitutionnal law (under threat by George V to nominate 500 new Lords)

(see Cannadine, *The decline and fall of British aristocracy*, YUP 1990)

→ beginning of a long process leading to a large reduction of inequality in Britain 1914-1970: rise of top progressive tax rates (up to 98% in post-WW2 period), absolute majority at the Commons for Labour Party in 1945, creation of National Health Service, etc.

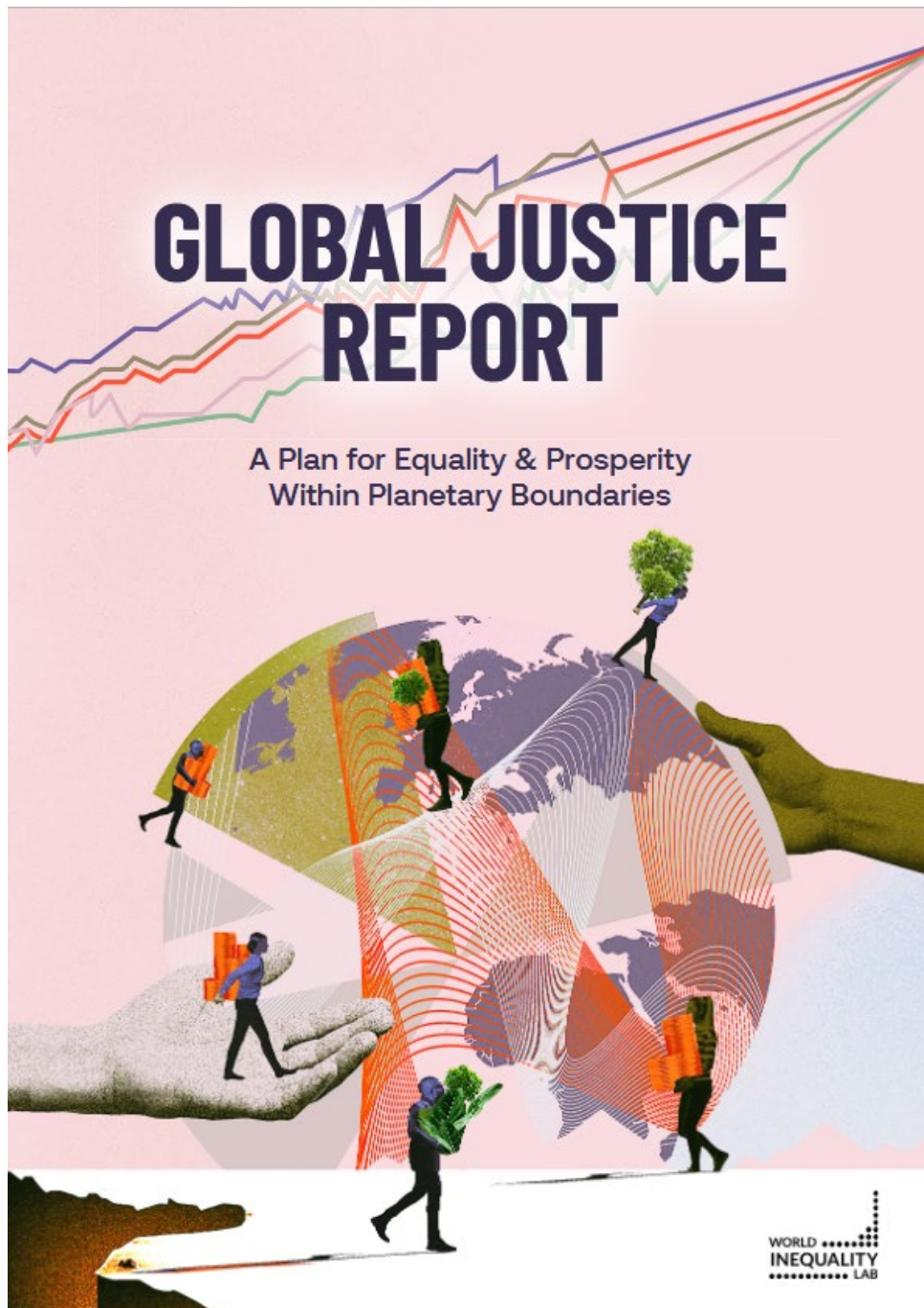
- Other important step in the weakening of UK proprietary ideology: the Ireland crisis
- Ireland in the 19c: quasi-colonial situation. Limited political rights for the Catholic majority (landless peasants) + huge concentration of land among absentee landlords (British Lords)
- 1845-1848 famine: 1M died + 1,5M emigrated out of total pop of 8M  
(comparable in magnitude and ideology to Bengal famine 1943-1944: 4M died out of 50M) (see Sen, [\*Poverty and famines\*](#), OUP 1981)
- Beginning in 1860s-1870s, strong Irish movement to occupy parcels, stop paying rent and push the British landlords out
  - long sequence of « anti-terrorists bills » but also of Irish Land Acts 1870, 1891, 1903 gradually freezing rent payments and allowing peasants to purchase land at subsidized prices
  - step-by-step, these laws weaken the legitimacy of proprietary ideology and lead to substantial land redistribution in a legal form, even before Irish Independence 1921-1937

# One man, 100 votes: extreme censitary inequality in Sweden (1865-1911)

- Sweden is generally regarded as a country with strong cultural egalitarian roots
- But in 1865-1911 it was the opposite: Sweden had the most extreme censitary inequality system in Europe
- Key lesson: there is no egalitarian or inegalitarian culture as such
- Inequality regimes depend on the balance of power between different social groups and political ideologies, and the prevailing equilibrium and dominant discourse can change very fast, in one way or another

- Swedish Riksdag 1527-1865: four parliamentary chambers in order to represent the nobility, the clergy, the urban bourgeoisie and the land-owning peasantry. Separate votes among the four orders (like in French Etats généraux), but nobility over-represented in committees and government, and king has decisive vote in case of tied vote 2-2
- As compared to France and Britain, Sweden had centralized censuses giving an official definition to the four orders, and in particular to the nobility (<0,5% population)
- 1865 constitutional reform: upper house elected by large property owners (<1% population), lower house elected by broader group (≈20% population), but with graduated voting rights depending on one's taxes and property (*fyrkar* formula): from 1 vote to 100 votes in national elections

- In municipal elections, there was no maximum number of votes: very large property owners could have an infinite number of votes
- In effect, there were several dozen municipalities in Sweden where one voter had more than 50% of the voting right (including the municipality of the Prime Minister in the 1880s, Earl Arvid Posse)
- Corporations also had the right to vote in municipal elections, in proportion to their assets and the taxes they paid
- Electoral reform in 1911, universal suffrage 1919-1921: huge popular mobilisation, social-democrats took power almost permanently in 1932-2004 and used the country's state capacity and administration for a completely different political project, so that Sweden became highly egalitarian (and also much richer)
- See E. Bengtsson, [The Swedish Sonderweg in Question: Democratization and Inequality in Comparative Perspective, c. 1750–1920](#), Past and Present 2019

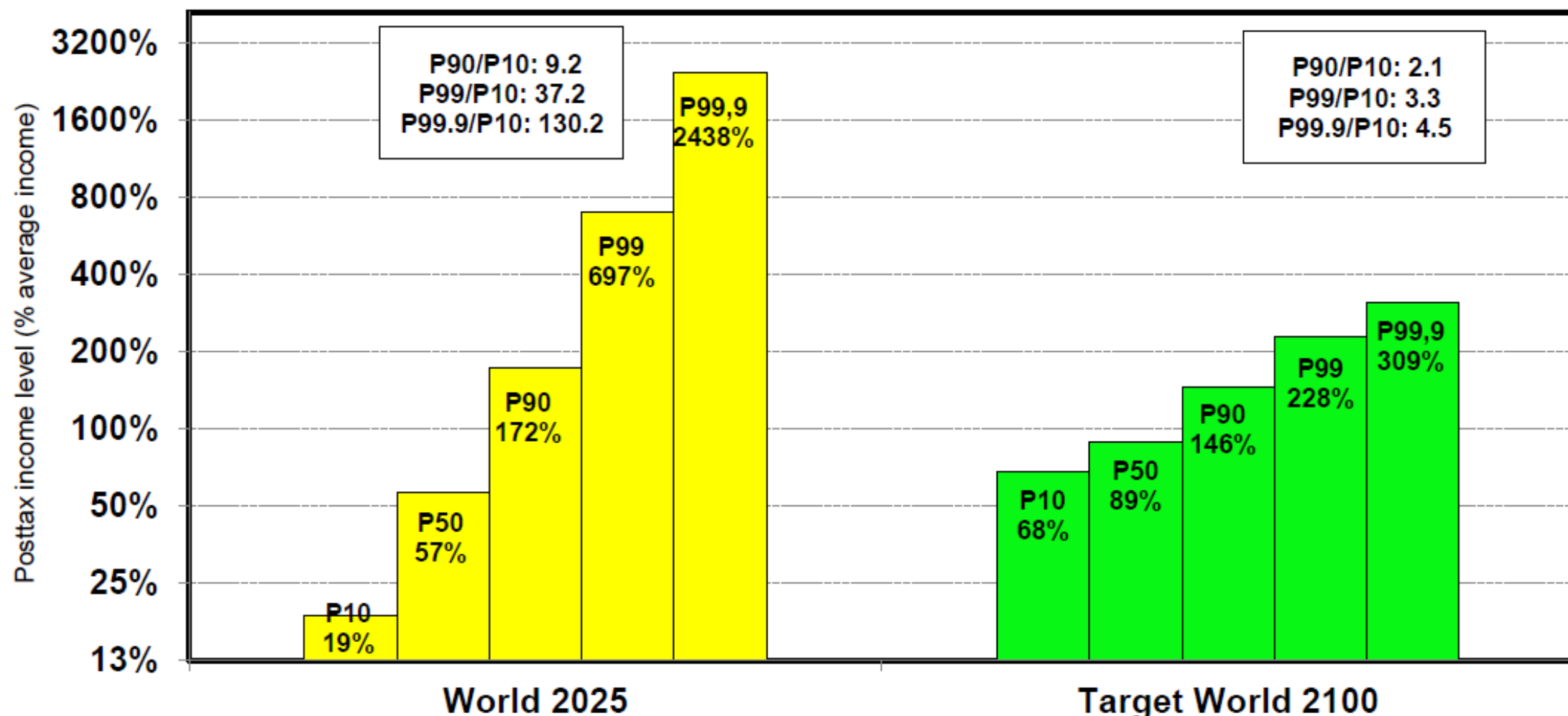


## Are We on the Road to Global Equality?

**GJR: the only way to reconcile prosperity for all countries and planetary habitability is a combination of energy transition, sufficiency (work time reduction, shift from material to immaterial sectors, change in food habits) & inequality compression (both to finance climate invt & ensure political support of bottom 90-95% in the North)**

**This would require strong pressure from global South & a new international order, including a shift from global plutocracy to global democracy**

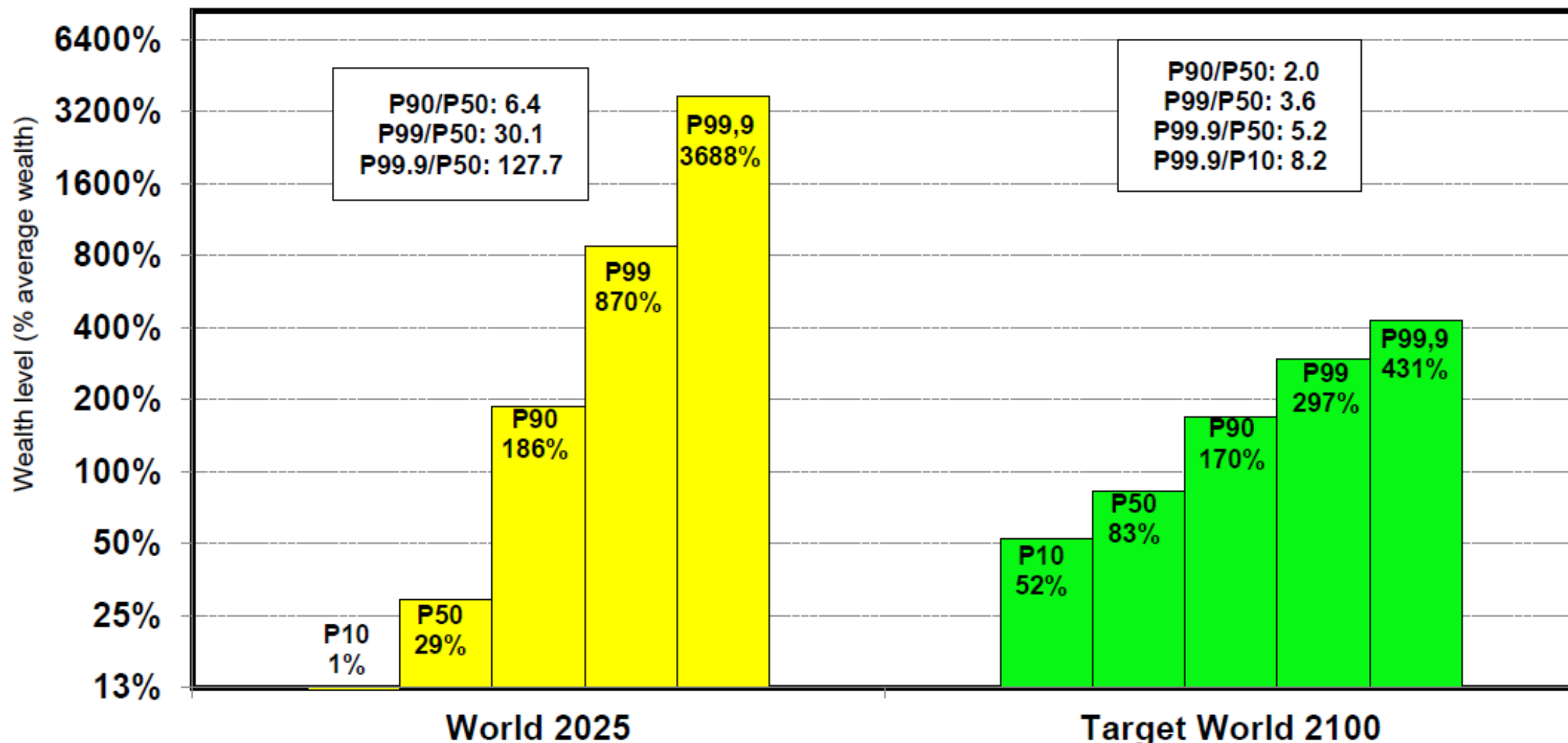
## Global Justice: an Income Scale of 1 to 5



**Interpretation.** According to the Global Justice Platform, the P99/P10 income ratio is scheduled to fall to 3.3 in all countries by 2100, and the ratio P99,9/P10 to 4.5, with a maximum income gap of 1 to 5.

**Notes.** P10 = percentile 10, P50 = percentile 50 (median), P99 = percentile 99. **Sources and series:** gjp.wid.world (F2.11a)

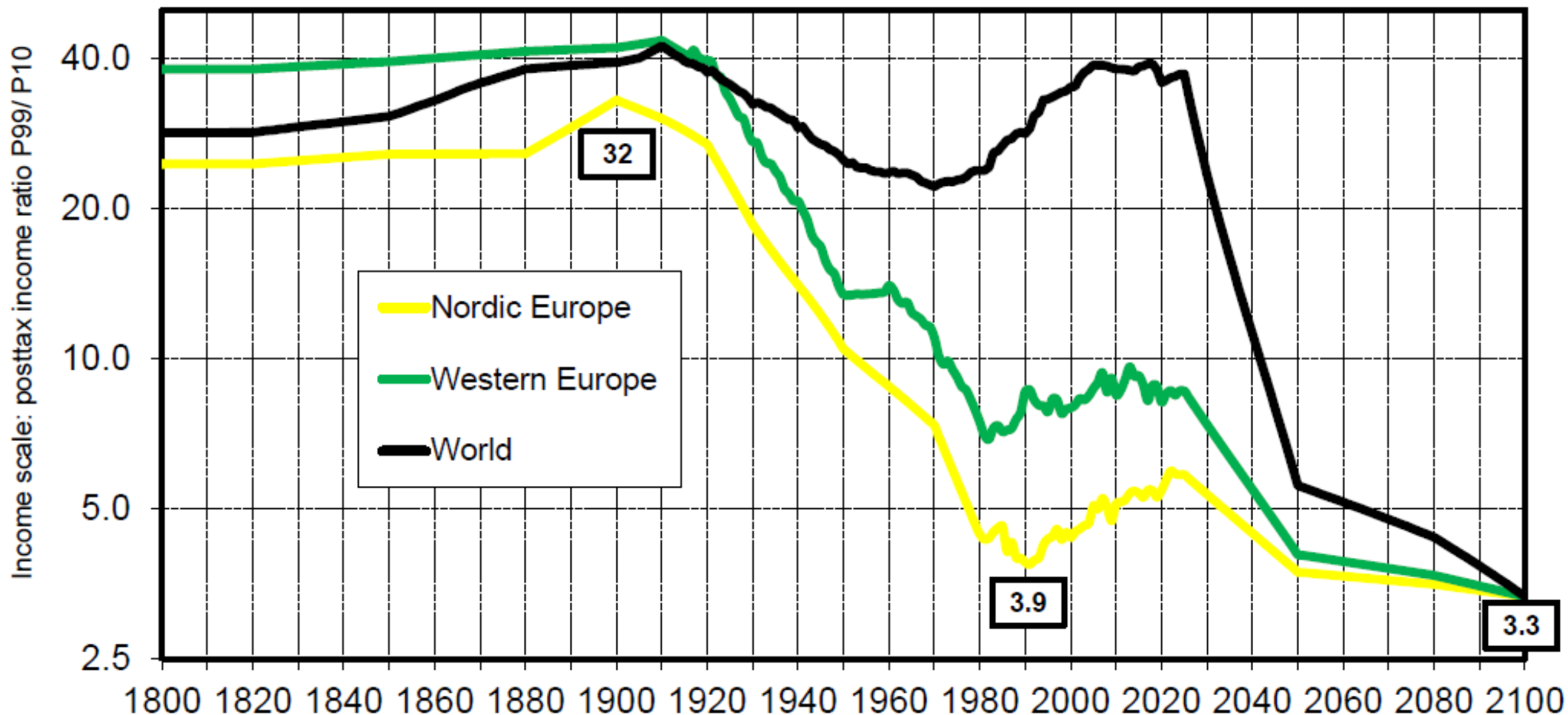
## Global Justice: a Wealth Scale of 1 to 10



**Interpretation.** According to the Global Justice Platform, the P99/P50 wealth ratio is scheduled to fall to 3.6 in all countries by 2100 and the ratio P99.9/P50 to 5.2, with a maximum wealth gap of 1 to 10

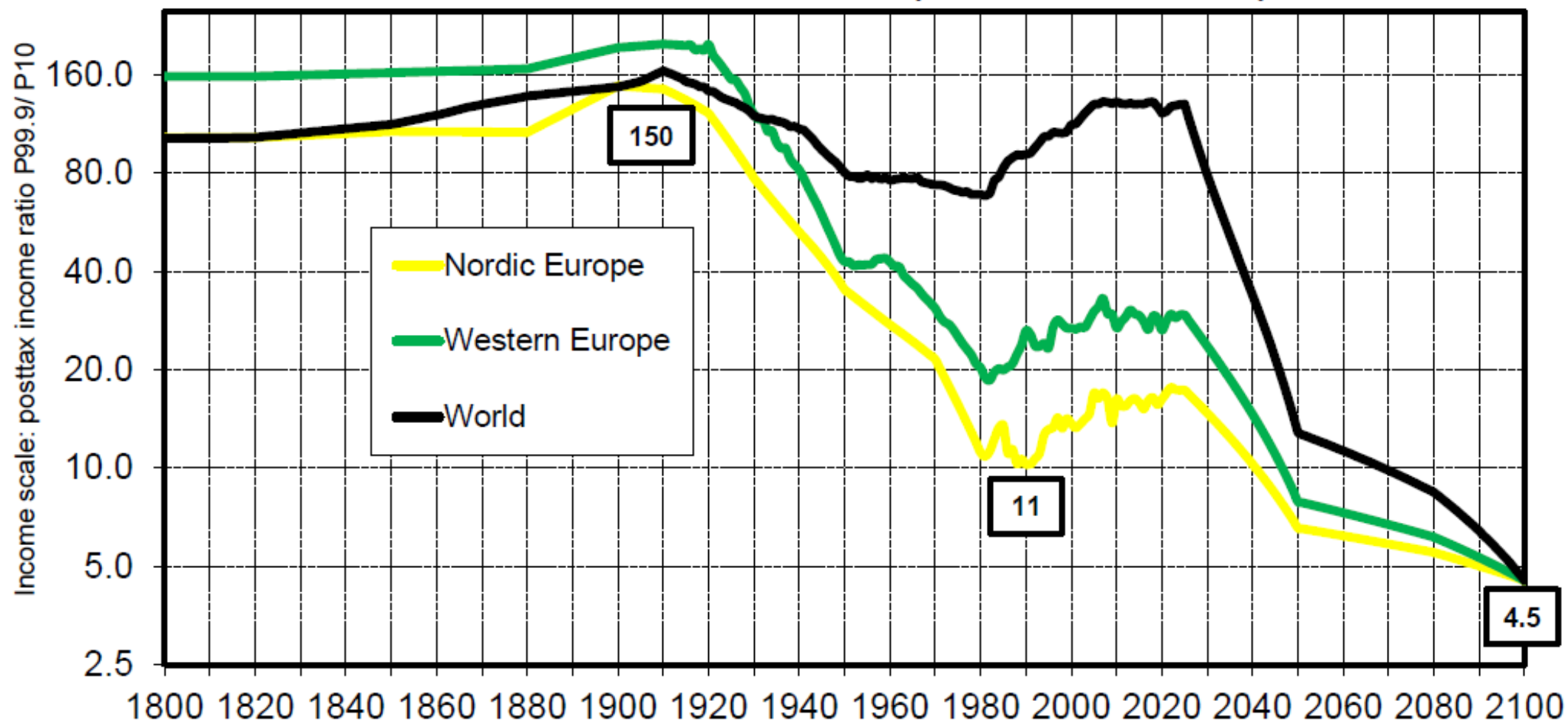
**Notes.** P10 = percentile 10, P50 = percentile 50 (median), P99 = percentile 99, etc. **Sources and series:** gjp.wid.world (F2.11b)

## Global Justice: A Compression of the Income Scale in Line with Historical Trends (Ratio P99/P10)



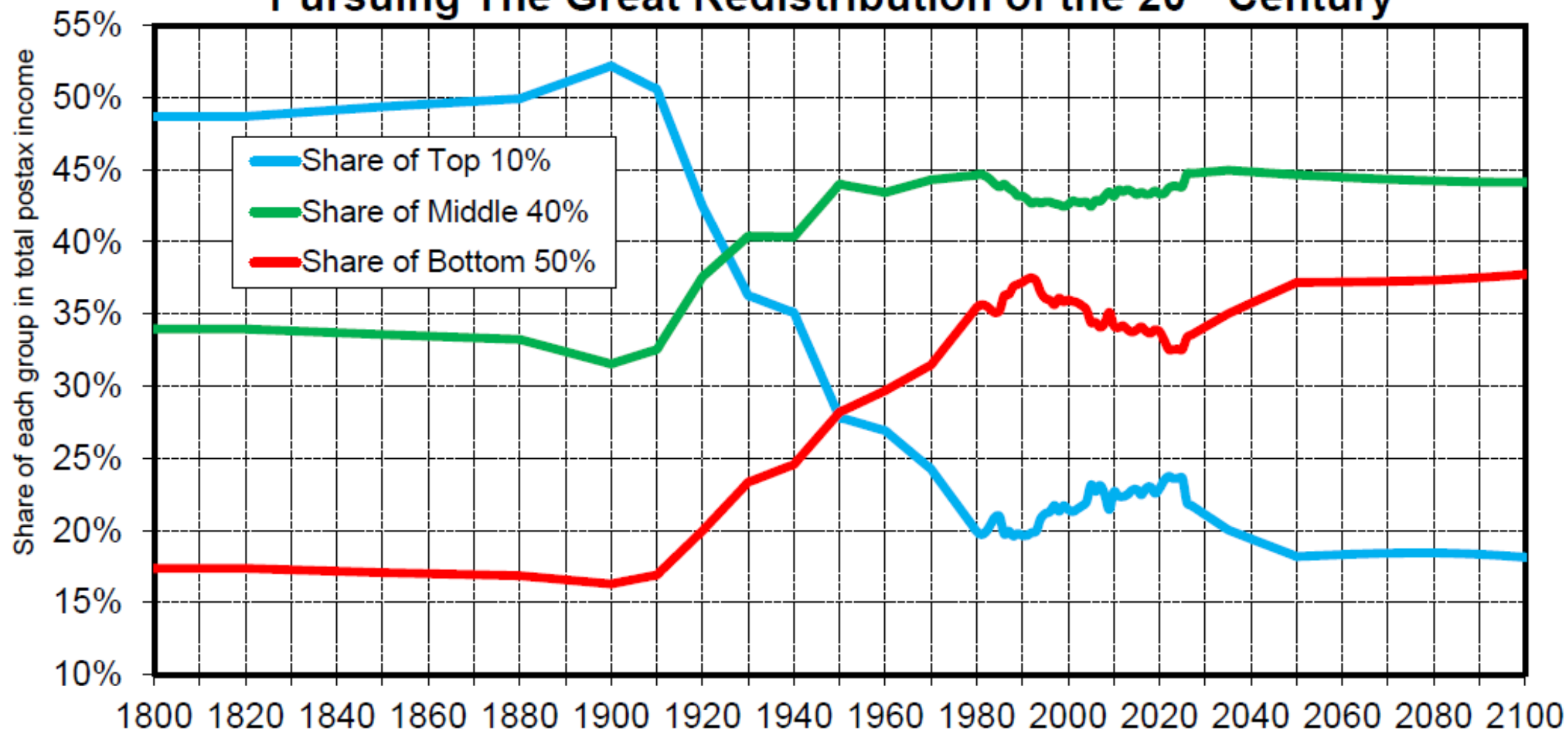
**Interpretation.** According to the Global Justice Platform, the income scale, expressed as the ratio between the post-tax income threshold of the 99th percentile and that of the 10th percentile, is projected to decline globally from about 37 today (ratio of population-weighted country thresholds) to 3.3 by 2100. Such a compression of the income scale is similar in magnitude to historical developments observed in Western and Nordic Europe, where the P99/P10 ratio declined from about 32 in 1900 to 3.9 in 1990. **Sources and series:** gjp.wid.world (F2.12a)

## Global Justice: A Compression of the Income Scale in Line with Historical Trends (Ratio P99.9/P10)



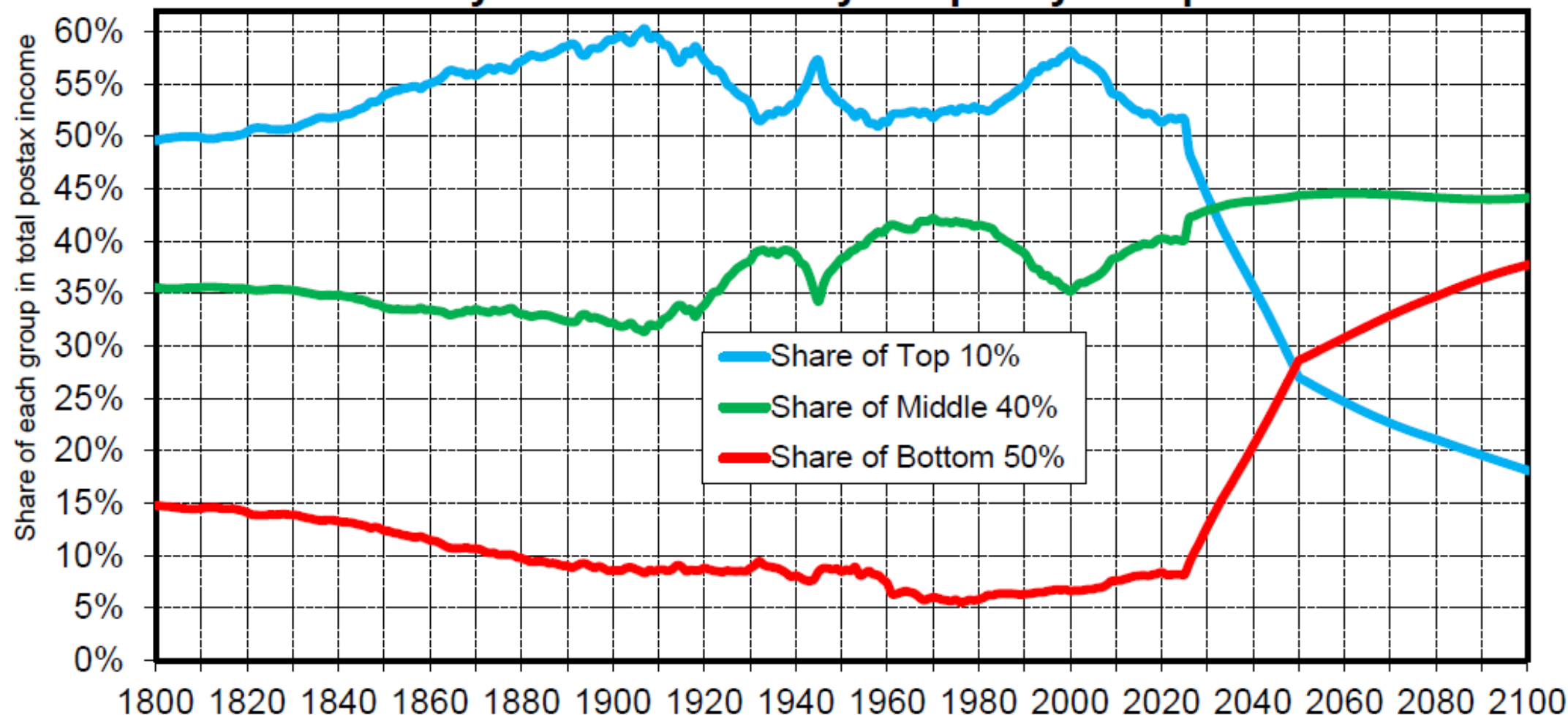
**Interpretation.** According to the Global Justice Platform, the income scale, expressed as the ratio between the post-tax income threshold of the 99.9<sup>th</sup> percentile and that of the 10<sup>th</sup> percentile, is projected to decline globally from about 130 today (ratio of population-weighted country thresholds) to 4.5 by 2100. Such a compression of the income scale is similar in magnitude to historical developments observed in Western and Nordic Europe, where the P99.9/P10 ratio declined from about 150 in 1900 to 11 in 1990. **Sources and series:** gjp.wid.world (F2.12b)

## Income Shares in Nordic Europe 2026-2100: Pursuing The Great Redistribution of the 20<sup>th</sup> Century



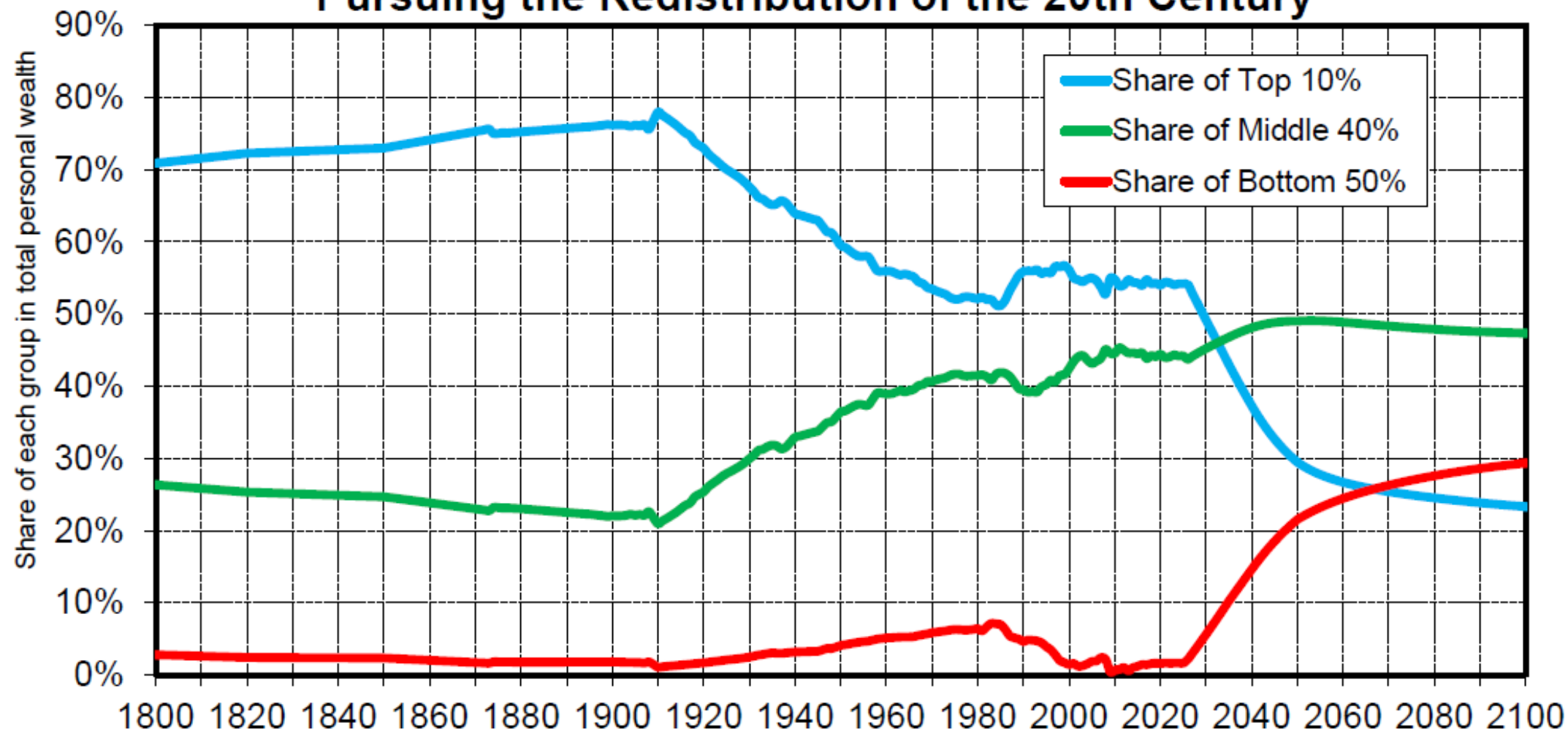
**Interpretation.** In Nordic Europe (which we define as the average Sweden-Denmark-Norway-Netherlands), the share of the top 10% highest incomes in total posttax income is projected to pursue its historical fall from 52% in 1910 to 24% in 2025 and 18% by 2100. Similarly, the bottom 50% share is projected to rise from 17% in 1910 to 33% in 2025 and 38% in 2100. The projected inequality compression for the 21<sup>st</sup> century is relatively modest as compared to the compression which already took place over the 1910-1990 period. **Sources and series:** gjp.wid.world (F2.13a)

## Global Income Shares 2026-2100: Combining Between-Country & Within-Country Inequality Compression



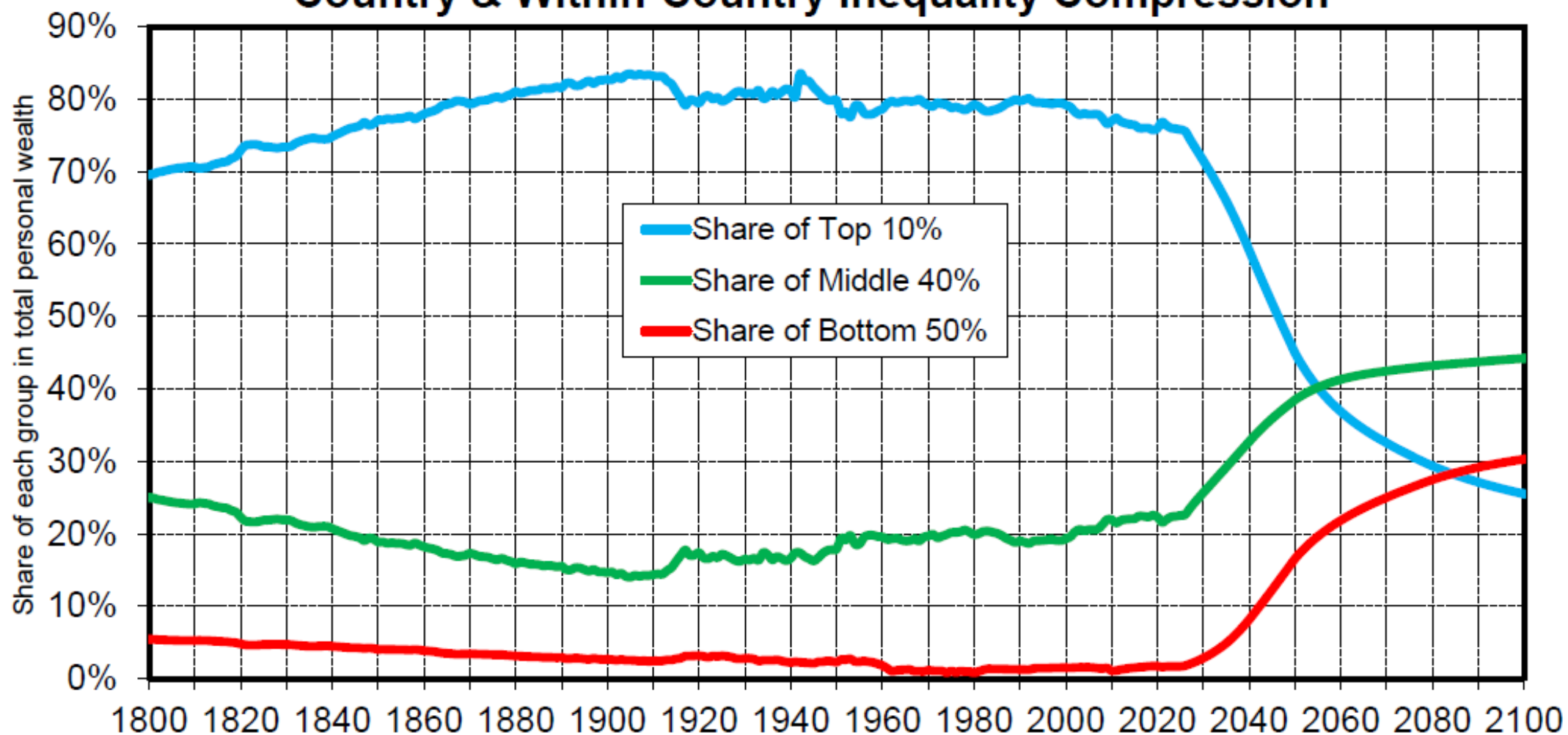
**Interpretation.** According to the Global Justice Platform, the share of the top 10% highest incomes in total posttax income in the world is projected to decline from 52% in 2025 to 18% in 2100. The share of the global bottom 50% in posttax income is projected to increase from 8% in 2025 to 38% in 2100, and for the middle 40% from 40% today to 44% in 2100. These changes are a combined effect of between-country income convergence and within-country income compression (in line with long-run trends in Nordic Europe). **Sources and series:** gjp.wid.world (F2.14a)

## Wealth Shares in Nordic Europe 2026-2100: Pursuing the Redistribution of the 20th Century



**Interpretation.** In Nordic Europe (which we define as the average Sweden-Denmark-Norway-Netherlands), the share of the top 10% highest wealth holders in total personal wealth fell from nearly 80% in 1910 to about 50-55% since 1980-1990. We project that the top 10% share will fall below 25% by 2100, mostly benefit of the bottom 50%. This follows from the projected compression of income inequality and flattening of saving rate profiles (an evolution which could be facilitated by the introduction of universal inheritance). **Sources and series:** gjp.wid.world (F2.13b)

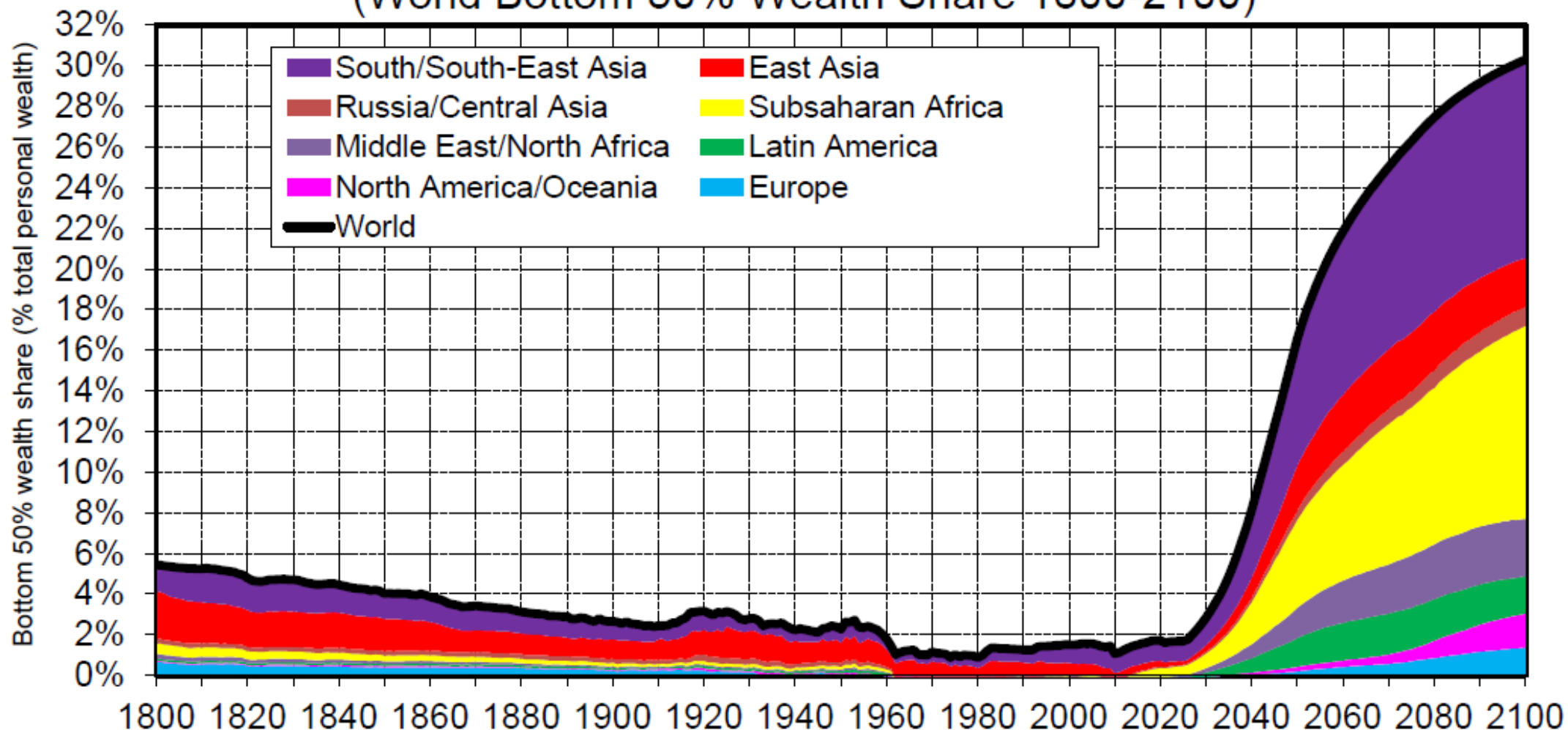
## Global Wealth Shares 2026-2100: Combining Between-Country & Within-Country Inequality Compression



**Interpretation.** According to the Global Justice Platform, the share of the top 10% highest wealth holders in total household wealth in the world is projected to decline from 76% in 2025 to 25% in 2100. The share of the global bottom 50% household wealth is projected to increase from 2% in 2025 to 30% in 2100, and for the middle 40% from 23% in 2025 to 44% in 2100. These changes are a combined effect of between-country wealth convergence and within-country wealth compression. **Sources and series:** gjp.wid.world (F2.14b)

## The Rise of the Bottom 50%

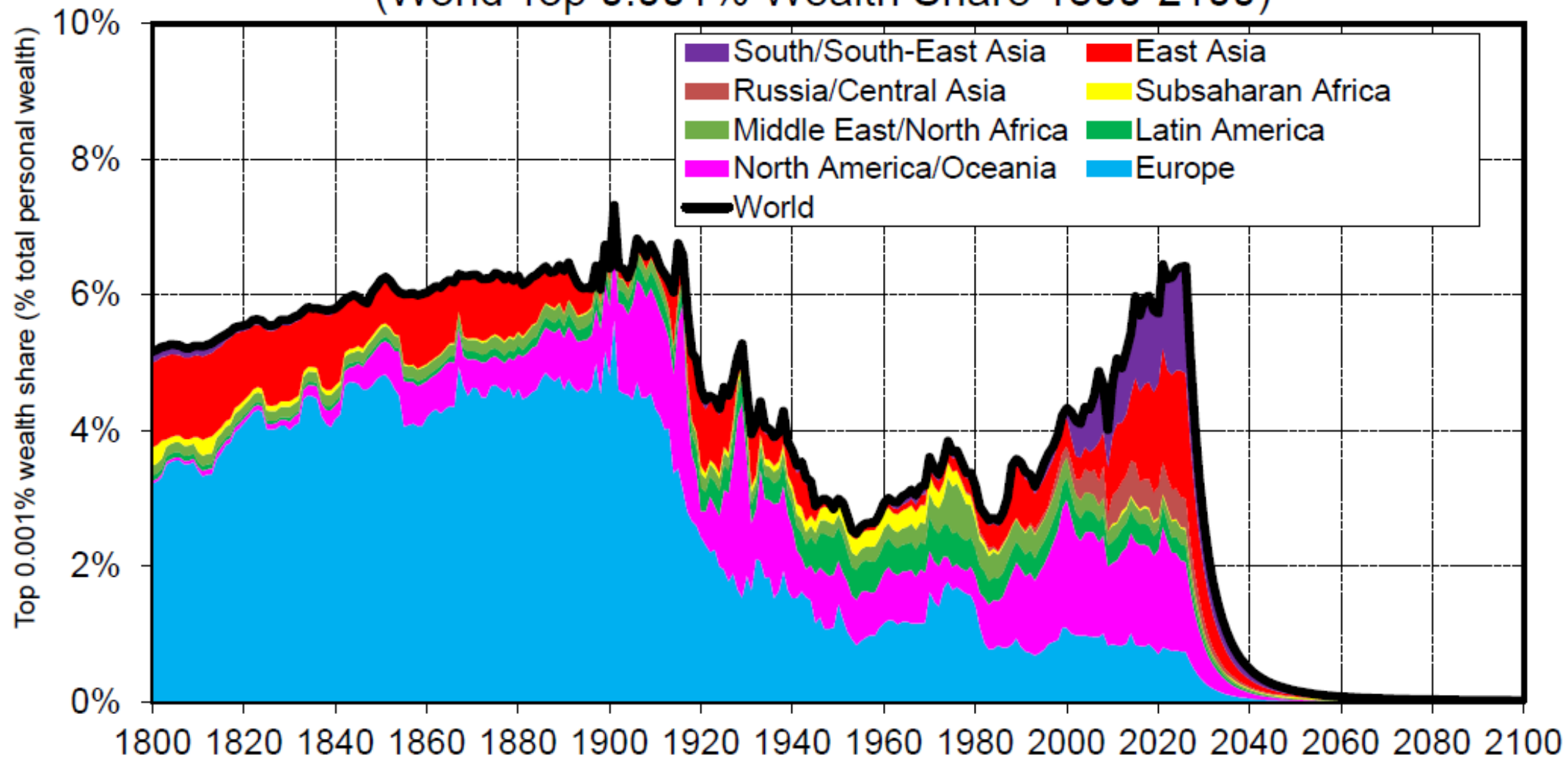
(World Bottom 50% Wealth Share 1800-2100)



**Interpretation.** According to the Global Justice Platform, the share of the bottom 50% wealth holders in total personal wealth is projected to increase from 2% in 2025 to 30% in 2100. The country composition in 2100 follows the regional shares in global population in 2100 because average wealth and wealth distributions equalize between countries. **Sources and series:** gjp.wid.world (F2.15a)

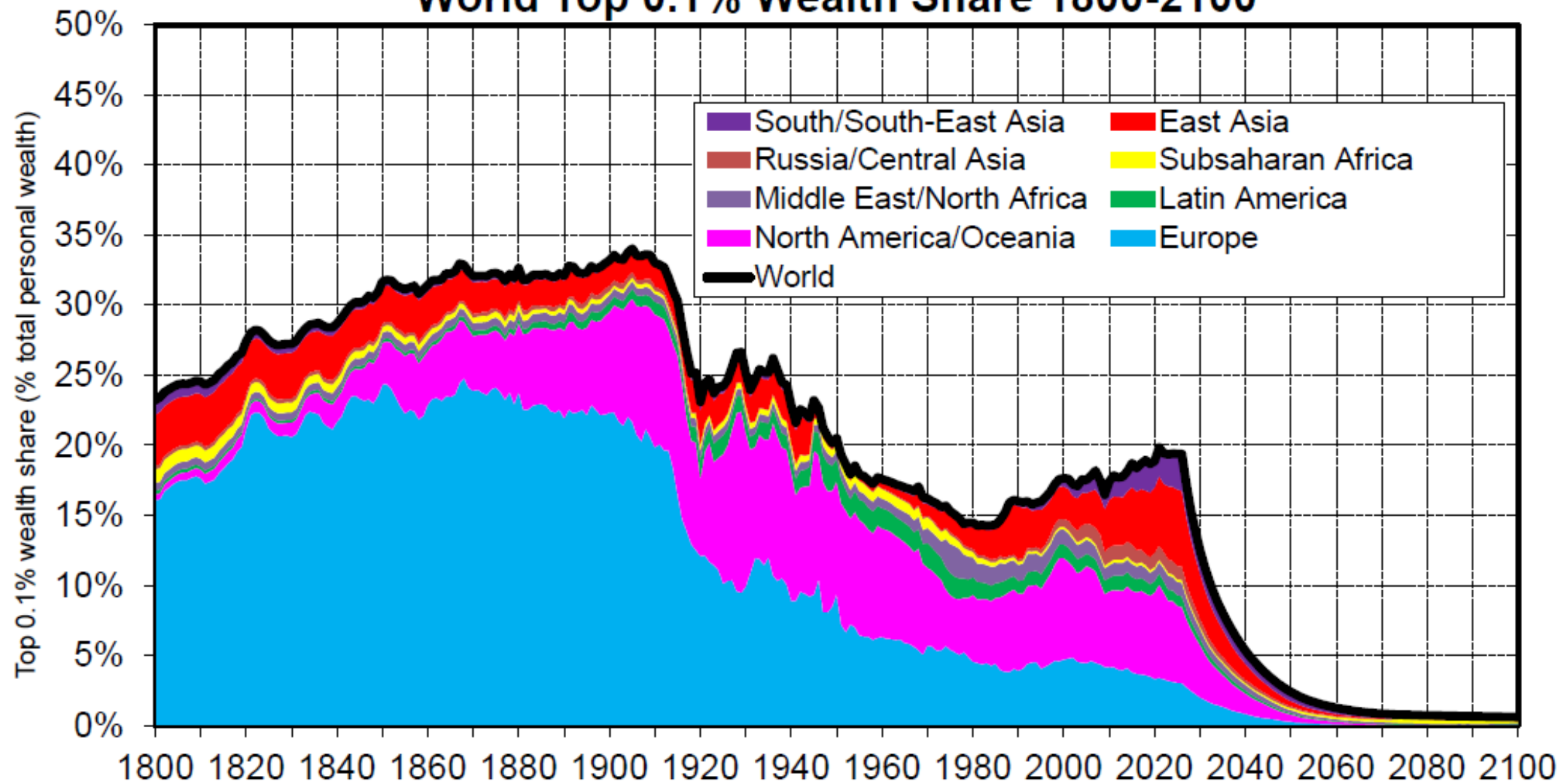
# The Rise and Fall of the Billionaire Class

(World Top 0.001% Wealth Share 1800-2100)



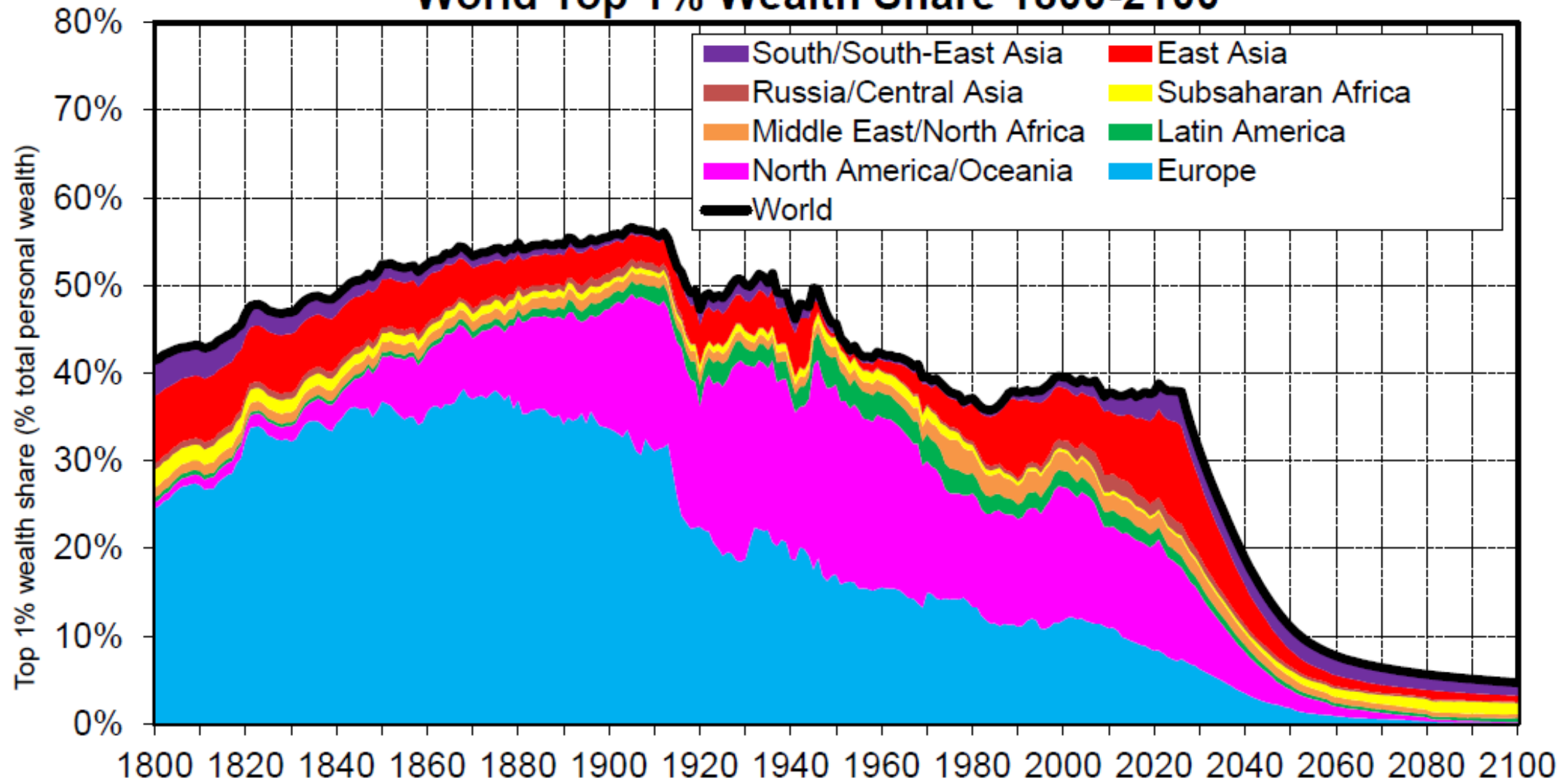
**Interpretation.** According to the Global Justice Platform, the share of the top 0.001% highest wealth holders in total personal wealth is projected to decrease from 6.4% in 2025 to 0.05% in 2100. In 2025, the group of the top 0.001% corresponds approximately to the group of billionaires (about 80 thousand individuals with average per capita wealth around 500 million Euros). **Sources and series:** gjp.wid.world (F2.15b)

## World Top 0.1% Wealth Share 1800-2100



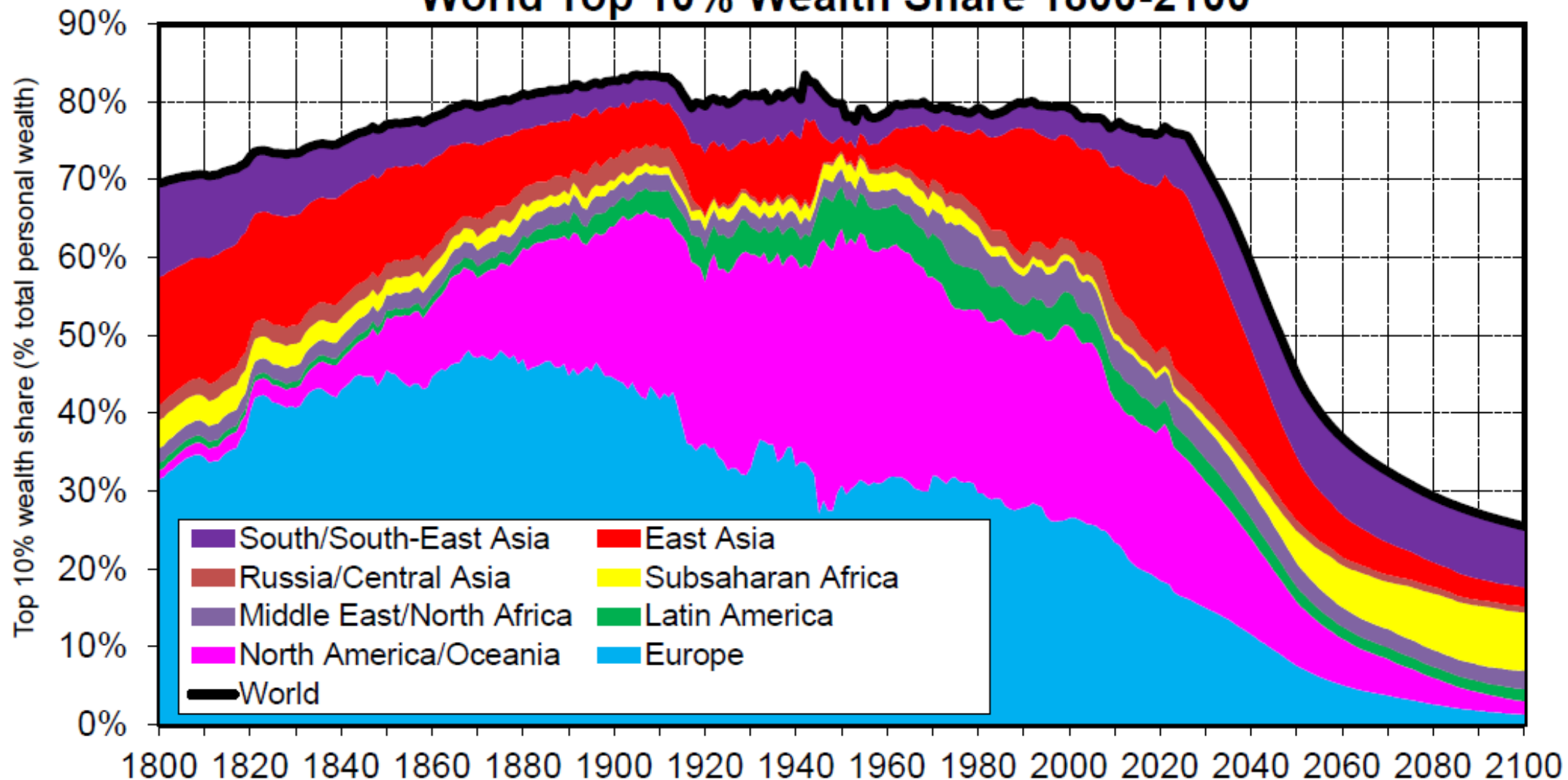
**Interpretation.** According to the Global Justice Platform, the share of the top 0.1% highest wealth holders in total personal wealth is projected to decrease from 20% today to 0.6% in 2100. **Sources and series:** gjp.wid.world (K1j)

## World Top 1% Wealth Share 1800-2100



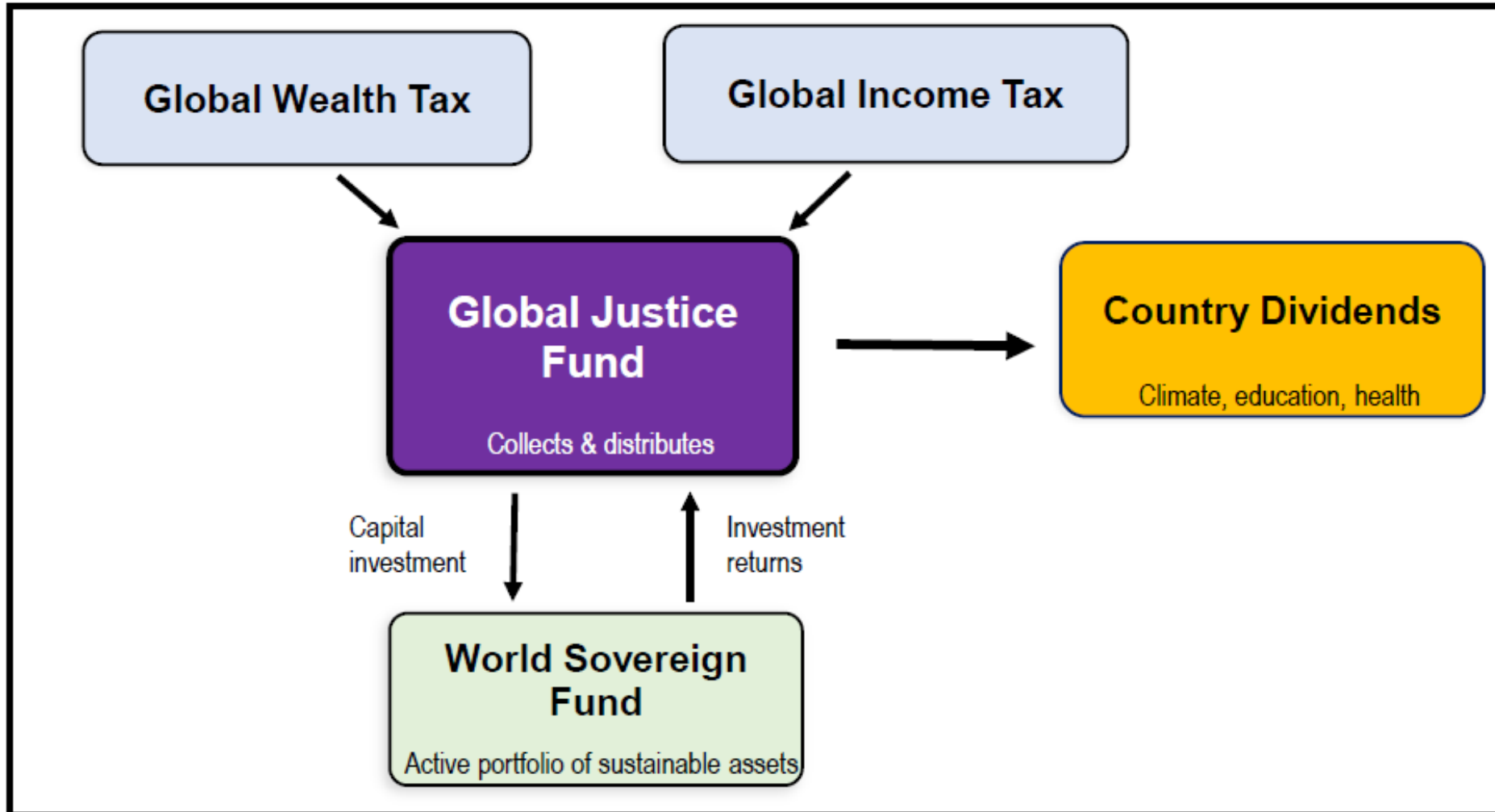
**Interpretation.** According to the Global Justice Platform, the share of the top 1% highest wealth holders in total personal wealth is projected to decrease from 38% today to 5% in 2100. The country composition in 2100 follows the regional shares in global population in 2100 because average wealth and wealth distributions equalize between countries. **Sources and series:** gjp.wid.world (K1i)

## World Top 10% Wealth Share 1800-2100



**Interpretation.** According to the Global Justice Platform, the share of the top 10% highest wealth holders in total personal wealth is projected to decrease from 75% today to 35% in 2100. The country composition in 2100 follows the regional shares in global population in 2100 because average wealth and wealth distributions equalize between countries. **Sources and series:** gjp.wid.world (K1g)

# The Global Justice Platform



**Interpretation.** The key element of the Global Justice Platform is the Global Justice Fund, which collects revenues from a global wealth tax and a global income tax, which are then invested and yield returns through a World Sovereign Fund, an active portfolio of sustainable assets. The Global Justice Fund distributes country dividends to finance massive investments in climate, infrastructure, education and health. **Sources and series:** [gjp.wid.world](https://www.gjp.wid.world) (F2.1)

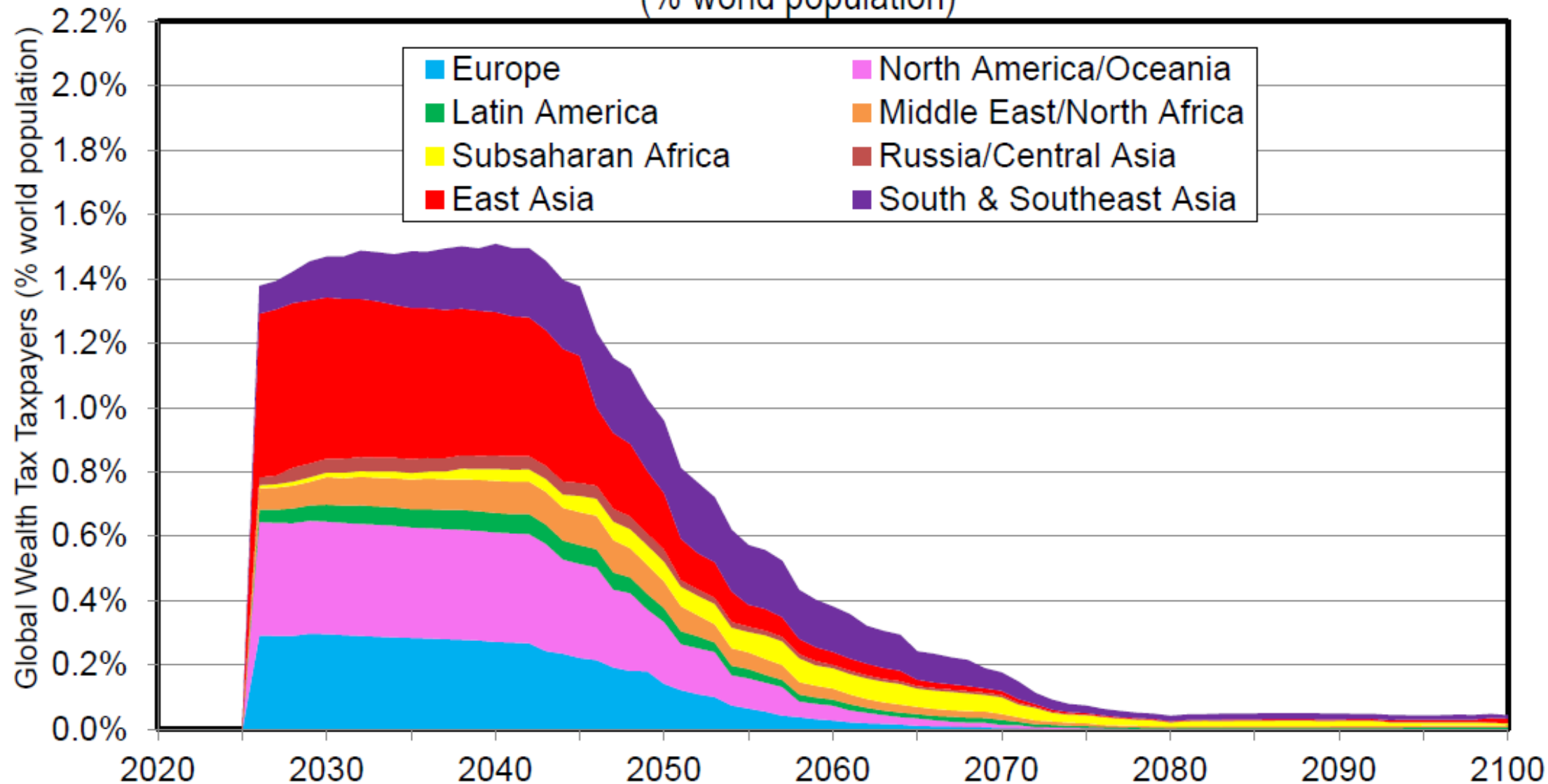
## Global Justice Fund: Progressive Rates Used for the the Global Wealth Tax, 2026-2100

Multiple of average world wealth	Wealth level (2026) (per adult net wealth in 2025 Euros)	Annual wealth tax (effective tax rate)
0	0	0.0%
1	110 600	0.0%
10	1 106 000	0.0%
20	2 212 000	1.0%
50	5 530 000	3.0%
100	11 060 000	5.0%
500	55 300 000	10.0%
1 000	110 600 000	15.0%
5 000	553 000 000	20.0%

**Interpretation.** According to the Global Justice Platform, the effective global wealth tax rate rises gradually from 0% at the level of 10 times average world wealth to 1% at the level of 20 times average wealth, 3% at 50 times, etc., and 20% above 5000 times average wealth (i.e. 553 millions € in per adult wealth in 2026). **Sources and series:** [gjp.wid.world](http://gjp.wid.world) (T2.2).

# Global Wealth Tax Taxpayers 2026-2100

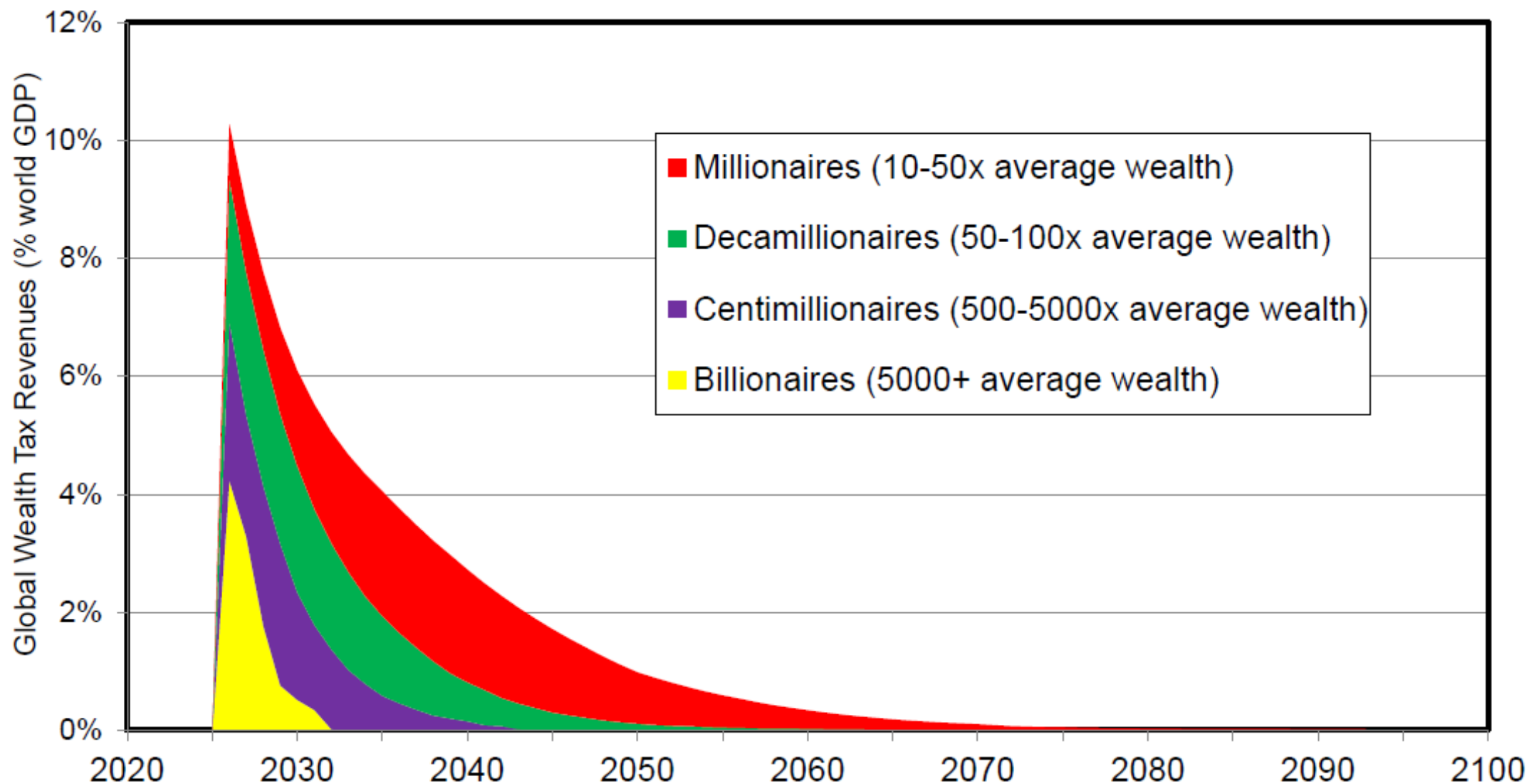
(% world population)



**Interpretation.** About 1.2-1.5% of the world population is subject to the global wealth tax over the 2026-2050 period (mostly coming from the world's richest countries), and less than 0.5% of the world population after 2060 (with a more balanced regional distribution).

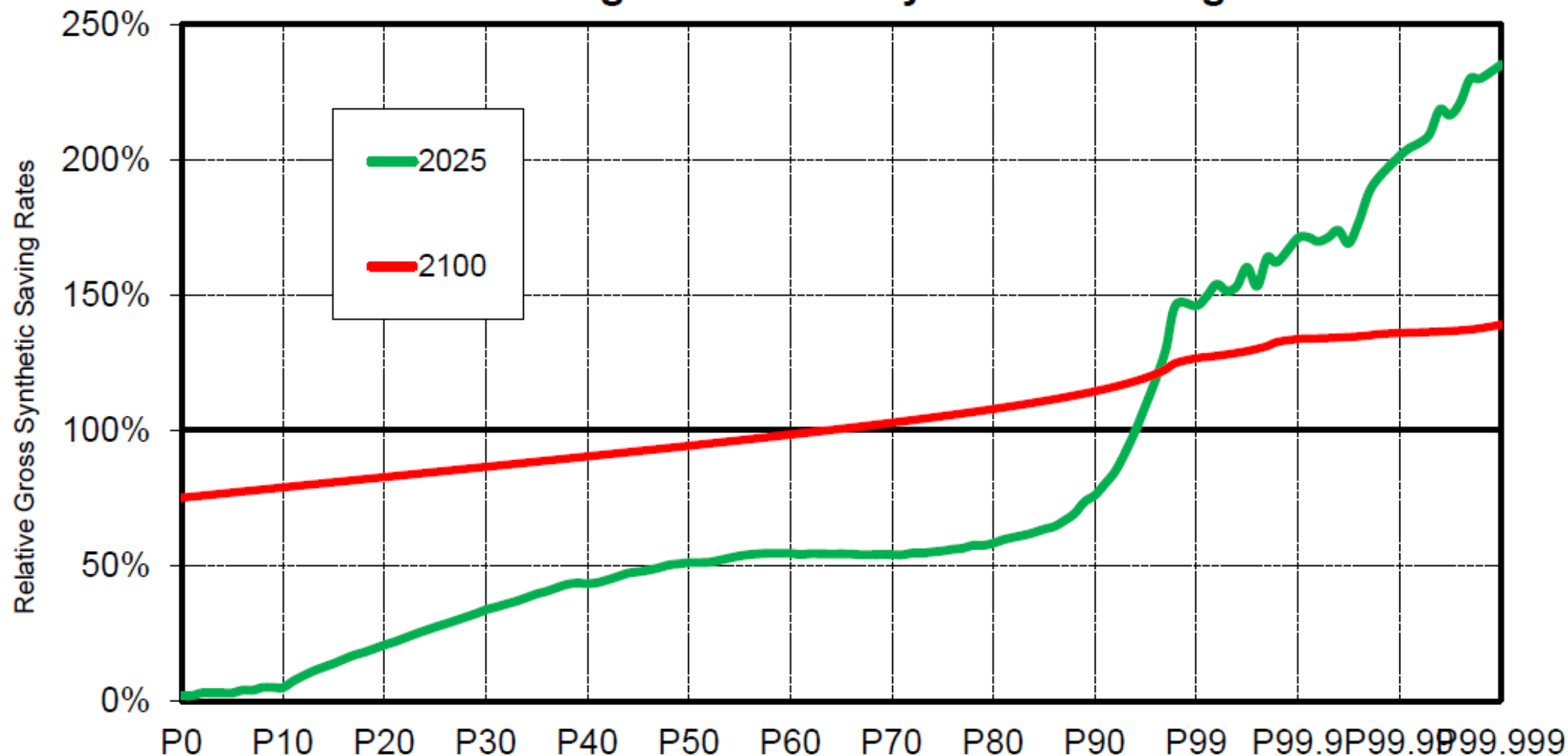
**Sources and series:** [gjp.wid.world](https://www.wid.world) (F2.8a)

## Global Wealth Tax Revenues 2026-2100 (% world GDP)



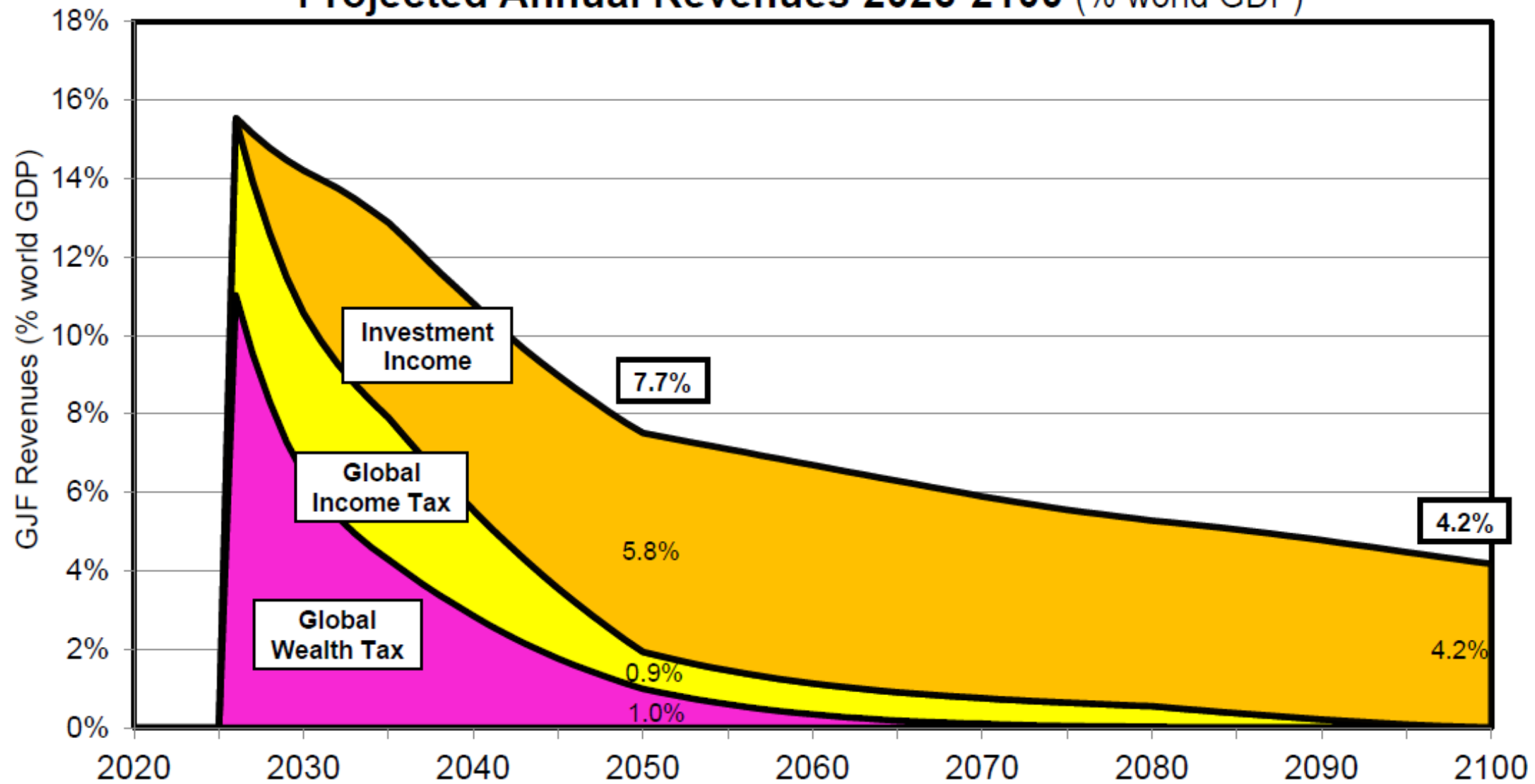
**Interpretation.** Global wealth tax revenues are projected to be very large early on (around 8% of world GDP on average in 2026-2030) and to decline gradually (1-2% of world GDP in 2040-2060). In the first years a large part of this is paid by the group of billionaires (owning more than 5000x average wealth). However, due to the large tax rates and the compression of wealth inequality the number of billionaires (and later centimillionaires and decamillionaires) reduces fast and so do their taxes paid. **Sources and series:** gjp.wid.world (F2.9a)

## The Flattening of Relative Synthetic Saving Rates



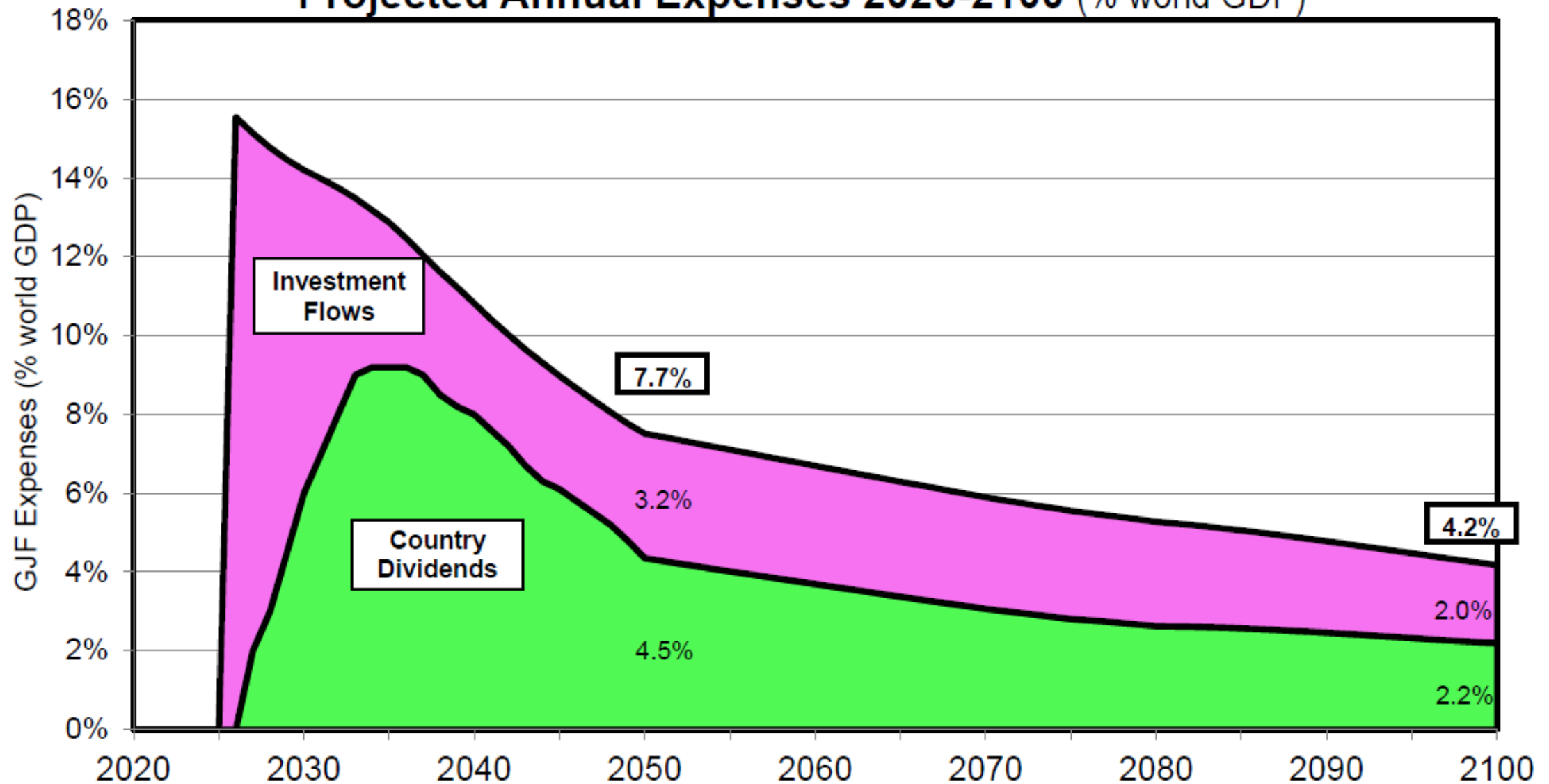
**Interpretation.** Relative synthetic saving rates show the percentile-level synthetic saving rate as a fraction of the national average saving rate. High-income groups have a higher saving rate than poorer households. In our simulation we gradually move from the observed saving rate profile in 2025 to the target relative saving rates in 2100. The main mechanism for the flattening of the profile is the compression of the income scale. It can also be affected by policies (e.g. redistribution of inheritance). **Sources and series:** gjp.wid.world (S1a)

# Global Justice Fund (GJF): Projected Annual Revenues 2026-2100 (% world GDP)



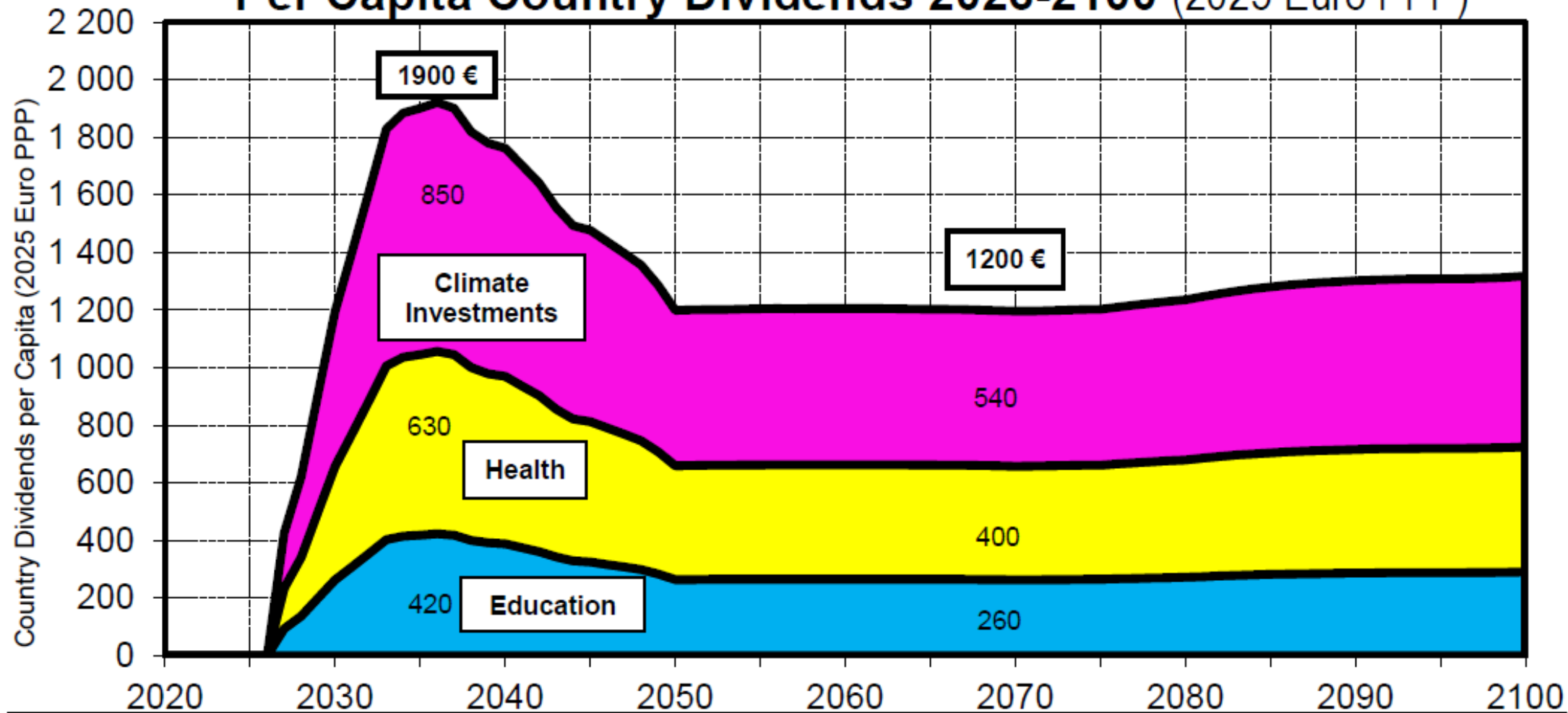
**Interpretation.** GJF revenues come from a global wealth tax, a global income tax & gross investment income from the World Sovereign Fund (WSF) (accumulated thanks to previous tax revenues). Wealth tax revenues play a key role in 2026-2035 to build up WSF, but later become less important than investment income. In 2050, total GJF revenues make 7.7% of world GDP, including 1.0% in wealth tax revenue, 0.9% in income tax revenue and 5.8% in investment income. By 2100, all revenues come from investment income. **Sources and series:** [gjp.wid.world](http://gjp.wid.world) (F2.3a)

# Global Justice Fund (GJF): Projected Annual Expenses 2026-2100 (% world GDP)



**Interpretation.** GJF expenses consist of country dividends (allocated to each country on an equal per-capita basis and used to finance climate investment and education and health expenditure) and gross investment flows accumulating into the World Sovereign Fund (WSF). Investment flows play a very important role in 2026-2035 in order to build up the WSF. **Sources and series:** gjp.wid.world (F2.3b)

# The Long March Toward Global Justice: Per Capita Country Dividends 2026-2100 (2025 Euro PPP)

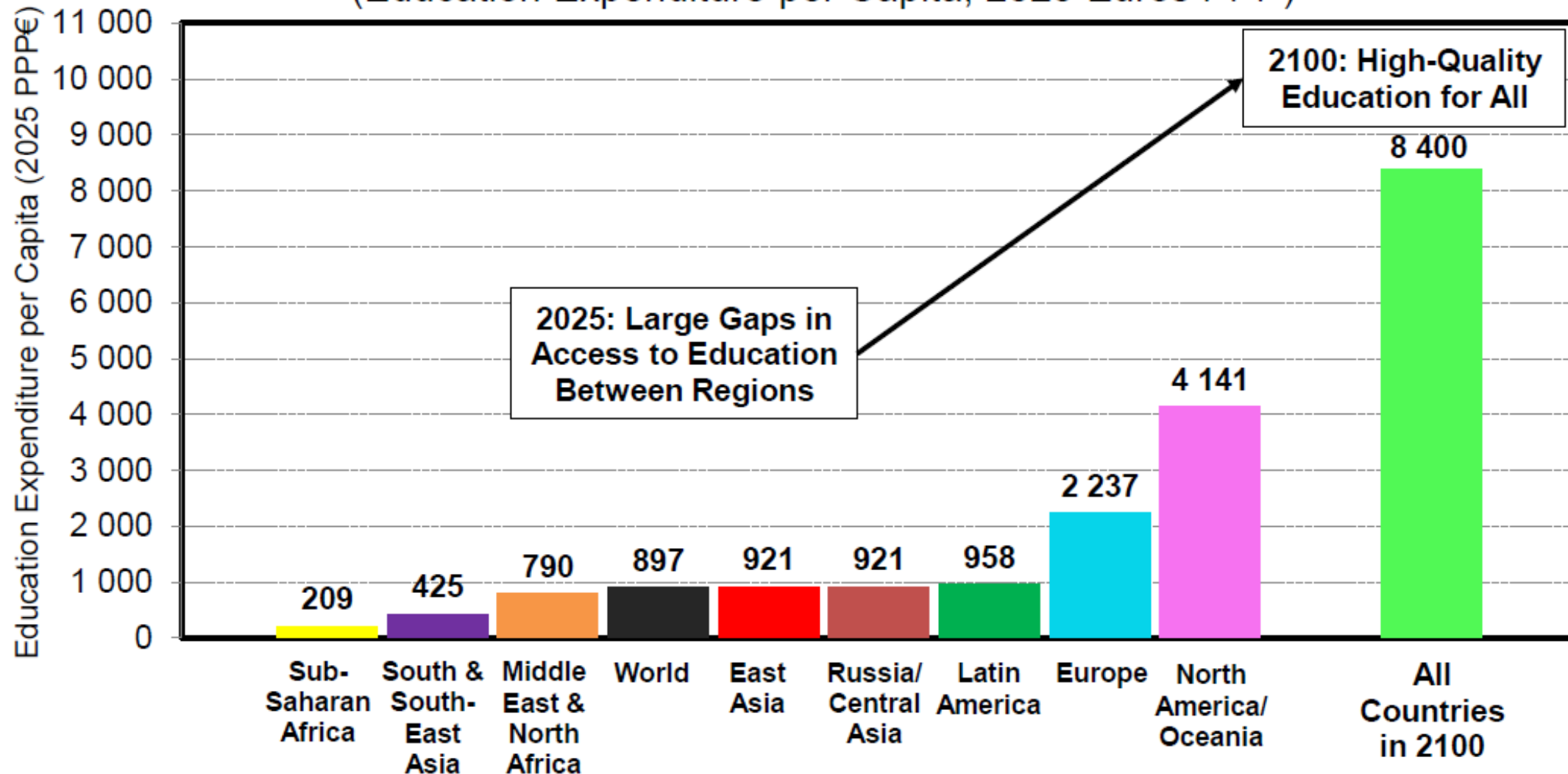


**Interpretation.** Country dividends are allocated to each country on an equal per-capita basis. They represent about 5-8% of world GDP on average over the 2030-2050, corresponding to 1900€ per person in 2035 (approximately 420€ for education, 630€ for health, 850€ for climate) and about 1200€ per person per year over the period from 2050-2100. These are significant amounts which can help jumpstart the process of global sustainable convergence, but they are too small to equalize access to education and health countries in the coming decades.

**Sources and series:** [gjp.wid.world \(F2.4b\)](#)

# Towards Global Equality of Opportunities: Education

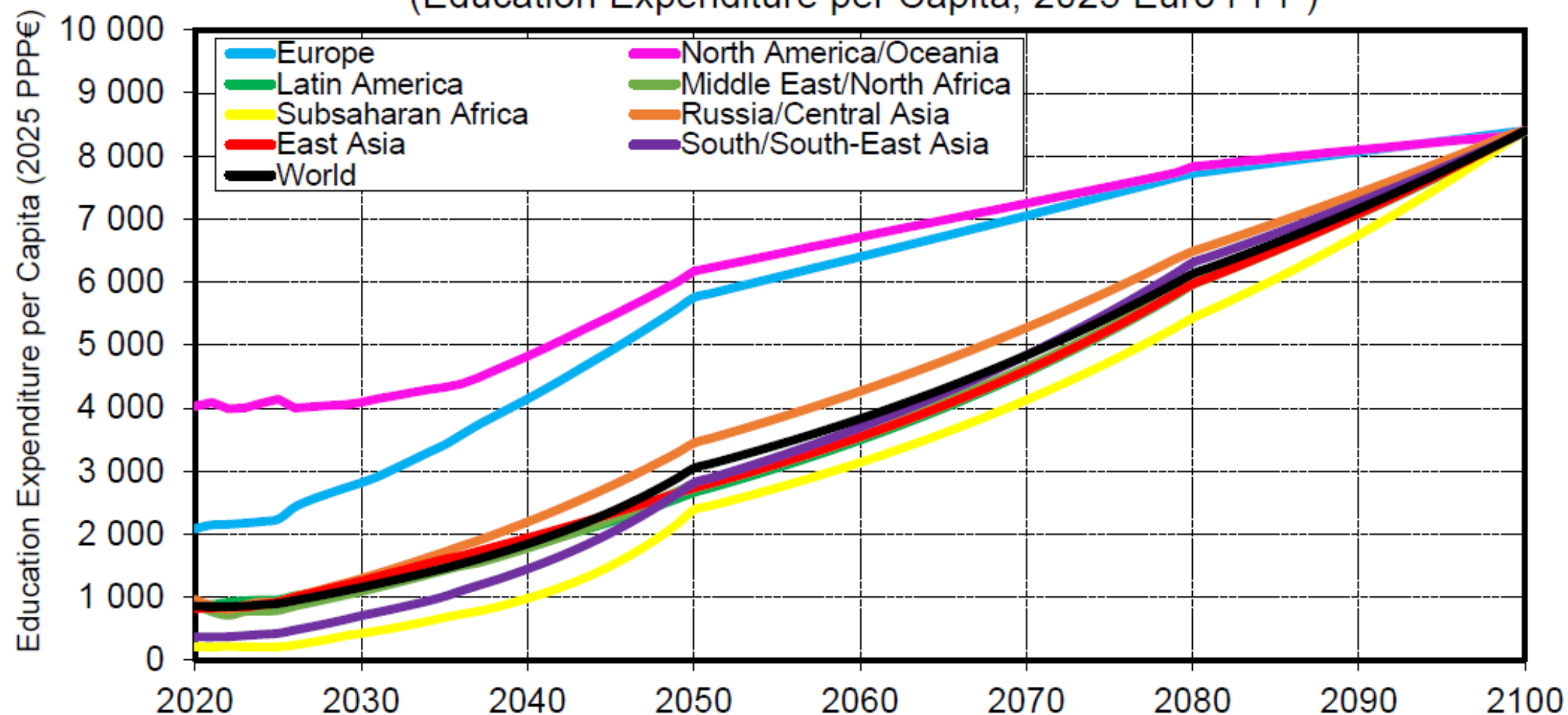
(Education Expenditure per Capita, 2025 Euros PPP)



**Interpretation.** In 2025, per capita expenditure in education varies from 209 Euros in Sub-Saharan Africa to 4141 Euros in North America/Oceania (all amounts in PPP 2025 Euros). Gaps are even larger if we look at per children expenditure. In the global justice scenario, all countries are projected to converge to 8400 Euros in per capita expenditure by 2100. **Sources & series:** gjp.wid.world (F2.5a)

# The Long March for Equal Access to Education 2025-2100

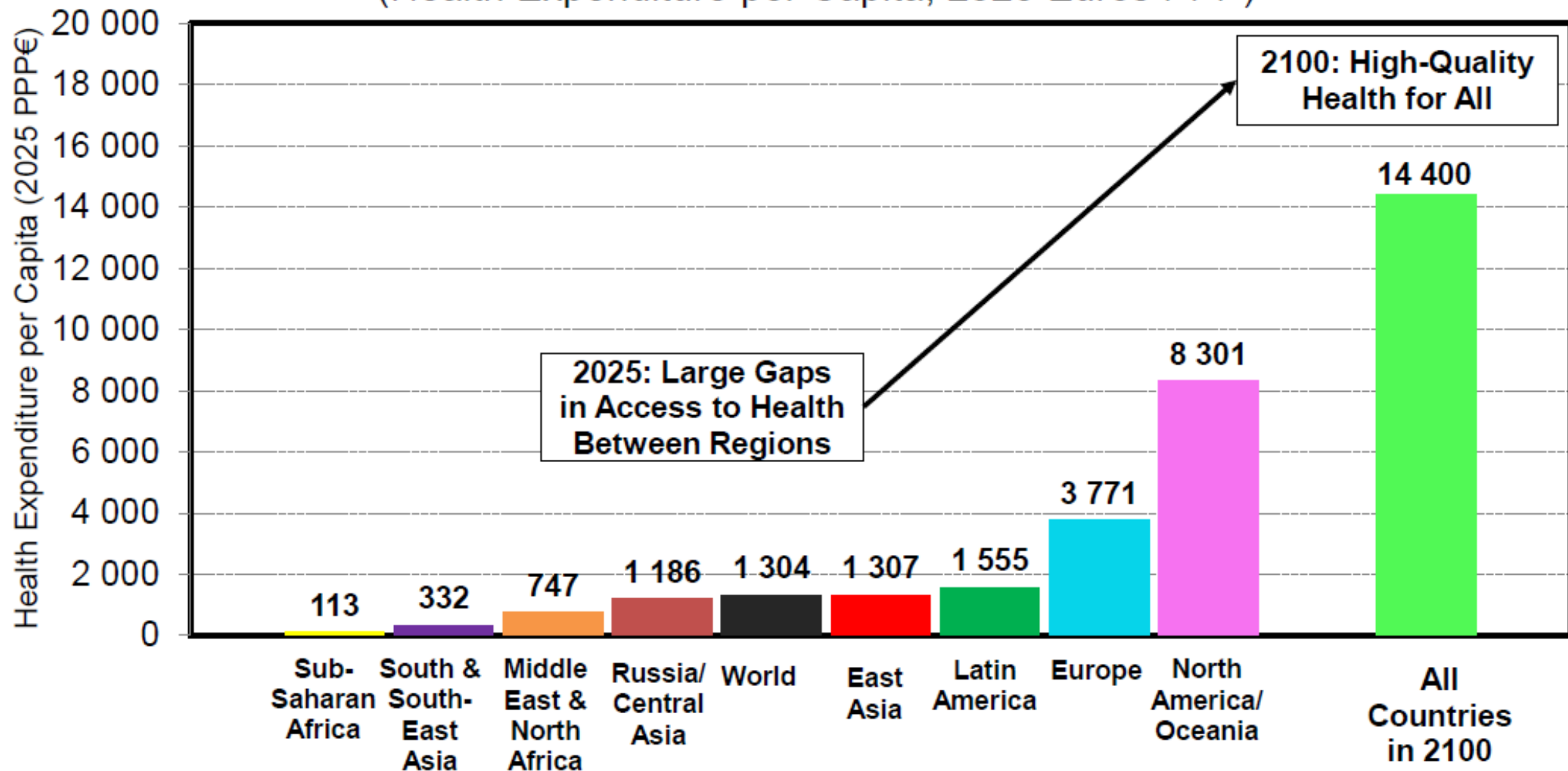
(Education Expenditure per Capita, 2025 Euro PPP)



**Interpretation.** In the global justice scenario, per capita education expenditure is projected to converge to 8400€ (PPP 2025) in all countries by 2100. However, by 2050 the gap will still be very significant, with per capita education expenditure almost 3 times as large in North America/Oceania and Europe (close to 6000 Euros) than in Sub-Saharan Africa (around 2000 Euros). This is a large reduction of the gap as compared to 2025 (when the gap was about 1 to 20), but this is still a very substantial inequality of opportunity in access to education for the children born in the various world regions. Full equality of opportunity would require a larger Global Justice Fund. **Sources and series:** gjp.wid.world (F2.5b)

## Towards Global Equality of Opportunities: Health

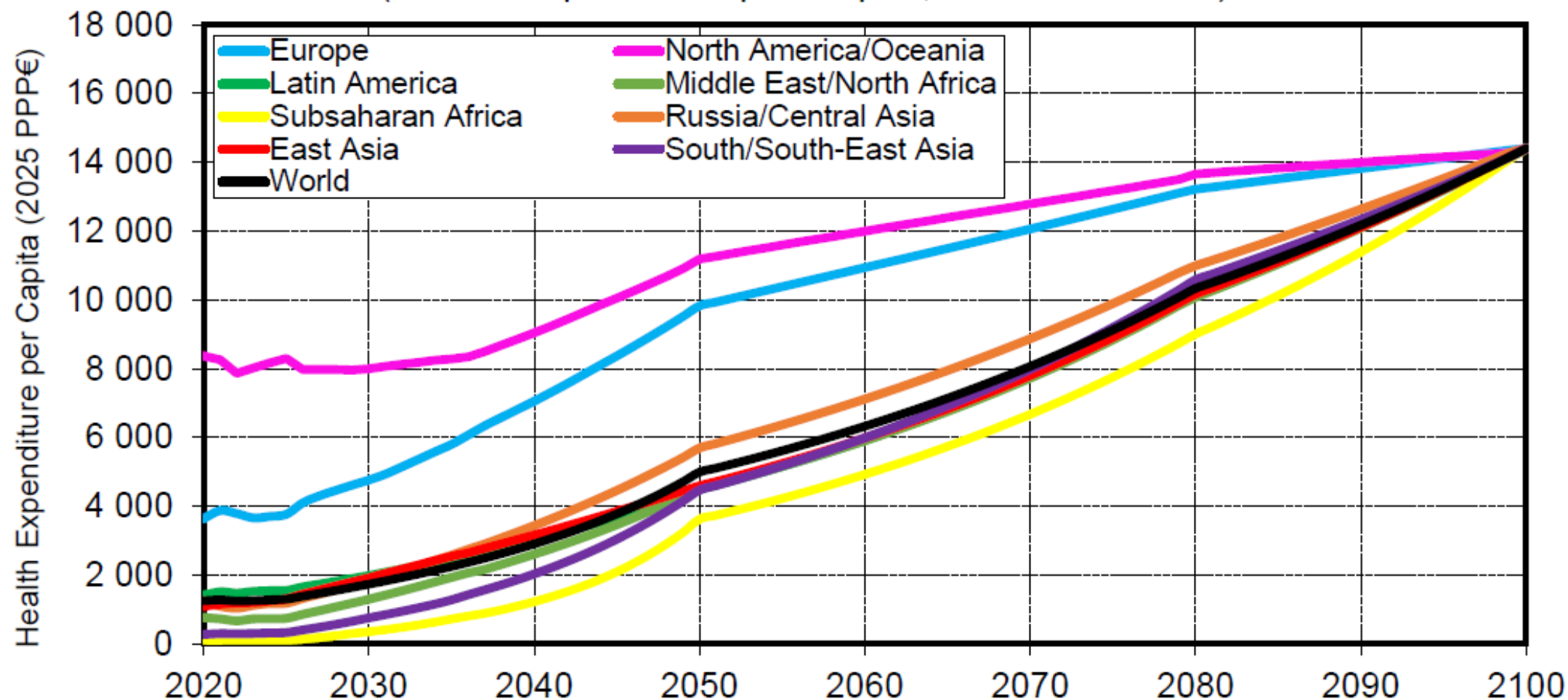
(Health Expenditure per Capita, 2025 Euros PPP)



**Interpretation.** In 2025, per capita expenditure in health varies from 113 Euros in Sub-Saharan Africa to 8301 Euros in North America/Oceania (all amounts in PPP 2025 Euros), i.e. a gap of almost 1 to 80. By 2100, all countries are projected to converge to high-quality health for all, with per capita expenditure equal to 14400 Euros everywhere. **Sources & series:** gjp.wid.world (F2.6a)

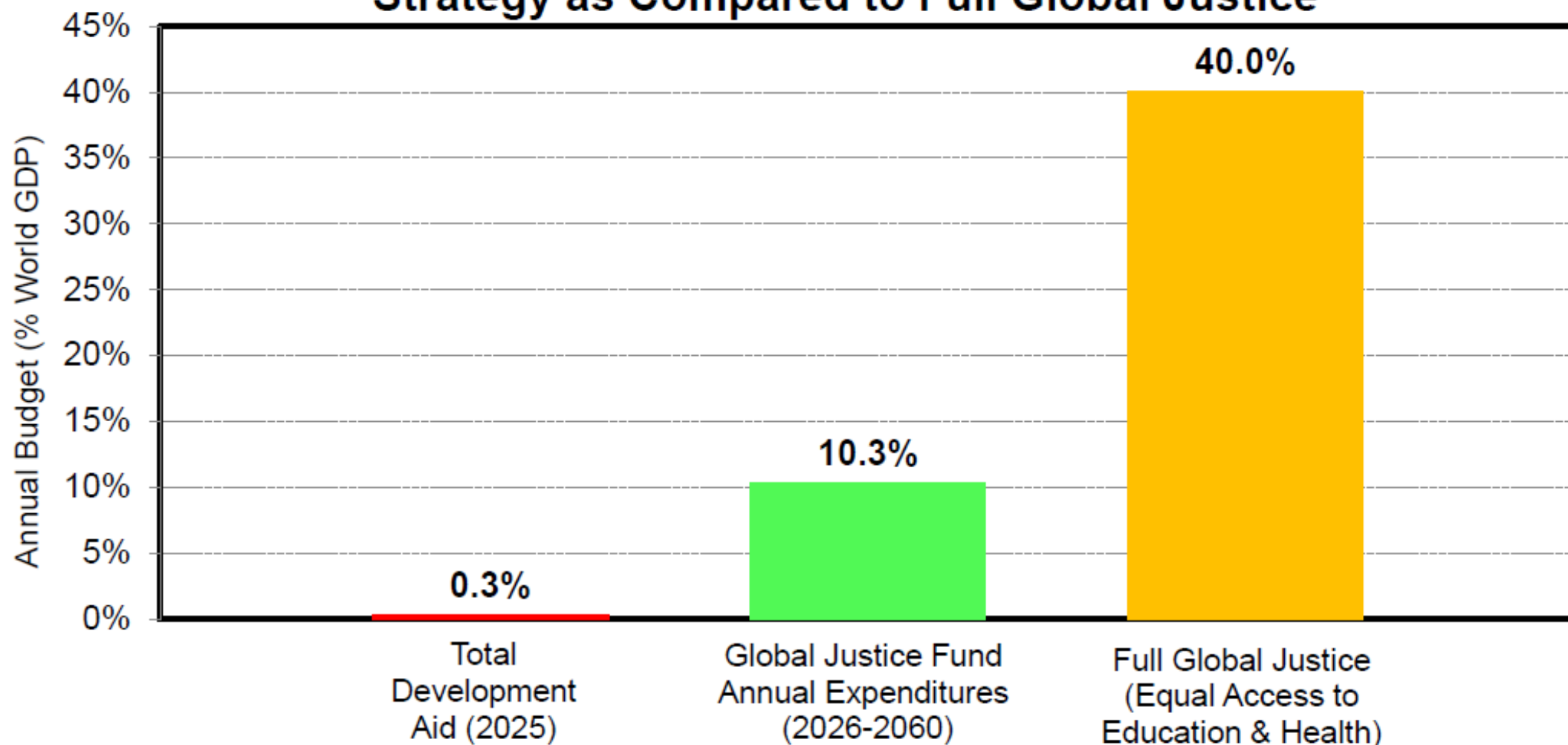
# The Long March for Equal Access to Health 2020-2100

(Health Expenditure per Capita, 2025 Euro PPP)



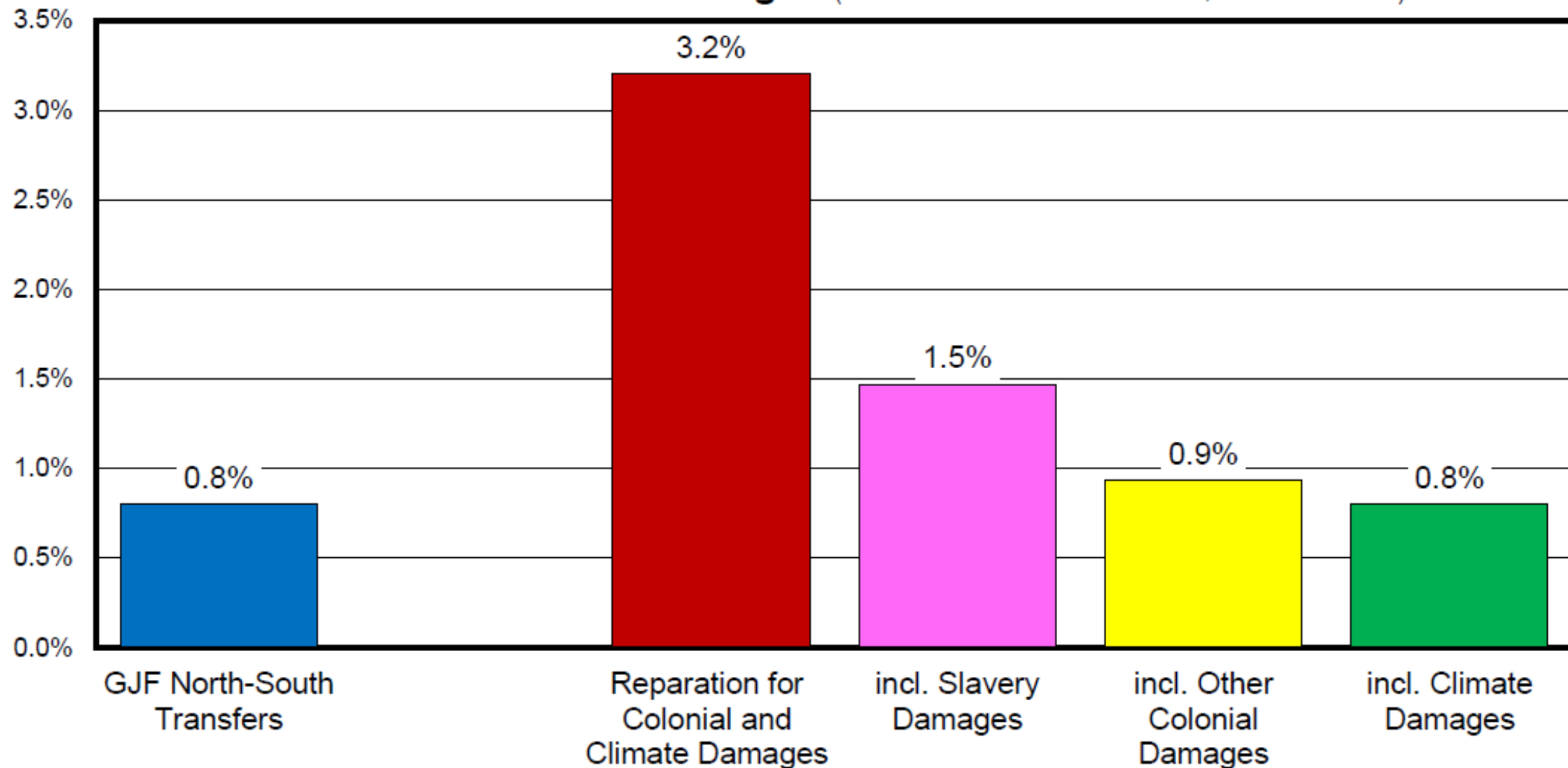
**Interpretation.** In the global justice scenario, per capita health expenditure is projected to converge to 14400€ (PPP 2025) in all countries by 2100. However, by 2050 the gap will still be very significant, with per capita health expenditure almost 3 times as large in North America/Oceania and Europe (about 10-12000 Euros) than in Sub-Saharan Africa (around 4000 Euros). This is a large reduction of the gap as compared to 2025 (when the gap was about 1 to 80), but this is still a very substantial inequality of opportunity in access to health for the inhabitants of the various regions. Full equality of opportunity would require a larger Global Justice Fund. **Sources and series:** gjp.wid.world (F2.6b)

## The Global Justice Platform: a Moderate and Gradualist Strategy as Compared to Full Global Justice



**Interpretation.** Annual expenditures of the Global Justice Fund (GJF) make 10.3% of world GDP per year on average over 2026-2060. This is a lot larger than current development aid (0.3% of world GDP in 2025), but a lot smaller than what would be needed for full global justice (40% of world GDP), which we define as a situation where all inhabitants of the planet have access to the same education and health expenditure as the average levels that are currently available in Europe and North America/Oceania. **Sources & series:** gjp.wid.world (F4.5)

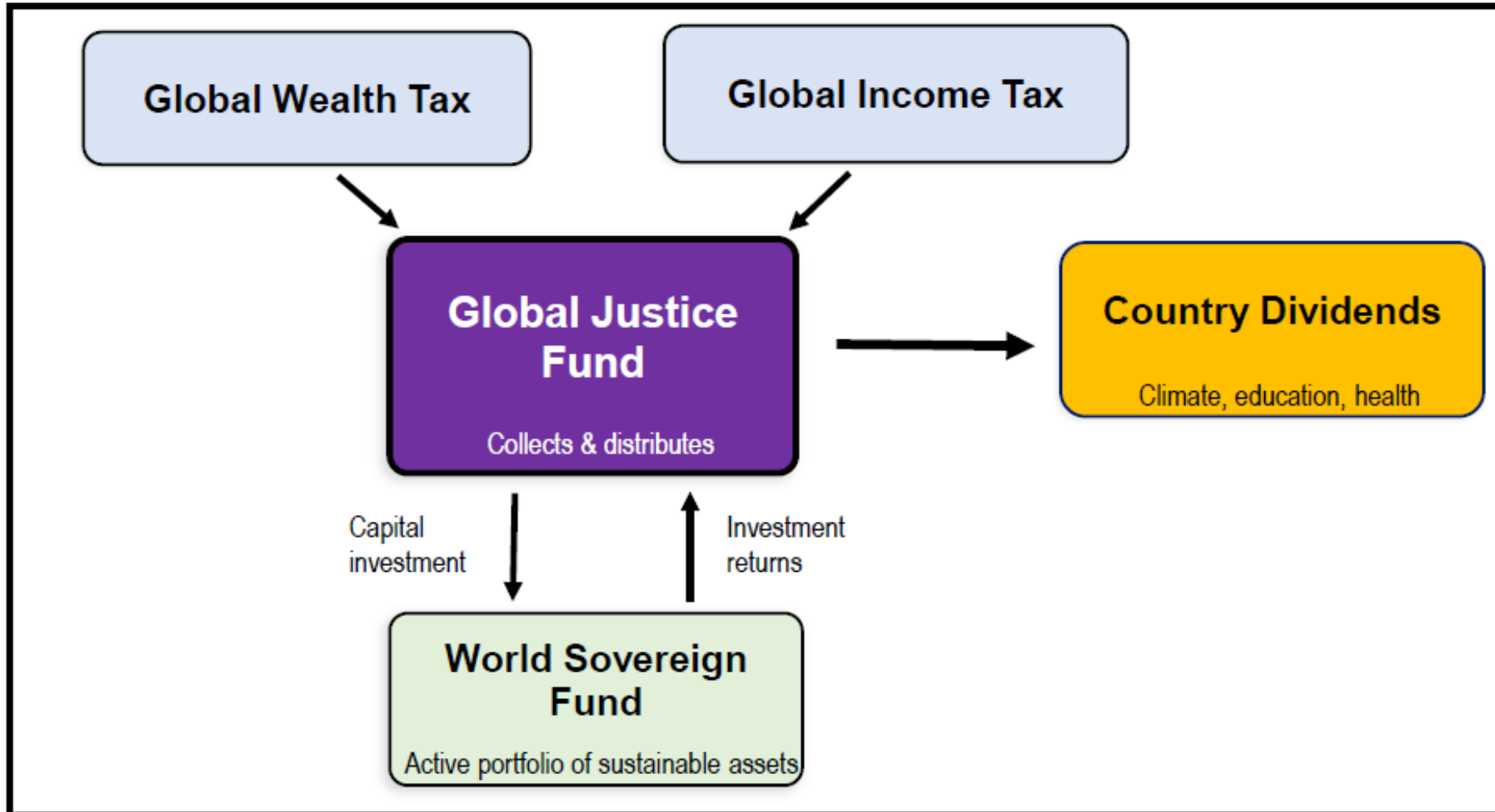
## Global Justice Fund North-South Transfers Are Smaller Than Colonial and Climate Damages (Annual Transfers 2026-2100, % World GDP)



**Interpretation.** The North-South transfers induced by the Global Justice Fund (i.e. the extra wealth and income taxes paid and lower country dividends received by Europe and North America/Oceania) represent about 0.8% of world GDP on average between 2026 and 2100. This is significantly smaller than the corresponding annual transfers which should have been paid over the same period in order to compensate for the cumulated colonial and climate damages imposed by Europe and North America/Oceania between 1800 and 2025.

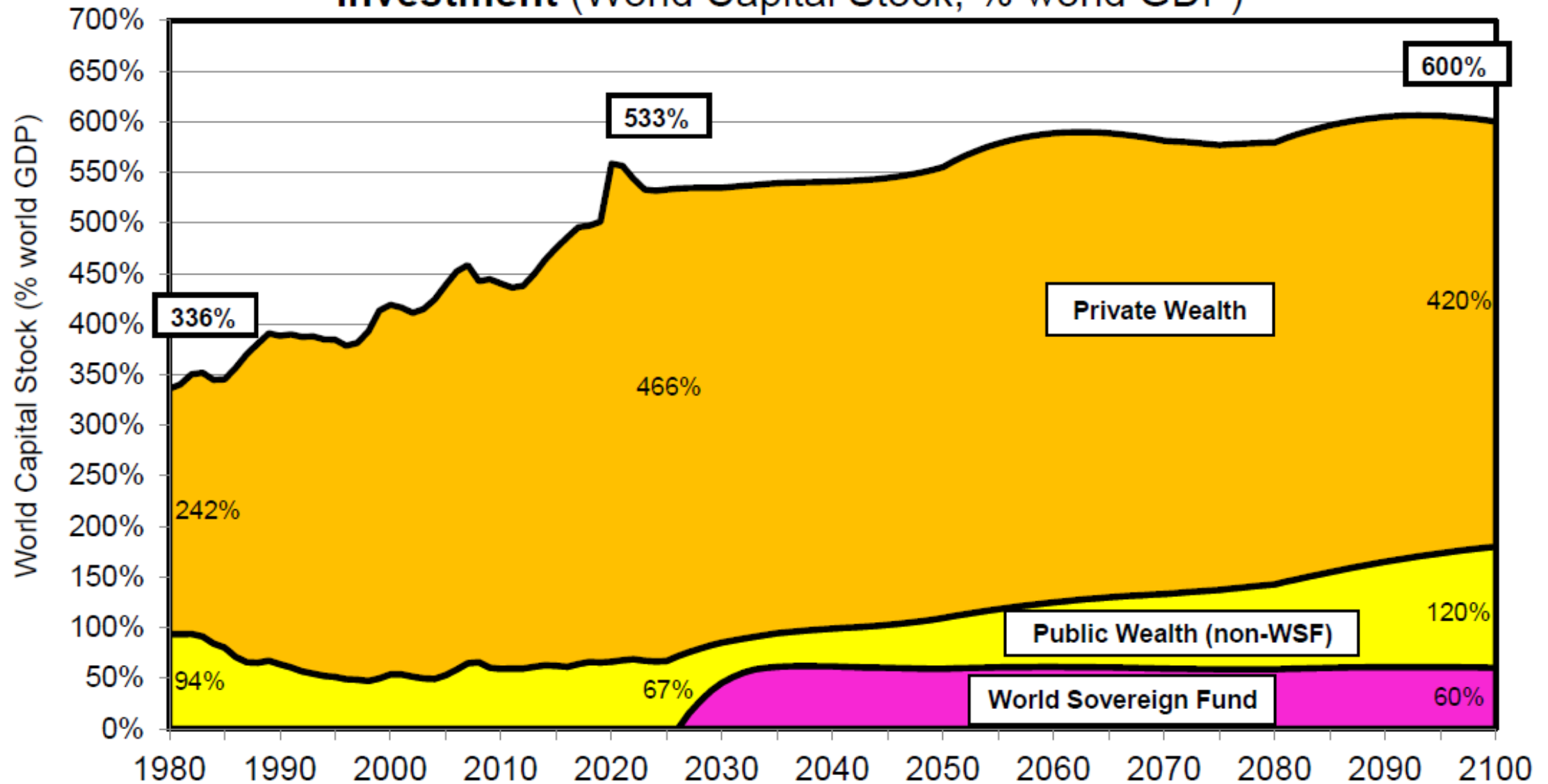
**Sources and series:** [gjp.wid.world \(F4.2\)](#)

# The Global Justice Platform



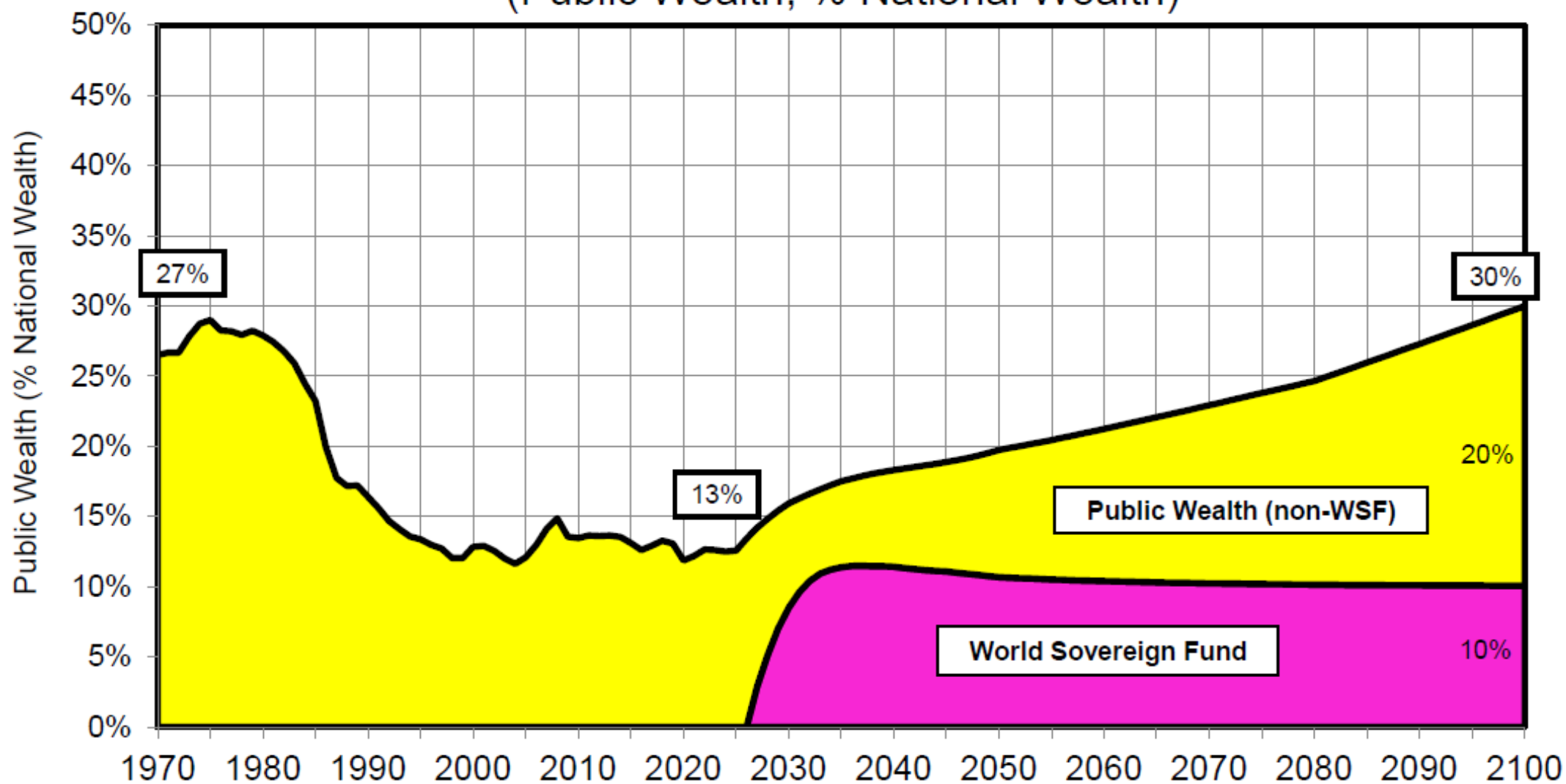
**Interpretation.** The key element of the Global Justice Platform is the Global Justice Fund, which collects revenues from a global wealth tax and a global income tax, which are then invested and yield returns through a World Sovereign Fund, an active portfolio of sustainable assets. The Global Justice Fund distributes country dividends to finance massive investments in climate, infrastructure, education and health. **Sources and series:** [gjp.wid.world](https://gjp.wid.world) (F2.1)

# Global Justice: A World Sovereign Fund to Reorient Investment (World Capital Stock, % world GDP)



**Interpretation.** The World Sovereign Fund is set to stabilize its assets at about 60% of world GDP over the 2030-2100 period, i.e. about 10% of the world capital stock. Initial asset accumulation in 2026-2035 is made possible by reinvesting a large part of global tax revenue, especially the global wealth tax on very top wealth holders (billionaires and centimillionaires). **Sources and series:** gjp.wid.world (F2.7a)

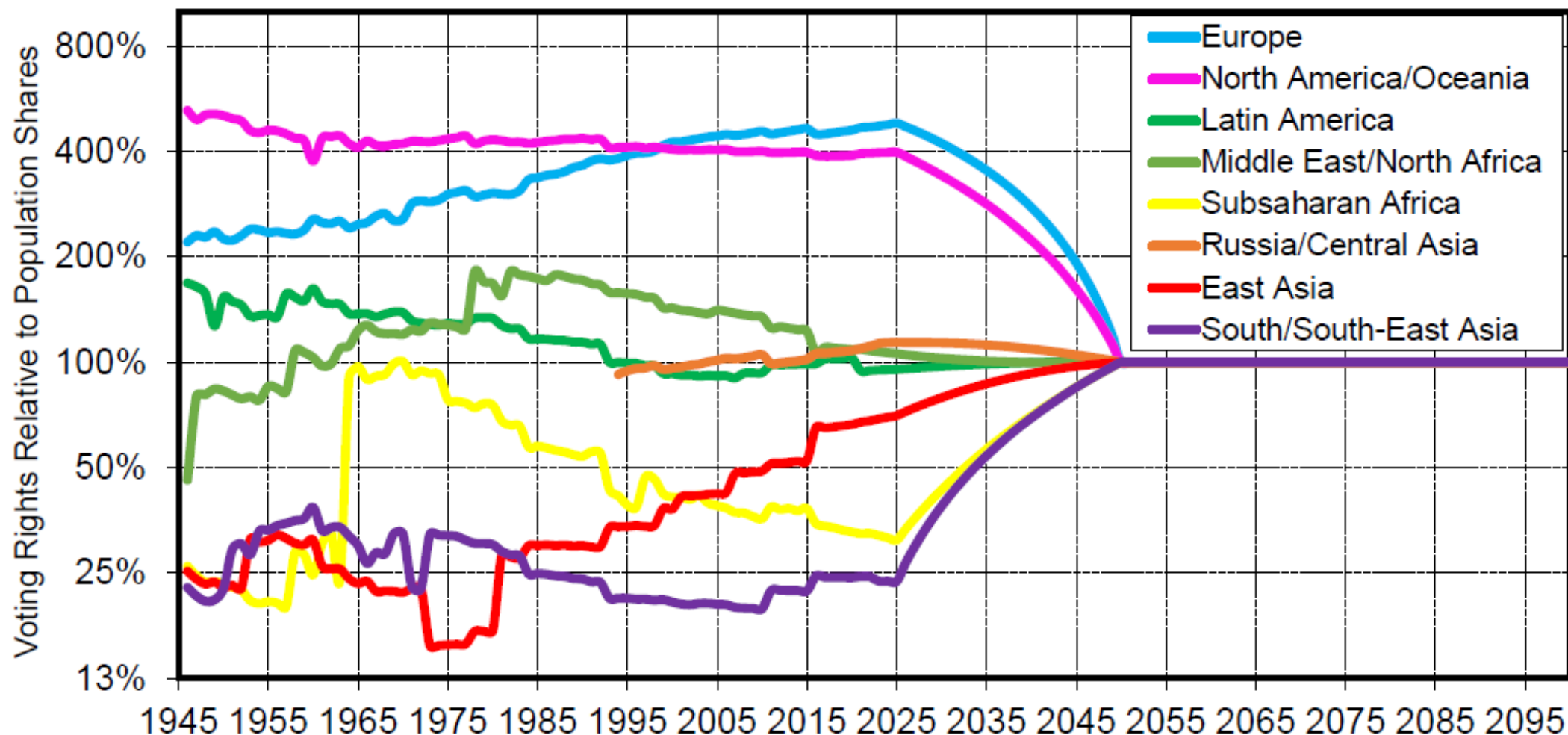
# Global Justice: Towards a Mixed Property Structure (Public Wealth, % National Wealth)



**Interpretation.** The World Sovereign Fund is set to stabilize its assets at about 60% of world GDP over the 2030-2100 period, i.e. about 10% of the world capital stock. Initial WSF accumulation in 2026-2035 is made possible by reinvesting a large part of global tax revenue. Total public wealth (including non-WSF public wealth) is projected to rise to 30% of the world capital stock by 2100, which is slightly higher than the share of public wealth in 1970. **Sources and series:** gjp.wid.world (F2.7b)

# From Global Plutocracy to One Person-One Vote

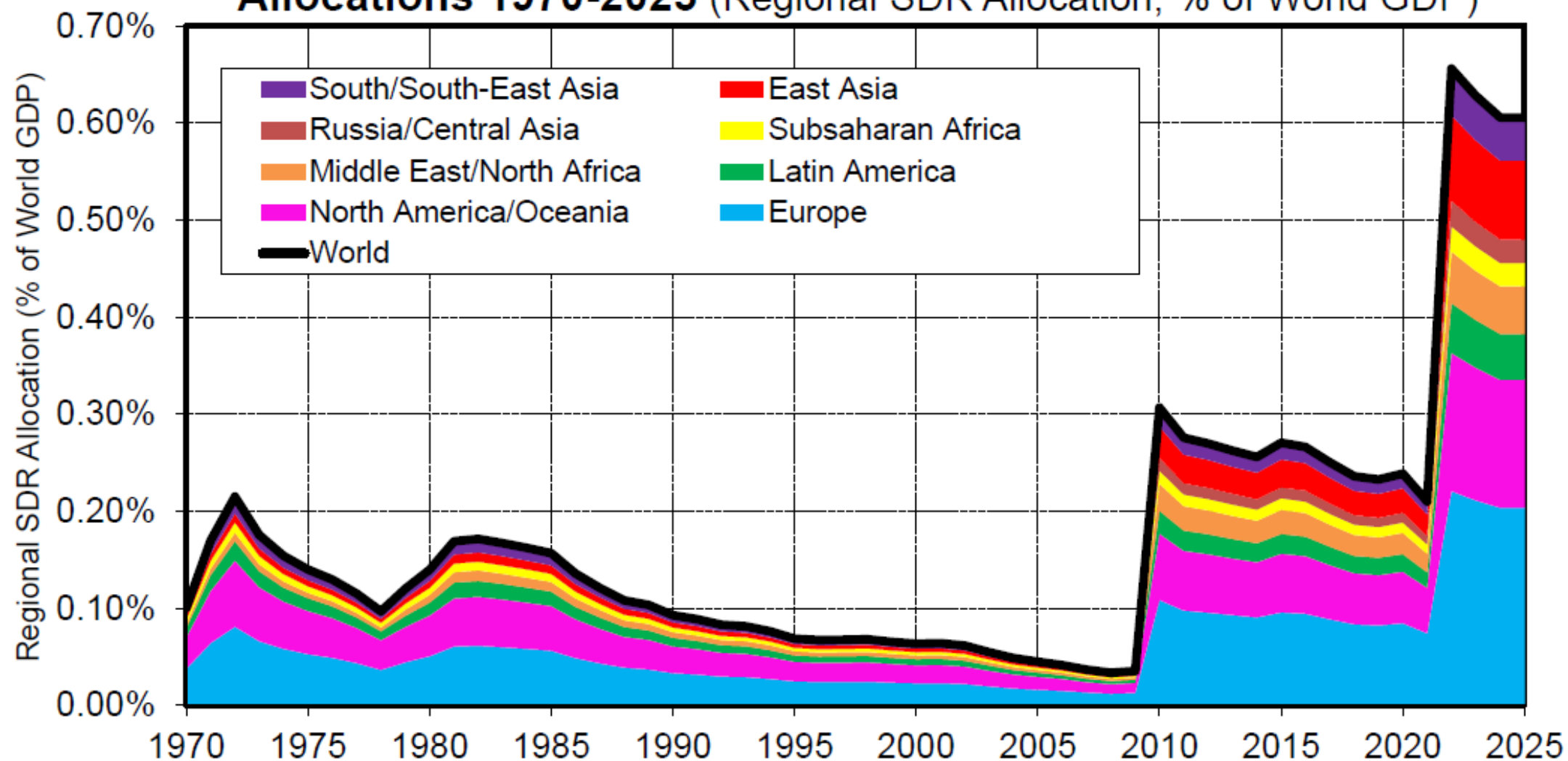
(Voting Rights relative to Population Share)



**Interpretation.** In 2025, countries in Europe and North America/Oceania have 4x more votes at the IMF than their share in global population, while countries in South & SouthEast Asia and Sub-Saharan Africa have about 1/4 of their global population share in IMF voting rights. The Global Justice Platform envisions a transition from the current IMF formula to a per-capita allocation of voting rights, either immediately (the best solution in our view) and at the latest by 2050 (via a gradual transition). **Sources and series** [gjp.wid.world](http://www.gjp.wid.world) (F3.10)

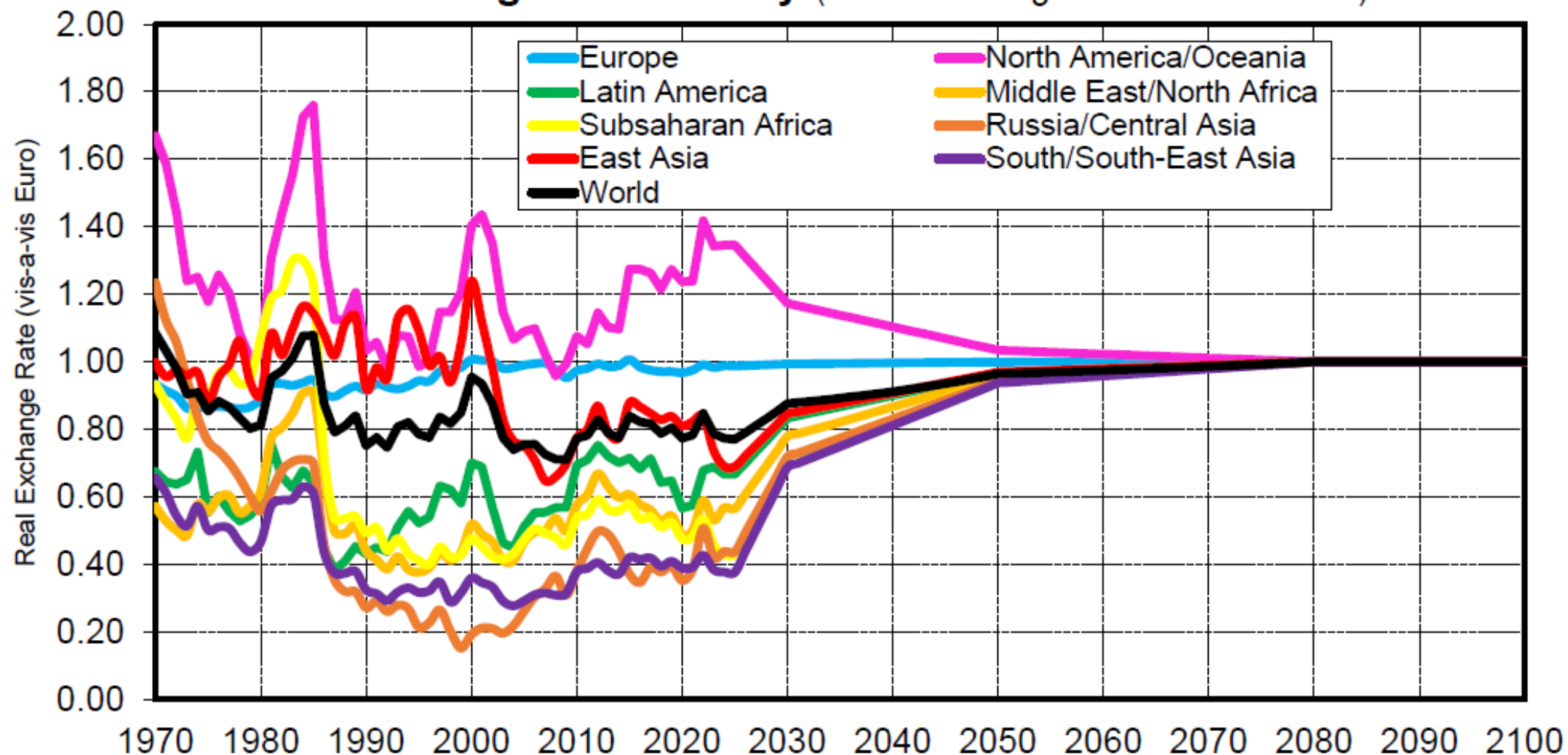
## The Slow Rise of an International Currency: SDR

### Allocations 1970-2025 (Regional SDR Allocation, % of World GDP)



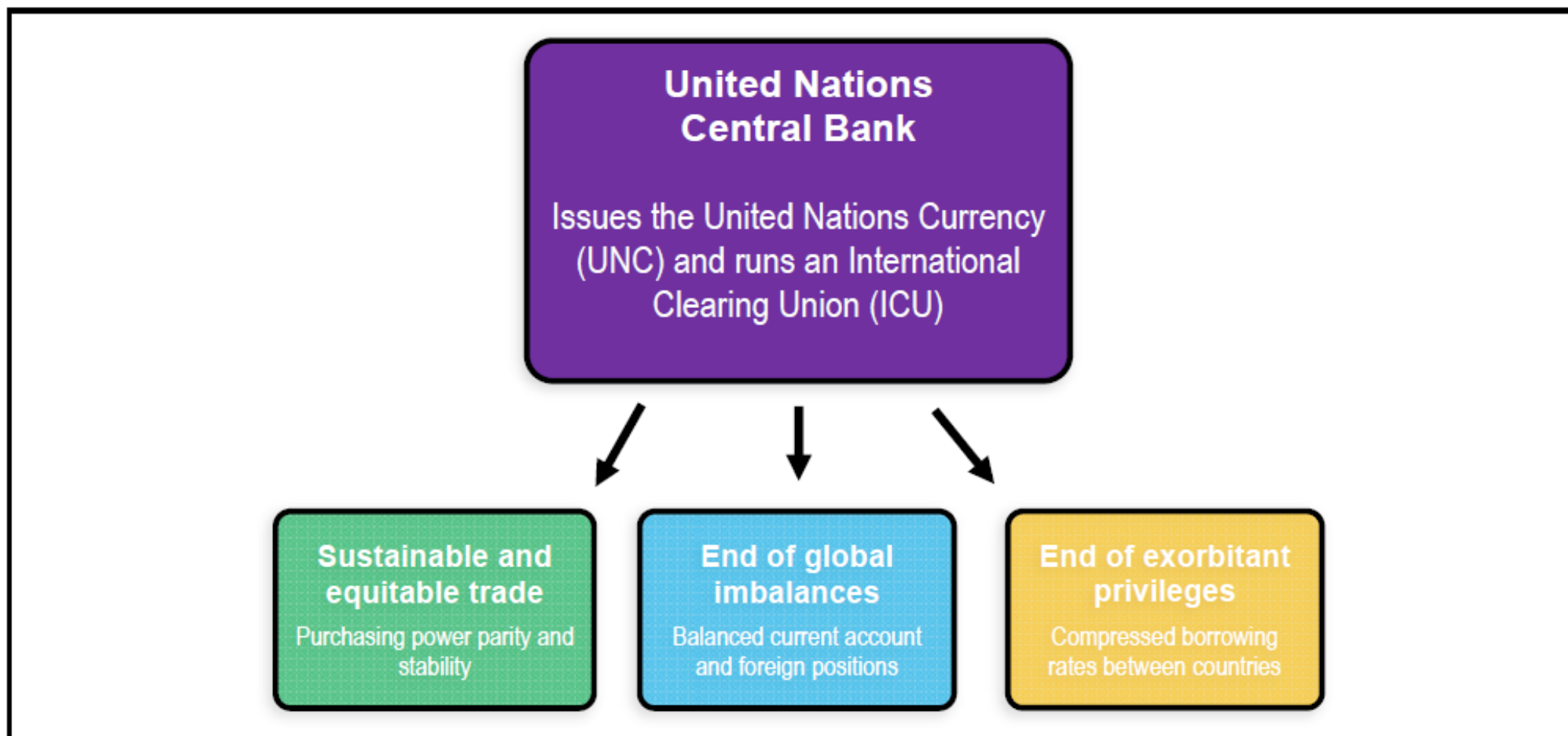
**Interpretation.** Total cumulated SDR allocations to countries – attributed in proportion to their IMF vote shares – have reached 0.6% of the world GDP in the early 2020s, following the large SDR creations which were decided after 2008 financial crisis and again after Covid crisis. This is beginning to represent a significant amount, and a lot more than when SDR were created in 1969-1970. **Sources and series:** gjp.wid.world (F3.4)

## A New International Monetary System: Stability & Purchasing Power Parity (Real Exchange Rates 1970-2100)



**Interpretation.** Over the 1970-2025 period, we observe sharp fluctuations in real exchange rates, which are generally far below 1 for the poorest regions (i.e. their market exchange rate is below purchasing power parity). Under the Global Justice Platform, the new international monetary system envisioned for the future is based upon the principles of stability and purchasing power parity. **Sources and series:** gjp.wid.world (F3.5)

## An International Currency for the Planet: From the IMF to the United Nations Central Bank



**Interpretation.** According to the Global Justice Platform, the United Nations Central Bank issues a new international currency ("United Nations Currency"), and operates an International Clearing Union inspired by Keynes's 1943 proposal but adapted to 21st-century needs. It reforms global monetary governance, signalling a break from the dominance of rich-countries currencies and reorienting the international financial system toward sustainable convergence and global justice.

**Sources and series:** [gjp.wid.world](http://gjp.wid.world) (F3.3)

# Conclusion of Lecture 6

- **We observe a positive relation in the long-run between equality, development and prosperity.** This appears to be closely related to the strong relation between modern prosperity & inclusive human capital investment.
- **Political equality is a key determinant of socioeconomic equality in the long-run.** But formal political equality may not be sufficient: social struggles and power relations matter.
- **Further inequity compression seems to be needed in order to reconcile prosperity for all countries & planetary habitability.** This would require strong pressure from global South & a new international order, including a shift from global plutocracy to global democracy.