Income and Wealth Inequality: Evidence and Policy Implications

Emmanuel Saez, UC Berkeley
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University of Chicago

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MEASURING INEQUALITY

Inequality matters because the public cares about it

⇒ Need to provide transparent inequality measures

Goals: Understand drivers of inequality trends and the effects of public policy on inequality

Two key economic concepts: Income and Wealth

Income is a flow = Labor income + Capital income

Capital income is the return on Wealth

Wealth is a stock accumulated from savings and inheritances
In aggregate, labor income is about 70-75% of total income.

Capital income is about 25-30% of total income.

Total wealth is about 400% of total annual income.

Annual rate of return on wealth = 6-7%.

Wealth inequality is always much higher than income inequality (bottom 50% families own about zero wealth).

Government taxes 1/3 of market incomes to fund transfers and public goods: disposable income inequality lower than market income inequality.
TOP INCOME SHARES

Simple way to measure inequality: what share of total pre-tax market income goes to the top 10% families, top 1%, etc.

Individual income tax statistics are the only source

(a) covering long-time periods

(b) capturing well top incomes

25 countries have been analyzed in the on-going World Top Incomes Database

Caveats: Income concept used is narrower than National Income and focus is solely on pre-tax, pre-transfer income
THE TOP INCOMES DATABASE
Top 10% Pre-tax Income Share in the US, 1917-2012

Decomposing Top 10% into 3 Groups, 1913-2012

- **Top 1%** (incomes above $394,000 in 2012)
- **Top 5-1%** (incomes between $161,000 and $394,000)
- **Top 10-5%** (incomes between $114,000 and $161,000)

Top 0.1% US Pre-Tax Income Share, 1913-2012

Source: Piketty and Saez, 2003 updated to 2012. Series based on pre-tax cash market income including or excluding realized capital gains, and always excluding government transfers.
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Series based on pre-tax cash market income including or excluding realized capital gains, and always excluding government transfers.
### Table 1. Real Income Growth by Groups

<table>
<thead>
<tr>
<th>Period</th>
<th>Average Income Real Growth</th>
<th>Top 1% Incomes Real Growth</th>
<th>Bottom 99% Incomes Real Growth</th>
<th>Fraction of total growth (or loss) captured by top 1%</th>
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</thead>
<tbody>
<tr>
<td><strong>Full period</strong></td>
<td></td>
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<tr>
<td>1993-2012</td>
<td>17.9%</td>
<td>86.1%</td>
<td>6.6%</td>
<td>68%</td>
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<td><strong>Clinton Expansion</strong></td>
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<tr>
<td>1993-2000</td>
<td>31.5%</td>
<td>98.7%</td>
<td>20.3%</td>
<td>45%</td>
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<td><strong>2001 Recession</strong></td>
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<tr>
<td>2000-2002</td>
<td>-11.7%</td>
<td>-30.8%</td>
<td>-6.5%</td>
<td>57%</td>
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<td><strong>Bush Expansion</strong></td>
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<tr>
<td>2002-2007</td>
<td>16.1%</td>
<td>61.8%</td>
<td>6.8%</td>
<td>65%</td>
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<tr>
<td><strong>Great Recession 2007-2009</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2009</td>
<td>-17.4%</td>
<td>-36.3%</td>
<td>-11.6%</td>
<td>49%</td>
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<tr>
<td><strong>Recovery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009-2012</td>
<td>6.0%</td>
<td>31.4%</td>
<td>0.4%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Computations based on family market income including realized capital gains (before individual taxes).
Incomes exclude government transfers (such as unemployment insurance and social security) and non-taxable fringe benefits.
Incomes are deflated using the Consumer Price Index.
Column (4) reports the fraction of total real family income growth (or loss) captured by the top 1%.
For example, from 2002 to 2007, average real family incomes grew by 16.1% but 65% of that growth accrued to the top 1% while only 35% of that growth accrued to the bottom 99% of US families.
Bottom 90% wealth share in the United States, 1917-2012

Wealth shares estimated using capitalization method by Saez and Zucman (2014)
Composition of the bottom 90% wealth share

- Pensions
- Equities & fixed claims (net of non-mortgage debt)
- Business assets
- Housing (net of mortgages)

% of total household wealth
This figure depicts the share of total household wealth held by the 1% richest families, as estimated by capitalizing income tax returns. Source: Saez and Zucman (2014).
Top 0.1% wealth share in the United States, 1913-2012
Real average wealth of bottom 90% and top 1% families

- ● Top 1% (left y-axis)
- ▲ Bottom 90% (right y-axis)

Real values are obtained by using the GDP deflator, 2010 dollars. Source: Appendix Tables B3.
SUMMARY OF US RESULTS

1) Dramatic reduction in income and wealth concentration during the first part of the 20th century

2) Much lower income and wealth inequality in decades following World War II

3) Sharp increase in income and wealth inequality since 1970s

4) US now combines extremely high labor income inequality with very high wealth inequality

Analyzing international evidence is useful to understand drivers of inequality
Top 1% share: English Speaking countries (U-shaped)
Top 1% share: Continental Europe and Japan (L-shaped)

- France
- Japan
- Sweden
Result 1: Drop in Inequality in 1st Half of 20th Century

All advanced countries had very high income concentration one century ago (explains pessimism of Piketty 2014)

All countries experience sharp reduction in income concentration during the first part of the 20th century

1) This is primarily a capital income phenomenon

2) War and depression shocks hit top capital earners (drop follows each country specific history)

3) Government policy responses—regulations and progressive income and inheritance taxation—make this drop permanent
Result 2: Recent Surge in Inequality

1) Driven by surge in top labor incomes which then fuels wealth inequality

2) Difference across countries rules out technical change/globalization as the sole explanation

3) Policies play a key role in shaping inequality (tax and transfer policies, regulations, education)

4) Key debate: do gains of the top 1% reflect productivity or do they come at the expense of the 99%?

Looking at the role of top tax rates helps shed light on this
Top tax rates include central+local income taxes (Piketty-Saez-Stancheva ’14)
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Elasticity= 1.90 (.43)
Top tax rates include central+local income taxes (Piketty-Saez-Stancheva '14)
ECONOMIC EFFECTS OF TAXING THE TOP 1%

Strong empirical evidence that pre-tax top incomes are affected by top tax rates

3 potential scenarios with very different policy consequences

1) Supply-Side: Top earners work less and earn less when top tax rate increases ⇒ Top tax rates should not be too high

2) Tax Avoidance/Evasion: Top earners avoid/evade more when top tax rate increases

⇒ a) Eliminate loopholes, b) Then increase top tax rates

3) Rent-seeking: Top earners extract more pay (at the expense of the 99%) when top tax rates are low ⇒ High top tax rates are desirable
Real changes vs. tax Avoidance?

Test using charitable giving behavior of top income earners

Because charitable is tax deductible, incentives to give are stronger when tax rates are higher

Under the tax avoidance scenario, reported incomes and reported charitable giving should move in opposite directions

Empirically, charitable giving of top income earners has grown in close tandem with top incomes

⇒ Incomes at the top have grown for real
Charitable Giving of Top 1% Incomes

Source: Appendix Table XX. The figure depicts average charitable giving of top 1% incomes (normalized by average income per family) on the left y-axis.
Charitable Giving of Top 1% Incomes, 1962-2012

Mean charitable giving of top 1% incomes / mean income

Top 1% income share

- Mean charitable giving of top 1% divided by mean income [left y-axis]
- Top 1% Income Share [right y-axis]

Source: Appendix Table XX. The figure depicts average charitable giving of top 1% incomes (normalized by average income per family) on the left y-axis. For comparison, the figure reports the top 1% income share (on the right y-axis).
Supply-Side or Rent-seeking

Under rent-seeking scenario, growth in top 1% incomes should come at the expense of bottom 99% (and conversely)

**US Evidence:** Top 1% incomes grow slowly from 1933 to 1975 and fast afterwards. Bottom 99% incomes grow fast from 1933 to 1975 and slowly afterwards

**International evidence:** Hard to find an effect of top rate cuts on economic growth

⇒ Consistent with rent-seeking effects

More research needed on this critical question
POLICY CONCLUSIONS

1) US historical evidence and international evidence shows that tax policy plays a key role in the shaping inequality

2) High top tax rates reduce the pre-tax income gap without visible effect on economic growth

3) Public will favor more progressive taxation only if it is convinced that top income gains are detrimental to the 99%

4) In globalized world, progressive taxation will require international coordination to keep tax avoidance/evasion low
SUPPLEMENTARY SLIDES
Top 1% Income Share (pre-tax) and Top Marginal Tax Rate
Tax Avoidance: Top 1% Income Shares and Top MTR

Marginal Tax Rates (%)

Top 1% Income Shares (%)

Year

Top 1% Share Top MTR
Top 1% (excl. KG) MTR K gains
MTR K gains

0 10 20 30 40 50 60 70 80 90 100
Marginal Tax Rates (%)

0 5 10 15 20 25

A. Average CEO compensation

Link between top tax rate and CEO pay in 2006 across countries
B. Average CEO compensation with controls

Controlling for firm profitability, governance, size, and industry
Mean Child Percentile Rank vs. Parent Percentile Rank

Rank-Rank Slope (U.S) = 0.341 (0.0003)
Intergenerational Mobility in the United States vs. Denmark

Rank-Rank Slope (U.S) = 0.341
Rank-Rank Slope (Denmark) = 0.180

Data sources:
- Denmark [Boserup, Kreiner, Kopczuk 2013]
- United States
REFERENCES

Alvaredo, Facundo, Atkinson, Anthony, Thomas Piketty, and Emmanuel Saez, The World Top Incomes Database (web)


Piketty, Thomas and Emmanuel Saez “Inequality in the Long-Run”, Science 344, 2014, 838-843 (web)