Wealth Inequality in the United States since 1913

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Is rising inequality in the United States only a labor income phenomenon?

US Income inequality has increased sharply since the 1970s

Mixed existing evidence on wealth inequality changes

⇒ Is inequality increase solely driven by labor income?

We capitalize income tax return data to estimate new annual series of US wealth concentration since 1913

**Key result:** Wealth inequality has surged, mostly because of the rise of the top 0.1% wealth share (wealth above $20m)
Goal: distribute the total household wealth recorded in the Flow of Funds

The composition of household wealth in the U.S., 1913-2013

- Housing (net of mortgages)
- Sole proprietorships & partnerships
- Currency, deposits and bonds
- Equities
- Pensions

% of national income

To obtain wealth, we capitalize income tax returns

**How the capitalization technique works:**

Start from each capital income component reported on individual tax returns

Compute aggregate capitalization factor for each asset class that maps total tax-returns income to Flow of Funds wealth

Multiply each individual capital income component by capitalization factor of corresponding asset class

Simple idea, but lot of care needed in reconciling tax with Flow of Funds data

↓

Key assumption of the capitalization method: within asset class, each group has the same average capitalization factor
Evidence suggests that within-asset class realized returns are flat

Two potential issues:

Maybe the rich have higher equity/bond returns (e.g., better at spotting good investment opportunities) → level bias

Maybe this differential has increased since the 1970s (e.g., due to financial globalization/innovation) → trend bias

We successfully test the capitalization method in three micro-datasets where we can observe both income and wealth

All tests show that within-asset class returns are flat, so that capitalization method generates correct top wealth shares
We account for wealth that does not generate taxable income

**Owner-occupied housing**

Home values set proportional to property tax paid

Home mortgages set proportional to mortgage interest paid

We assume (based on SCF) that itemizers have 75% of home wealth and 80% of home mortgages

**Pensions**

Pension wealth set proportional to pension distributions and wages above 50th percentile

Consistent with SCF and with direct information on IRA wealth (IRAs $\approx 30\%$ of pension wealth)

We each year cover 100% of the wealth reported in the Flow of Funds $\rightarrow$ **Distributional Flow of Funds**
At the very top, US back to early 20th century wealth concentration levels

This figure depicts the share of total household wealth held by the 0.1% richest families, as estimated by capitalizing income tax returns. In 2012, the top 0.1% includes about 160,000 families with net wealth above $20.6 million. Source: Appendix Table B1.
Fortunes >$20mn grow much faster than average, fortunes of a few million do not do not
Mechanisms? 1. 1980s-1990s: upsurge of labor income at the top

This figure shows the share of total pre-tax national income and pre-tax labor income earned by top 0.1% wealth-holders. Labor income includes employee compensation and the labor component of business income. Source: Appendix Tables B25 and B28.
2. Booming labor incomes saved at a high rate

Saving rates by wealth class (decennial averages)

- Top 1%
- Top 10 to 1%
- Bottom 90%

% of each group's total primary income
3. Capital generates a sizable return → snowball effect

Yield and total return on U.S. private wealth

Pure yield = capital income (including retained earnings) / wealth

Total return = pure yield + asset price effect
At the bottom: massive dissaving

Saving rate of the bottom 90%
The average wealth of the bottom 90% is no higher today than in 1986.

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.
The rise and fall of middle-class wealth

Composition of the bottom 90% wealth share

% of total household wealth

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

Year:
- 1917
- 1922
- 1927
- 1932
- 1937
- 1942
- 1947
- 1952
- 1957
- 1962
- 1967
- 1972
- 1977
- 1982
- 1987
- 1992
- 1997
- 2002
- 2007
- 2012
Conclusion: A first step toward DINA

We constructed new, consistent series on the distribution of wealth fully consistent with Flow of Funds aggregates.

Next step: construct a microfile with individual-level income (pre-tax and post-tax) and wealth consistent with macro totals (in progress, with Piketty and Saez)

= distributional national accounts (DINA), reconciling macro growth and inequality studies
DINAs make it possible to compute growth rates consistent with macro totals.

Real average national income:
Full adult population vs. bottom 90%

Average income in constant 2012 dollars

Real values are obtained by using the national income deflator and expressed in 2012 dollars. Source: Appendix Tables XX.
Top 1% vs. bottom 90%: from a factor of 20 to a factor of 40

Real average national income of bottom 90% and top 1% adults

Real values are obtained by using the national income deflator and expressed in 2012 dollars. Source: Appendix Tables XX.
Supplementary Slides
The concentration of taxable capital income has increased dramatically.
Offshore tax evasion has probably increased since the 1970s

In 2012, 9% of the U.S. listed equity market capitalization was held by tax haven investors (hedge funds in the Caymans, banks in Switzerland, individuals in Monaco, etc.). Source: Zucman (2014) using US Treasury International Capital data.
Check 1: In matched estates-income data, within asset class returns are flat.
The very rich did collect a lot of dividends in the 1970s

Dividend yield by wealth class in 1976
(matched micro estate and income tax data)
The figure compares direct SCF wealth shares to wealth shares estimated by capitalizing SCF income. Wealth excludes pensions and owner-occupied net housing. Source: Appendix Table C1.
The figure compares top foundation wealth shares obtained by using balance sheet wealth data as reported to the IRS and obtained by capitalizing IRS-reported income. Source: Appendix Tables C11 and C13.
Wealth in 2012 is very concentrated

Table 1: Thresholds and average wealth in top wealth groups, 2012

<table>
<thead>
<tr>
<th>Wealth group</th>
<th>Number of families</th>
<th>Wealth threshold</th>
<th>Average wealth</th>
<th>Wealth share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Top Wealth Groups</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Population</td>
<td>160,700,000</td>
<td></td>
<td>$343,000</td>
<td>100%</td>
</tr>
<tr>
<td>Top 10%</td>
<td>16,070,000</td>
<td>$660,000</td>
<td>$2,560,000</td>
<td>77.2%</td>
</tr>
<tr>
<td>Top 1%</td>
<td>1,607,000</td>
<td>$3,960,000</td>
<td>$13,840,000</td>
<td>41.8%</td>
</tr>
<tr>
<td>Top 0.1%</td>
<td>160,700</td>
<td>$20,600,000</td>
<td>$72,800,000</td>
<td>22.0%</td>
</tr>
<tr>
<td>Top .01%</td>
<td>16,070</td>
<td>$111,000,000</td>
<td>$371,000,000</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

| **B. Intermediate Wealth Groups** |        |                  |                |              |
| Bottom 90%       | 144,600,000       |                  | $84,000        | 22.8%        |
| Top 10-1%        | 14,463,000        | $660,000         | $1,310,000     | 35.4%        |
| Top 1-0.1%       | 1,446,300         | $3,960,000       | $7,290,000     | 19.8%        |
| Top 0.1-0.01%    | 144,600           | $20,600,000      | $39,700,000    | 10.8%        |
| Top .01%         | 16,070            | $111,000,000     | $371,000,000   | 11.2%        |

Notes: This table reports on the distribution of household in the United States in 2012 as obtained by capitalizing income tax returns. The unit is the family (either a single person aged 20 or above or a married couple, in both cases with children if any). Fractiles are defined relative to the total number of families in the population. Source: Appendix Table B1.
Rates of returns on wealth around 7%
No long-run price effects

Figure A8: Yield and total return on U.S. private wealth (decennial averages)

Total return = pure yield + asset price effect

Pure yield

Total return = pure yield + asset price effect
Capital income missed by tax data

From reported to total capital income, 1920-2010

- Didivends, interest, rents & profits reported on tax returns
- Imputed rents
- Corporate income tax
- Income paid to pensions & insurance
- Non-filers & unreported sole prop. profits
- Retained earnings
Most trusts generate income taxable at the individual level.
Charitable giving follows top incomes
Surge in top incomes is real

Charitable Giving of Top 1% Incomes, 1962-2012

Mean charitable giving of top 1% incomes / mean income

Top 1% Income Share [right y-axis]

Source: 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).
Total returns of foundations grow with wealth but realized returns do not.

Figure C4: Return on foundation wealth, 1990-2010 average
Returns including realized & unrealized gains

- Realized return
- Unrealized capital gains
Wealth has always been concentrated

Top 10% wealth share in the United States, 1917-2012

The figure depicts the share of total household wealth owned by the top 10%, obtained by capitalizing income tax returns versus in the Survey of Consumer Finances. The unit of analysis is the family. Source: Appendix Tables B1 and C4.
Top 1% has gained more than top 10%
Top 1% surge is due to the top 0.1%

Top 1-0.1% and top 0.1% wealth shares, 1913-2012

% of total household wealth

Top 1% to 0.1%

Top 0.1%
Top 0.01% share: $\times 4$ in last 35 years

Composition of the top 0.01% wealth share, 1913-2012

- Equities
- Fixed income claims
- Other

% of total household wealth
Wealth is getting older, but at the very top remains younger than in the ’60s–’70s.
Our estimate for top 0.01% is consistent with Forbes rankings.

Forbes 400 (top .00025%) and top .01% Wealth Shares

The figure depicts the top .00025% wealth share as estimated from the Forbes 400 list on the left axis. For comparison, the figure reports our top 0.01% wealth share obtained by capitalizing income tax returns (on the right axis). Source: Appendix Table C3.
Estate tax returns fail to capture rising top wealth shares

The figure depicts the top 0.1% wealth share obtained by capitalizing income, by using the Survey of Consumer Finances (SCF baseline and adjusted), and by using estate tax data (Kopczuk and Saez, 2004). Source: Appendix C4 and C4b.
SCF does not fully capture rising top capital income share

The figure compares the top 0.1% capital income shares estimated with the SCF data vs. the income tax data. Capital income includes realized capital gains, dividends, interest, net rents, and business profits. Source: Appendix Table C2.
The figure depicts the relative mortality rate by age and wealth group for men in 1999-2008. E.g., male top 1% wealth holders aged 30-49 mortality rate is 40% of males aged 30-49 population wide. Kopczuk-Saez is based on the mortality of white college goers relative to population in the 1980s. The graph shows that mortality decreases with wealth (even within the top 10%) and that the wealth mortality advantage decreases with age. Source: Appendix Table C7.
The figure depicts the relative mortality rate for men aged 65-79 by wealth group and period. E.g., male top 1% wealth holders aged 65-79 mortality rate is 90% of males aged 65-79 population wide in 1979-1984. Kopczuk-Saez is based on the mortality of white college goers relative to population in the 1980s. The graph shows that the wealth mortality advantage increases overtime and more so for the top 1% wealthiest. Source: Appendix Figure C7.
Since the 1980s the share of total household wealth owned by families in the bottom 90% of the wealth distribution has fallen proportionally more than the share of total pre-tax national income earned by these families. Source: Appendix Tables B1, B25 and B33c.
### Table 2: Rates of growth, saving and return by wealth group

<table>
<thead>
<tr>
<th></th>
<th>Real growth rate of wealth per family</th>
<th>Real growth rate of income per family</th>
<th>Private saving rate (personal + retained earnings)</th>
<th>Real rate of capital gains</th>
<th>Total pre-tax rate of return</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$g_{wf}$</td>
<td>$g_{yf}$</td>
<td>$s = S/Y$</td>
<td>$q$</td>
<td>$r + q$</td>
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<td><strong>1917-1929</strong></td>
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<tr>
<td>All</td>
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<td>10%</td>
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<td>9.0%</td>
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<td>0.0%</td>
<td>1%</td>
<td>0.2%</td>
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<td>Top 10%</td>
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<td>23%</td>
<td>1.0%</td>
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<td>28%</td>
<td>1.5%</td>
<td>10.5%</td>
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<td><strong>1929-1986</strong></td>
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<tr>
<td>All</td>
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<td>6.2%</td>
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<td>6.8%</td>
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<tr>
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<td>24%</td>
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<td><strong>1986-2012</strong></td>
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<td>All</td>
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<td>9%</td>
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<td>7.5%</td>
</tr>
<tr>
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<td>0%</td>
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<td>36%</td>
<td>0.9%</td>
<td>7.9%</td>
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