Wealth Inequality in the United States since 1913

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Is rising inequality purely a labor income phenomenon?

Income inequality has increased sharply since the 1980s yet the existing evidence on trends in wealth inequality is mixed.

→ Is rising inequality solely driven by labor income?

We develop a new technique to estimate the distribution of wealth since 1913: we capitalize income tax returns.

I.e., we multiply individual-level data on dividends, interest, rents... by 1/(aggregate rate of return of respective asset class).

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Key result: wealth inequality has surged, but phenomenon is concentrated mostly within the top .1% (=wealth above $20m).
We estimate the distribution of total Flow of Funds wealth

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
Wealth concentration is back to its 1920s level
No increase in wealth shares below top 0.1% so far.
The rise and fall of middle-class wealth

Composition of the bottom 90% wealth share

- Housing (net of mortgages)
- Business assets
- Equities & fixed claims (net of non-mortgage debt)
- Pensions
Middle-class wealth is falling because its relative saving rate is plummeting.

The rich save more as a fraction of their income, except in the 1930s when there was large dis-saving through corporations. NB: The average private saving rate has been 9.8% over 1913-2013.
The capitalization technique raises a number of potential difficulties

1. Some wealth does not generate taxable income

2. The rich may declare a higher fraction of their income today than in the 1970s because of
   - Changes in tax laws
   - Reduced tax evasion

3. Wealthy households may have higher rates of return

4. SCF and estate tax returns do not show rising top 1% and 0.1% wealth shares

We have taken each of these potential concerns very seriously
I- Wealth that does not generate taxable income
We systematically account for non-taxable capital income

**Pensions**

- Published IRS data on value of IRAs ($\approx 30\%$ of pension wealth)

- Imputations for other forms of pension wealth (based on wages & pension distributions)

**Owner-occupied housing**

- Property tax paid

- Mortgage interest paid

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Could be improved, but largely irrelevant for top 1% and above because pensions and housing very small there
II- Changes in tax avoidance and evasion
A large amount of capital income is taxed at the household level

A lot of income flows to individual income tax returns

   Mutual funds, S corporations, partnerships, holding companies...

We have conducted a systematic IRS - NIPA reconciliation exercise to identify “missing” income every year:

     Fraction of economic capital income declared on tax returns is high

     But it is no higher today than in 60s-70s

     E.g., corporate retained earnings are as high today as in 60s-70s

     ↓

On aggregate, no more sheltered capital income in the 1970s than today
The fraction of capital income declared on tax returns has remained constant.
We find no evidence the wealthy had much more sheltered income in the 1970s.

Estate and income tax data show that:

Despite high tax rates the wealthy did earn a lot of dividends in the 1970s.

Trust wealth was higher in the 1960s than today, but (i) only marginally; (ii) we fully re-attribute it to its owners.

Capital gains realizations were lower in the 1970s but we find same rise of top wealth shares when capitalizing dividends only and ignoring KG.

Our series capture a real increase in wealth concentration and not declining tax avoidance at the very top.
Despite high tax rates, the rich did collect a lot of dividends in the 1970s.
Capitalizing capital gains or ignoring them makes little difference to the results

**Top 0.1% wealth share, robustness checks**

- **Top 0.1% Baseline**
- **Top 0.1% KG capitalized**
- **Top 0.1% KG not capitalized**
- **Top 0.1% pensions proportional to pension distributions**
- **Top 0.1% higher bond return for the rich**
Tax evasion, if anything, 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.
III- Rates of return varying by wealth group
Is the return constant within asset class?

Our key assumption: for a given asset class the **realized rate of return** is the same for the different groups of the wealth distribution

**Two potential issues:**

Maybe the very 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**

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**Three checks show that the realized return within asset class is flat and has remained flat**
Check 1: No evidence that the wealthy have higher returns within asset class

Returns by asset and wealth class, 2007
(matched tabulated estates and income tax data)

- Dividends + capital gains
- Dividends yield
- Interest yield

Total net wealth at death:
- up to $3.5m
- $3.5m-$5m
- $5m-$10m
- $10m-$20m
- $20m+
Check 2: The capitalization method works for foundations

How we check the validity of the capitalization method with foundations data:

- Use publicly available, quasi-exhaustive IRS micro-data
- Micro-files include information on wealth at market value and income
- Apply same rates of returns & capitalization technique as for individuals

(Memo: foundation wealth = 0.8% of household wealth mid-1980s, \(\uparrow\) 1.2% today)

\[\downarrow\]

By capitalizing foundation income we are able to reproduce the correct foundation wealth distribution
The capitalization method works for foundations.

Top foundations wealth shares: observed (from balance sheet data) vs. estimated (by capitalizing income)

- Top 1% (observed)
- Top 1% (estimated by capitalizing income)
- Top 0.1% (observed)
- Top 0.1% (estimated by capitalizing income)
NB: Flat realized returns within asset class does not imply flat total return $r$.

Return on foundation wealth, 1990-2010 average
Returns including realized & unrealized gains
Check 3: The capitalization method works for the SCF

Capitalized SCF income vs. SCF wealth

- Top .1%
- Top 1%
- Top 10%
- Direct Wealth
- Capitalized Income
IV- Consistency with other estimates
Other methods obtain conflicting results, but they face data limitations

**Forbes rankings**: large increase in wealth concentration consistent with our estimates

**Surveys**: SCF shows increase in top 10%, but much less in top 1% and 0.1%

Key issue: SCF fails to capture surge in capital income concentration since 1989

**Estate tax**: No increase in top 1% share since 1980s (Kopczuk-Saez, 2004)

Key issue: Estate tax multiplier method fails to take into account widening mortality differential by wealth class

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**Our capitalization analysis can help re-design SCF weights and estate multiplier weights**
Our estimate for top 0.01% is consistent with Forbes rankings.
Our top 10% wealth share is consistent with SCF

Top 10% Wealth Shares: Comparing Estimates

- Capitalized Incomes (Saez-Zucman)
- SCF (Kennickell)
SCF fails to capture rising top capital income share

Top .1% K Income Share in SCF and Tax Data

Top .1% K income SCF  Top .1% K income

0% 10% 20% 30% 40% 5% 15% 25% 35% 40%

Estate tax returns fail to capture rising top wealth shares

![Graph showing Top 1% Wealth Shares: Comparing Estimates](attachment:chart.png)
Conclusion
Wealth inequality is making a comeback

Main long-run trends in the distribution of wealth:

Long run U-shaped evolution for the very rich (top 0.1%: >$20 million today)

Long run L-shaped evolution for the rich (top 1% to 0.1%: btw $4 million and 20 million today)

Long-run ∩ for the middle-class (top 50% to 90%: less than $500K today)

Fall of bottom 90% share will continue if saving rate remains low

Policies:

Progressive taxation is not enough

Need to encourage saving / discourage debt to reverse trend: forced long-term saving + borrow against yourself
Supplementary Slides
Aggregate income and wealth: concepts and data

**Wealth**

\[ W = \text{Total assets minus liabilities of households at market value} \]

Excludes durables, unfunded DB pensions, non-profits

Flow of Funds since 1945


**Income**

NIPA since 1929

Kuznets (1941) for 1919-1929 and King (1930) before
Wealth categories definition

**Equities**: corporate equities, including S corporation equities, and money market fund shares (treated as dividend-paying for income tax purposes)

**Fixed claims**: currency, deposits, bonds, and other interest-paying assets, net of non-mortgage debts

**Business assets**: sole proprietorships, farms (land and equipment), partnerships, intellectual property products

**Housing**: owner- and tenant-occupied housing, net of mortgage debt

**Pensions**: funded pension entitlements, life insurance reserves, IRAs. Excludes social security and unfunded defined benefit pensions
A U-shaped capital income share

The composition of capital income in the U.S., 1913-2013

- Housing rents (net of mortgages)
- Noncorporate business profits
- Net interest
- Corporate profits
- Profits & interest paid to pensions
Returns volatility is back

Yield and total return on U.S. private wealth 1913-2013

Total return = pure yield + asset price effect

Pure yield = capital income (including retained earnings) / wealth
In the long run pure price effects tend to wash out.

Yield and total return on U.S. private wealth 1913-2013 (decennial averages)

Total return = pure yield + asset price effect
Wealth has always been very concentrated

Top 10% wealth share vs. bottom 90% in the U.S., 1917-2012
The top 10% is climbing back

Top 10% wealth in the U.S., 1917-2012
Top 1% has gained more than top 10%
The middle rich are losing ground

Top 10-1% wealth share in the U.S., 1917-2012
Top 1% surge is due to the top 0.1%
Almost no recovery for the merely rich

Top 1-0.1% wealth share in the U.S., 1913-2012
Top 0.01% share: $\times 4$ in last 35 years

Composition of the top 0.01% wealth share, 1913-2012
Wealth is getting older, but at the very top remains younger than in the ’60s–’70s.
Findings are robust to different methodological choices

Robustness checks:

Different treatment of capital gains
- Capitalizing dividends only (Bill Gates world)
- Capitalizing dividends plus capital gains (Warren Buffet world)
- Capitalizing dividends plus capital gains for shares but not ranking (the best of both worlds)

Allowing for bond yield rising with wealth

Different imputations for pension wealth

All show wealth inequalities rising fast at the very top, but not below the top 0.1%
Most trusts generate income taxable at the individual level.
The concentration of declared capital income is rising fast.
A first step toward DINA

We are constructing new, consistent series on the distribution of wealth $W$ and capital income $Y_K$

$Y_K$ is about 1/3 of national income $Y$

Next step: distribution of $Y_L$ so as to obtain the full distribution of national income $Y = Y_K + Y_L$

Will make it possible to break GDP growth by fractile, before and after-tax, based on a representative microfile with individual-level income and wealth consistent with macro aggregates

= distributional national accounts (DINA), reconciling macro and inequality studies
Internal IRS data could be used to refine our estimates:

Value of all IRAs available at individual micro level (30% of all pensions)

Value of DB and 401(k) pensions could be estimated from employer and past contributions

Value of homes could be estimated using geo-code and Zillow

Value of businesses (partnerships and S-corps) could be estimated by matching with business returns balance sheets

Date of birth data to compute wealth distributions by age

Date of death data to compute mortality rates by wealth and improve estate multiplier estimates
Improving Estimates with Enhanced Information Tax Reporting

401k reporting of account balances (and not only IRAs)
Market/assessed value of real estate on property tax bills
Mortgages outstanding on form 1098
Market value of accounts and portfolio securities on forms 1099
Purchases and sales of securities (→ saving)

This would allow to obtain consistent income, wealth, and savings information at the micro-level

Foundations or charitable organizations already report all this information