Long-run trends of Income and Wealth Inequality in the United States

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Today's class

- Inequality is one of the defining topics of the 21^{st} century
- Do we have to re-think macroeconomic dynamics and policies in unequal societies?
- Today's class presents facts on long-run trends of inequality in the United States
- Presentation builds on joint work with Alina Bartscher, Ellora Derenoncourt, Chi Hyun Kim, Víctor Ríos-Rull, Moritz Schularick, and Ulrike Steins

Overview

- Part I: Long-run trends of income and wealth inequality
- Part II: Differential trends by educational attainment
- Part III: Debt accumulation and asset prices
- Part IV: The long-run trend of racial inequality
- Part V: The current state of inequality

Part I

Wealth and Income Inequality in America 1949 - 2016

joint work with

Moritz Schularick and Ulrike I. Steins

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- Existing evidence about the "top" of the income **or** wealth distribution
- Missing evidence about **joint** evolution of the income and wealth distribution
- Joint dynamics key to understand drivers of wealth inequality

Contribution

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- Explore joint trends of income and wealth inequality for seven decades

- Document systematic portfolio differences and asset price elasticities along the wealth distribution

- Highlight importance of asset price dynamics for observed wealth inequality trends

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- SCF+ provides household microdata on income, wealth, portfolio composition, and demographics

Results

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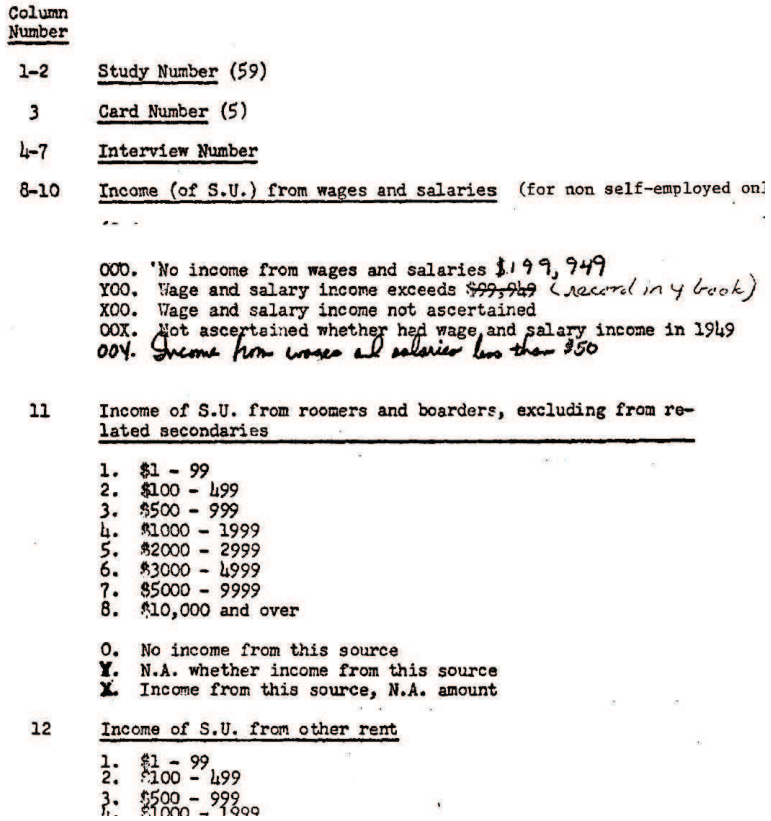
    2. After 2007 unprecedented rise in wealth inequality
- Systematic portfolio differences and asset price changes account for diverging trends
- Wealth dynamics constitute a race between the stock and the housing market

Historical SCF data

- Historical SCF files so far not systematically coded



Column Number

1-2 Study Number (59)

3 Card Number (5)

4-7 Interview Number

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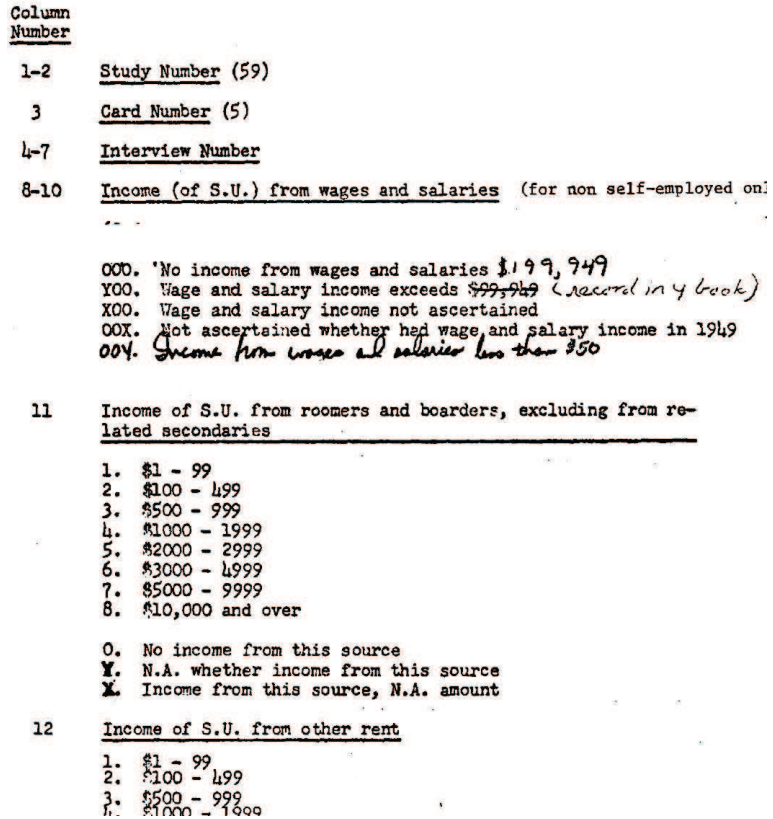

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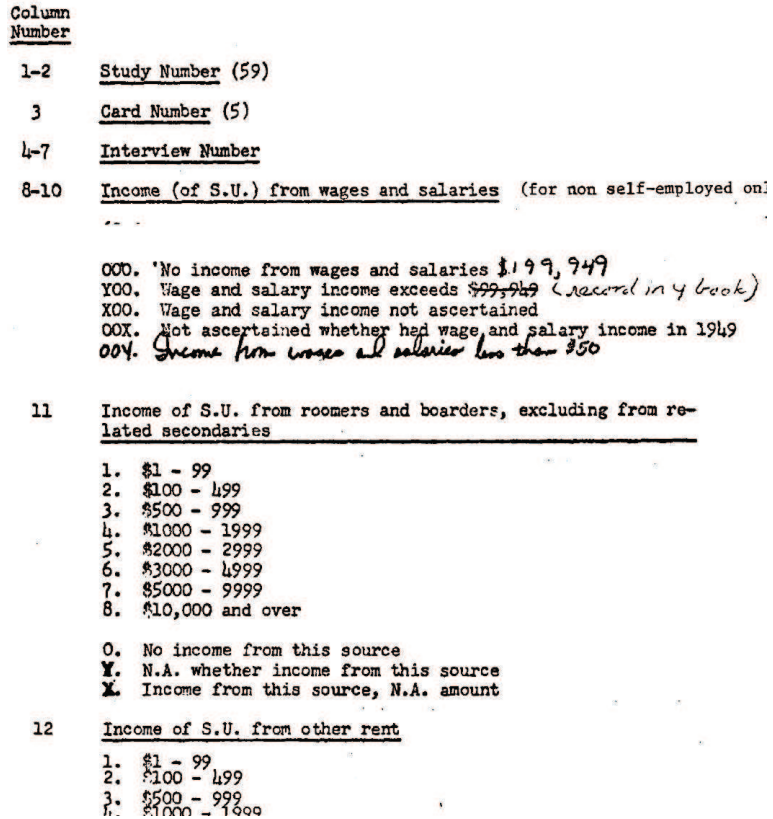

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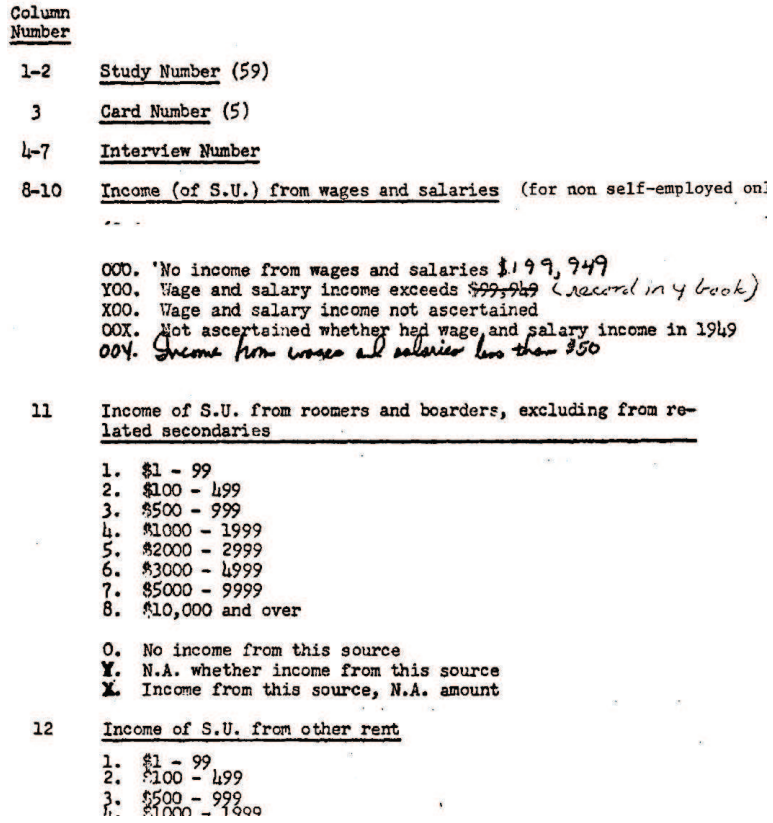

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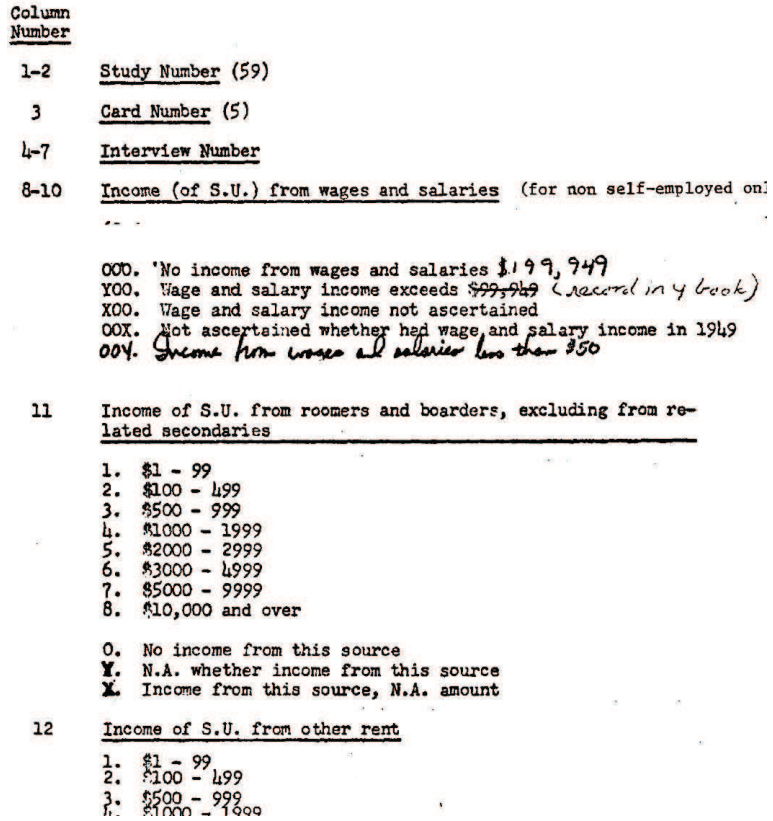

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Variables

1. **Income :** wages and salaries, professional practice and self employment, rental income, interest, dividends, business and farm income, transfer payments

Variables

1. **Income**

2. **Assets:** liquid assets (CDs, checking, saving, call/money market accounts), housing and other real estate, bonds, stocks, mutual funds, corporate and non-corporate equity, retirement accounts

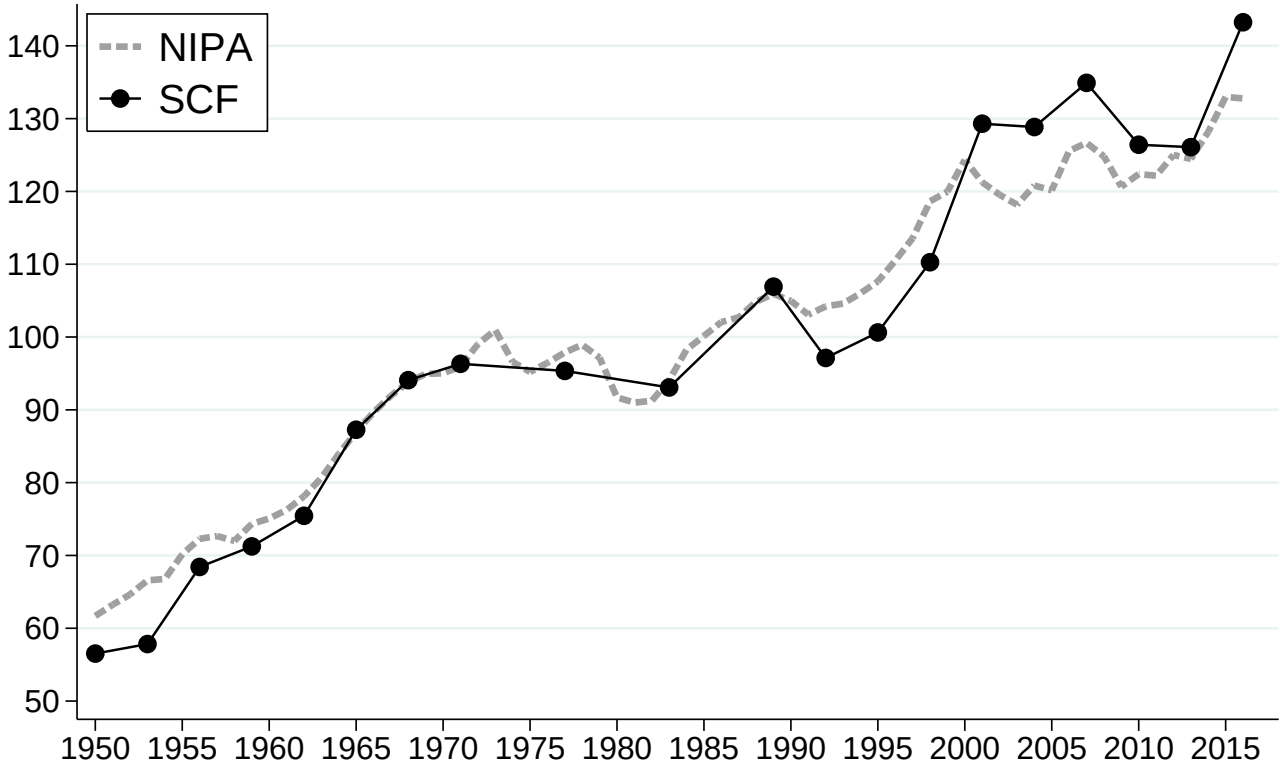
Variables

1. **Income**
2. **Assets**
3. **Debt :** housing debt, car loans, education loans, and loans for consumer durables, credit card debt, and other non-housing debt

Variables

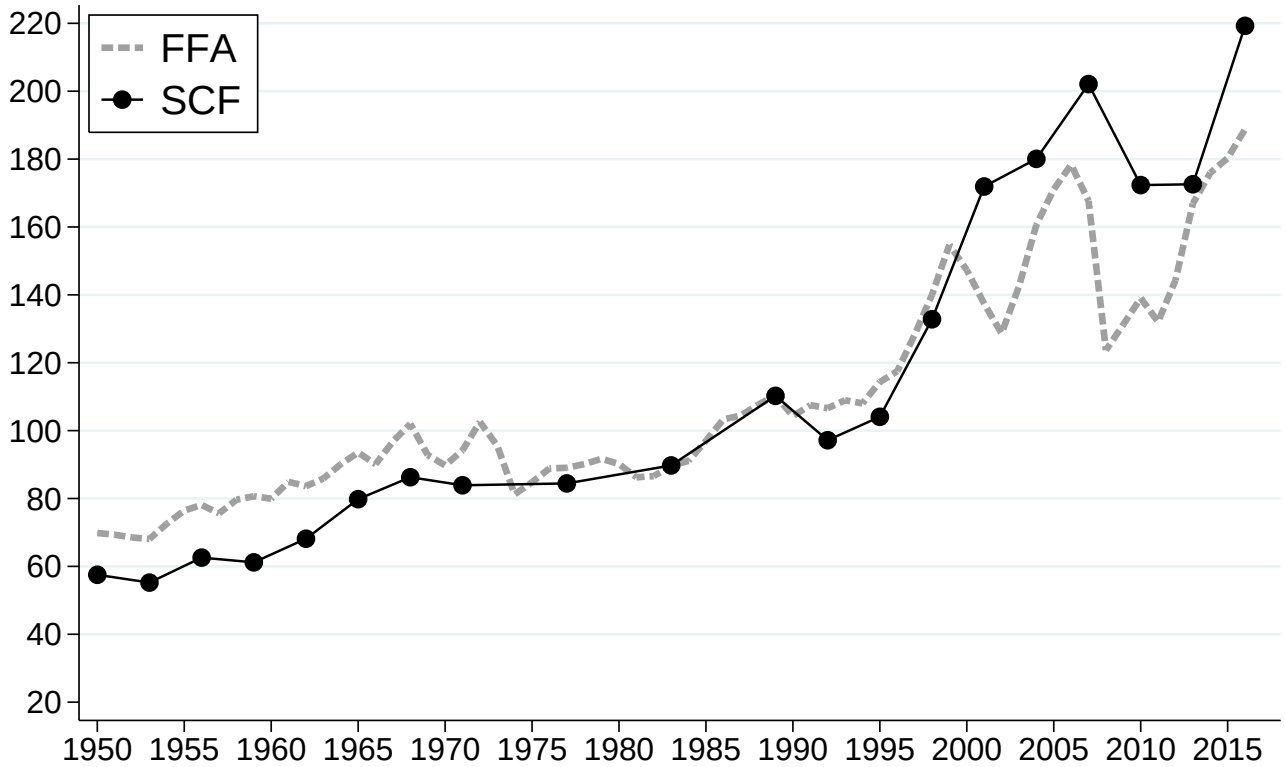
1. **Income**
2. **Assets**
3. **Debt**
4. **Wealth :** consolidated household balance sheet

Micro data and macro trends: Income



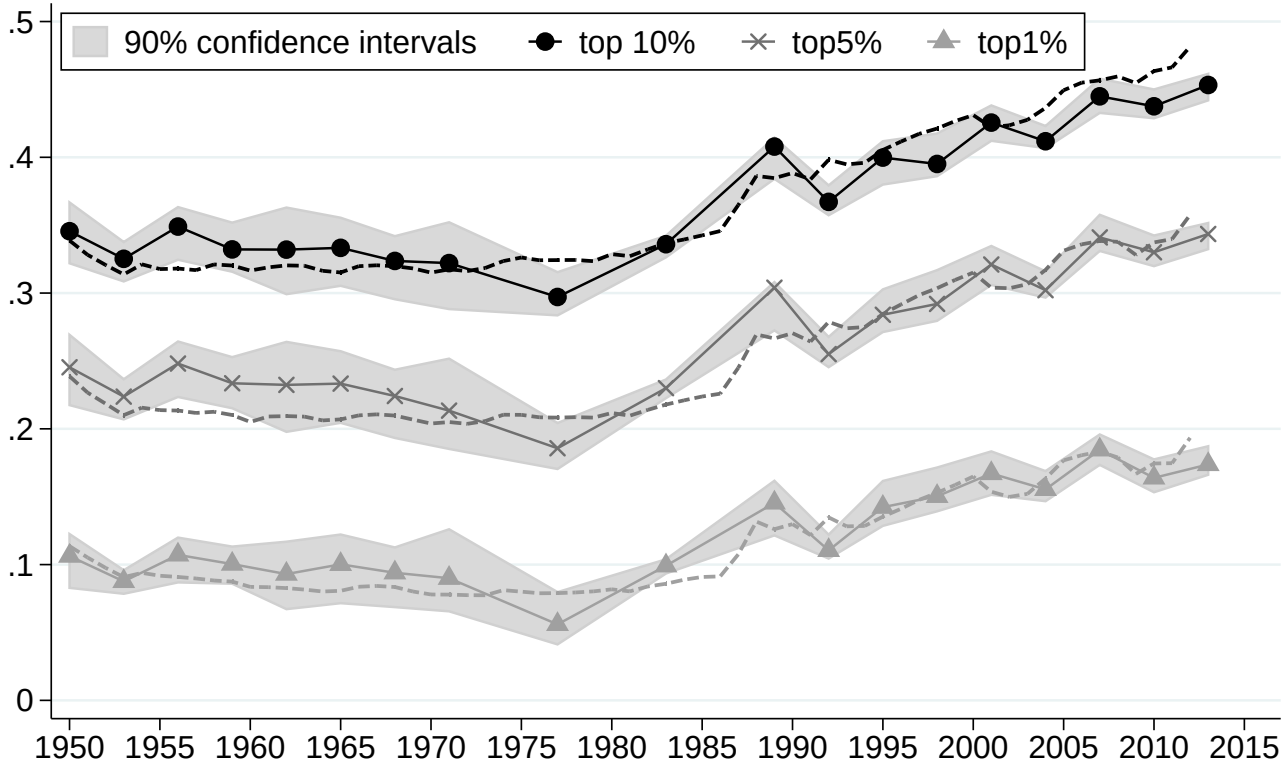
- Micro data matches macroeconomic income trends from NIPA

Micro data and macro trends: Wealth



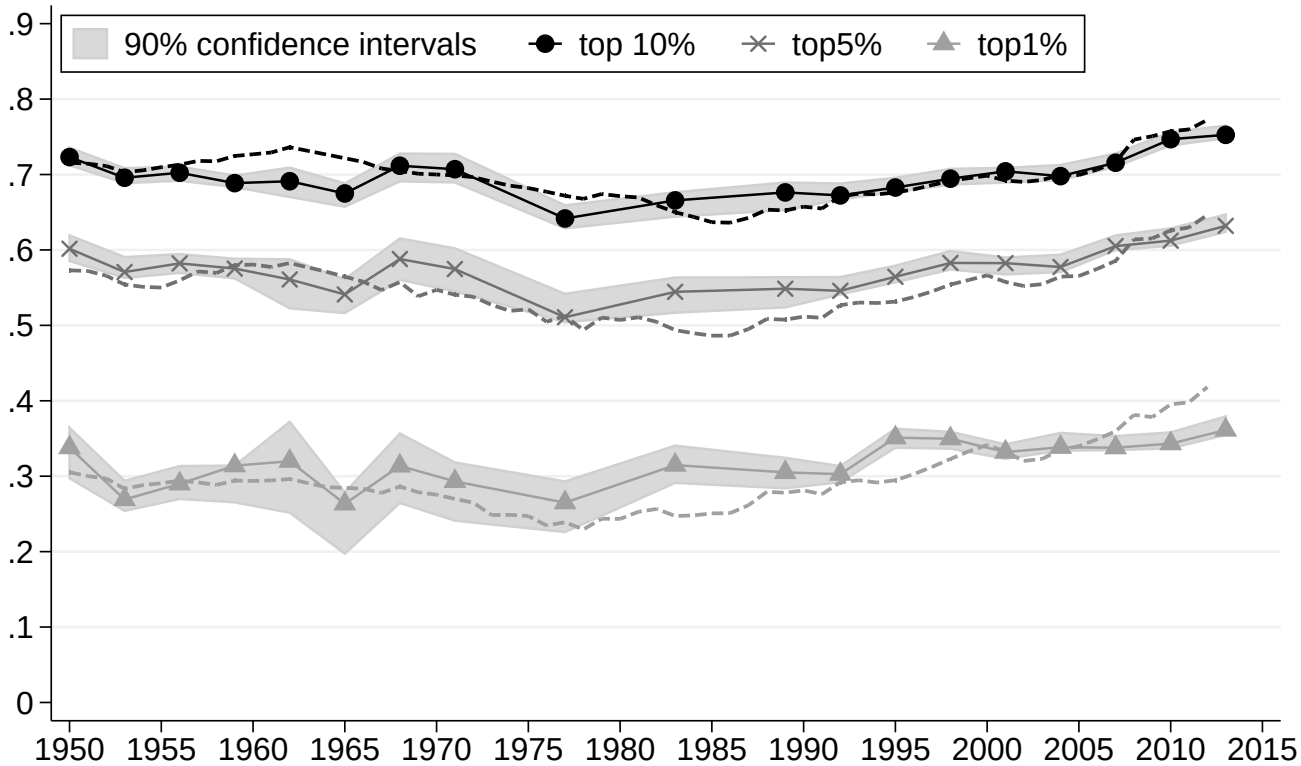
- Micro data matches macroeconomic wealth trends from Flow of Funds

Income inequality



- Income concentration at the top matches results from tax data

Wealth inequality



- Wealth concentration at the top matches results from capitalizing income tax data

Changes in income and wealth inequality

	Income					Wealth				
	1950	1971	1989	2007	2016	1950	1971	1989	2007	2016
bottom 50%	21.6	21.6	16.2	15.4	14.5	3.0	3.0	2.9	2.5	1.2
0- 25%	6.1	6.2	5.0	4.5	4.5	-0.1	-0.2	-0.1	-0.1	-0.4
25-50%	15.5	15.4	11.3	11.0	10.1	3.1	3.2	3.0	2.6	1.6
50-90%	43.9	47.7	43.8	40.3	37.9	24.7	26.3	29.5	26.0	21.5
50-75%	23.5	24.9	22.5	20.3	18.4	9.8	10.5	11.7	10.2	7.2
75-90%	20.4	22.8	21.4	20.0	19.5	14.8	15.8	17.8	15.8	14.3
top 10%	34.5	**30.7**	39.9	**44.3**	47.6	72.3	70.7	67.6	71.5	77.4

- Income concentration increases strongly between 1971 and 2007

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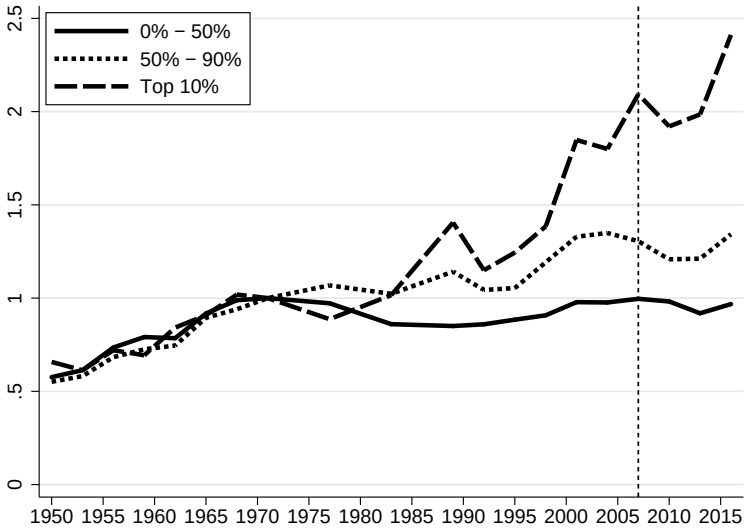
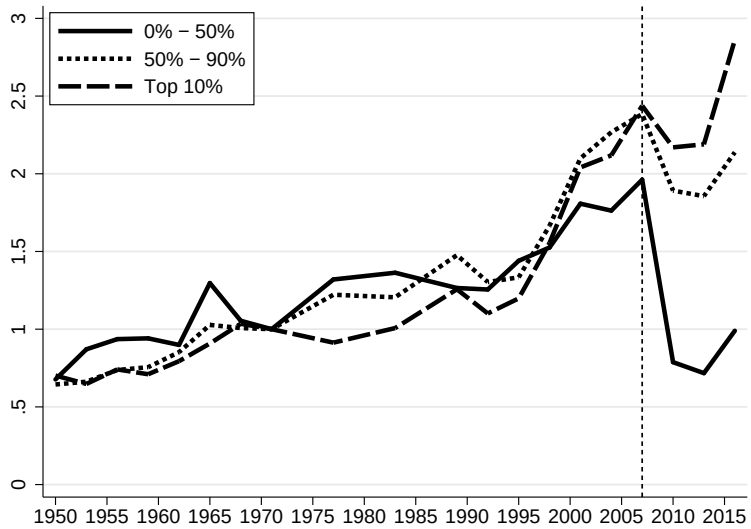
- Income concentration increases strongly between 1971 and 2007 with large losses at the bottom
- Wealth inequality hardly changed between 1971 and 2007
- Wealth inequality increases strongly after 2007

Joint evolution of income and wealth distribution

- Sort households along the wealth distribution



Income growth



Wealth growth

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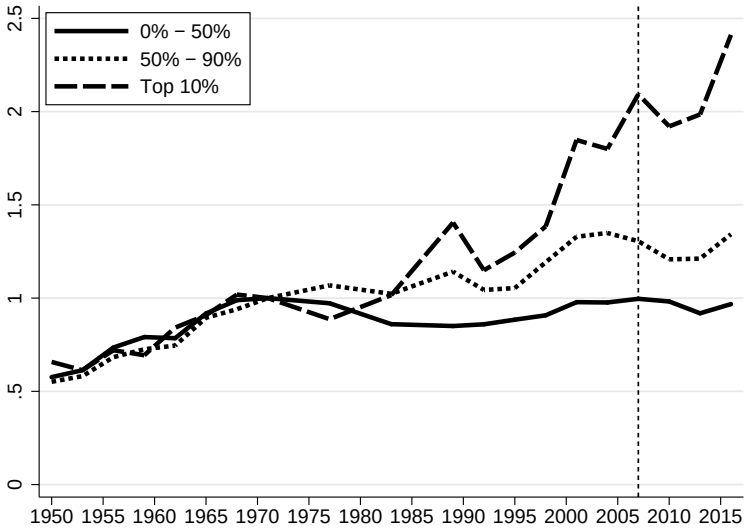

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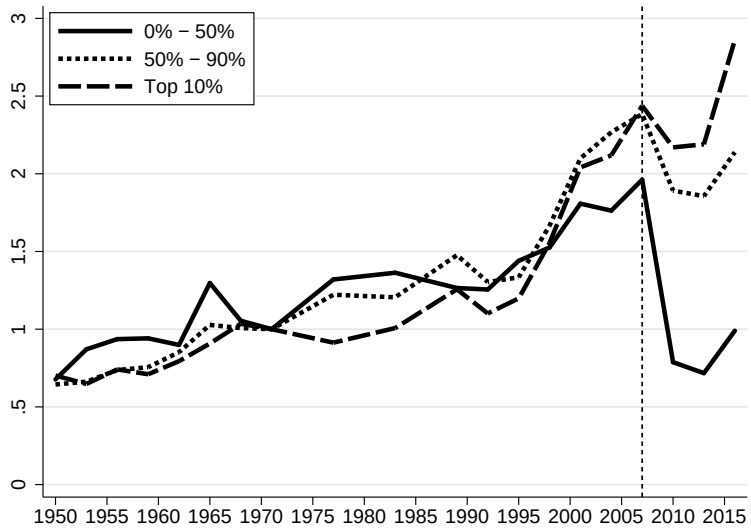

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- Incomes strongly diverge between 1971 and 2007

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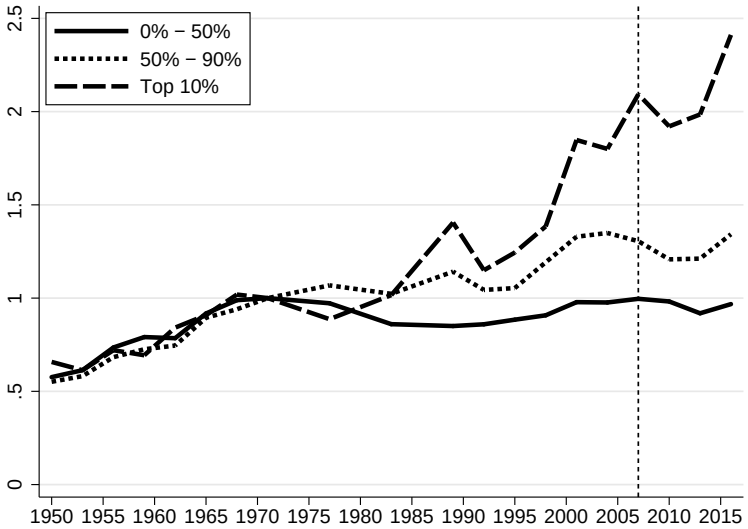

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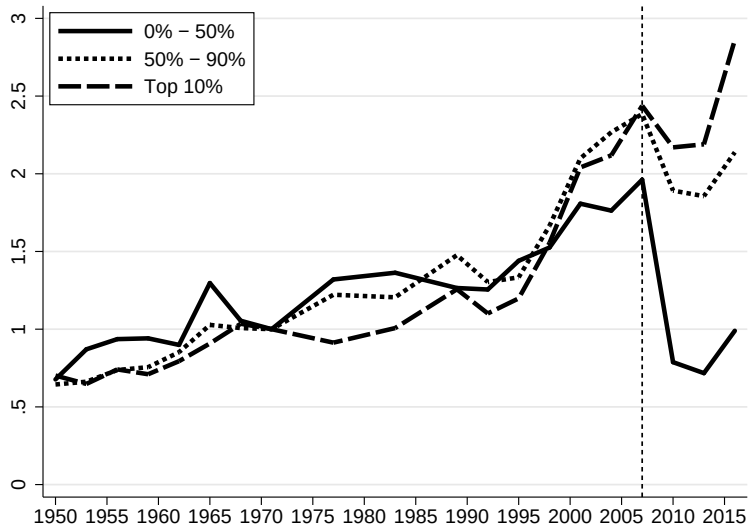

Wealth growth

- Incomes strongly diverge between 1971 and 2007
- Wealth levels move in lockstep before 2007 and strongly diverge after 2007

How can we explain diverging trends of income and wealth inequality ?

Wealth dynamics

- Dynamics of wealth of group i between t and $t+1$

$$W^i_{t+1} = W^i_t(1 + r^i_t + q^i_t) + Y^i_{L,t} - C^i_t$$

W^i_t: wealth

r^i_t: capital income

q^i_t: capital gains

Wealth dynamics

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$$q^i_t = \sum_{j=1}^{J} \left(\frac{p_{j,t+1}}{p_{j,t}} - 1 \right) \frac{A^i_{j,t}}{W^i_t} = \sum_{j=1}^{J} \left(\frac{p_{j,t+1}}{p_{j,t}} - 1 \right) \alpha^i_{j,t}$$

Capital gains combination of portfolio allocation $\alpha^i_{j,t}$ and asset price changes $\frac{p_{j,t+1}}{p_{j,t}}$ across asset classes $j = 1, \ldots, J$

Wealth dynamics

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W^i_t: wealth

r^i_t: capital income

q^i_t: capital gains

$Y^i_{L,t}$: labor income

C^i_t: consumption

Wealth dynamics

- Dynamics of wealth of group i between t and $t+1$

$$W_{t+1}^i = W_t^i(1 + r_t^i + q_t^i) + Y_{L,t}^i - C_t^i$$

- Savings of group i

$$S_t^i = r_t^i W_t^i + Y_{L,t}^i - C_t^i = Y_t^i - C_t^i$$

Wealth dynamics

- Dynamics of wealth of group i between t and $t+1$

$$W_{t+1}^i = W_t^i(1 + r_t^i + q_t^i) + Y_{L,t}^i - C_t^i$$

- Saving rate $s_t^i = \frac{S_t^i}{Y_t^i}$

$$W_{t+1}^i = W_t^i(1 + q_t^i) + s_t^i Y_t^i$$

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- Dynamics of wealth of group i between t and $t+1$

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- Saving rate $s_t^i = \frac{S_t^i}{Y_t^i}$
- Wealth growth rate

$$\frac{W_{t+1}^i}{W_t^i} = 1 + q_t^i + s_t^i \frac{Y_t^i}{W_t^i} = 1 + q_t^i + \sigma_t^i$$

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$$\frac{W_{t+1}^i}{W_t^i} = 1 + q_t^i + s_t^i \frac{Y_t^i}{W_t^i} = 1 + q_t^i + \sigma_t^i$$

- Define wealth share $\omega_t^i = \frac{W_t^i}{W_t}$

Wealth dynamics

- Dynamics of wealth of group i between t and $t+1$

$$W_{t+1}^i = W_t^i(1 + r_t^i + q_t^i) + Y_{L,t}^i - C_t^i$$

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Wealth inequality dynamics

- Change in wealth share of group i depends on difference to growth in the macroeconomy

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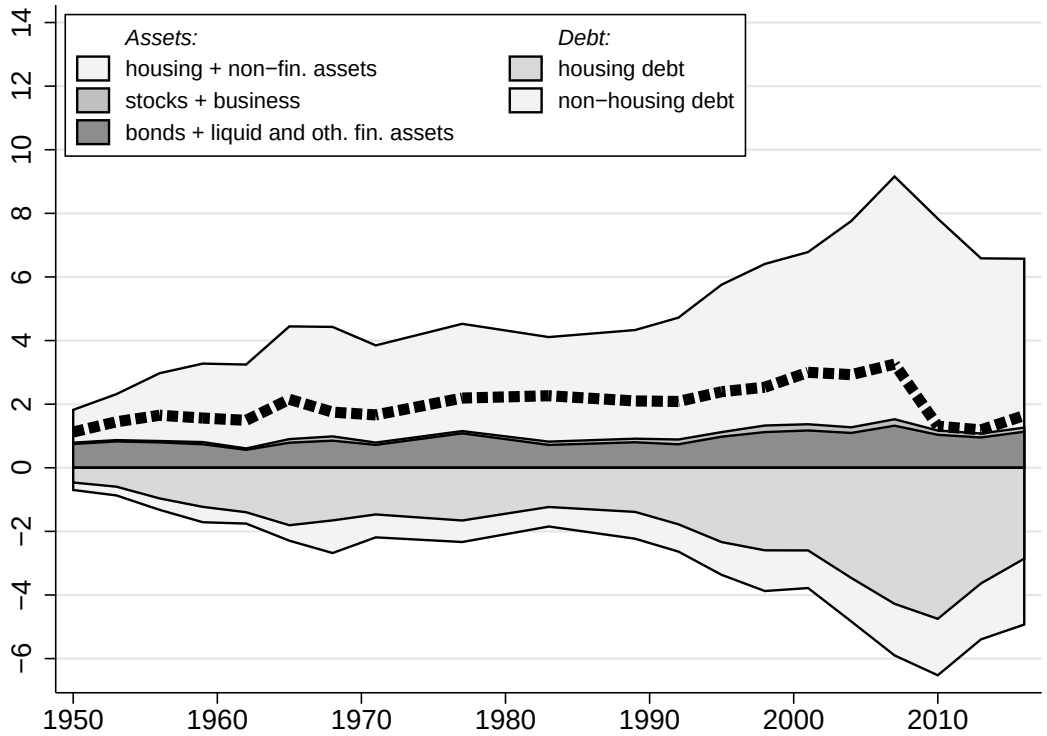
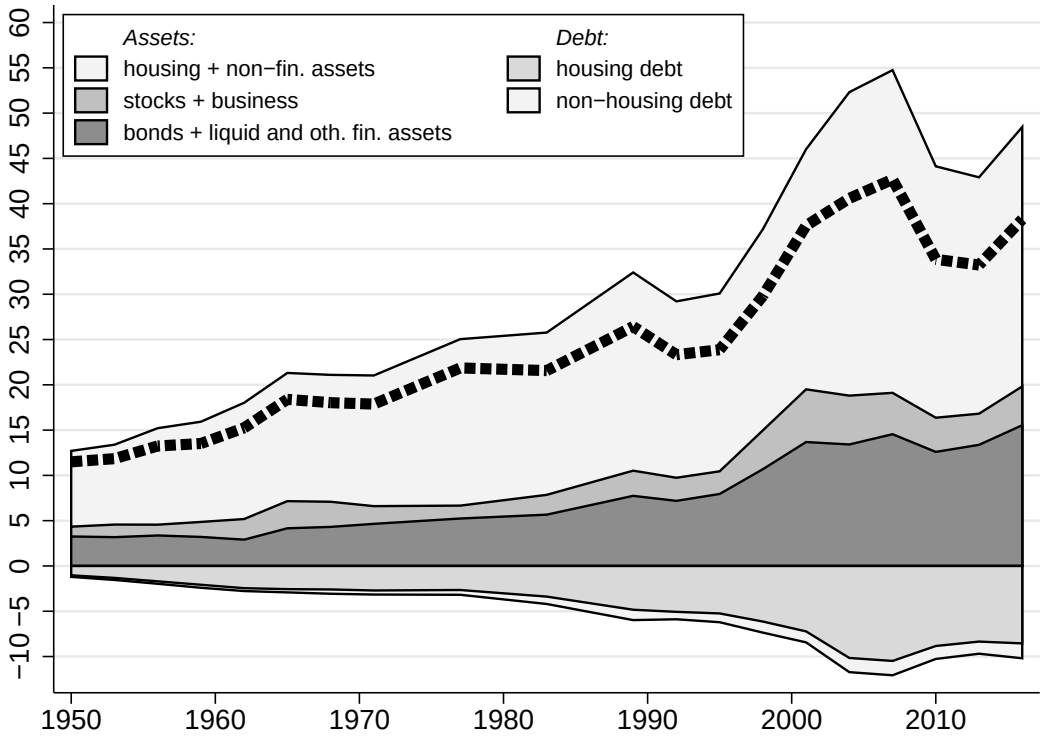
- High wealth-to-income ratios mute savings flow differences for changes in wealth stocks $\sigma^i_t = s^i_t \frac{Y^i_t}{W^i_t}$
- Asset price component q^i_t multiplies stock of wealth
- Asset price changes and portfolio heterogeneity can induce large changes of wealth shares in the short run

Portfolio heterogeneity: Bottom 50%



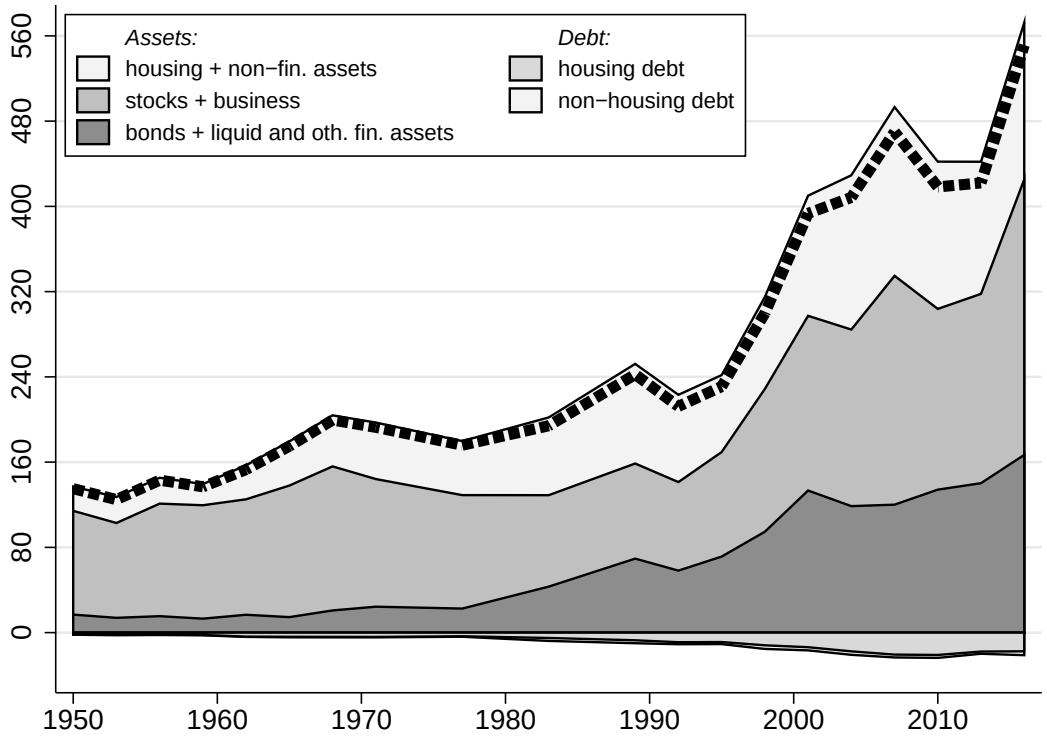
- Little wealth but large gross positions
- Housing most important asset with high leverage

Portfolio heterogeneity: 50% - 90%



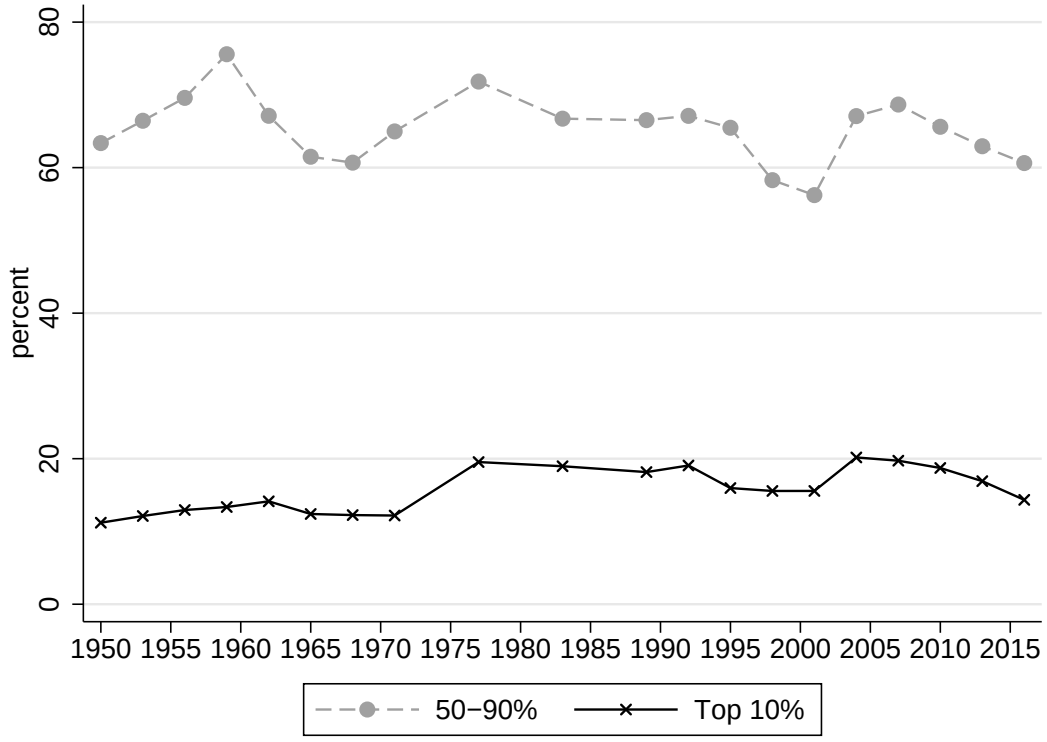
- Housing most important asset class
- Housing held with large leverage

Portfolio heterogeneity: Top 10%



- Small housing position and little leverage
- Large equity share in portfolio

House price exposure



- Middle class exposure to house prices at least 3 times larger than of top 10%

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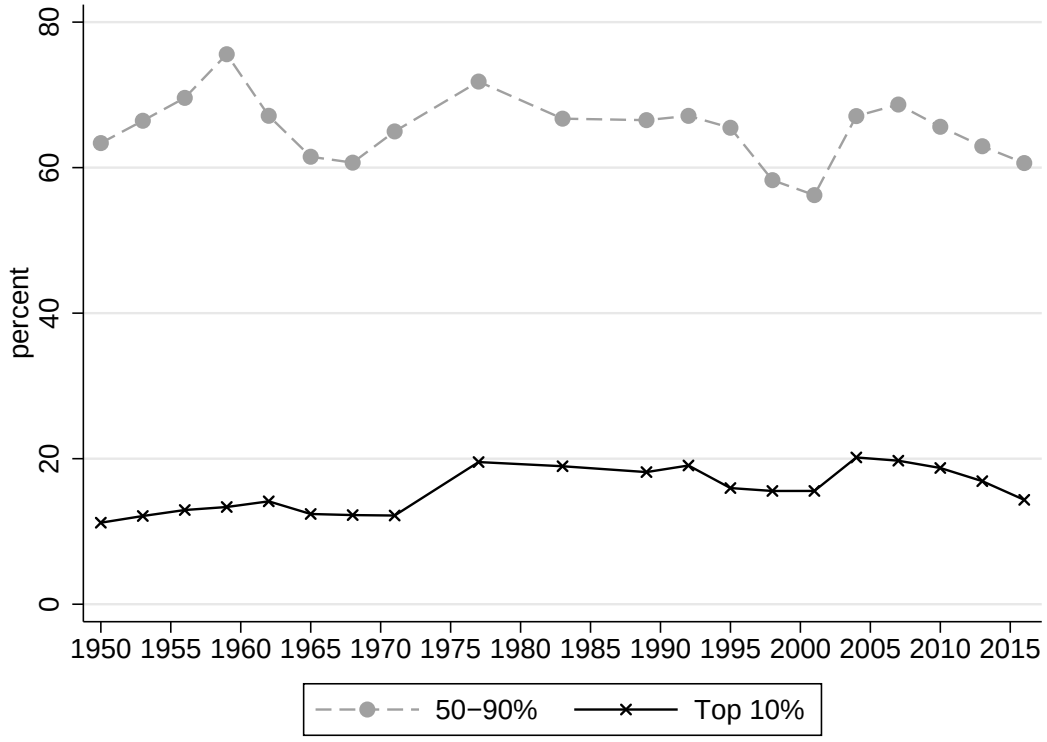

- Middle class exposure to house prices at least 3 times larger than of top 10%
- Increasing house prices good for middle class, increasing stock prices favor top 10%

Race between housing and stock market

- Regression of growth rate of top 10% wealth share on house and stock market price growth

$$\Delta \log(\omega_{t+1}^{top10}) = \beta_0 + \beta_h \Delta \log(p_{t+1}^{h}) + \beta_s \Delta \log(p_{t+1}^{s}) + \varepsilon_t$$

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- Economically significant "race" coefficients β_h and β_s

β_h	-0.104	-0.116	-0.138*	-0.157**
β_s	0.043*	0.044*	0.052**	0.043*
θ^{top10}	no	yes	no	yes
$\frac{Y}{W}$	no	no	yes	yes
N	19	19	19	19
R^2	0.162	0.246	0.352	0.468

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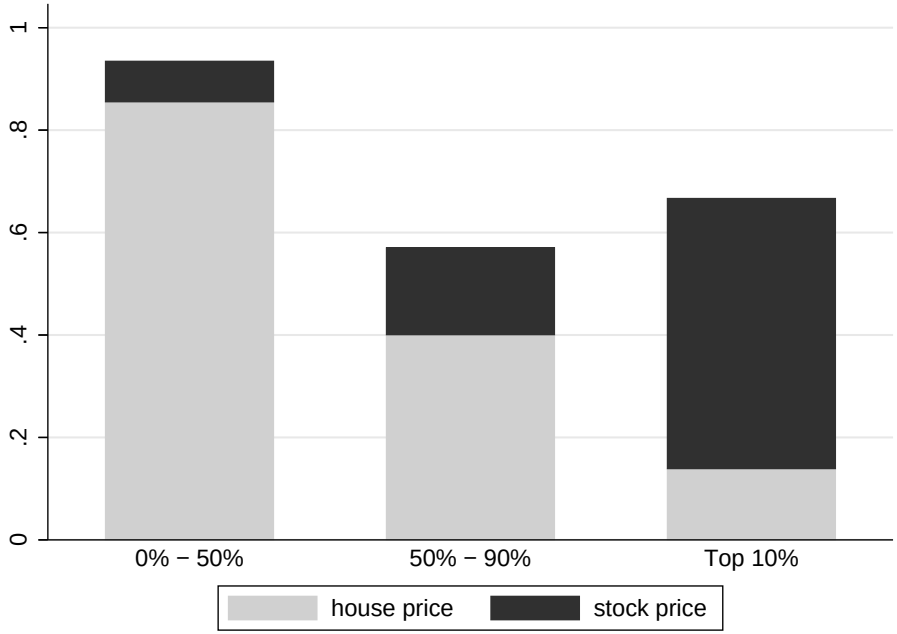
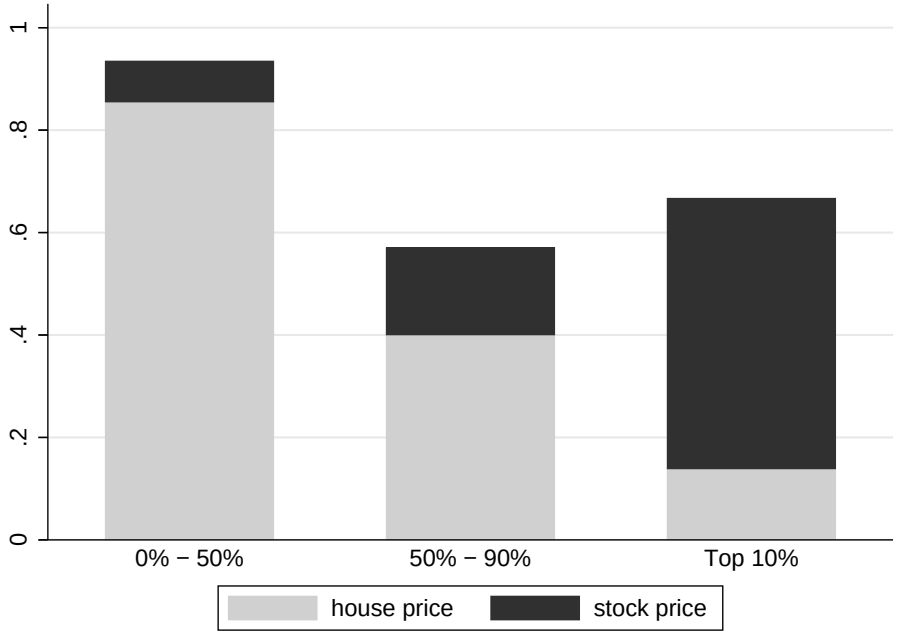
Wealth gains from asset prices



- Wealth growth from asset prices between 56% and 95%

Wealth gains from asset prices



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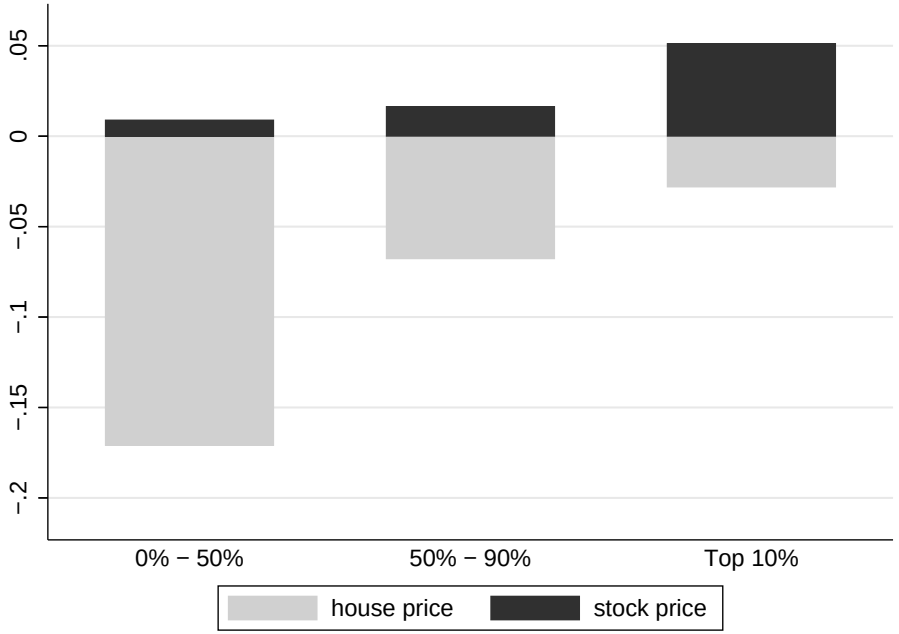

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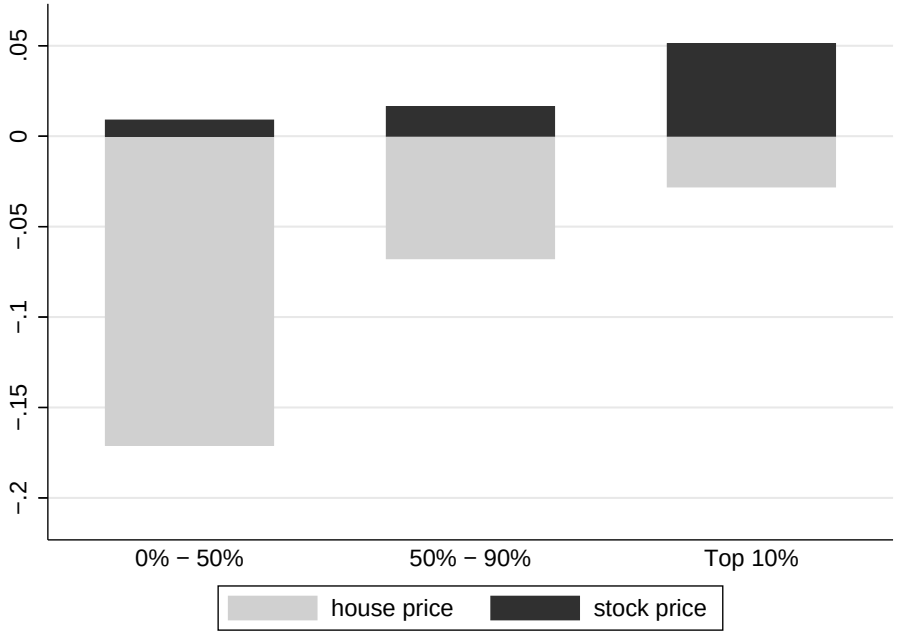

- Wealth growth from asset prices between 56% and 95%
- Rising wealth-to-income ratios muted rising income inequality
- Financial crisis induced large losses among bottom 90%
- Wealth inequality strongly increased after 2007

Wealth inequality and asset prices

		1989	2007	2016
bottom 50 %	observed change	-0.1	-0.6	-1.9
	constant house prices	-0.3	-1.5	-2.6
	constant stock prices	-0.1	-0.2	-1.7
50% - 90%	observed change	3.2	-0.3	-4.8
	constant house prices	2.8	-2.4	-6.5
	constant stock prices	3.7	3.0	-1.3
Top 10%	observed change	-3.1	**0.8**	6.7
	constant house prices	-2.4	**3.9**	9.1
	constant stock prices	-3.7	-2.8	3.0

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- Wealth concentration declined at constant stock prices
- House price growth slowed down wealth concentration by 26%

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A glance at Europe

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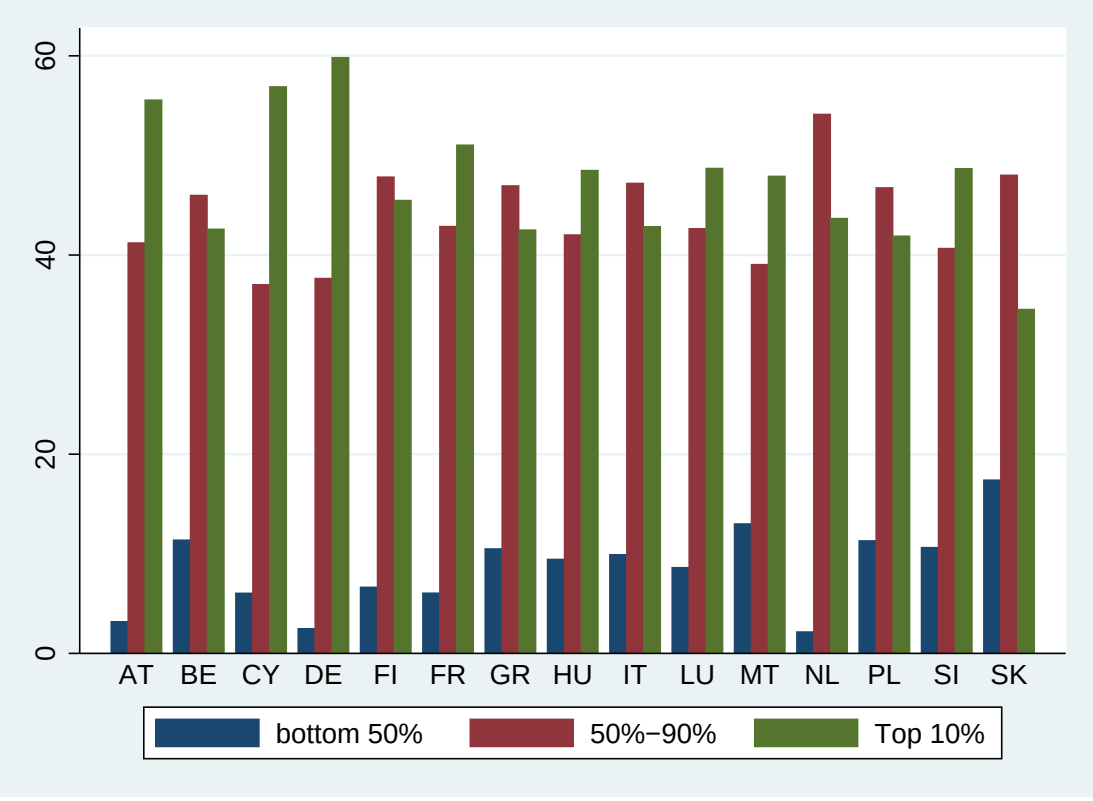
- Harmonized data for 15 European countries
- Earliest data available for 2011 with 3 waves in total
- Different sampling strategies across countries
- Focus on 2014 data for today

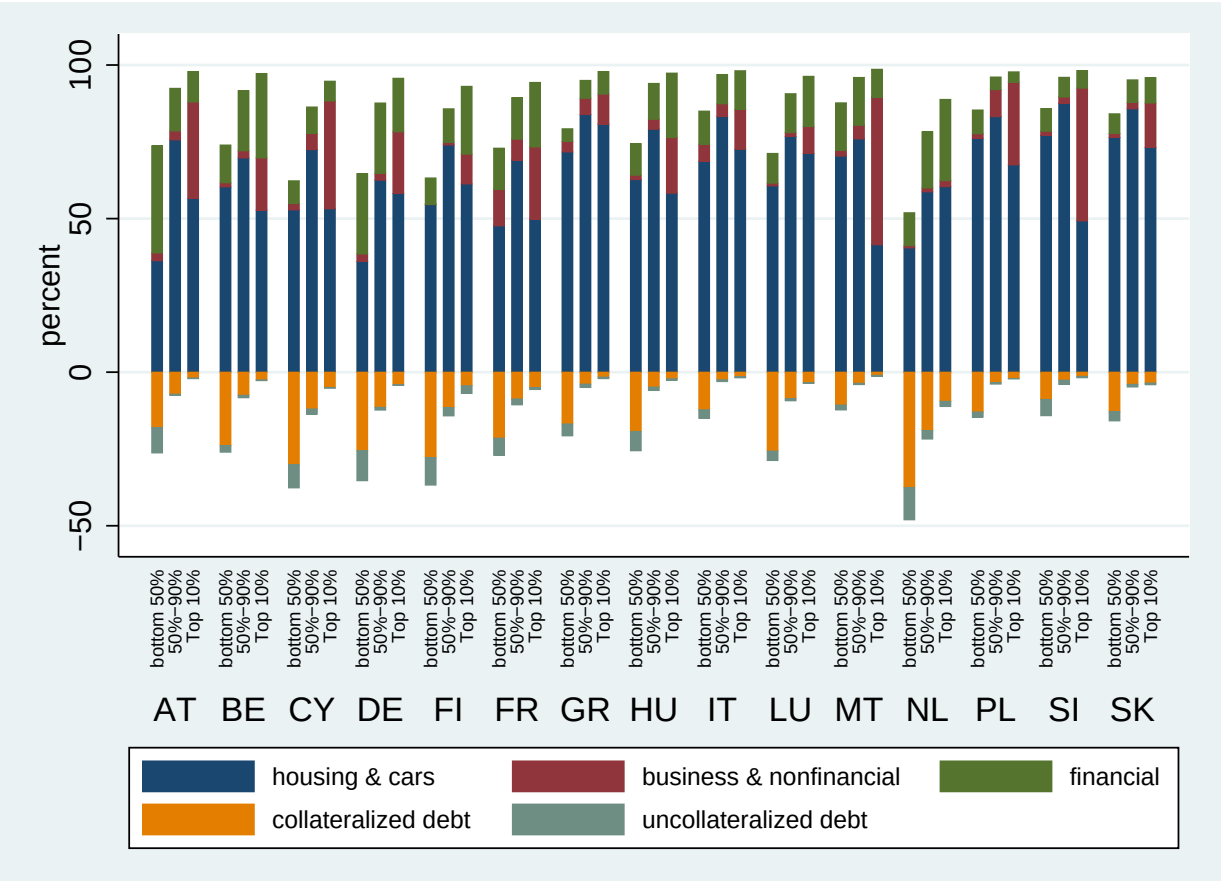
Wealth inequality

- Large differences in top 10% wealth shares across countries
- Slightly above 30% in Slovakia, up to 60% in Germany (U.S. 2013: 75%)



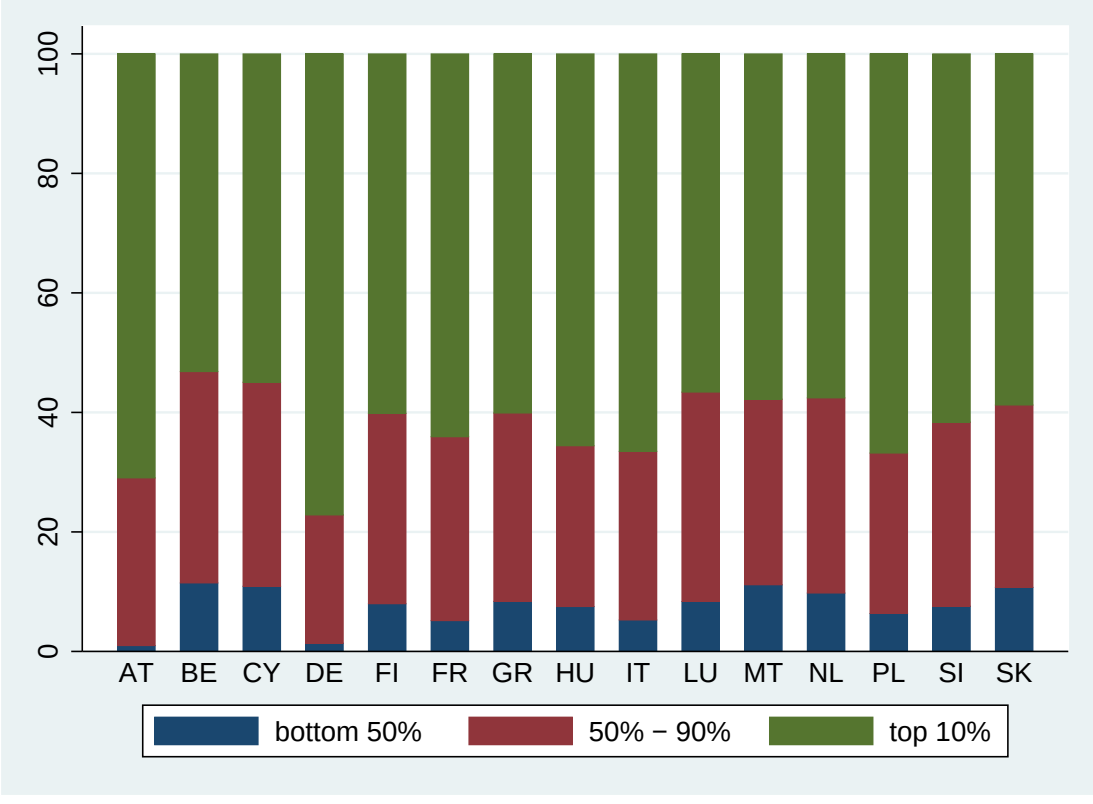
Portfolio composition

- Bottom 90% strongly exposed to housing market large asset share and high leverage
- Top 10% exposed to equity markets



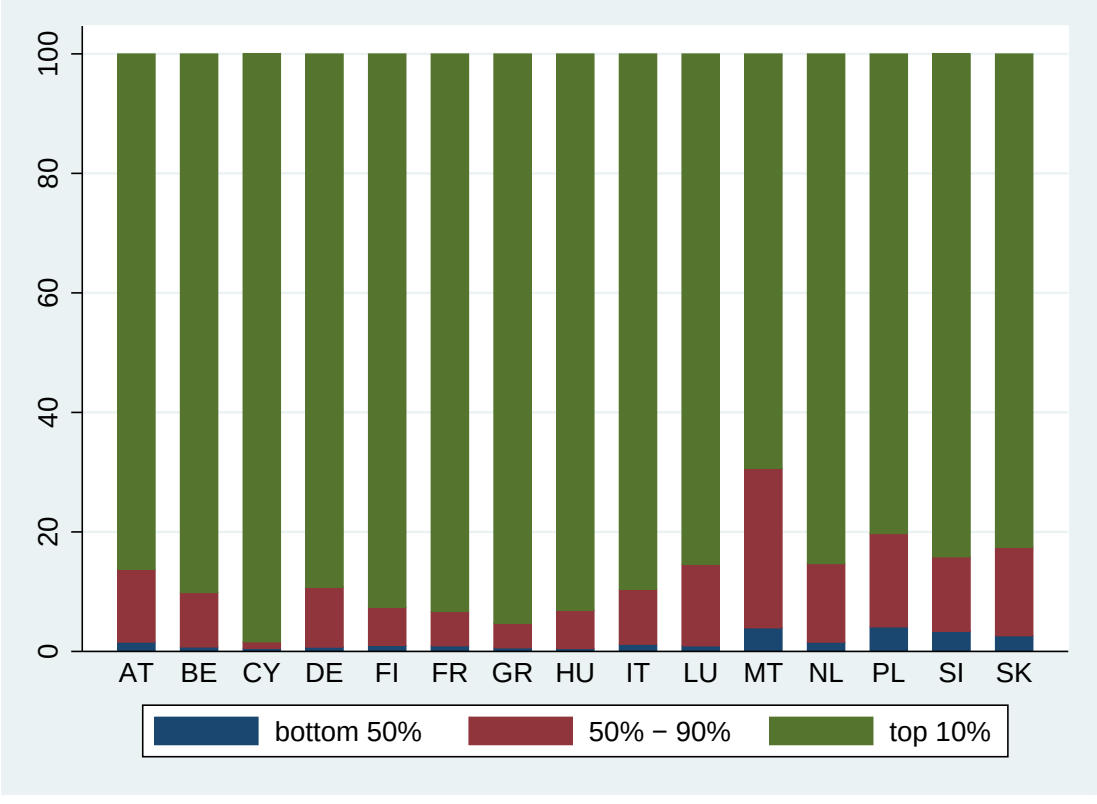
Distribution of asset holdings

- Large share of housing assets held by bottom 90% (U.S. 50%)



Distribution of asset holdings

- Large share of housing assets held by bottom 90% (U.S. 50%)
- Equity is the asset of the top 10% (U.S. >90%)



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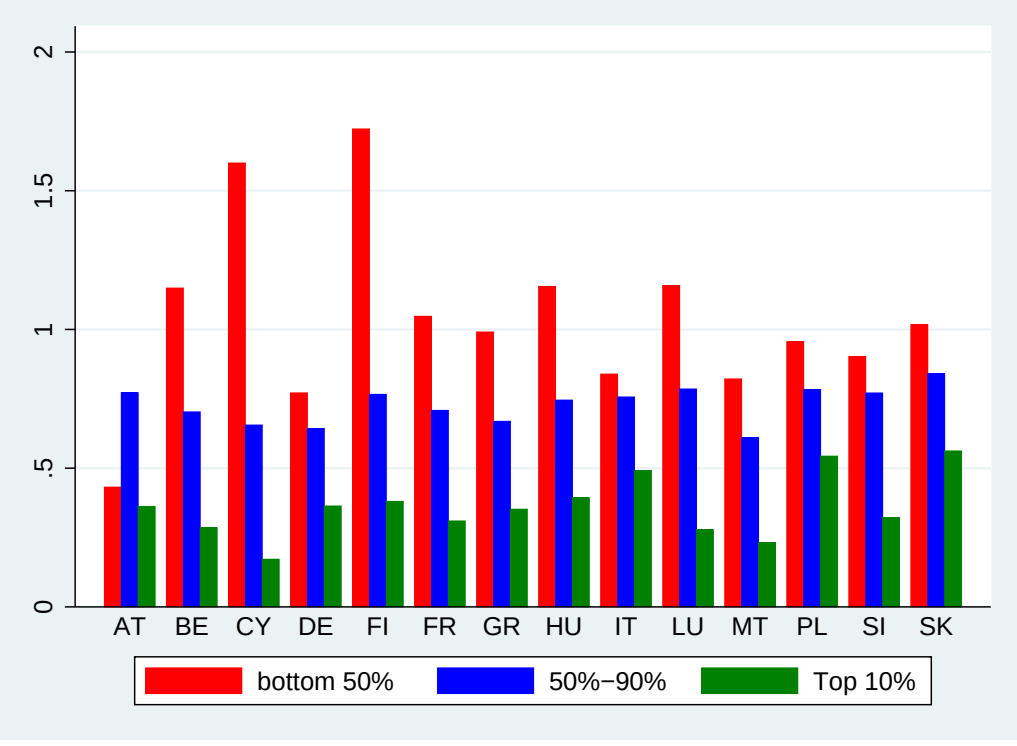

Housing exposure

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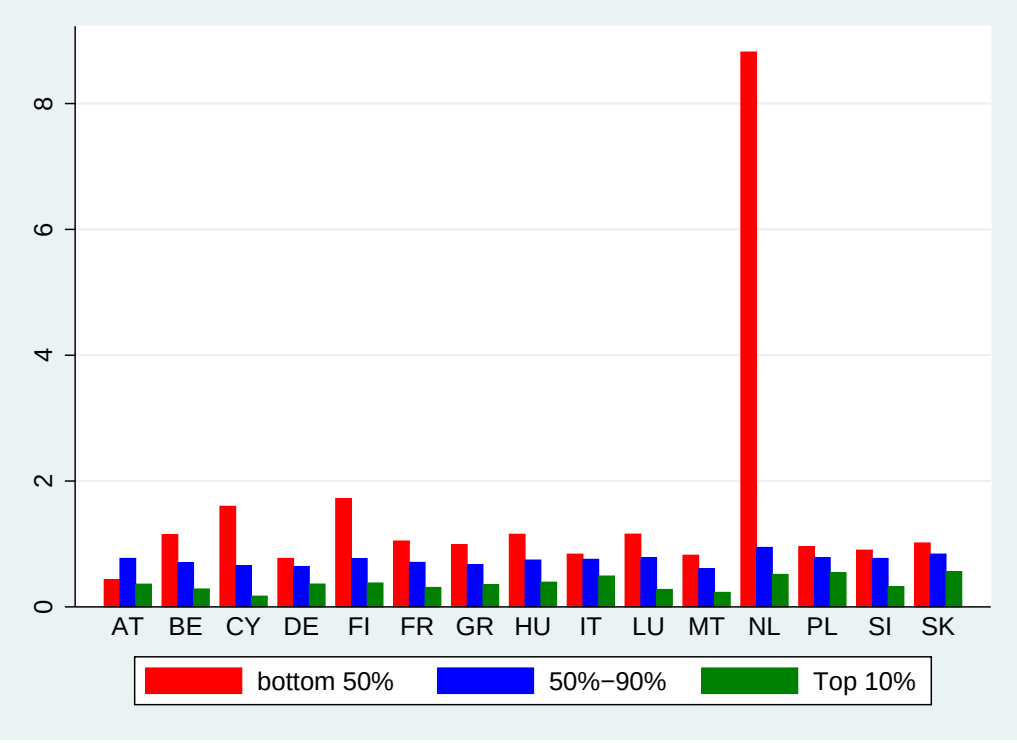
- Netherlands: 1% increase of house prices wealth +8% for bottom 50% (U.S. +1.5% - 3.5%)



Summarizing the glance at Europe

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- Housing is the asset of the bottom 90%
- Large house price exposure of bottom 90%

Part II

The College Wealth Divide: Education and Inequality in America 1956 - 2016

joint work with

Alina Bartscher and Moritz Schularick

Motivation

- Wealth and income inequality are at historical highs

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- Rising *college wage premium* driver of rising income inequality
- Education turned into a key stratifying dimension in U.S. society
- Data limitations impede studying long-run wealth differences across education groups

Results

- Newly compiled SCF+ micro data match macro trends from NIPA and FFA

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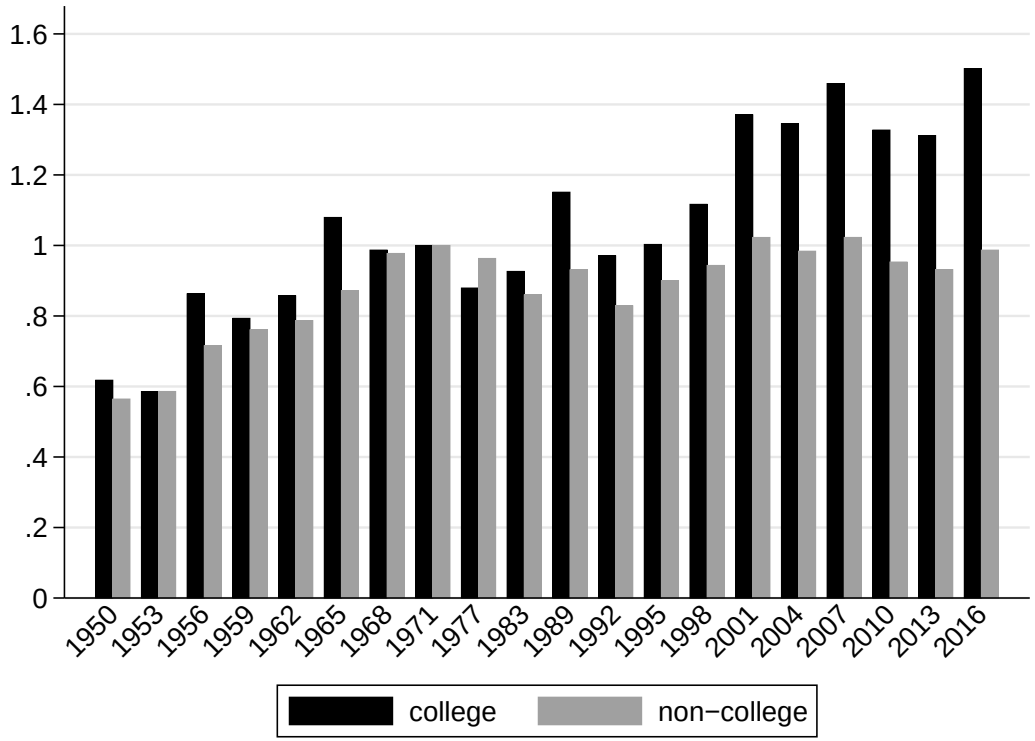
- Diverging income trends in line with previous research
- Strongly increasing wealth divide between college and non-college households
- Share of college-educated households relatively constant across wealth groups
- Rising stock prices appear as driver of college wealth divide

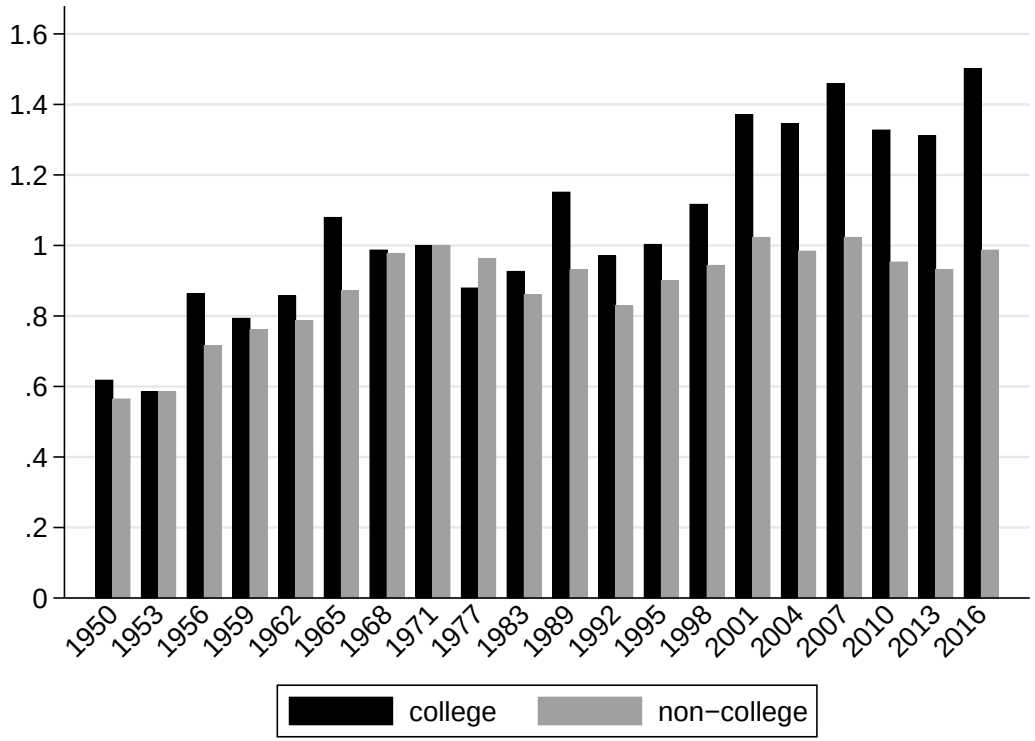
Income divide

- No real income growth for non-college households since 1971



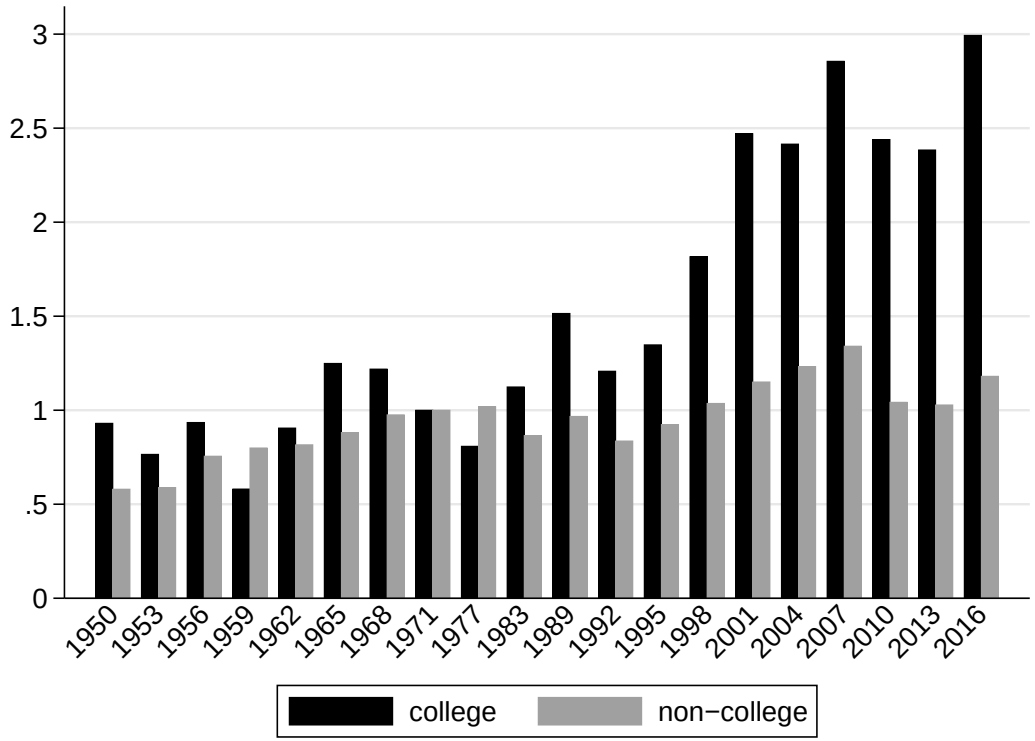
Income divide

- No real income growth for non-college households since 1971
- 50% increase of income divide between college and non-college households



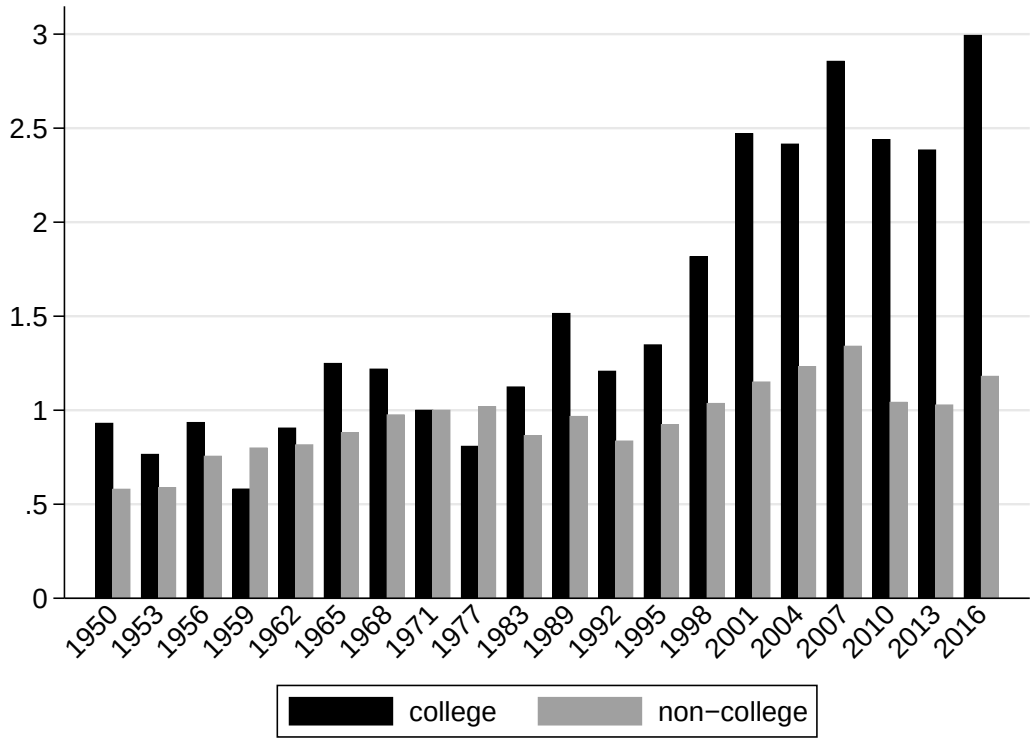
Wealth divide

- Meager wealth growth of non-college households since 1971



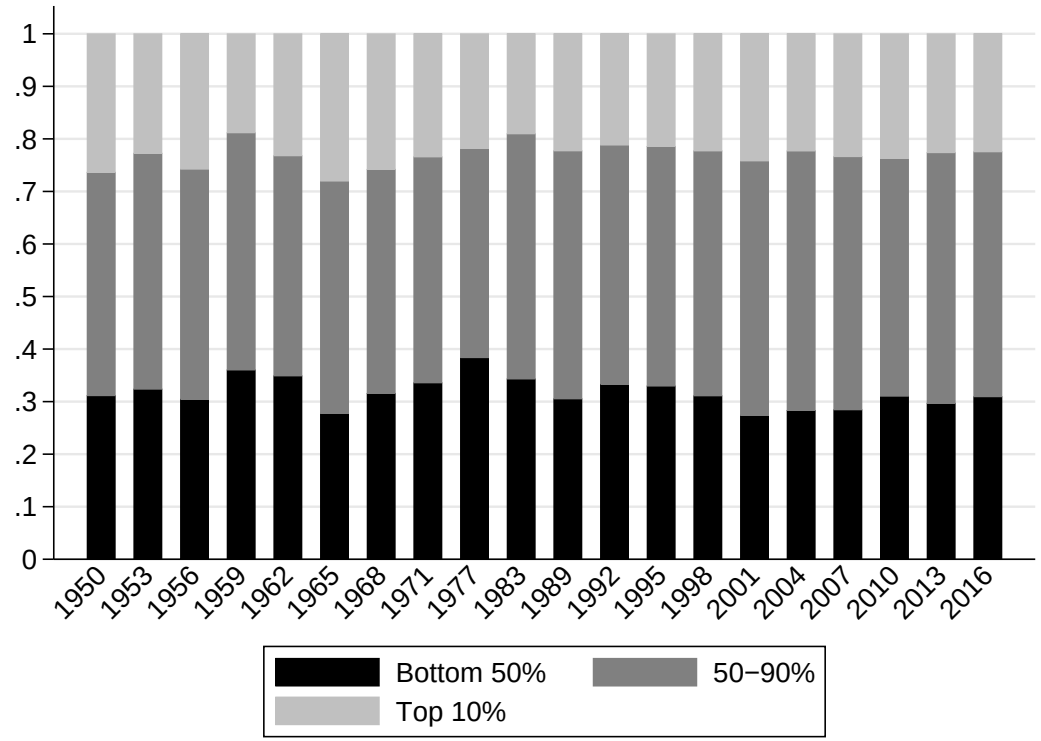
Wealth divide

- Meager wealth growth of non-college households since 1971
- Tripling of wealth for college households



College households in the wealth distribution

- College households across wealth groups



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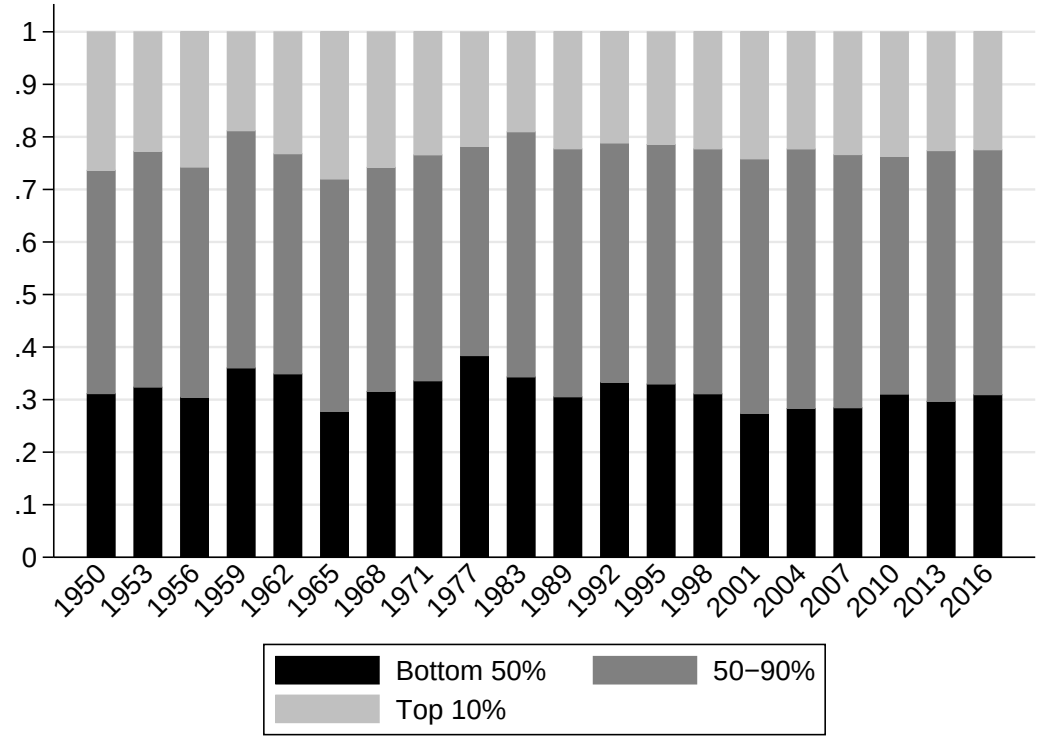

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College households in the wealth distribution

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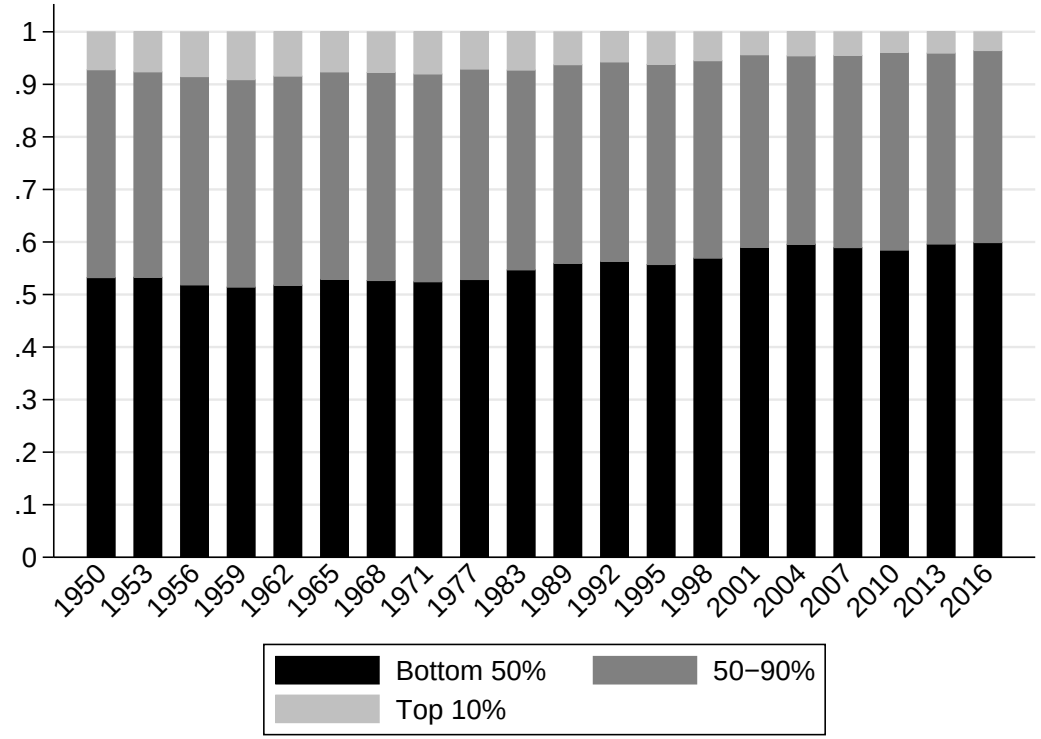

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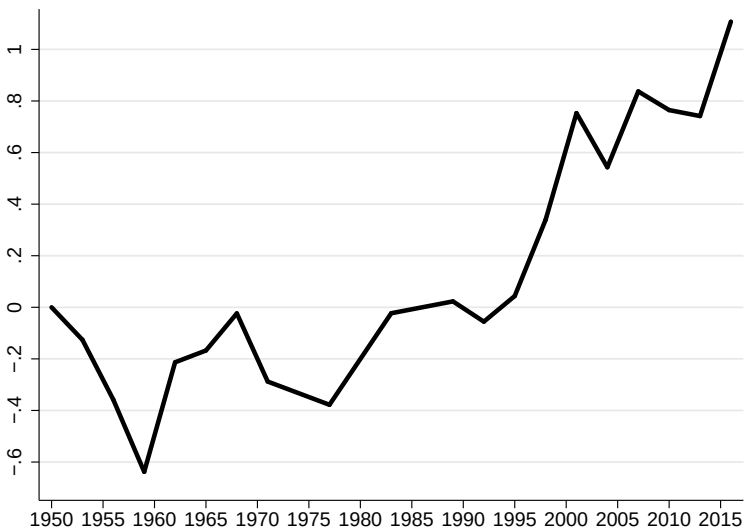
Wealth growth accounting

- Regress wealth growth on income growth

$$\frac{W_t^i}{\overline{W}^j_{1971}} = \alpha \frac{Y_t^i}{\overline{Y}^j_{1971}} + \beta \times \text{age}_t^i + \gamma_t \left(\text{year} \times \text{college}_t^i \right) + \varepsilon_{i,t}$$

with j for college and non-college



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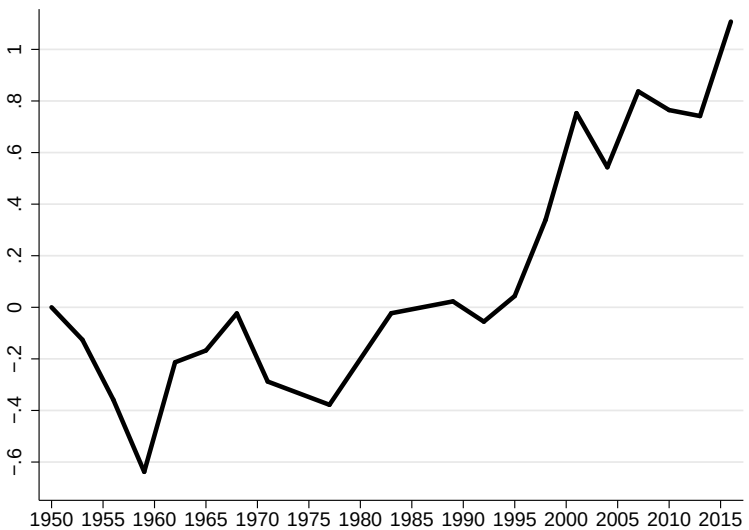
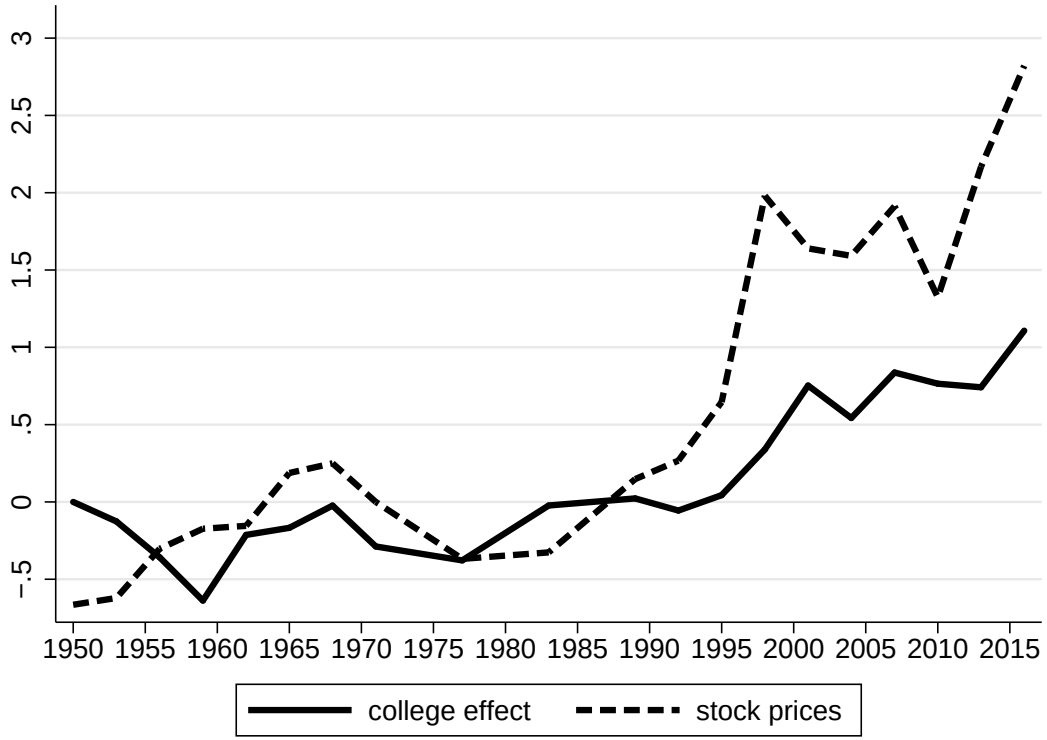


- Increasing residual "college effect" γ_t over time

Stock prices and wealth divide

- Stock market growth strongly correlates with estimated "college effect" γ_t



Stock market and wealth dynamics

- Regress "college effect" on stock price growth P_t

$$\gamma_t = \alpha + \phi\left(\frac{P_t}{\overline{P}_{1970}}\right) + \hat{\gamma}_t$$

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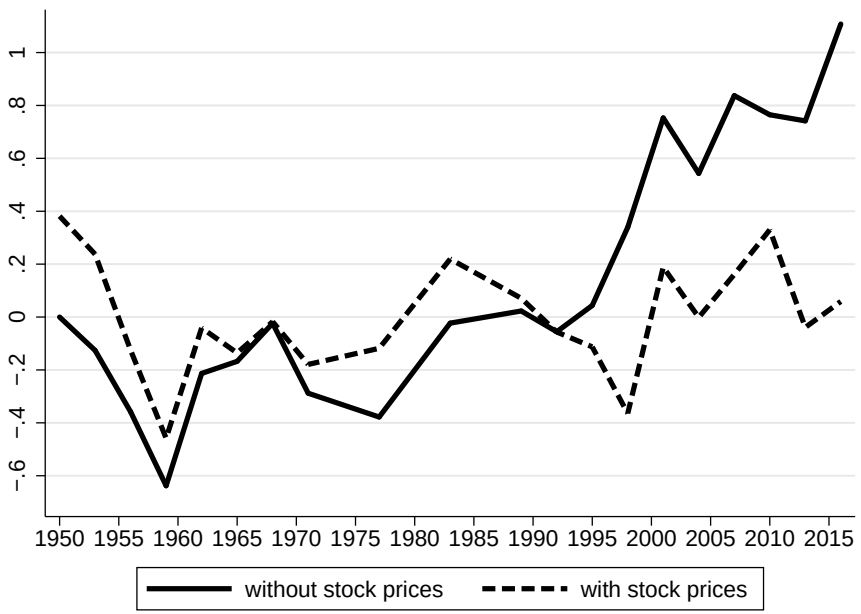
- Residual "college effect" $\hat{\gamma}_t$ shows no time trend



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- Differential wealth growth of college and non-college households
- Large part of wealth growth of college households not due to income growth
- Evidence points towards large capital gains from stock market for college households

Part III

Inequality and Household Debt in America 1950 - 2019

joint work with

Alina Bartscher, Moritz Schularick, and Ulrike Steins

Motivation

- Household debt in the United States increased fourfold relative to income since 1950

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- Recent work points to household portfolios and debt as determinant for
  1. depth of recessions
  2. consumption growth
  3. effectiveness of stabilization policy
  4. changes in wealth inequality

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- Key for the macroeconomic dynamics is the joint distribution of income, debt, and assets

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- Traditional focus when studying macroeconomic dynamics was on net worth and its distribution
- Recent work points to household portfolios and debt as determinant for macroeconomic dynamics
- Key for the macroeconomic dynamics is the joint distribution of income, debt, and assets
- Data limitations impaired analysis of changes in this distribution over time

Contribution

- Document the joint distribution of income, debt, and assets over seven decades

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- Document the joint distribution of income, debt, and assets over seven decades
- Provide a comprehensive picture of the evolution of household debt in the United States
- Document the important role of home equity extraction for U.S. debt boom
- Highlight connection between capital gains and increasing household debt

Results

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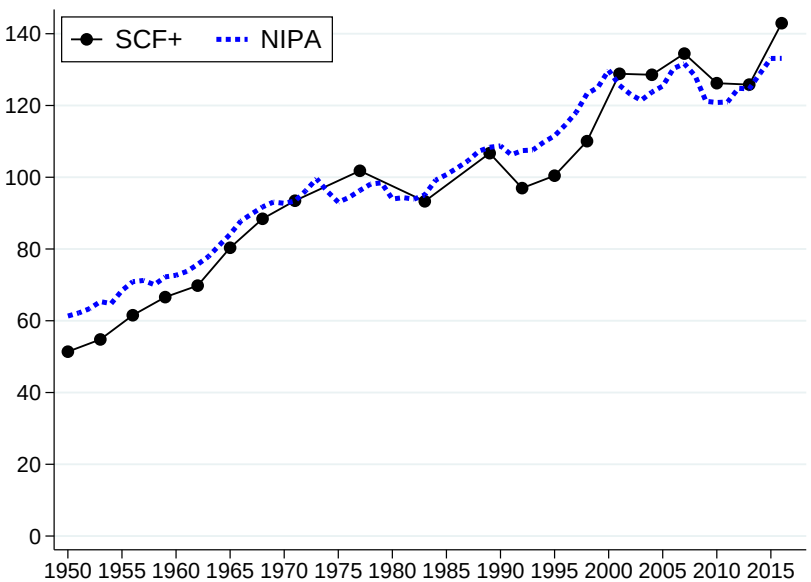
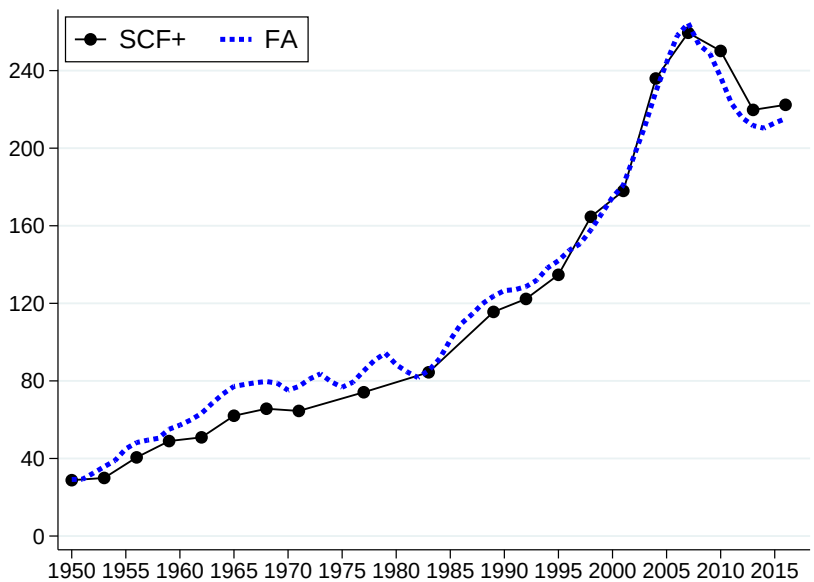
  2. Equity extraction accounts for 50% of the debt boom since 1970s
- Balance sheet expansion supports important role of portfolio composition for macroeconomic dynamics

Macro trends from micro data

- Aggregated micro data match macro growth trends
- Micro data informative about underlying distributional dynamics



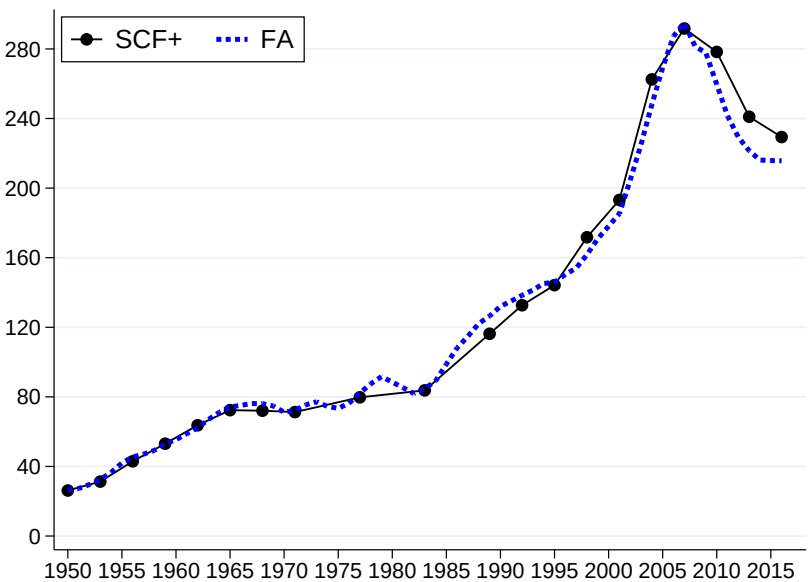
Income



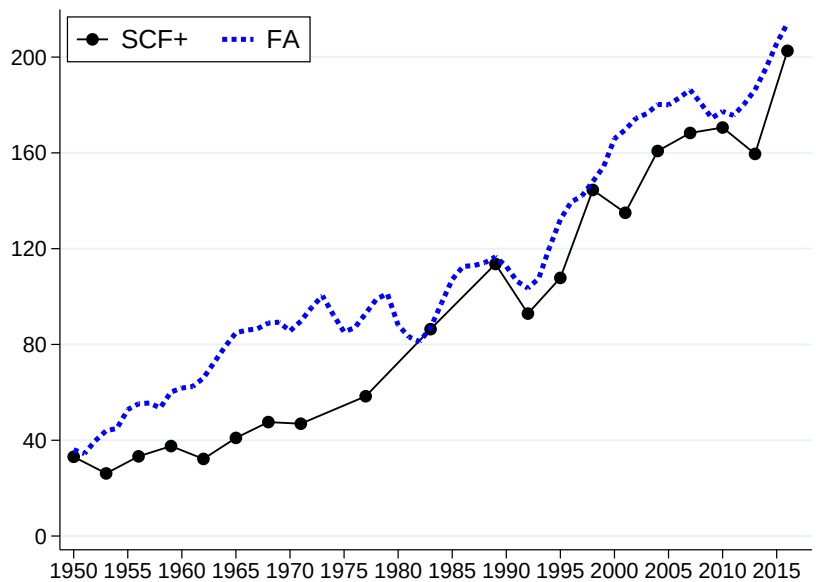
Debt

Macro trends from micro data

- Aggregated micro data match macro growth trends
- Micro data informative about underlying distributional dynamics



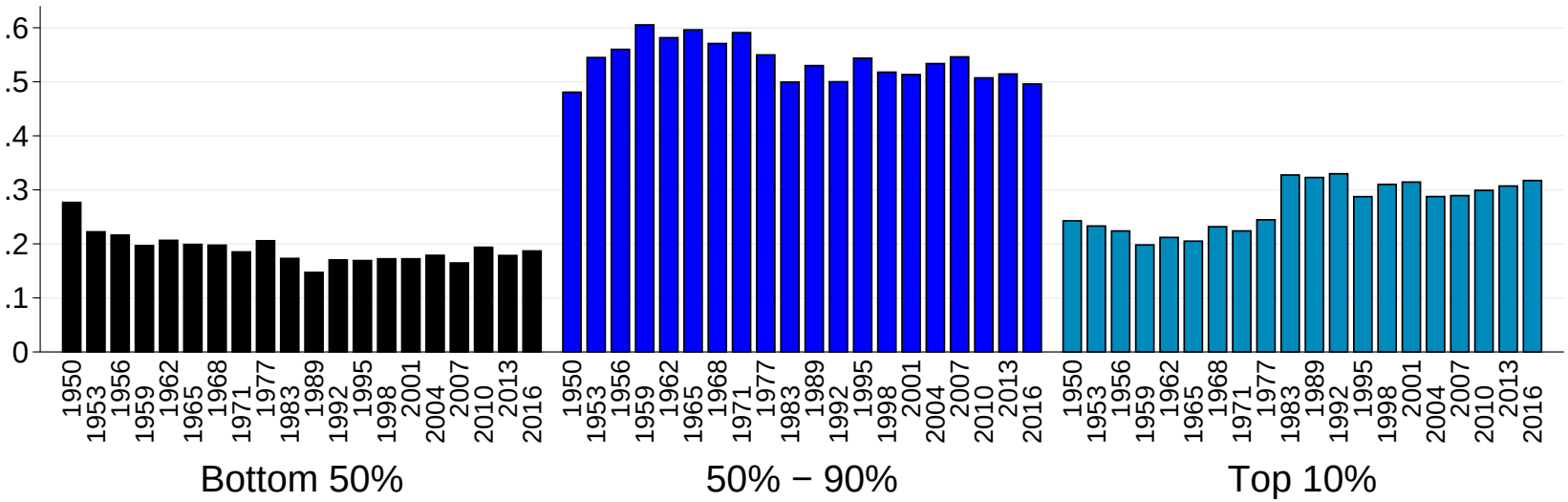
Housing debt



Non-housing debt

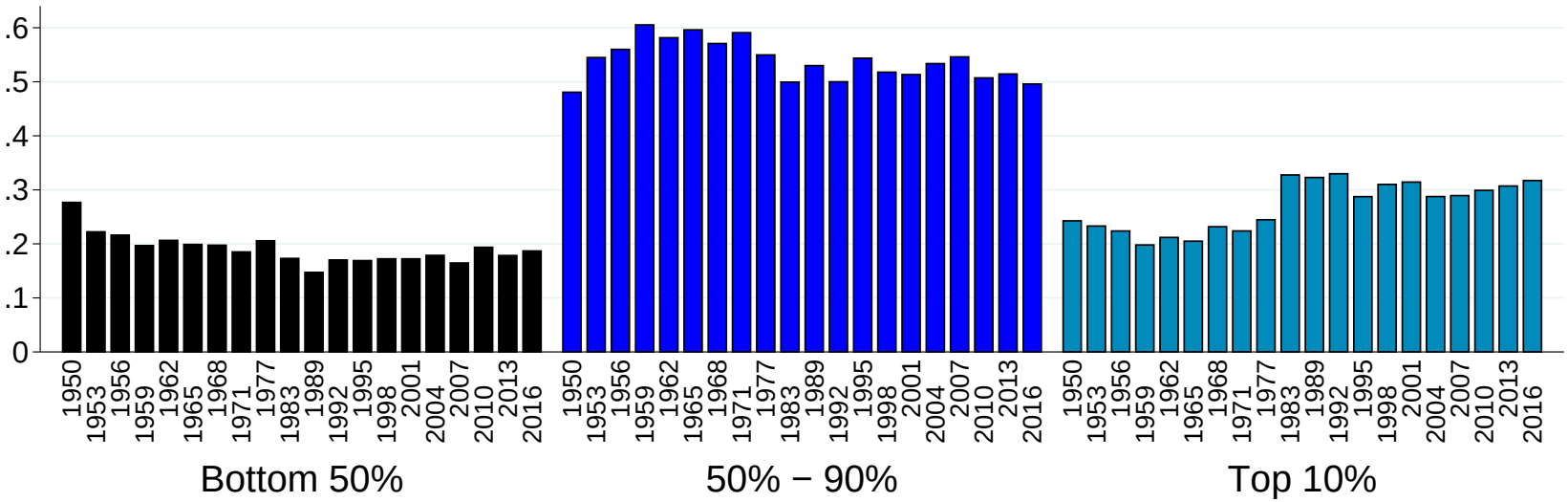
Distribution of debt

- Distribution of debt stable over time



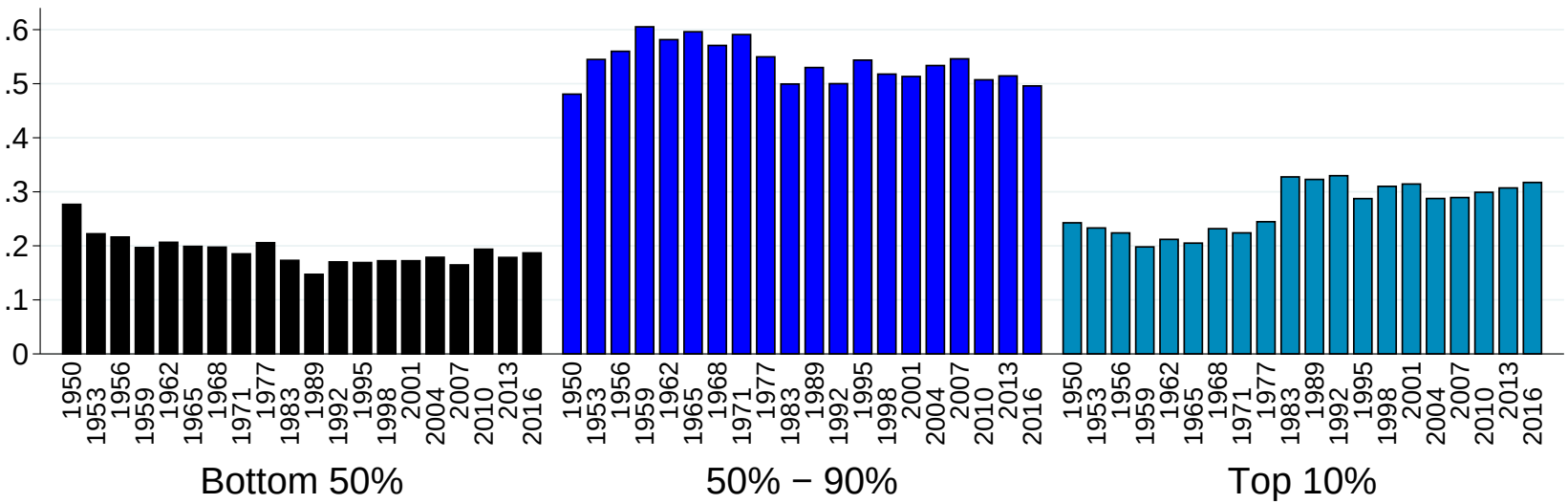
Distribution of debt

- Distribution of debt stable over time
- Middle class households owe 50% of American debt



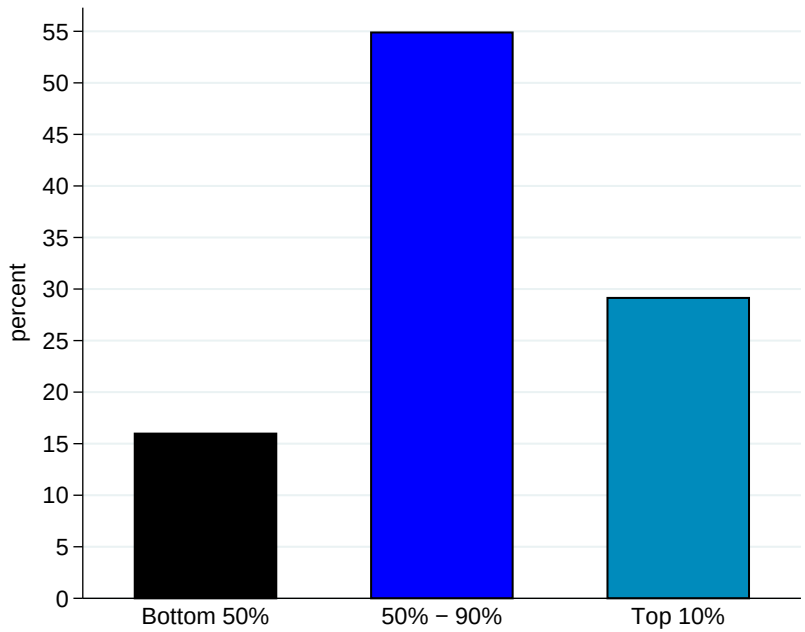
Distribution of debt

- Distribution of debt stable over time
- Middle class households owe 50% of American debt
- Top 10% owe about one-third of household debt



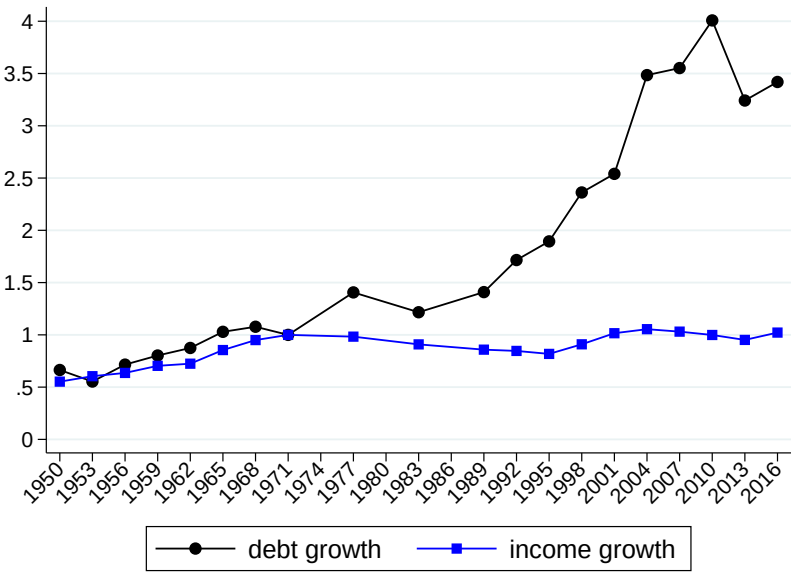
Contribution to debt increase since 1950

- Large middle-class debt share implies large contribution to aggregate debt growth
- Middle class accounts for more than half of the debt increase since 1950

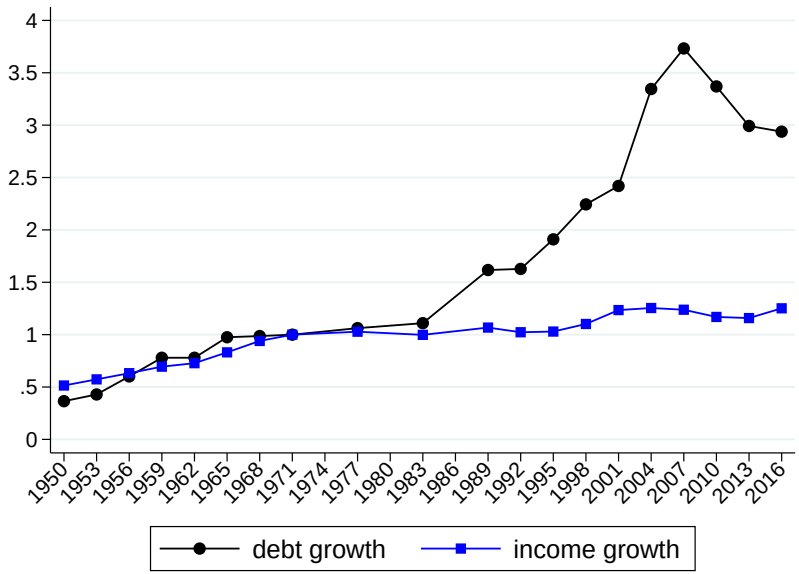


Divergence of debt and income growth

- Strong divergence of debt and income growth since 1971



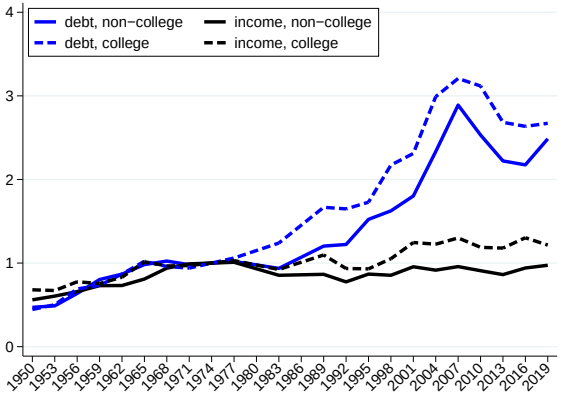
Bottom 50% (1971=1)



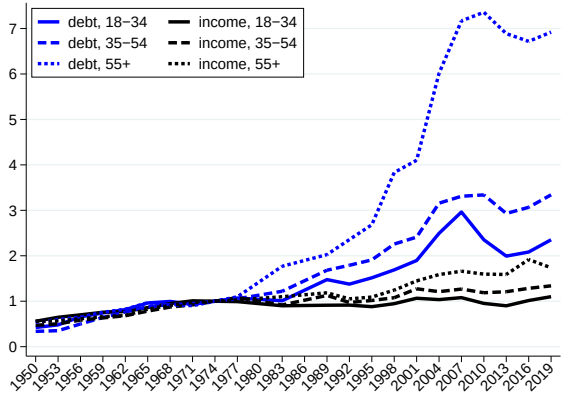
Middle class (1971=1)

Divergence of debt and income growth

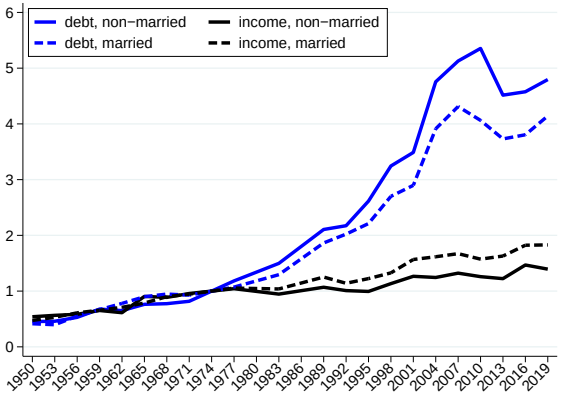
- Divergence across all demographic groups



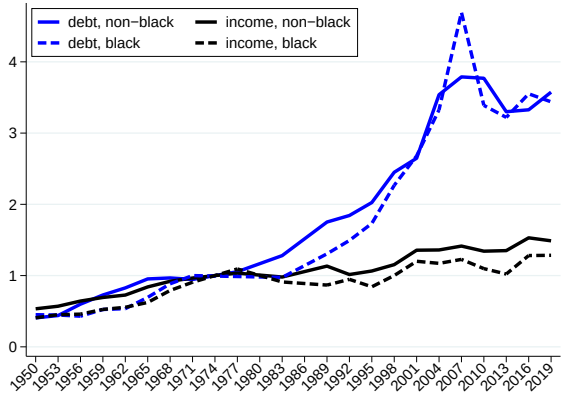
Education



Age



Marital status



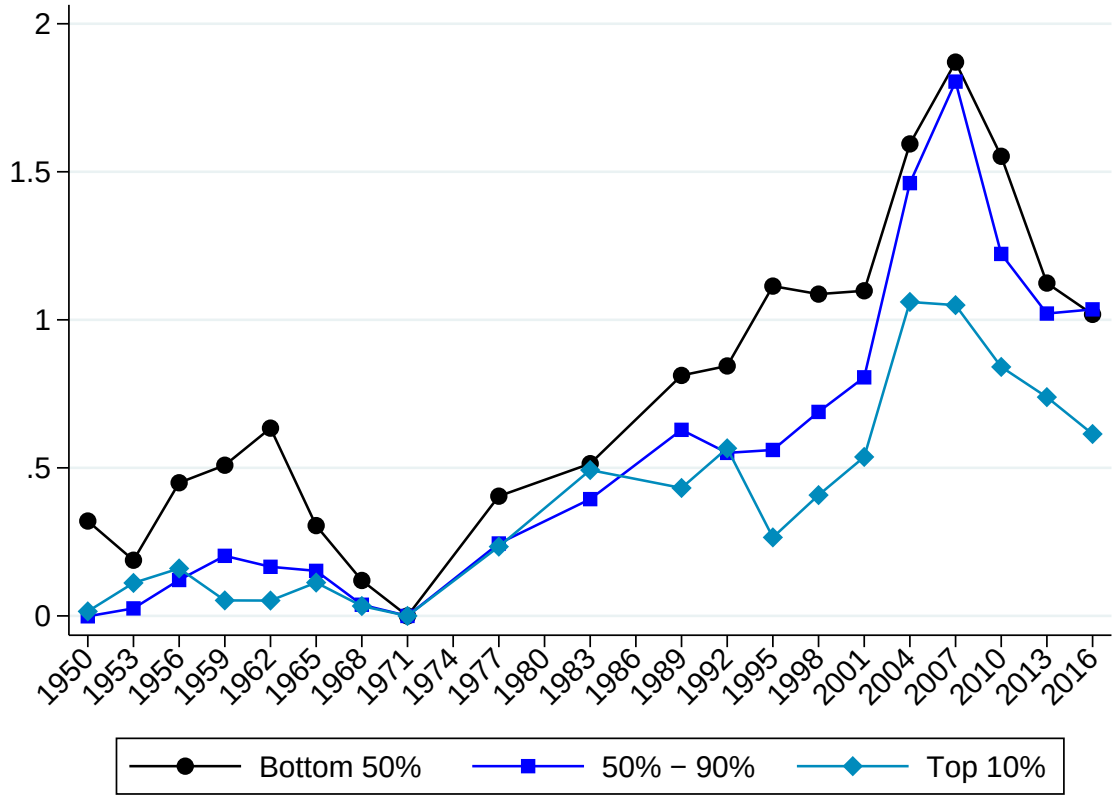
Race

Large wealth gains for the middle class

- Stagnating middle-class incomes contemporaneous to large capital gains in housing market

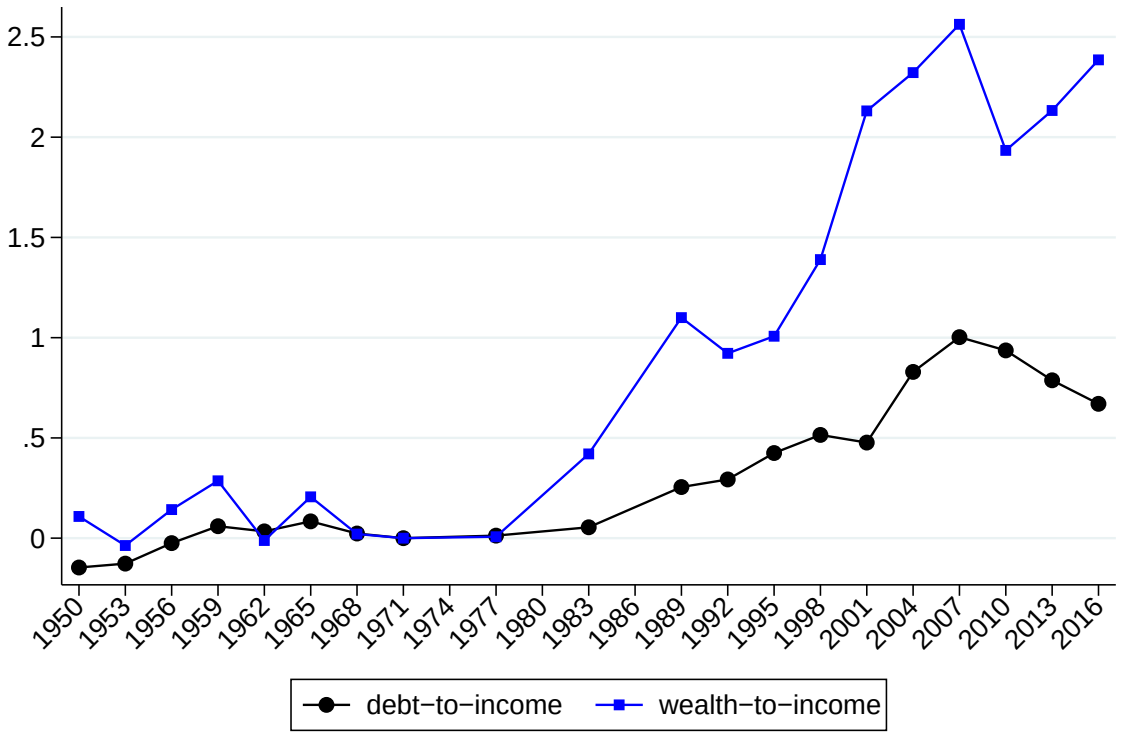
Large wealth gains for the middle class

- Stagnating middle-class incomes contemporaneous to large capital gains in housing market
- Housing-to-income ratios increased by almost 200pp since 1971



Wealth richer middle class despite higher debt

- Rising debt levels counterbalanced rising asset values
- American middle class was never wealthier than at peak of the debt boom



Equity extraction as reaction to house price boom

- Increasing house prices lead to large capital gains

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Equity extraction as reaction to house price boom

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- Increasing mortgage debt allows households to extract such equity gains
- Complement SCF+ data with data from *Panel Study of Income Dynamics* (PSID)
- PSID data provide annual house values and mortgage debt
- Panel structure allows estimation of equity extraction by income groups

PSID analysis

- Identify four household groups in PSID data

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    1. **Extractors** (Bhutta and Keys (2016)) are households who

        (a) did not purchase a new home

        (b) increased nominal mortgage balance by more than 5%

PSID analysis

- Identify four household groups in PSID data

  1. **Extractors**

  2. **Upgraders** are households who

     (a) were homeowners before

     (b) bought a new house

     (c) either explicitly state upgrading as a reason to move **or** moved to a home with more rooms

PSID analysis

- Identify four household groups in PSID data

  1. **Extractors**

  2. **Upgraders**

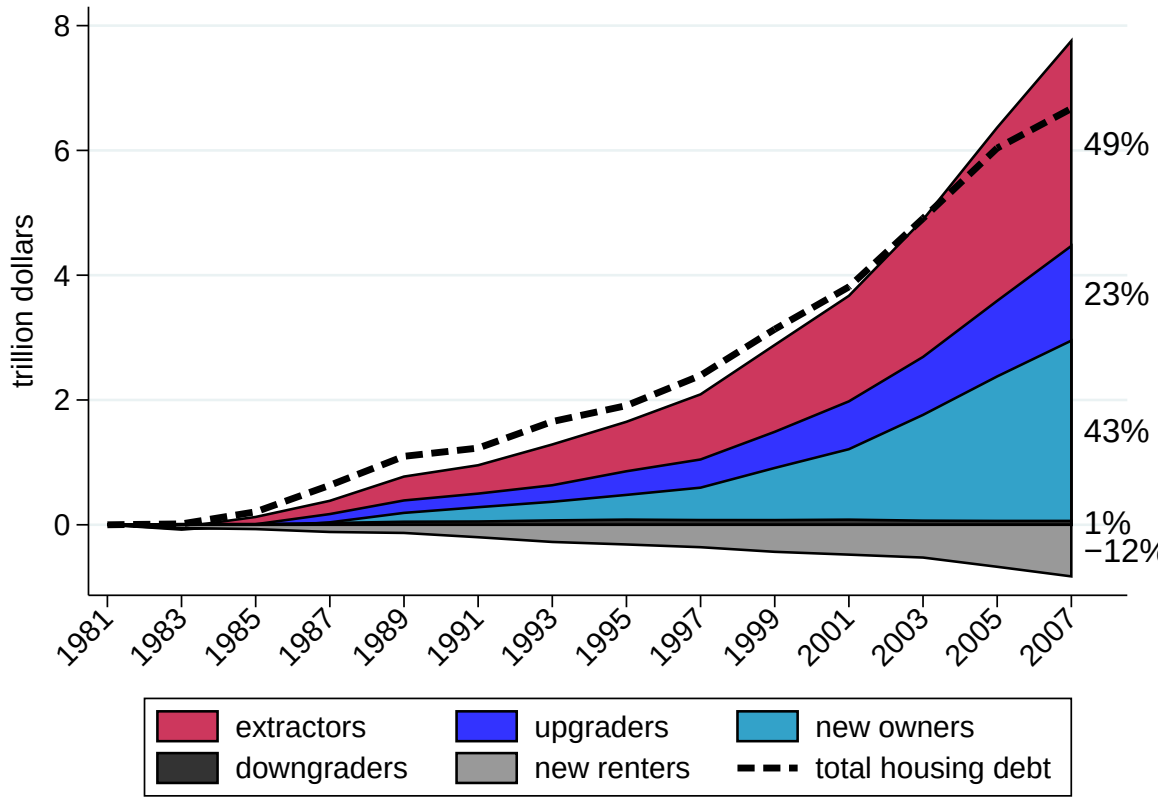
  3. **Downgraders** are households equivalent to upgraders (downgrading as reason **or** fewer rooms)

PSID analysis

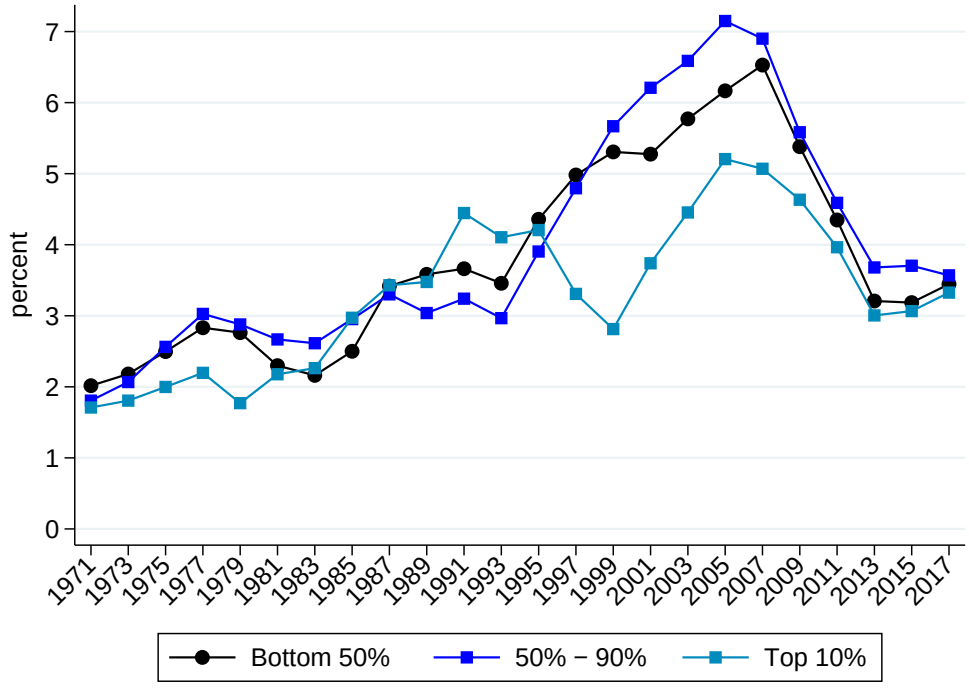
- Identify four household groups in PSID data
  1. **Extractors**
  2. **Upgraders**
  3. **Downgraders**
  4. **New owners** are households who
     (a) bought a house
     (b) were no homeowners in the previous two surveys

Contributions to the debt increase

- Decomposition captures 90% of the debt increase since 1977
- Equity extraction alone accounts $\approx$ 50% of debt increase
- Upgraders account for another 35% of the debt increase



Home equity extraction by income group



- All income groups extracted substantial home equity
- Stronger increase of income share among bottom 90%
- Up to 7% equity extraction relative to annual income

Conclusions

- Strong divergence of income and debt growth since 1970s
- Middle class main driver of the debt boom since 1950
- Equity extraction accounts for 50% of debt increase since 1970s
- Rising debt as result of asset-based borrowing against rising house prices

Part IV

The racial wealth gap, 1860-2020

joint work with

Ellora Derenoncourt, Chi Hyun Kim, and Moritz Schularick

Motivation

- The largest racial economic gap continues to be wealth
  - White to Black wealth ratio in 2019 is 6:1
  - Compared to income ratio of 1.5:1
- Wealth gap remarkably stable over the late 20^{th} century
- We know little of its evolution prior to modern wealth data

[Du Bois (1901); Spriggs (1984); Margo (1984); Margo & Collins (2011)]

Contribution

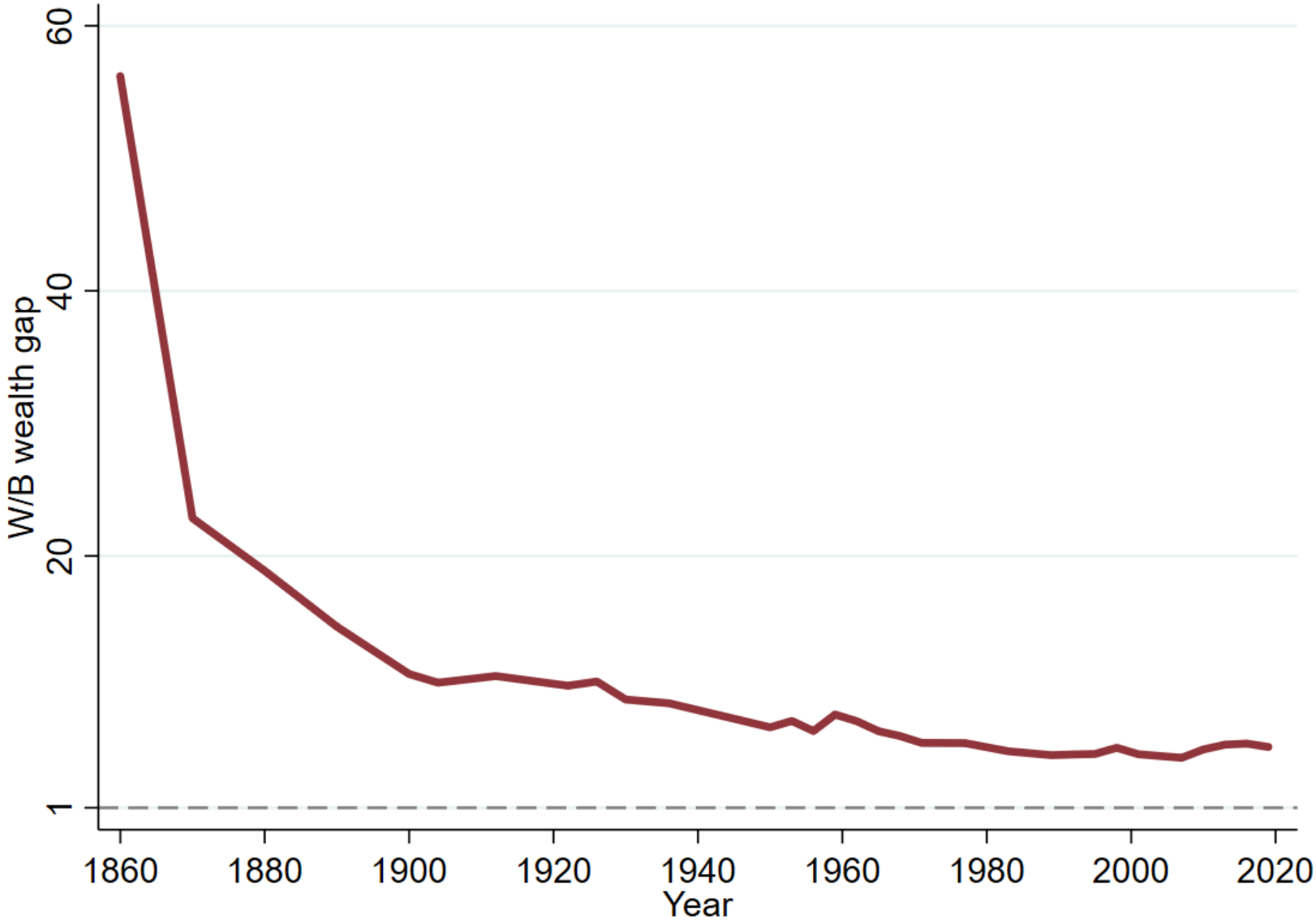
- Compile first long-run series on the racial wealth gap from Civil War to the present
    - Fill in ≈ 100 missing years of data, 1880s-1980s
- Rationalize shape of wealth convergence with a stylized model
- Explain mechanisms behind times of convergence/divergence
- Shed light on future of gap and policy implications

literature

Definitions and data sources

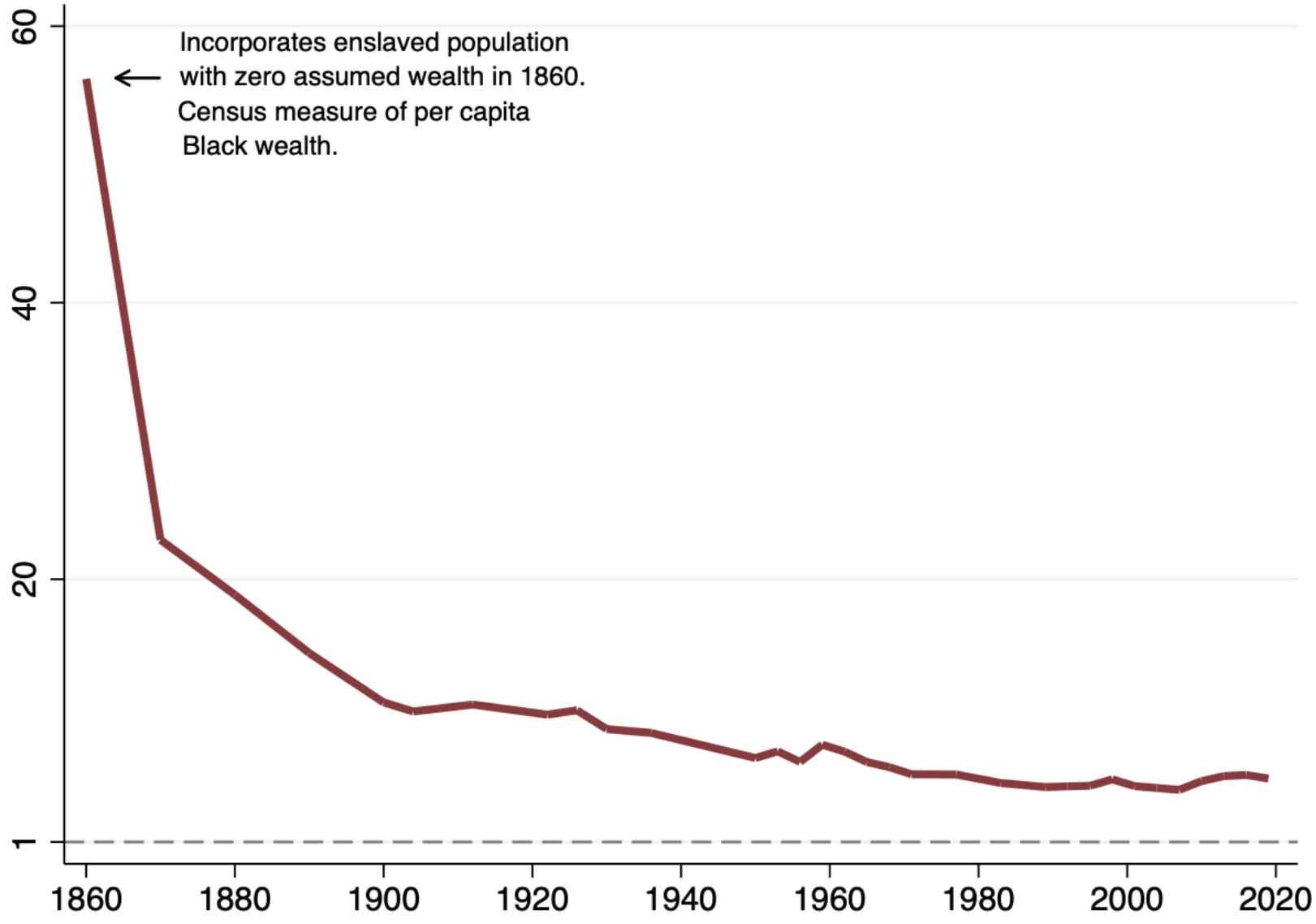
- Wealth gap: white-to-Black per capita wealth ratio
- White wealth = total wealth - Black wealth
- Primary data sources:
  - US Census, 1860 & 1870: **gross wealth** ▸ Questionnaire
  - Census "Wealth, debt, & taxation report": **taxable wealth**
  - Southern state tax records, 1860s-1910s: **taxable wealth**
  - Monroe Nathan Work, 1920-1940: **aggregate Black wealth**
  - SCF+ (Kuhn et al., 2020), 1949-present: **networth/wealth**

White-Black per capita wealth ratio, 1860-2020 Authors' series log



White-Black wealth ratio, 1860-2020

Authors' series



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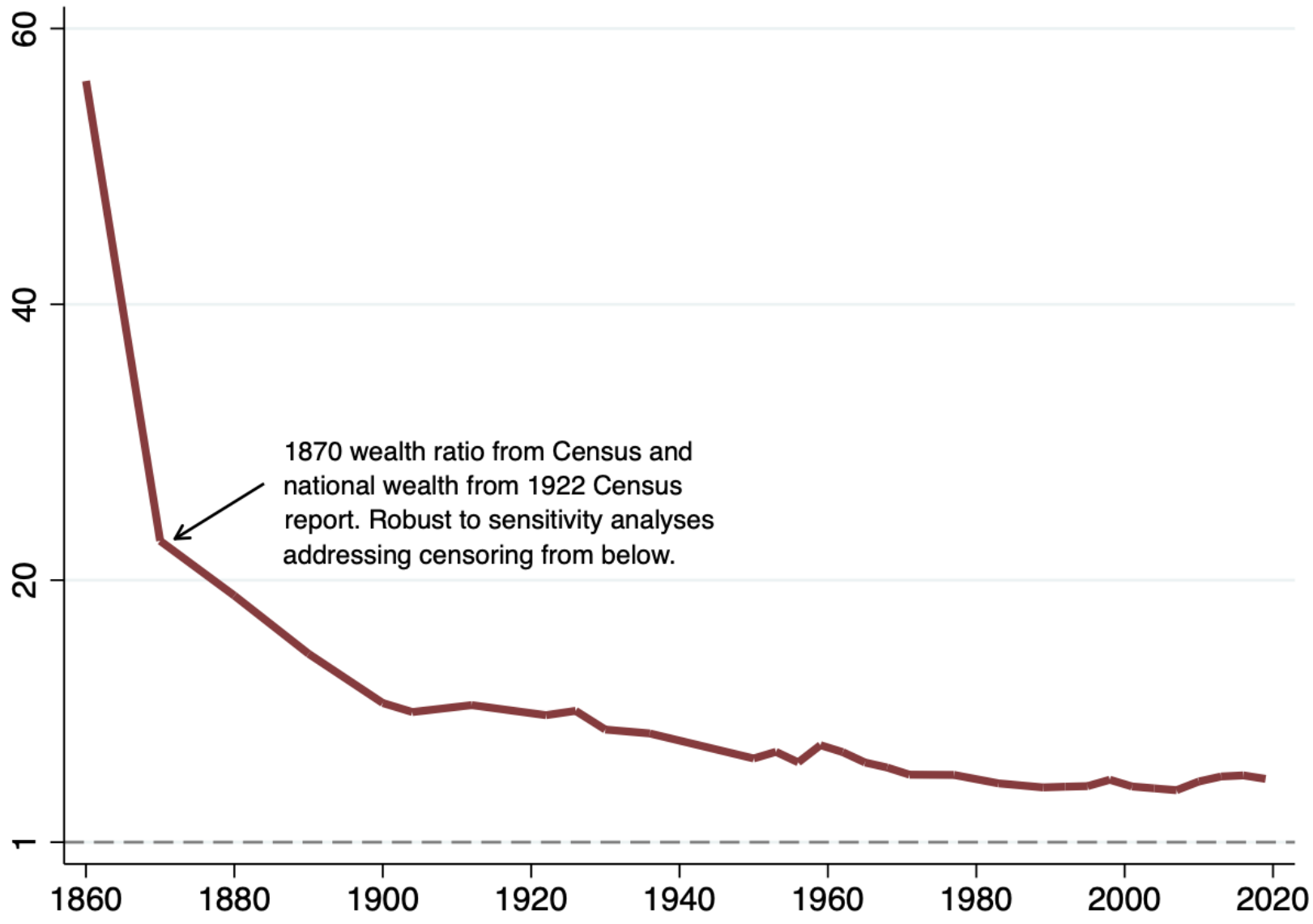
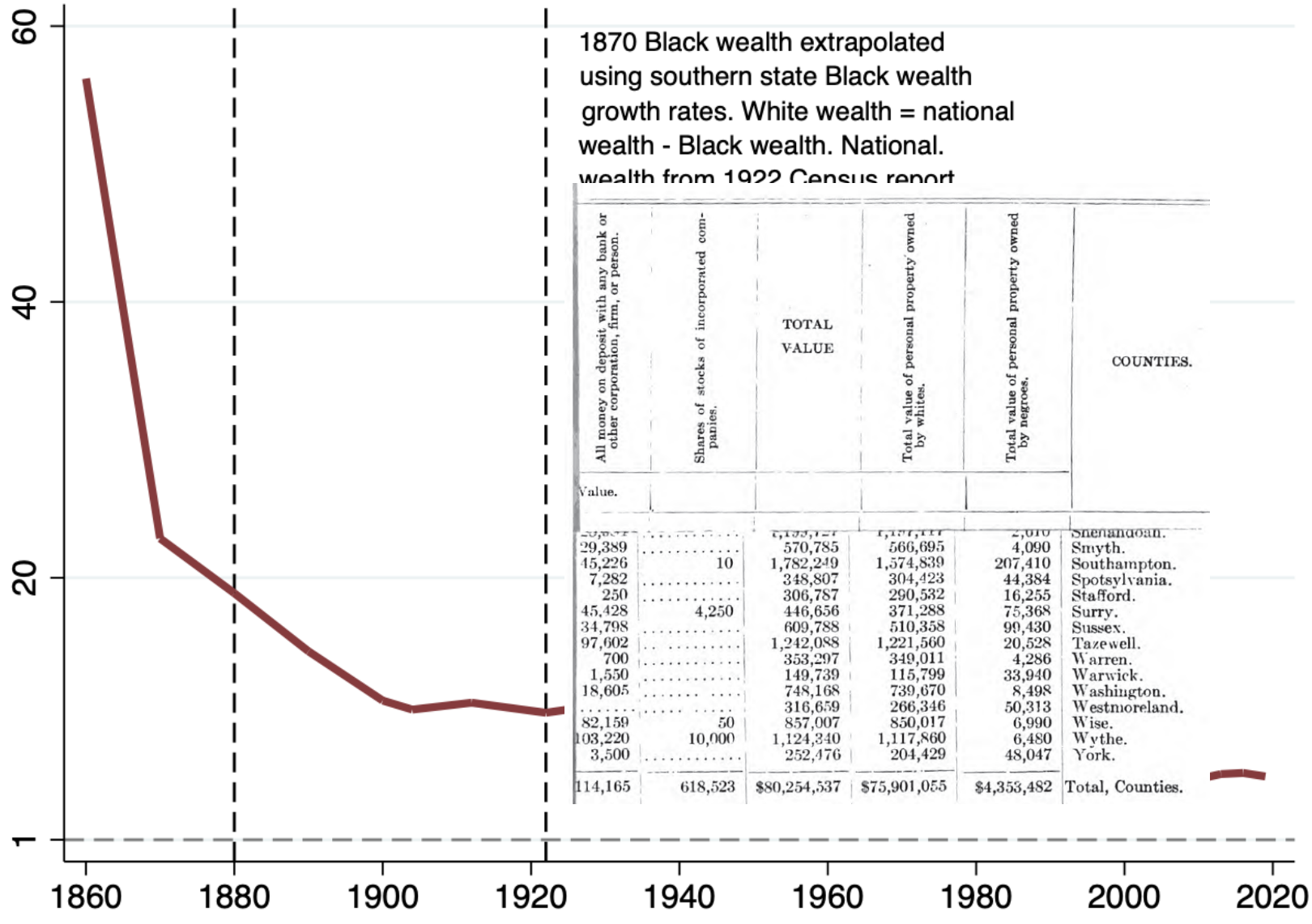


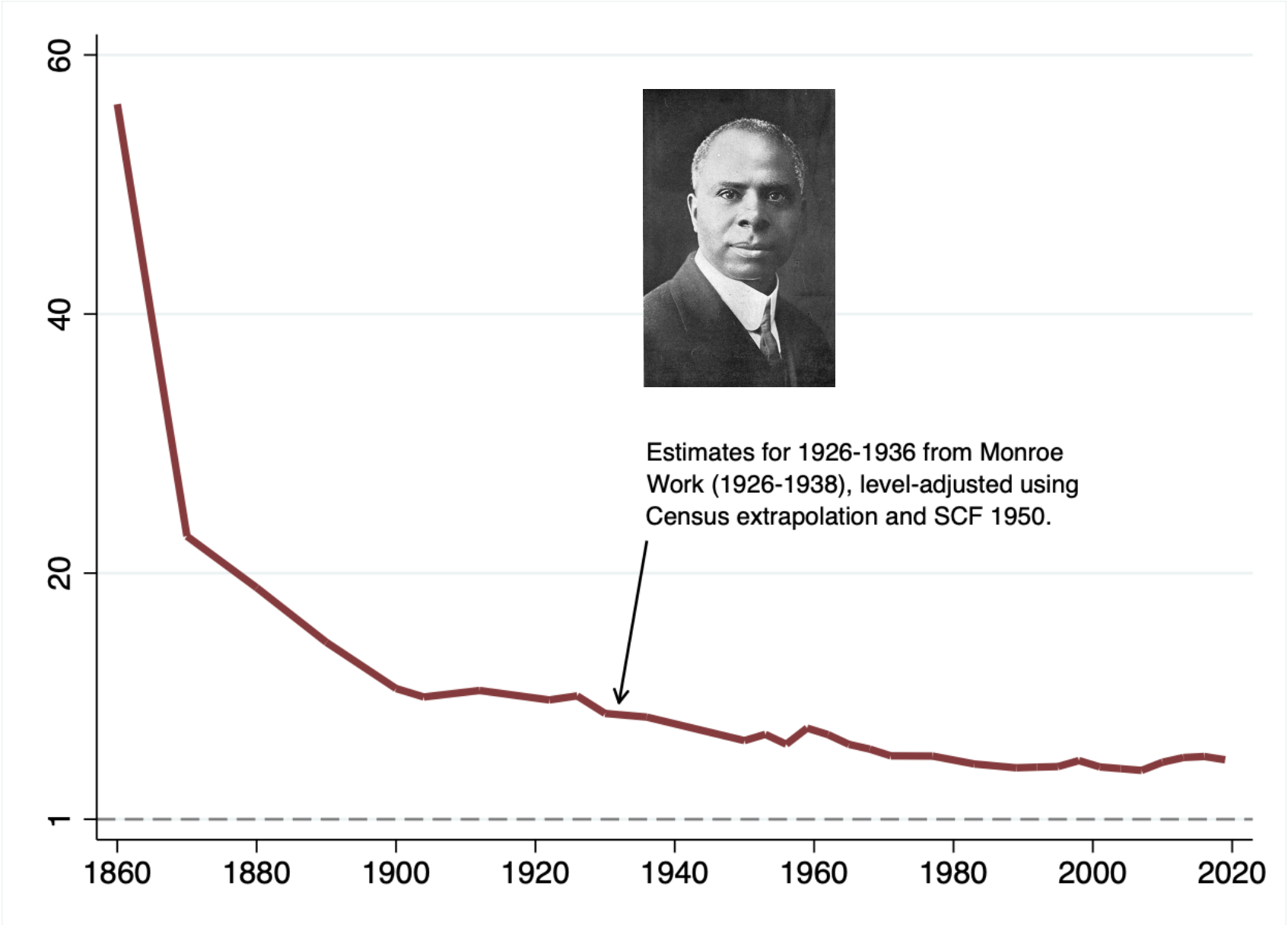
White-Black wealth ratio, 1860-2020

Authors' series ▸ Tax ▸ Church



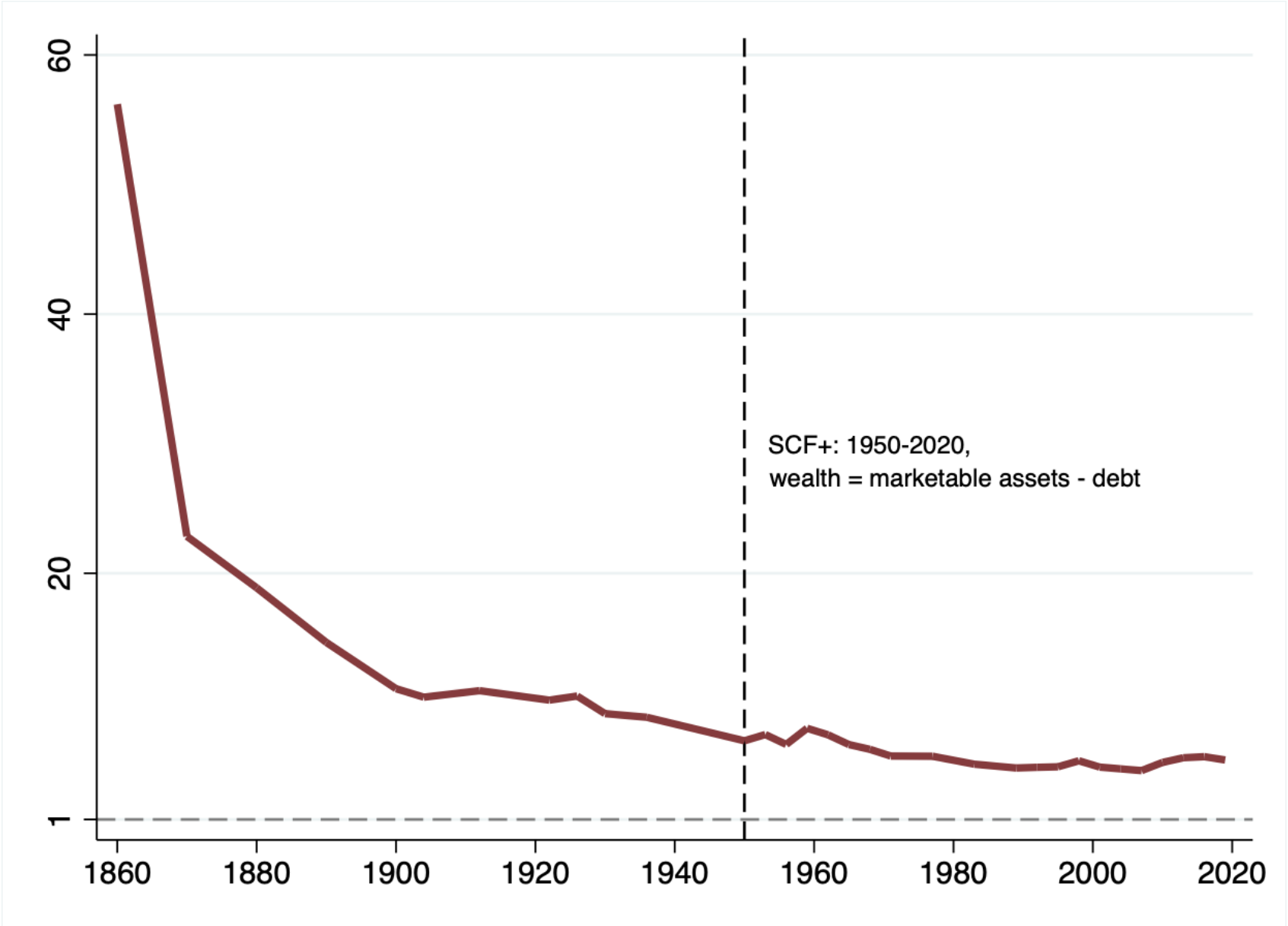
All money on deposit with any bank or other corporation, firm, or person.	Shares of stocks of incorporated companies.	TOTAL VALUE	Total value of personal property owned by whites.	Total value of personal property owned by negroes.	COUNTIES.
Value.					
					Shenandoah.
29,389		570,785	566,695	4,090	Smyth.
45,226	10	1,782,249	1,574,839	207,410	Southampton.
7,282		348,807	304,423	44,384	Spotsylvania.
250		306,787	290,532	16,255	Stafford.
45,428	4,250	446,656	371,288	75,368	Surry.
34,798		609,788	510,358	99,430	Sussex.
97,602		1,242,088	1,221,560	20,528	Tazewell.
700		353,297	349,011	4,286	Warren.
1,550		149,739	115,799	33,940	Warwick.
18,605		748,168	739,670	8,498	Washington.
		316,659	266,346	50,313	Westmoreland.
82,159	50	857,007	850,017	6,990	Wise.
103,220	10,000	1,124,340	1,117,860	6,480	Wythe.
3,500		252,476	204,429	48,047	York.
114,165	618,523	$80,254,537	$75,901,055	$4,353,482	Total, Counties.

White-Black wealth ratio, 1860-2020 Authors' series ▸ Alt. 1930 ▸ Alt. 1936



White-Black wealth ratio, 1860-2020

Authors' series ▸ Housing ▸ % Pos.



Key takeaways from the long-run series

- Rapid convergence after Emancipation
  - In 1860, White to Black wealth ratio is 56 to 1
  - By 1920, White to Black wealth ratio is $\approx$ 10 to 1
- Convergence slows dramatically by mid 20^{th} century
  - White to Black wealth ratio in 1950s is 7 to 1
  - White to Black wealth ratio in 2019 is 6 to 1
- Overall series exhibits a "hockey-stick" shape

The trajectory of the racial wealth gap

- Wealth accumulation model:

$$\begin{aligned} W_{t+1} &= (1+q)\cdot(W_t + sY_t) \\ Y_t &= (1+g)\cdot Y_{t-1} \end{aligned}$$

with q capital gains, s saving rate, and g income growth

- Growth rate of the racial wealth gap ($WR = \frac{W^w}{W^b}$):

$$\log\left(\frac{WR_{t+1}}{WR_t}\right) \approx \underbrace{\left(q^w - q^b\right)}_{\text{Differences in capital gains}} + \underbrace{\left[s^w \frac{Y_t^w}{W_t^w} - s^b \frac{Y_t^b}{W_t^b}\right]}_{\text{Differences in saving}}$$

Counterfactual experiment: equal wealth accumulation

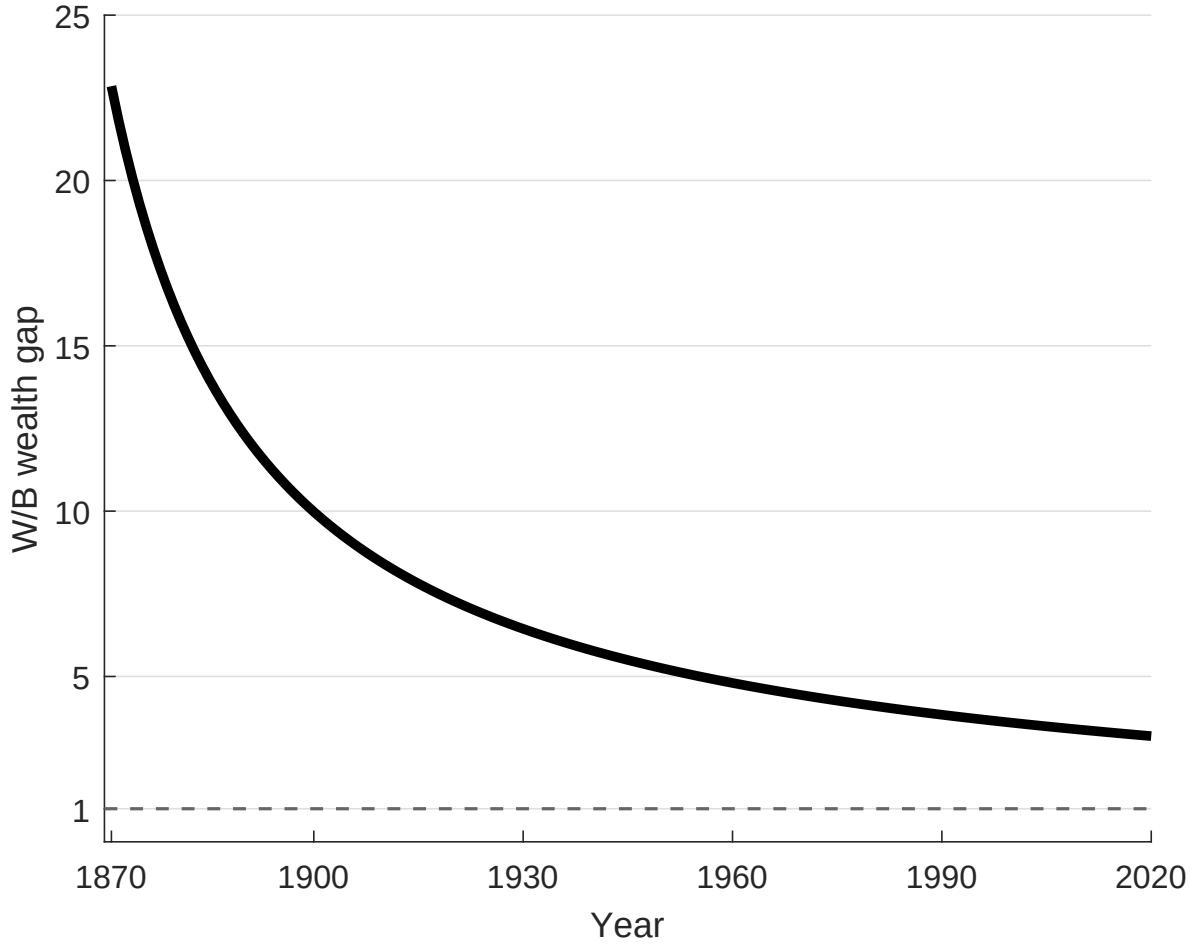
How would the racial wealth gap have evolved, if Black and white Americans had equal wealth accumulating conditions?

- Evolution of the racial wealth gap assuming $q^w = q^b$, $s^w = s^b$

$$\log\left(\frac{WR_{t+1}}{WR_t}\right) = s \cdot \left(\frac{Y_t^w}{W_t^w} - \frac{Y_t^b}{W_t^b}\right).$$

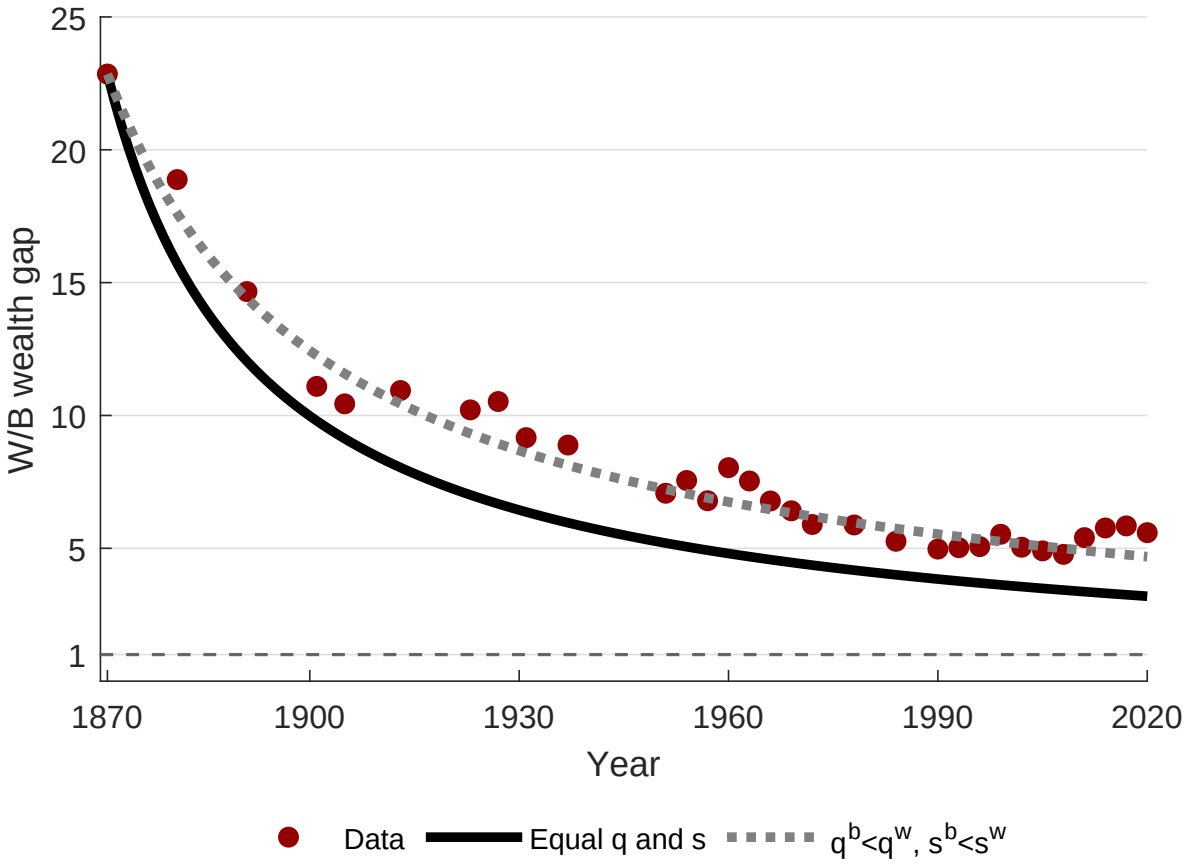
- $q = 1\%$, $s = 5\%$ (Saez and Zucman, 2016)
- Plug in empirical income growth $g^b = 2.3\%$ and $g^w = 2\%$
- Start from wealth and income gap in 1870 of 23 (wealth) and 3.6 (income)

The legacy of slavery



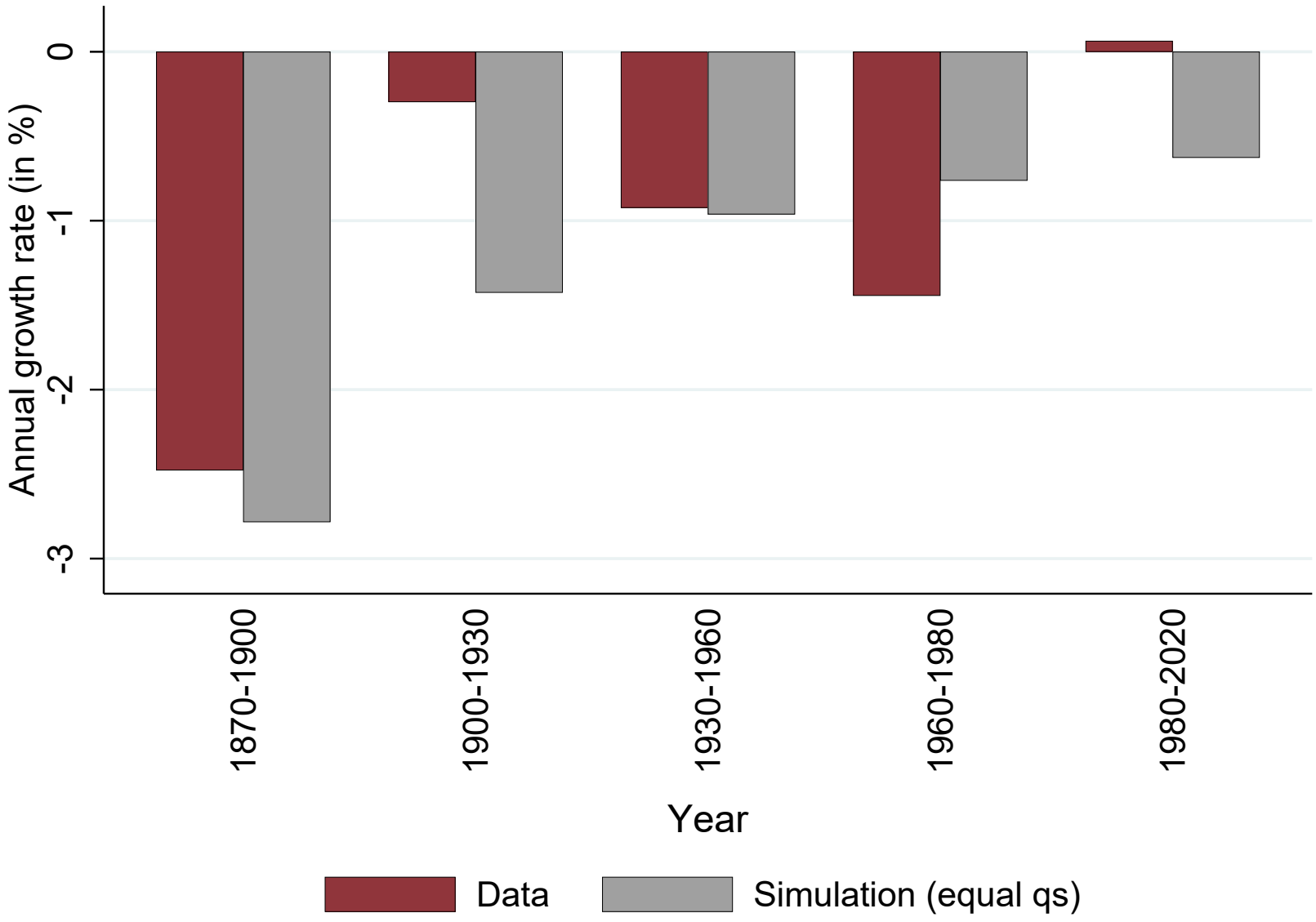
- Wealth gap today still the result of very unequal starting conditions in 1870

Empirical convergence slower compared to simulation

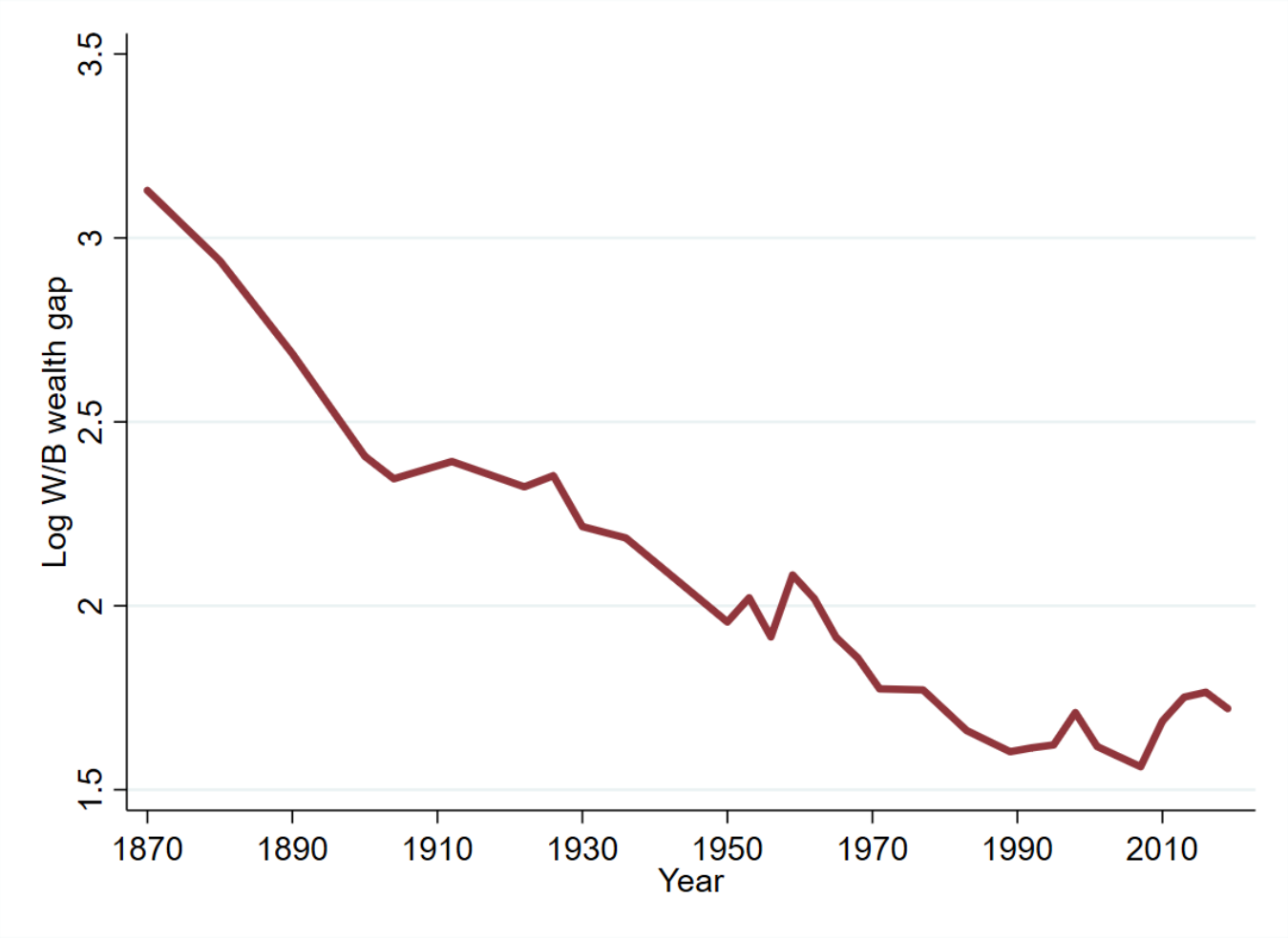


- Different wealth accumulation conditions rationalize historical time series ($s^w = 5\%$ vs. $s^b = 3.9\%$ and $q^w = 1\%$ vs. $q^b = 0.8\%$)

Periods of slower vs. faster convergence



Stalled convergences post-1980



- Log wealth gap highlights stop of wealth convergence $\approx$ 1980

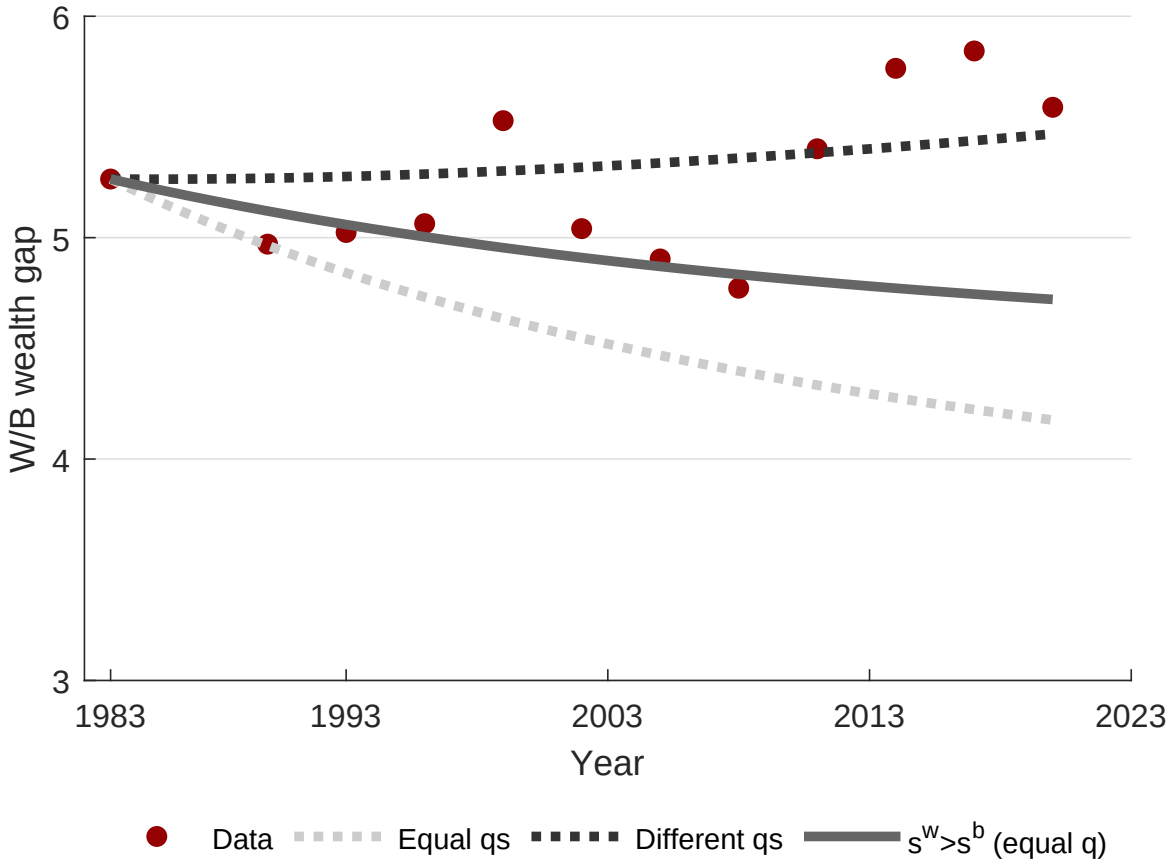
Heterogeneous capital gains due to portfolio composition

Black and white Americans have different portfolio structure

- Black: Housing main asset (60%), very low equity holdings
- White portfolio is more diversified (housing 40%, equity 20%)
- Equity market boom post-1980 led to $q^b << q^w$

	1950-1980	1980-2020
$q^w - q^b$	0.38 p.p.	0.76 p.p.

Reduced role for savings, increased role for capital gains



- Portfolio differences in combination with asset price dynamics led to increasing racial wealth gap over last 40 years

Conclusions

- New estimates of white-to-Black wealth ratio for the US, 1860-2020
  - Hockey-stick shape of convergence
  - Legacy of slavery: full convergence is a distant scenario
  - Portfolio differences and asset price dynamics reversed closing of the wealth gap
- Reparations effective in closing racial wealth gap quickly
- Policies targeting wealth accumulation conditions necessary to stabilize racial wealth gap

Part V

2013 Update on the U.S. Earnings, Income, and Wealth Distributional Facts: A View from Macroeconomics

joint work with

José-Víctor Ríos-Rull

Motivation

- Debate on policy responses to income and wealth inequality
- Provide a description of inequality in the United States
- Earnings, income, and wealth data from the Survey of Consumer Finances
- Focus on 2013 contrast to trends over past 25 years

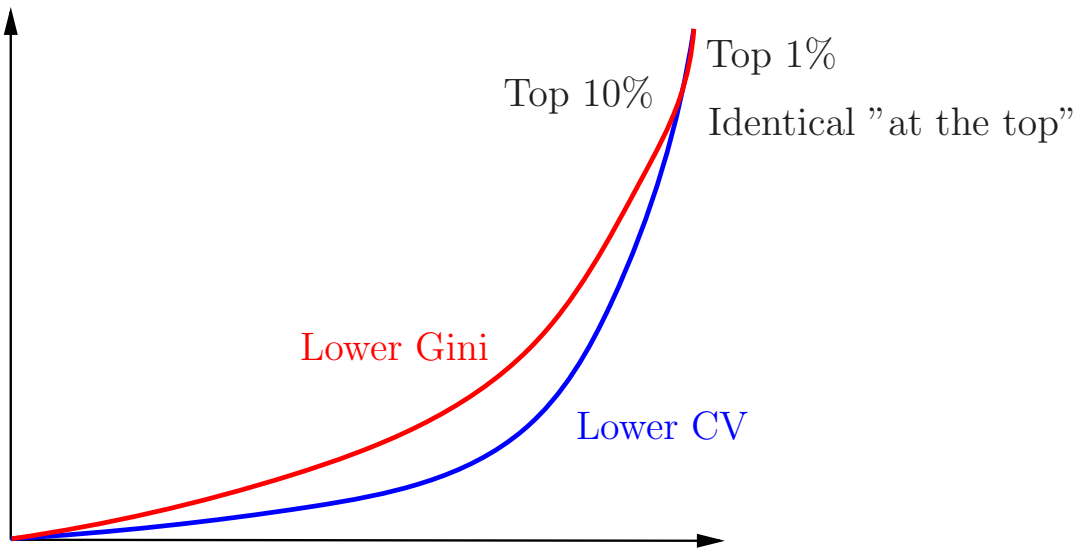
A quick reminder: U.S. inequality in 2013

- Wealth most unequally distributed
- Distributions highly right-skewed
- Earnings, income, and wealth concentration "at the top"

	Earnings	Income	Wealth
Coefficient of variation	3.69	4.19	6.81
Variance of logs	1.50	0.99	4.80
Gini indexes	0.67	0.58	0.85
Location of mean	70	74	83
99-50 ratio	17.46	14.78	96.81
90-50 ratio	4.15	3.33	11.56
Mean-to-median ratio	1.96	1.85	6.49
50-30 ratio	3.21	1.64	5.50

How do we measure inequality?

- Debate about rising inequality about top 1 % (or smaller group)
- One point on Lorenz curve uninformative about bottom 99 %
- Gini coefficient describes inequality with focus on the middle
- Coefficient of variation describes inequality with focus on tails



Income inequality trends 1989 - 2013

- Gini coefficient of income increased (0.55 $\nearrow$ 0.58)

$\Longrightarrow$ Disappearance of the middle class

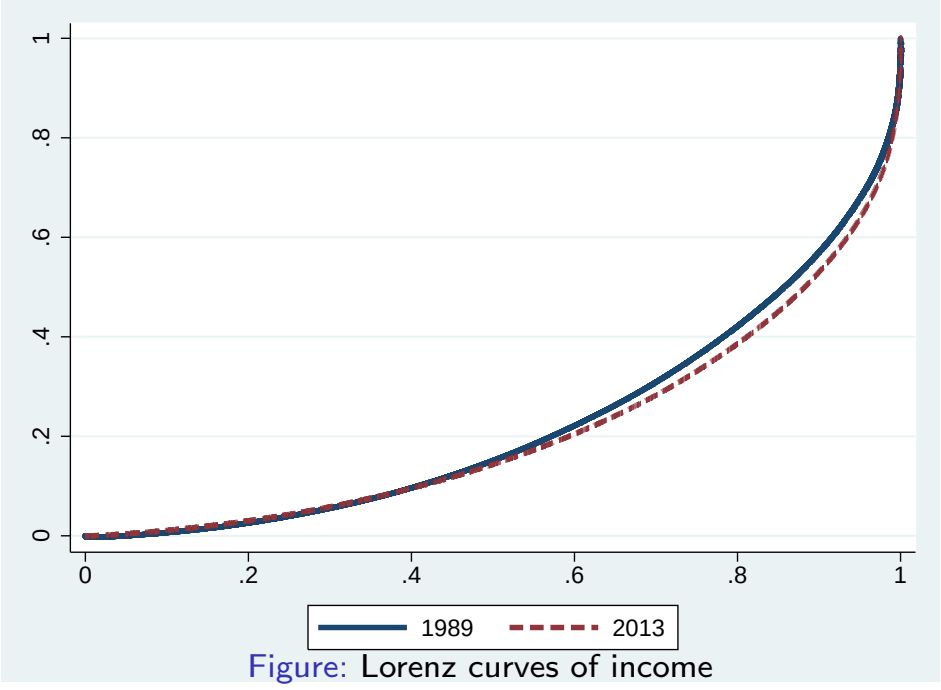


Figure: Lorenz curves of income

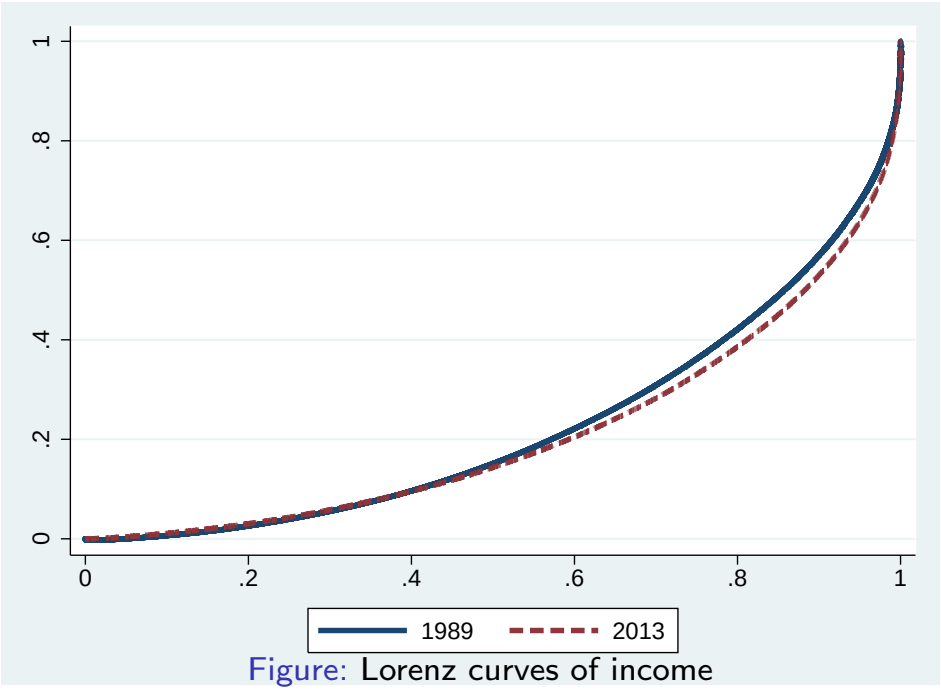
Income inequality trends 1989 - 2013

- Gini coefficient of income increased (0.55 $\nearrow$ 0.58)

  $\Longrightarrow$ Disappearance of the middle class

- Coefficient of variation of income decreased (4.61 $\searrow$ 4.19)

  $\Longrightarrow$ Catching-up of the poor



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Sources of inequality

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- SCF data has information about who the wealthy are

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- Taxing wealth? Tax on the older, better educated, and entrepreneurial

Sources of Wealth Inequality, 2013

Wealth Component	Share S_k	Coeff. G_k	Corr. R_k	Conc. C_k	Contrib. I_k/G
Liquid assets	0.06	0.87	0.89	0.77	0.06
Mutual funds	0.07	0.98	0.95	0.94	0.08
Stocks	0.07	0.98	0.95	0.93	0.08
Bonds	0.02	1.00	0.97	0.97	0.02
Ret. accts.	0.19	0.87	0.90	0.78	0.17
Houses	0.32	0.68	0.83	0.56	0.21
Vehicles	0.04	0.54	0.57	0.31	0.01
Business	0.21	0.99	0.96	0.95	0.23
Mtge + HELOCs	-0.13	-0.77	-0.43	0.33	-0.05
Installment loans	-0.02	-0.80	0.27	-0.22	0.01
TOTAL	1.0	0.85	1.0	0.85	0.85

S_k : wealth share

R_k : correlation between component and wealth

G_k : Gini of wealth component

$I_k = R_k \times G_k \times S_k$: contribution to Gini

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- Stocks, bonds, and mutual funds account for less than 20% of inequality

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    - Wealthy are older, better educated, and entrepreneurial
3. Housing, business equity, and retirement accounts account for over 70 % of assets and inequality
    - Wealth only weakly correlated to capital income
4. Household portfolios differ along the wealth distribution
    - The poor are sensitive to house prices, the rich to equity prices

Take a look yourself

- All results can be founded and downloaded at

`https://sites.google.com/site/kuhnecon/home/us-inequality`

Summary

- Income and Wealth Inequality are at historical highs
- Wealth inequality and portfolio differences are tightly linked
- Portfolio differences by wealth, income, education, age, and race
- Asset prices important driver of wealth inequality
- Future work needs to understand better portfolio allocation, asset prices, and their interaction
- For questions, please send an email to **mokuhn@uni-bonn.de**