The racial wealth gap, 1860-2020[1]

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[1] Excellent research assistance was provided by Will McGrew and Isbah Bandeali.

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 2:1
- The gap has shown remarkable stability over the late 20C
- We know little of its evolution prior to modern wealth data

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

Our project:

- 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 periods of convergence/divergence
- Shed light on future gap, policy implications (e.g., reparations)

Related Literature

- Historical wealth by race and legacy of slavery
  - Du Bois (1901); DeCanio (1979); Higgs (1982); Margo (1984); Schweninger (1989, 1990); Ng & Virts (1993); White (2007); Canaday (2008); Miller (2020); Baradaran (2017); Craemer, Smith, Harrison, Logan, Bellamy, & Darity (2020); Darity & Mullen (2020).
- Housing and homeownership gaps
  - Margo & Collins (2011); Kollmann & Fishback (2011); Rothstein (2017); Aaronson, Hartley, & Mazumder (2019); Akbar, Li, Shertzer, & Walsh (2019).
- Modern racial wealth gap
  - Barsky, Bond, Charles, & Lupton (2002); Charles & Hurst (2002); Gittleman & Wolff (2004); Altonji & Doraszelski, (2005); Killewald (2013); Pfeffer & Killewald (2019); Wolff (2019); Aliprantis, Carroll, & Young (2019); Ganong, Jones, Noel, Farrell, Greig, & Wheat (2020).
- Wealth dynamics and inequality
  - Kotlikoff & Summers (1981); Piketty (2014); Piketty & Zucman (2014); Saez & Zucman (2016, 2020a, 2020b); Derenoncourt (2017); Wolff (2017); Killewald, Pfeffer, & Schachner (2017); Pfeffer & Killewald (2018); Kuhn, Schularick, & Steins (2020).

Outline for today's talk

- A new historical series on the racial wealth gap, 1860-2020
- Accounting model of racial wealth convergence
- Determinants of the shape of convergence and divergence
- Policy and wealth convergence counterfactuals

A new historical series on the racial wealth gap, 1860-2020

Why are we missing 100 years of the racial wealth gap?

- Census recorded wealth in 1850 (real estate), 1860, and 1870
- Next measures of the racial wealth gap are begin in 1980s
  - Panel Survey of Income Dynamics (wealth: 1984-present)
  - Survey of Consumer Finances (typically, 1983-present)

Definitions and data sources for our new long-run series

- Wealth gap: white-to-Black per capita wealth ratio
- White wealth = total wealth - Black wealth
- Primary data sources:
  - US Census, 1860 & 1870: **gross wealth**
  - Southern state tax records, 1860s-1910s: **assessed wealth**
  - Monroe Nathan Work, 1920-1940: **assessed wealth**
  - SCF+ (Kuhn et al., 2020), 1949-present: : **net wealth**

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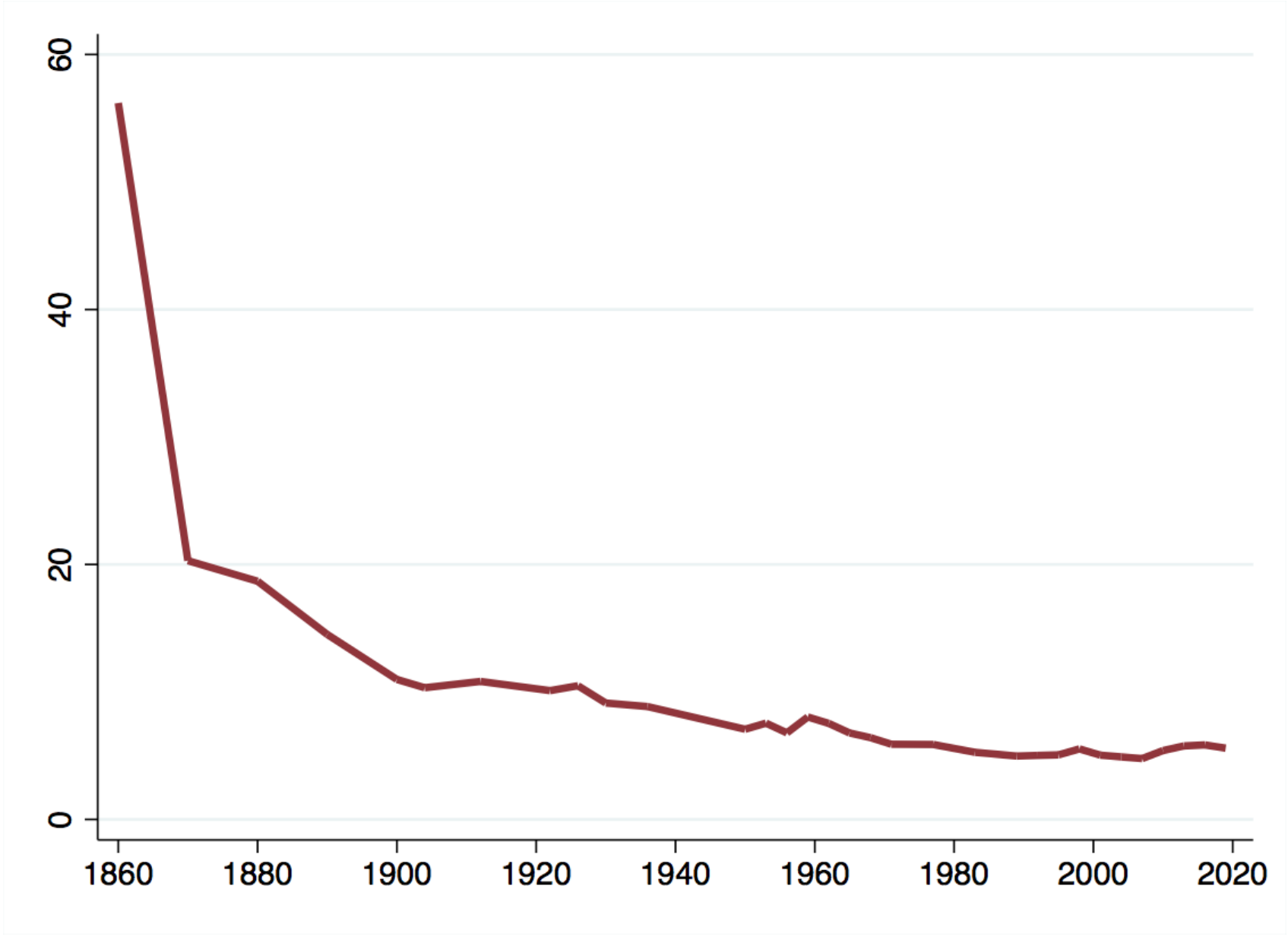
- Secondary data sources:
  - Wealth, debt, and taxation report, 1922 (US Census)
  - Black population report, 1918 (US Census)
  - Saez & Zucman (2016) aggregate wealth estimates, early 20C

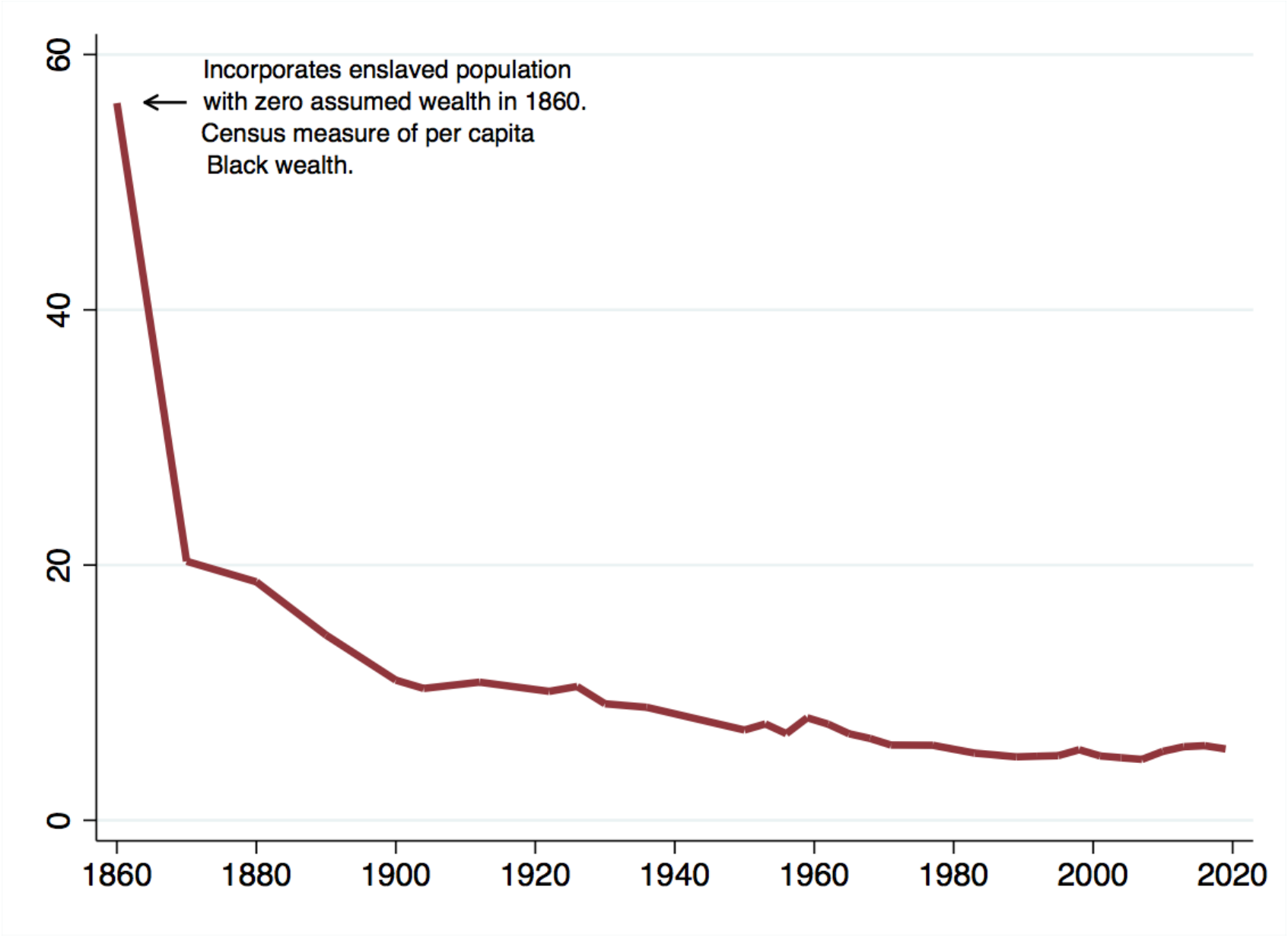
White-Black per capita wealth ratio, 1860-2020

Authors' series



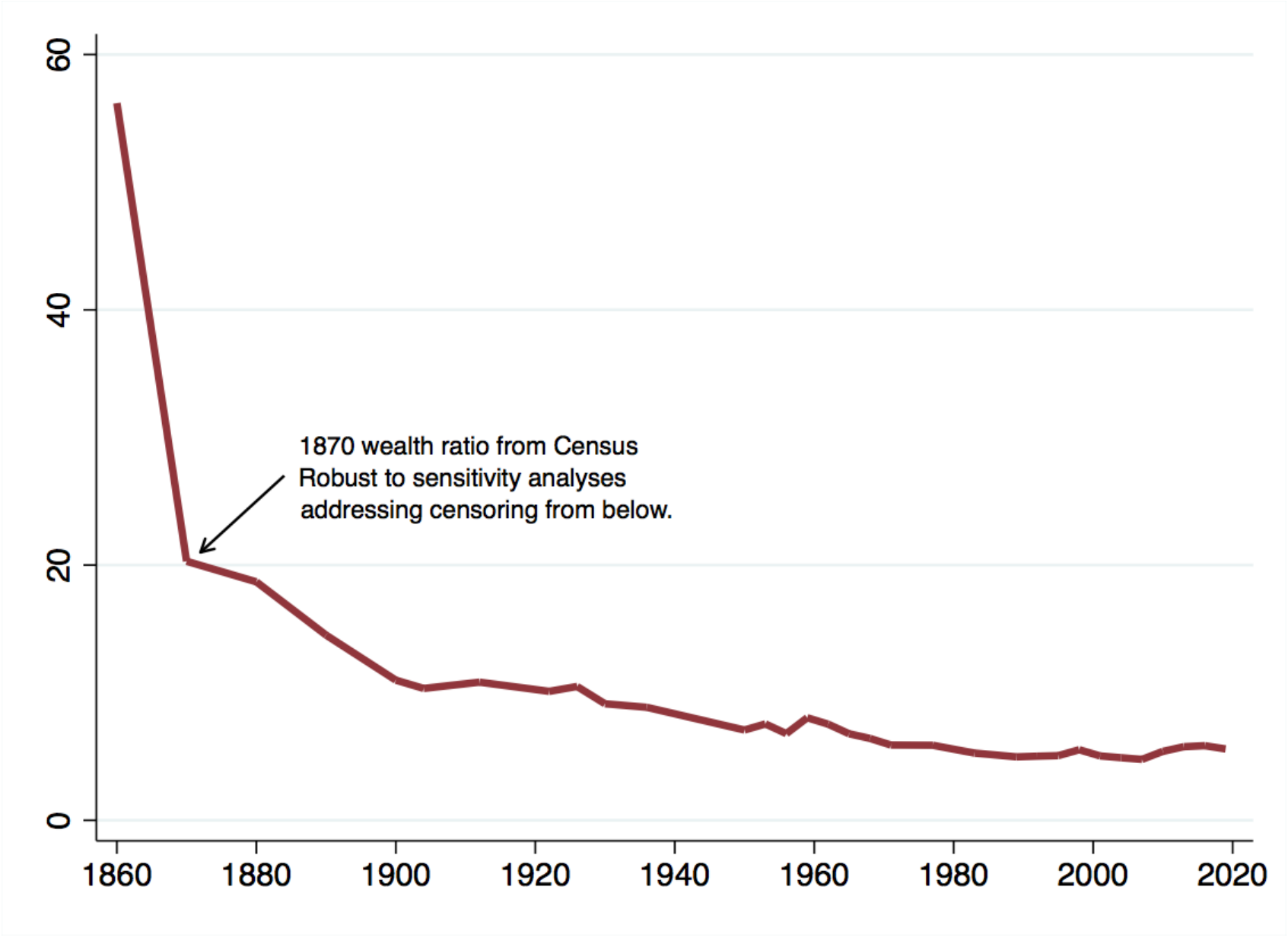
White-Black wealth ratio, 1860-2020

Authors' series



White-Black wealth ratio, 1860-2020

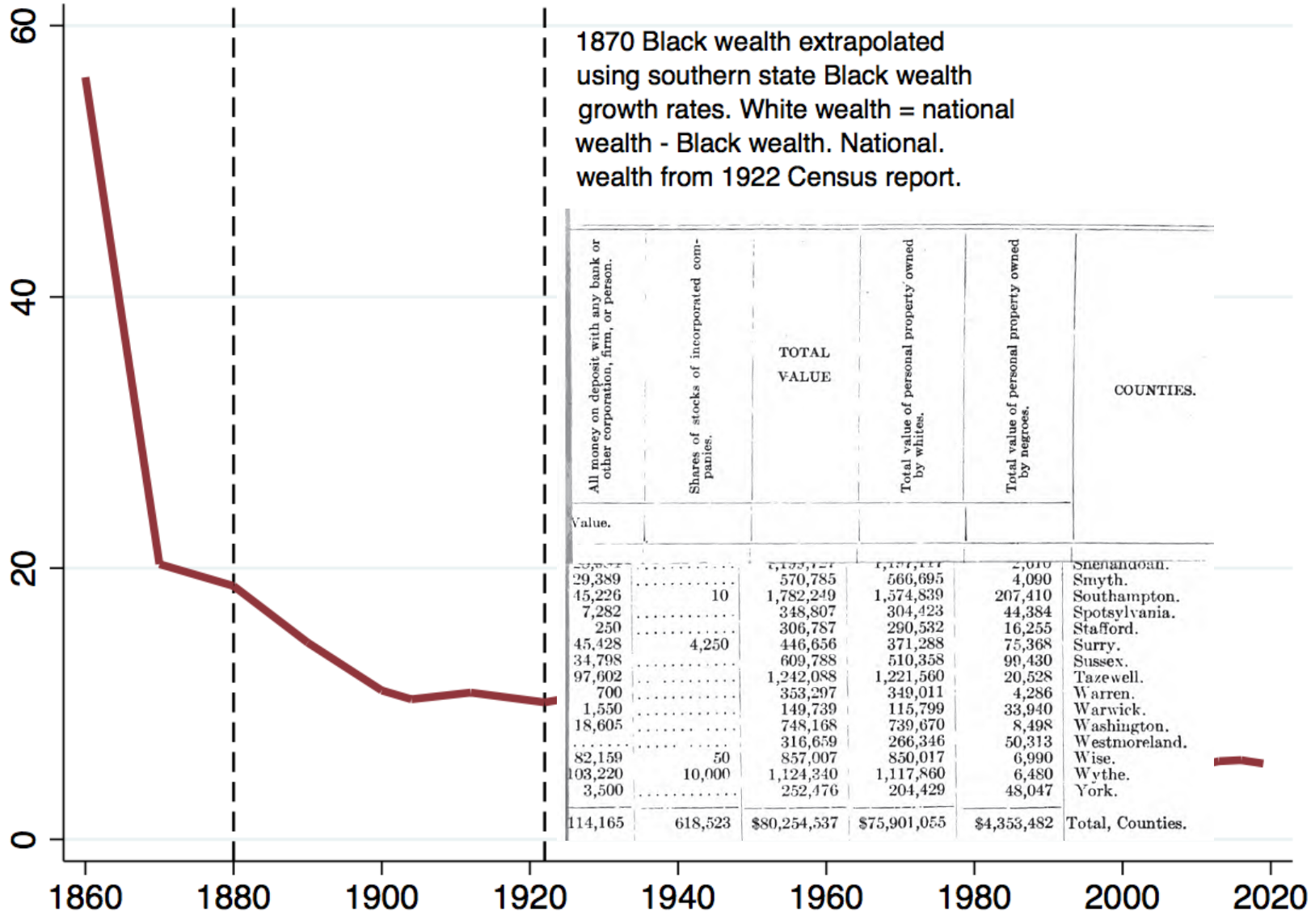
Authors' series



White-Black wealth ratio, 1860-2020

Authors' series

Tax Data

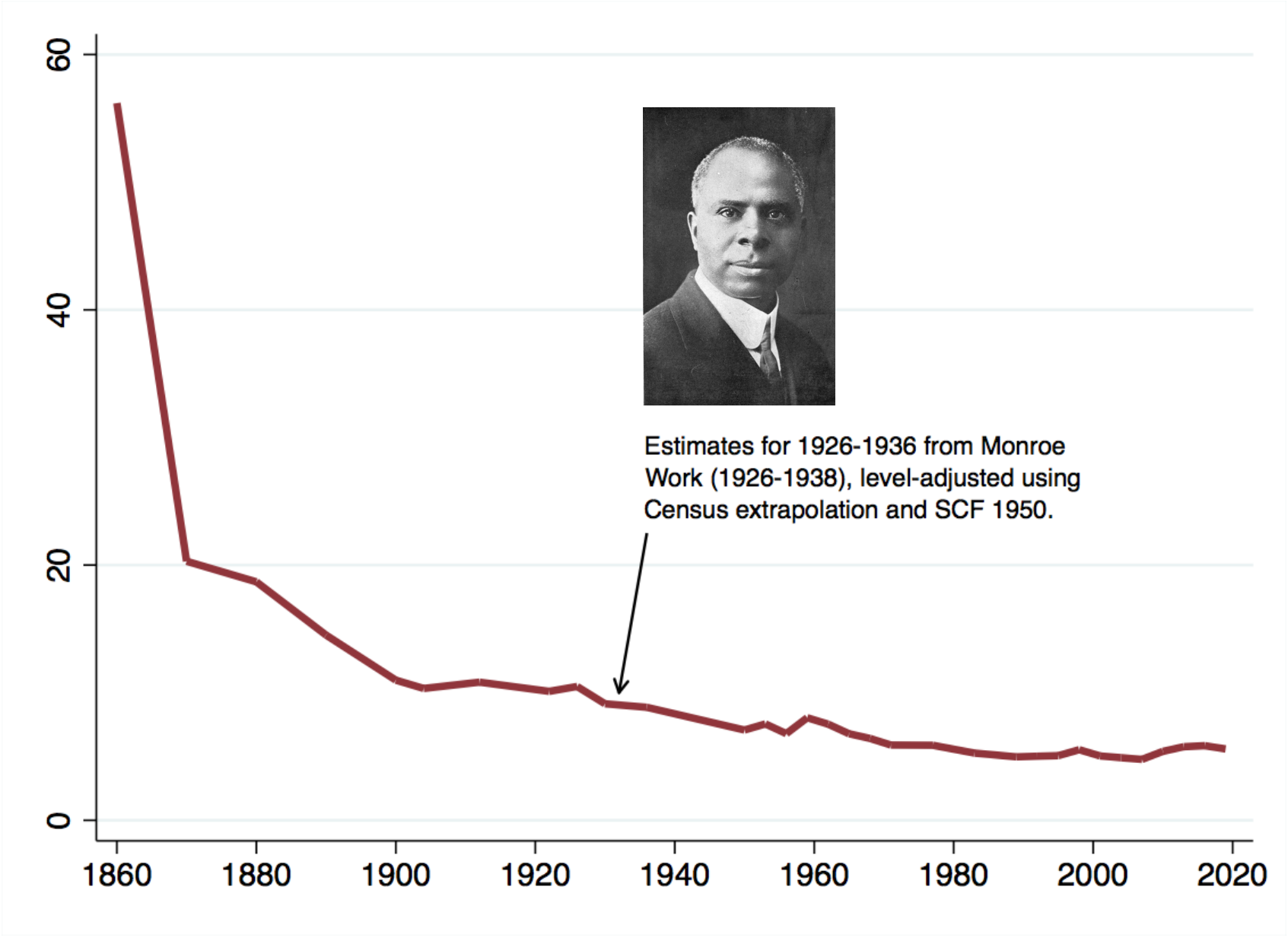


All money on deposit with any bank or other corporation, firm, or person.	Shares of stocks of incorporated companies.	TOTAL VALUE	Total value of personal property owned by whites.	Total value of personal property owned by negroes.	COUNTIES.
Value.					
					Shenandoah.
29,389		570,785	566,695	4,090	Smyth.
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

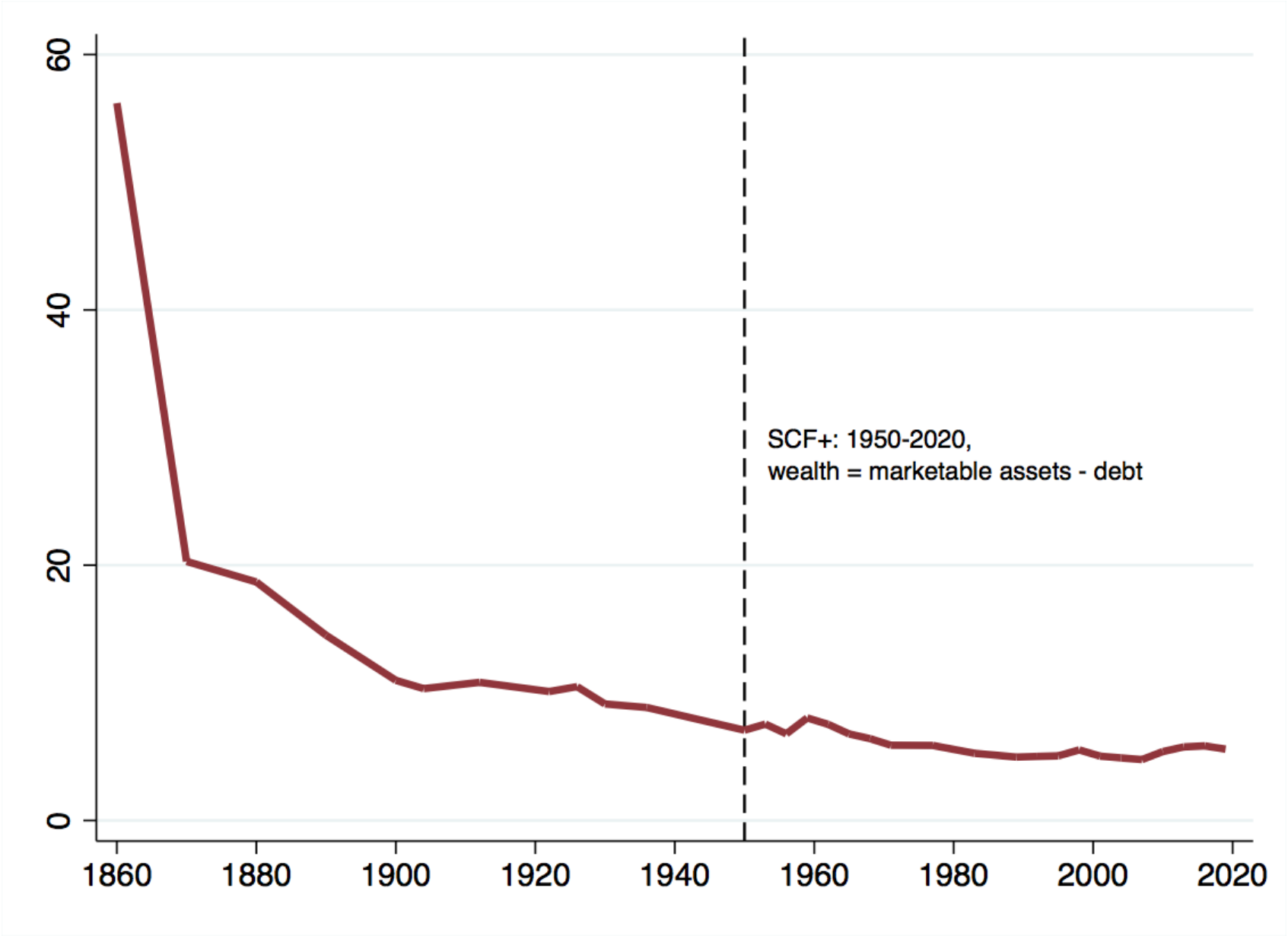
Authors' series

▸ Alt. 1930 estimate



White-Black wealth ratio, 1860-2020

Authors' series ▸ Housing ▸ % Pos.



Key takeaways from the long-run series

- Rapid convergence in first 50 yrs after emancipation
  - In 1860, W-B ratio is 56 to 1
  - By 1920, W-B ratio is $\sim$10 to 1
- Convergence slows dramatically by mid-to-late 20C
  - W-B ratio in 1950s: 7
  - W-B ratio in 2019: 6
- Overall series exhibits a "hockey-stick" shape
- What forces explain this shape of convergence?

Accounting model of wealth convergence

The trajectory of the racial wealth gap

- Wealth accumulation model:

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

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

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

Thought experiment: convergence under $q^w = q^b$, $s^w = s^b$

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

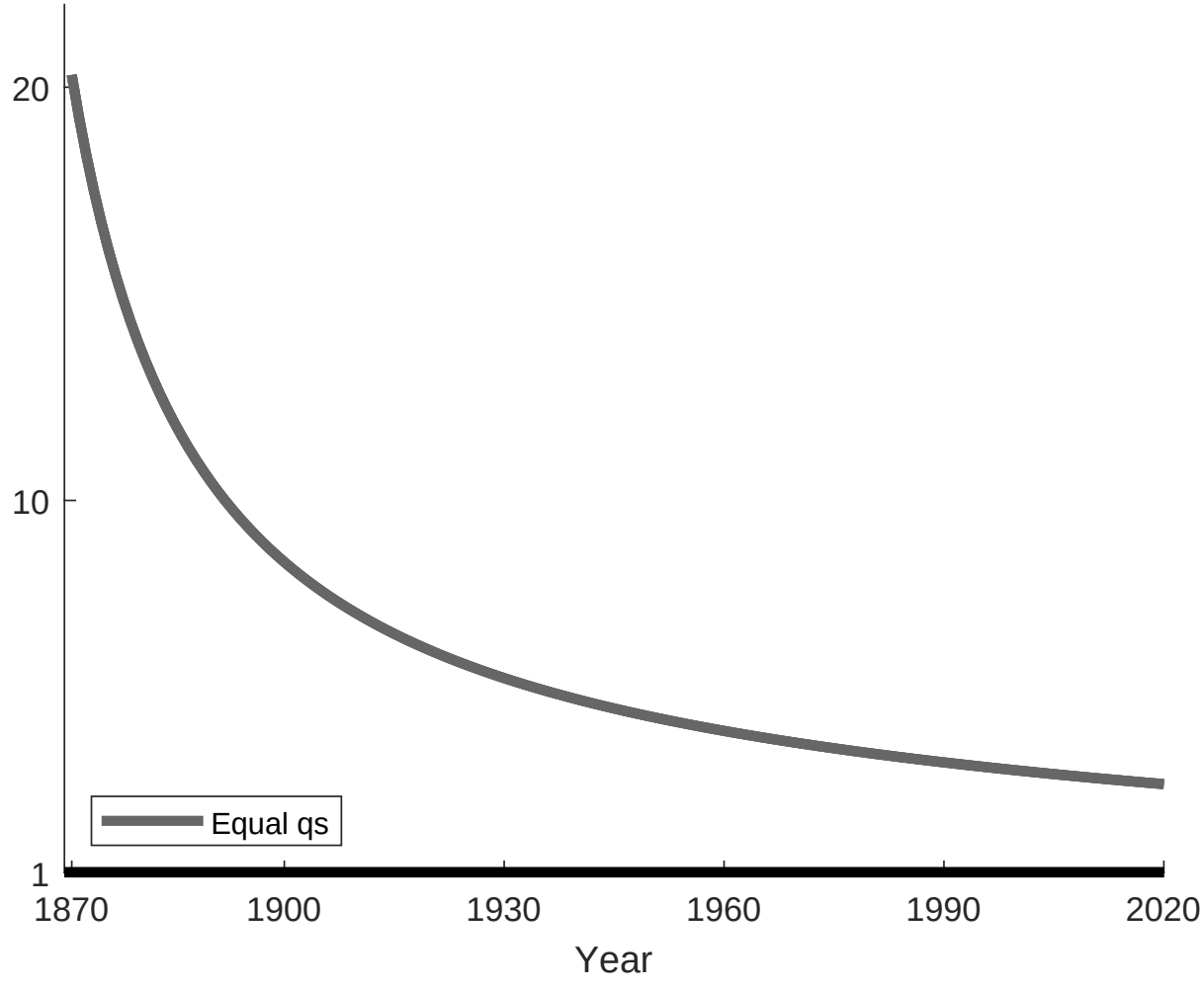
- Set q and s to be equal across the two groups
  - $q = 1\%$, $s = 5\%$

    [Saez and Zucman (2016)]
- Plug in annualized income growth for the two groups, $g^b = 2.3\%$ & $g^w = 2\%$ ▸ data
- Start from 1870 wealth & income gap (W/B): 20 and 3.6

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

Thought experiment: convergence under $q^w = q^b$, $s^w = s^b$

Hockey stick shape follows from initial conditions



Simulation vs. data

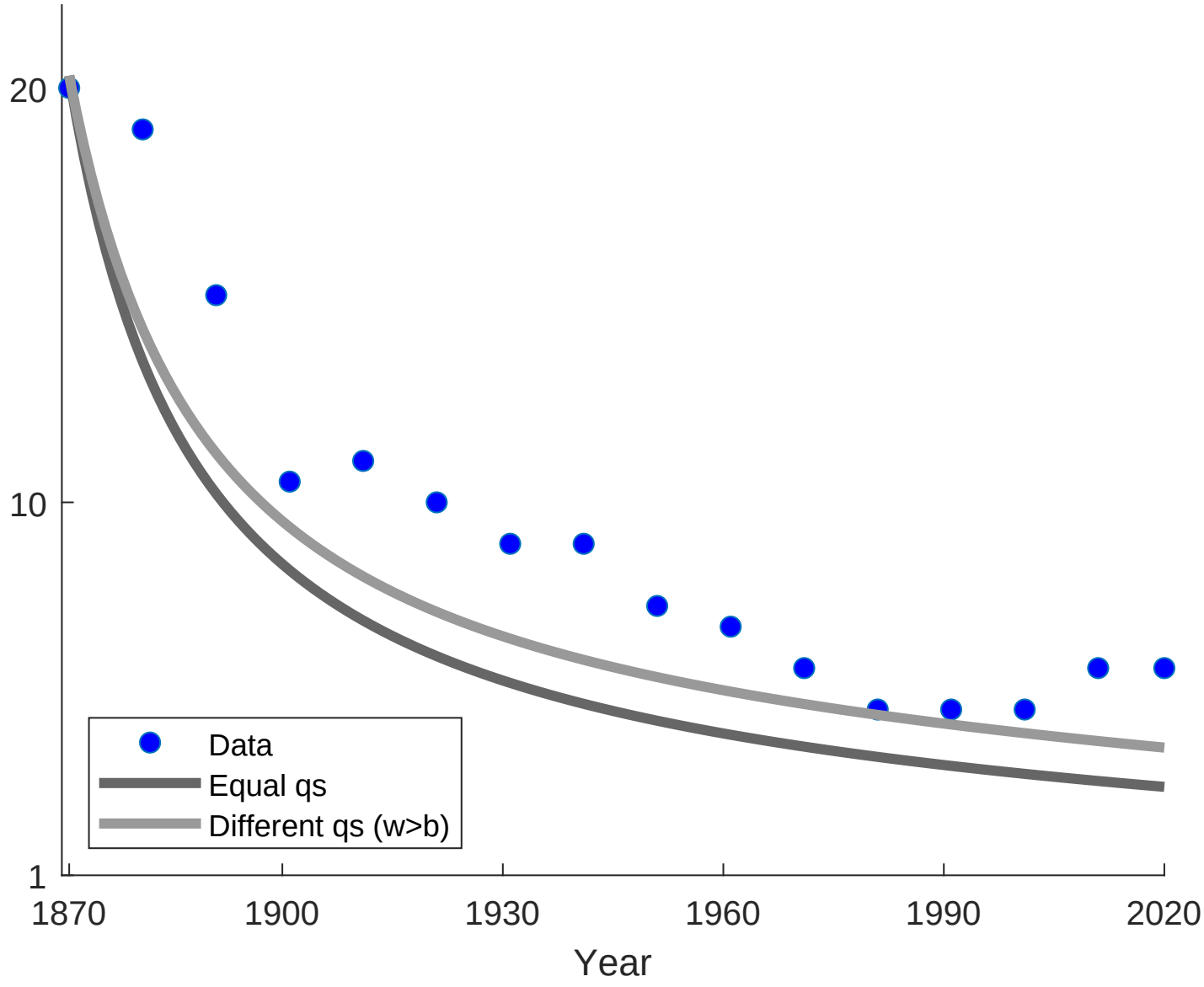
	2020 (data)	2020	2050	2230
Wealth ratio (W/B)	5.7	3.1	2.7	1.4
Income ratio (W/B)	2.1	2.1	1.9	1

- Simulation yields large wealth gap of 3.1 to 1 in 2020
- Wealth gap remains after income convergence
- Nevertheless, observed wealth convergence slower

Determinants of the shape of convergence and divergence

Slower convergence: $q^b < q^w$ and/or $s^b < s^w$

time-varying



Slower convergence: $q^b < q^w$ and/or $s^b < s^w$

time-varying

- Violent destruction/expropriation of property (q)

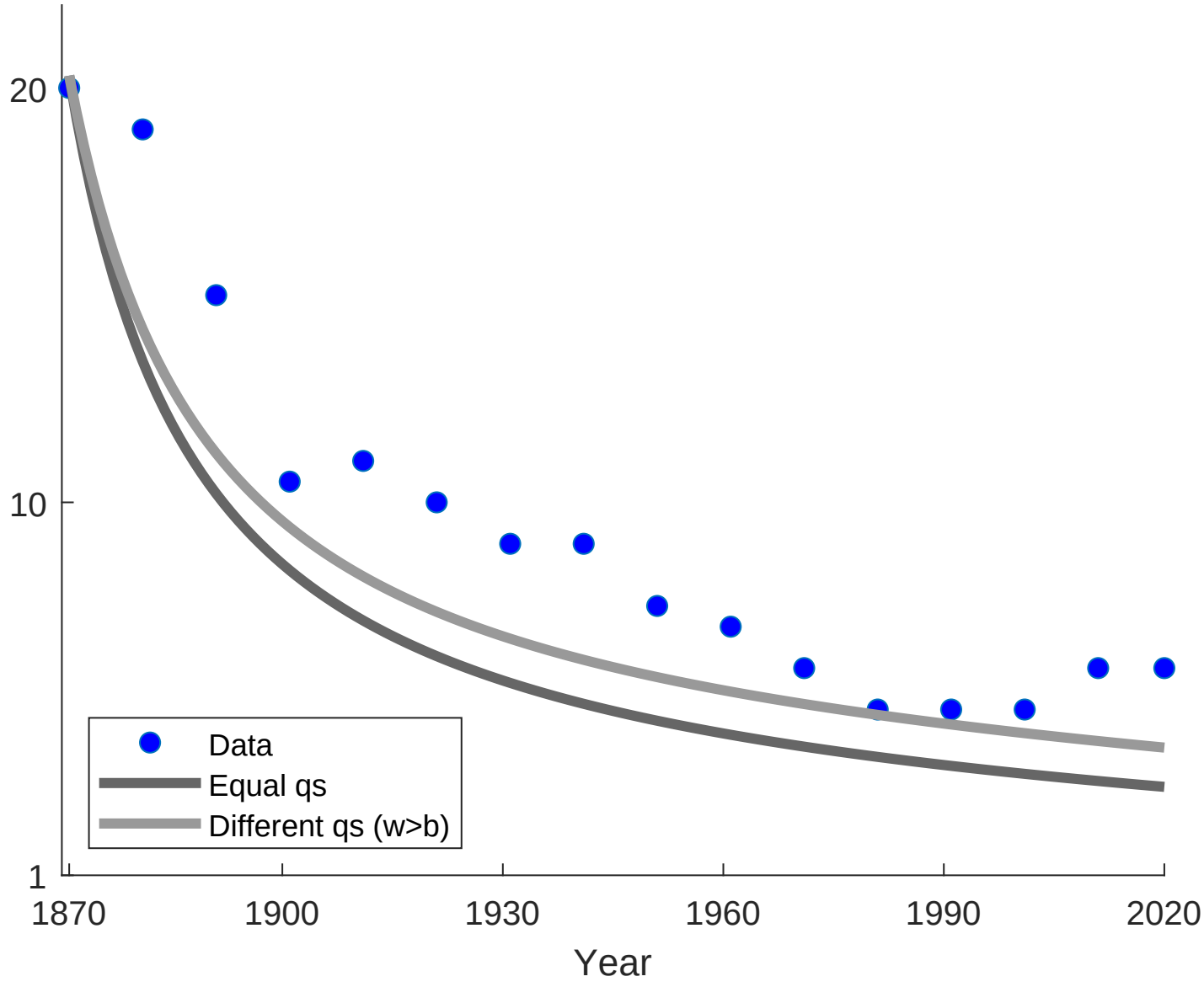
  [Cook (2014); Messer et al. (2018); Albright et al. (2021)]

- Differences in income, life expectancy, family structure $\rightarrow$ differences in saving (s) [Carroll et al. (1999); Aaronson et al., (2020); Gittleman and Wolff (2004); Keister (2004); Altonji and Doraszelski (2005); Dal Borgo (2019); Dynan et al., (2004)]

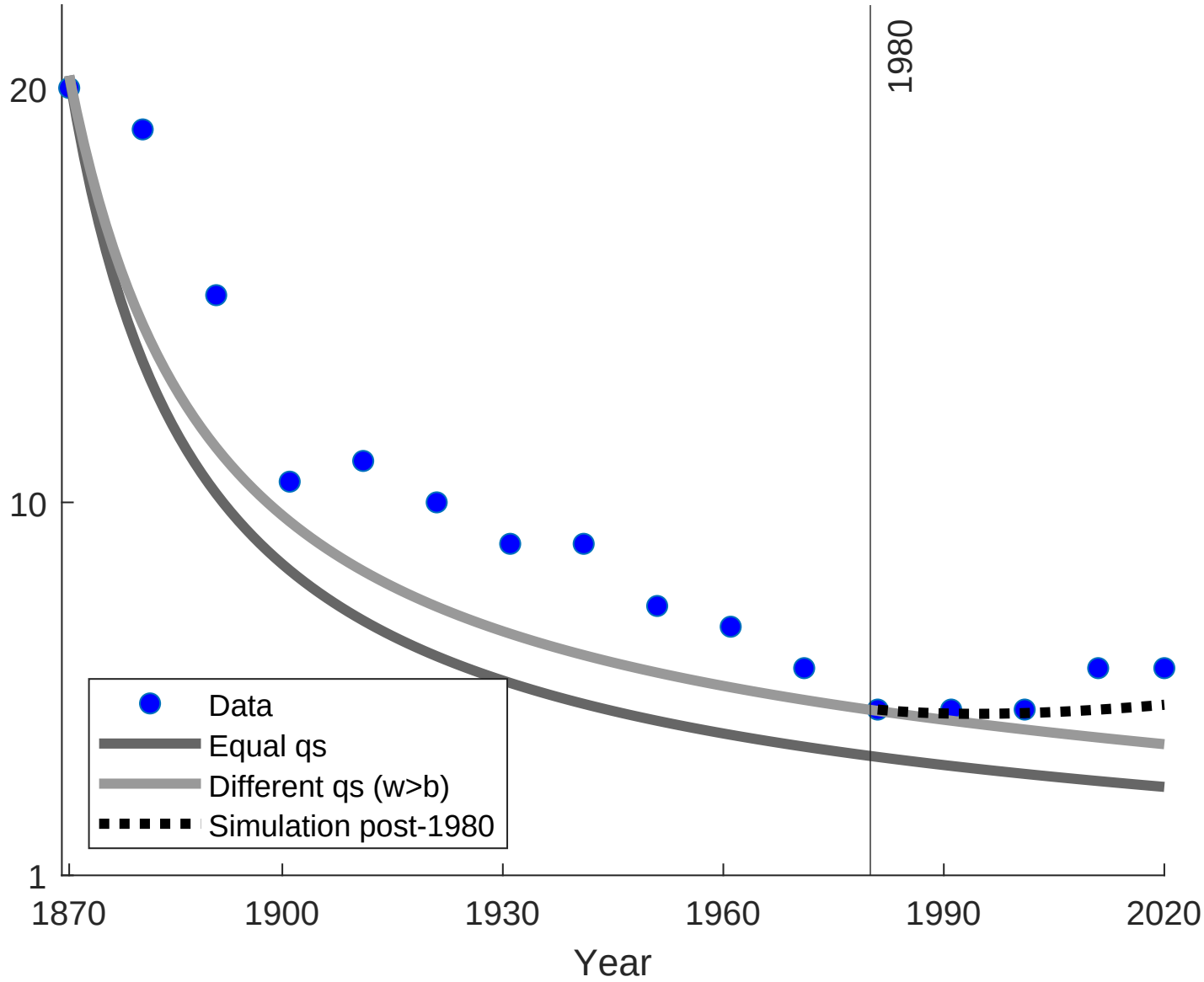
- Capital market discrimination, segregation, unequal access to financial institutions (q & s) [Spriggs (1984); Baradaran (2017); Aaronson et al., (2020); Akbar et al. (2019); Avenancio-Léon & Howard (2019)]

Slower convergence: $q^b < q^w$ and/or $s^b < s^w$

time-varying



Divergence post-1980



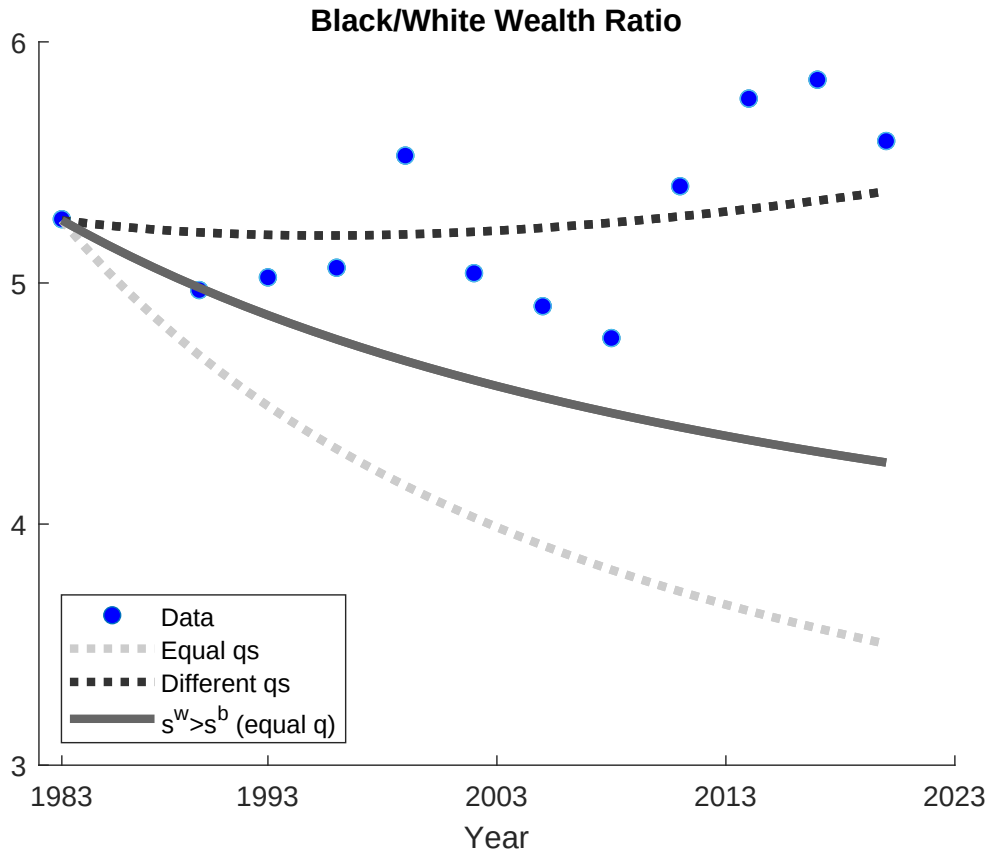
Changes in wealth accumulating conditions over time

Understanding post-1980 divergence through g, s, and q:

	$g^w - g^b$	$s^w - s^b$	$q^w - q^b$
1870-1950	-0.53 p.p.	-	-
1950-1980	-0.42 p.p.	1.09 p.p.	0.38 p.p.
1980-2020	0.02 p.p.	1.11 p.p.	0.76 p.p.
Whole sample period	-0.36 p.p.	1.10 p.p.	0.58 p.p.

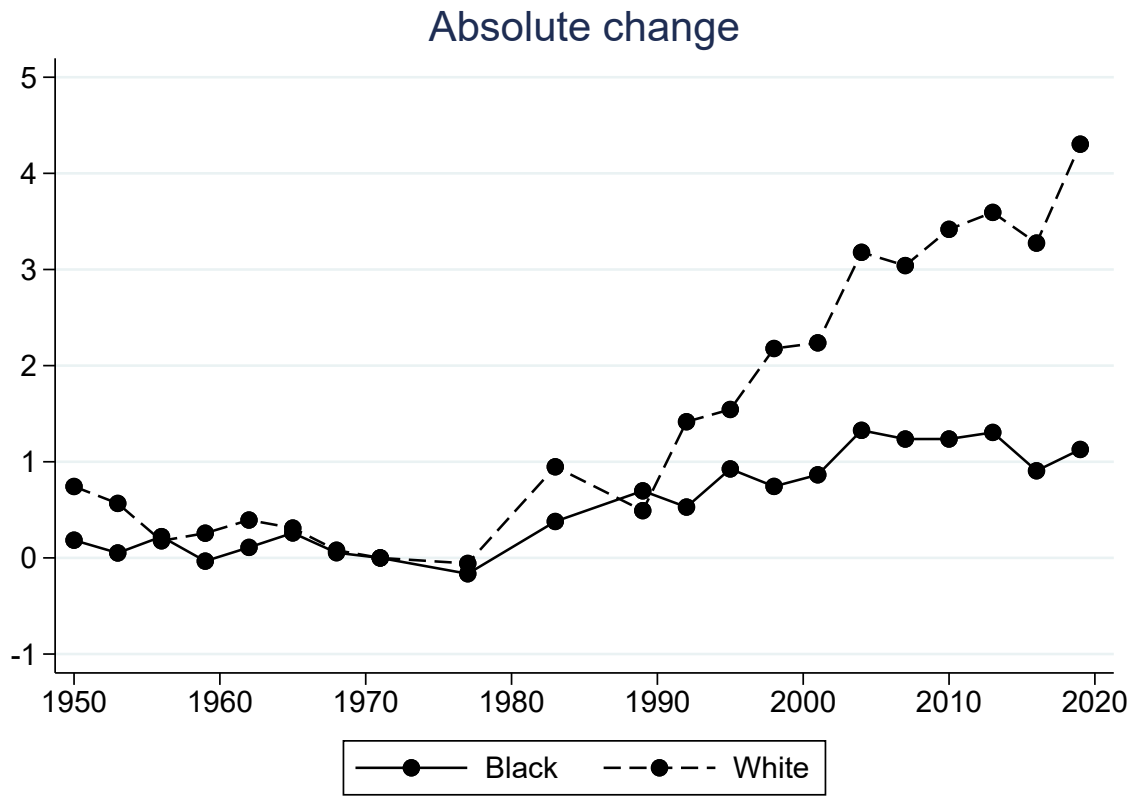
▸ Convergence in income, 1870-2020

Reduced role for savings, increased role for capital gains



Diverging wealth-to-income ratios due to differences in q

Absolute change in wealth-to-income ratios (1971 base year)



Heterogeneous capital gains due to portfolio composition

$$q_{total}^{b/w} = \sum_c \omega_c^{b/w} R_c$$

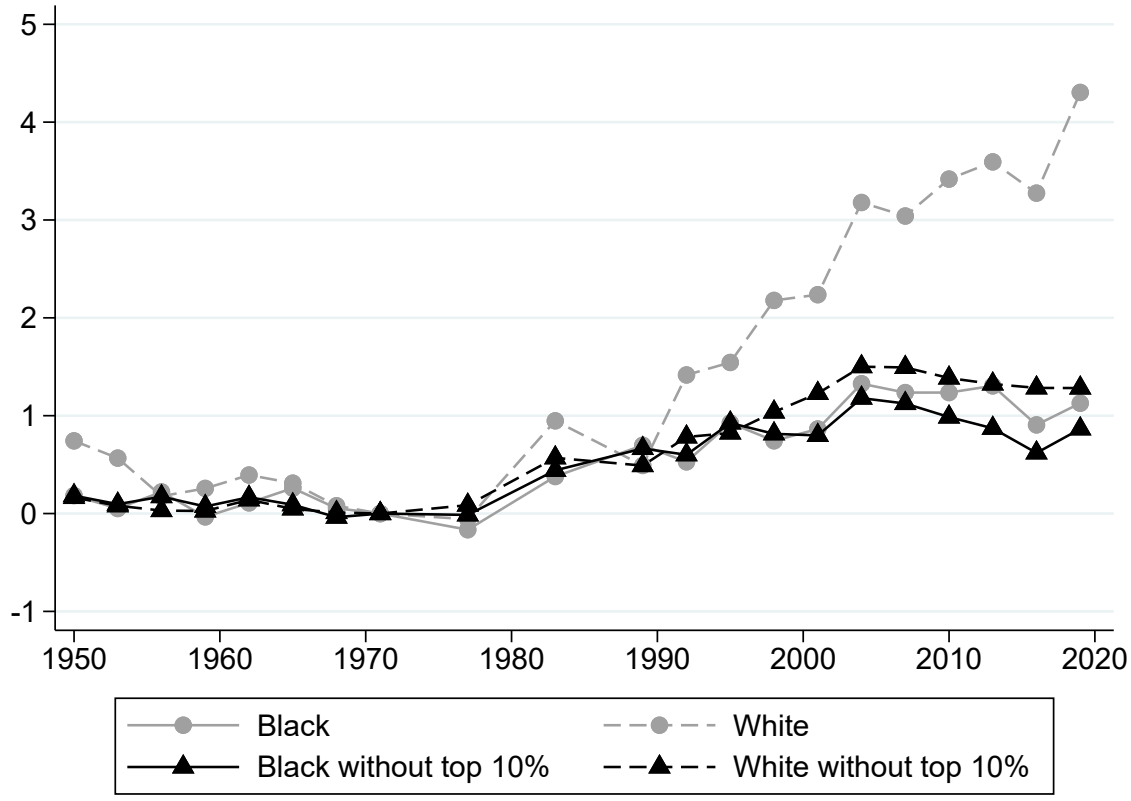
- ω_c: share of asset c (SCF+)
- Assume identical R_c within asset class (JST, FA)
- Period: 1983-2019 ▸ Simulation

	Housing	Equity	Business	Total
Portfolio share				
White (ω^w)	39%	19%	19%	77%
Black (ω^b)	58%	8%	8%	74%
Capital gains				
White (q^w)	0.45%	0.88%	0.78%	**2.72%**
Black (q^b)	0.66%	0.30%	0.38%	**1.43%**

Distributional questions

- Main focus: the per capita or average racial wealth gap
- Gaps are higher lower in the distribution (median gap = 10:1)
- Average gap is strongly influenced by rising wealth inequality

The role of the general increase in US wealth



Absolute change in wealth-to-income ratios (1971 base year)

- Rising white W2Y ratios driven by the top 10% richest
- Q: can a wealth tax speed up convergence?

Policy and wealth convergence counterfactuals

How can we hasten convergence in Black & white wealth?

Long-run evidence shows

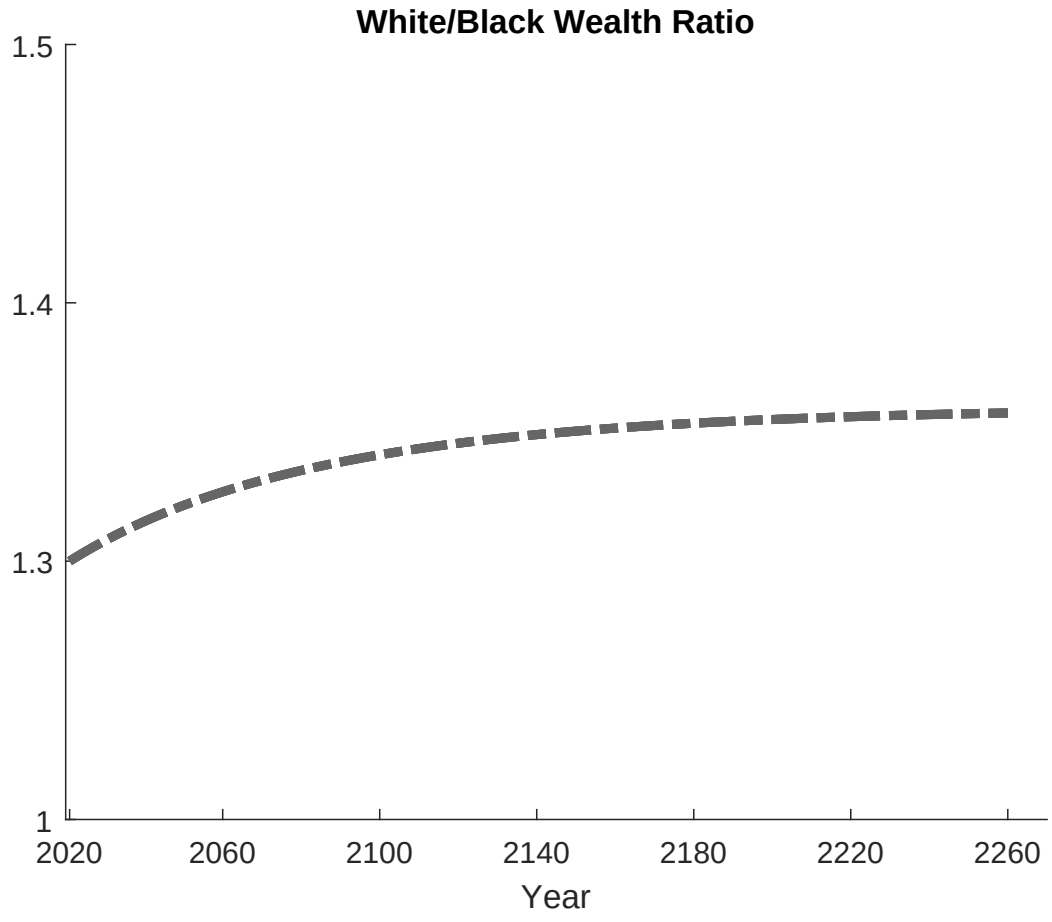
- Convergence has slowed to a halt
  - Full convergence occurs very slowly even under equal q and s
  - For convergence by 2050, we would need $q^b = 5\%$, $s^b = 31\%$, or $g = 9.5\%$ (compared to $q^w = 2\%$, $s^w = 5\%$, $g^w = 1.3\%$)
- Interventions targeting gap's origins speed up convergence

Reparations

Darity and Mullen (2020)

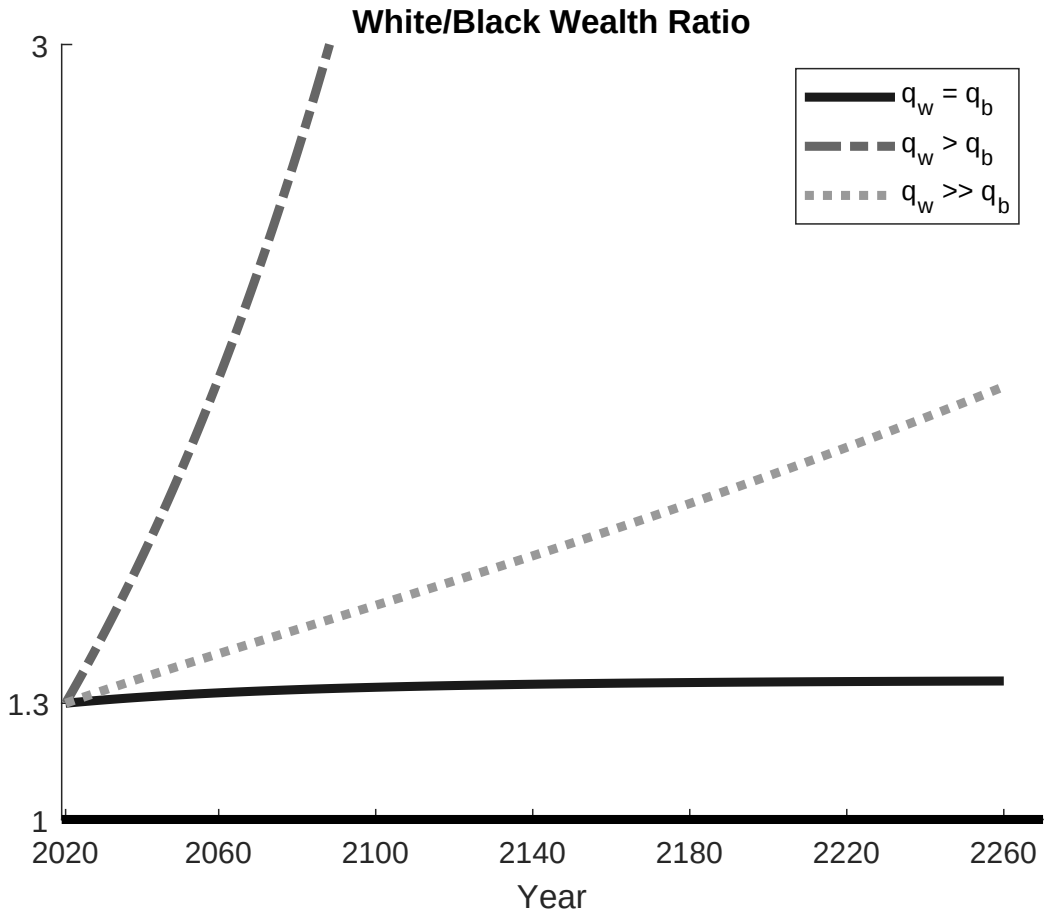
- Reparations = amount that closes racial wealth gap
- Value today: 267,000 USD per person (40 million eligible)
- Per capita wealth ratio (W/B) in 2019: $\frac{416600}{72600} = 5.7$
- Wealth ratio after reparations: 1.3

The effect of reparations



- Average post-1950 income growth rate 1.3% for both groups

The effect of reparations



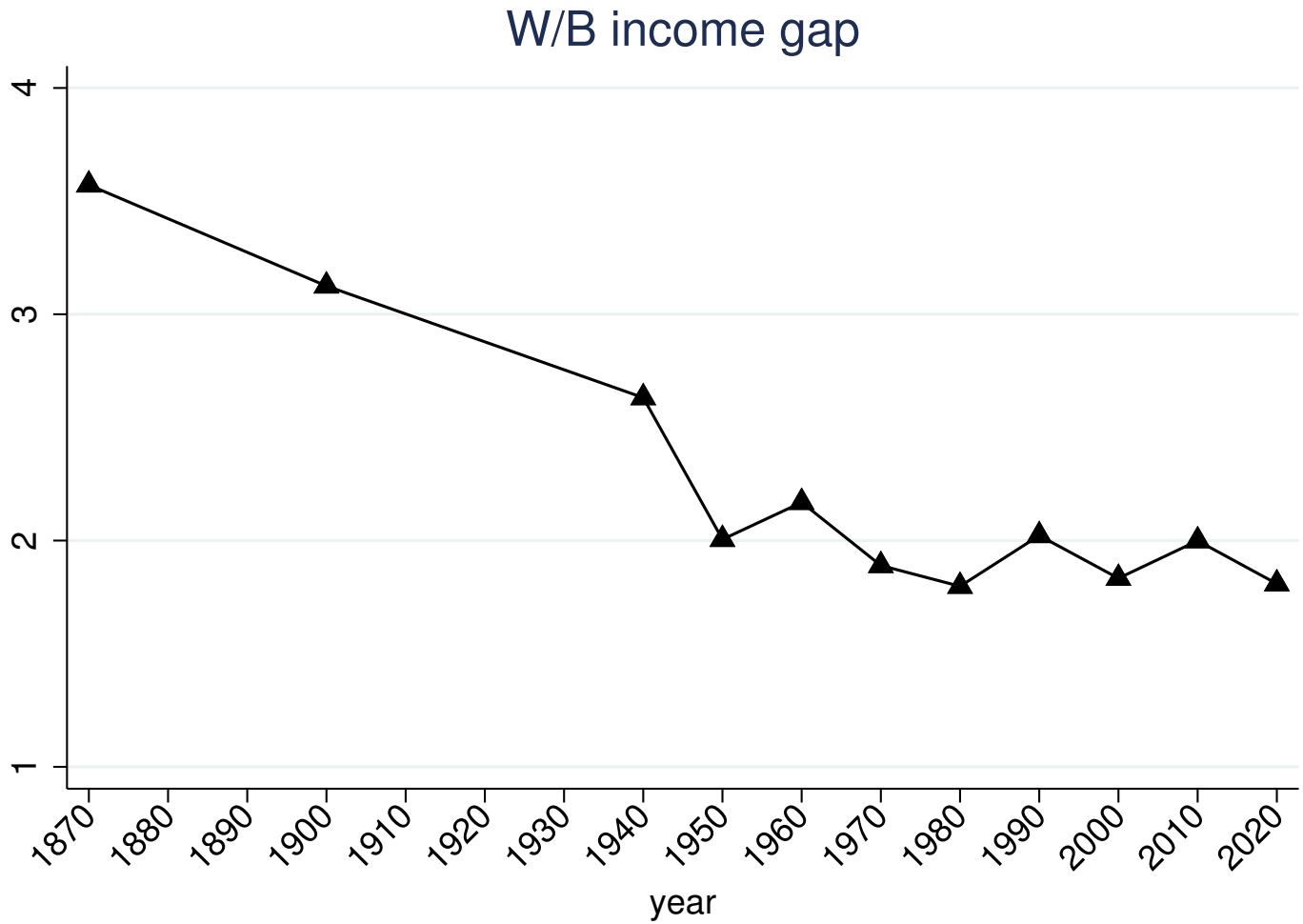
- Stabilizes around 1.3-1.4, in range where q and s matter

Conclusion

- New white-to-Black wealth ratio for the US, 1860-2020
- Stylized model of convergence shows
  - Persistent racial gap today is a legacy of slavery
  - Unequal conditions have slowed convergence
  - Rising wealth inequality$\rightarrow \uparrow$ racial wealth gap
- Targeting q, s, or g does not hasten convergence
- Post-reparations, q, s, & g policies are more effective

The racial income gap

- 1870-1940: Estimates of Margo (2016)
- 1950-2020: SCF+



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Aggregate Black wealth by state, 1863-1917

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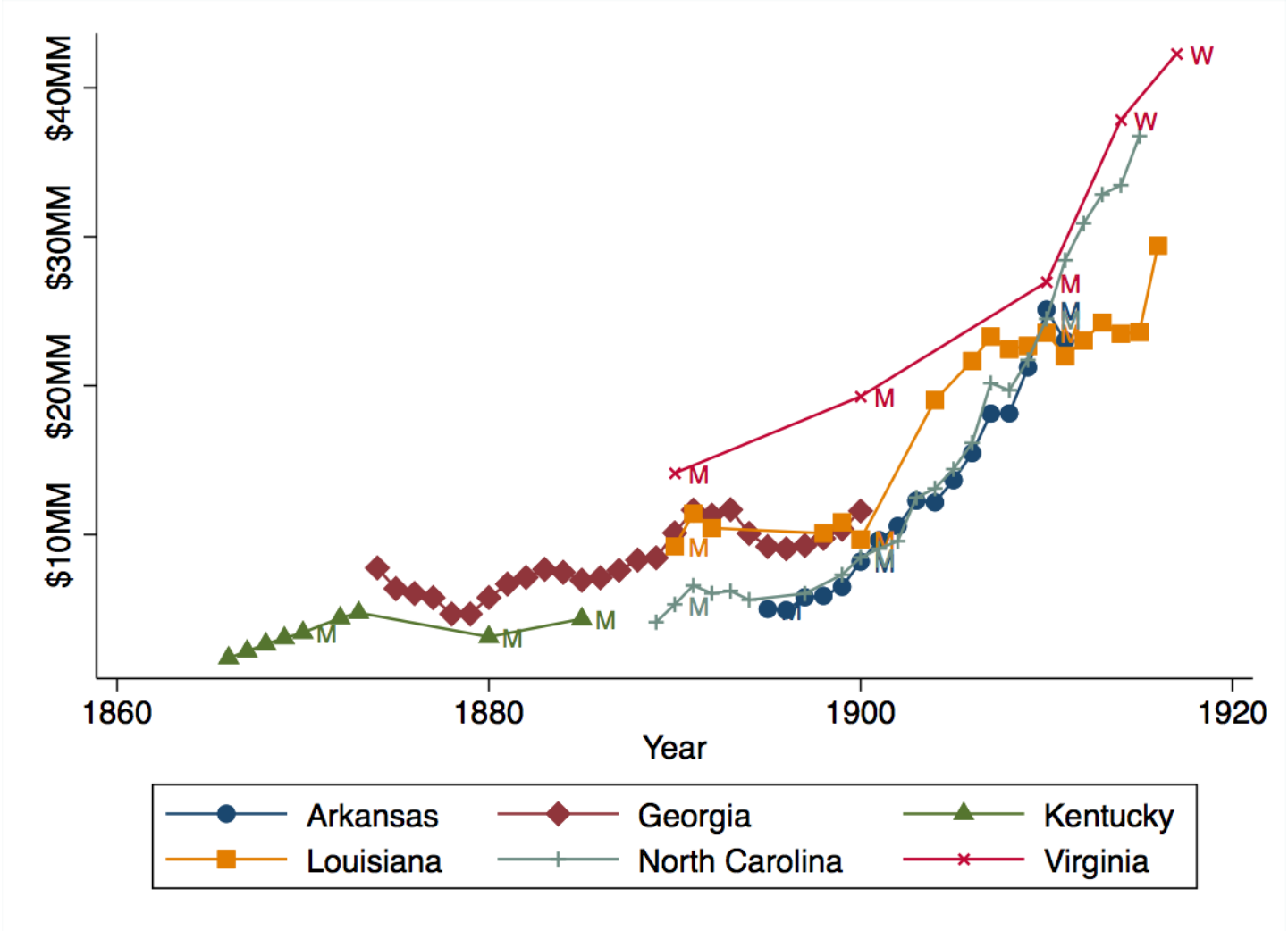

Data sources: Southern state auditor reports + Margo (1983) + Work (1914-17 eds of *TNY*). *Notes*: 1910-1914$ using Warren-Pearson Index.

White-to-Black per cap wealth ratio, 1863-1917

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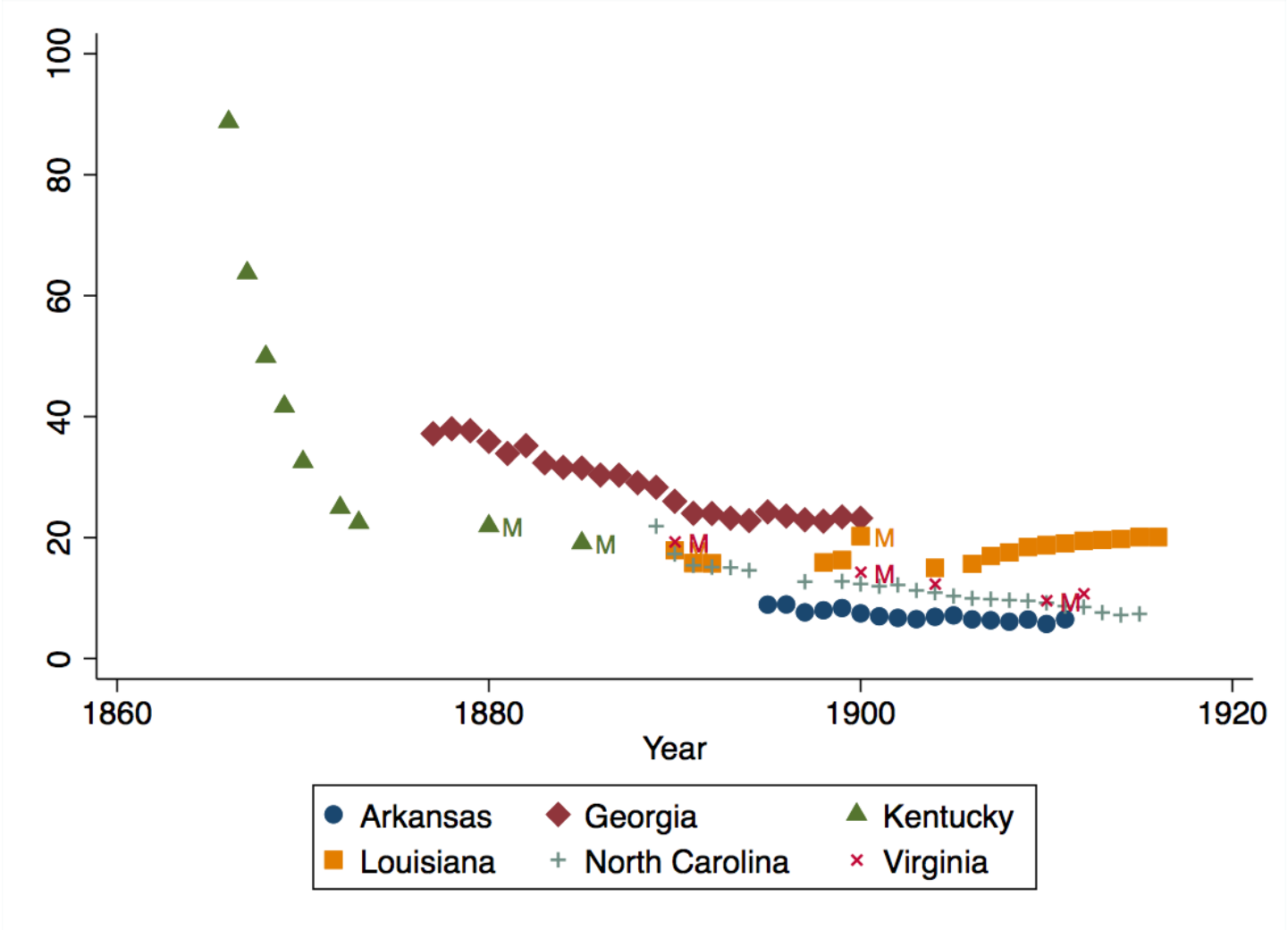

Data sources: Southern state auditor reports + Margo (1983) + Work (1922) + SZ (2016). *Notes*: 1910-1914$ using Warren-Pearson Index.

Estimating national white-Black wealth gaps, 1870-1940

Back

- We estimate the growth rate for Black wealth from state data

$$\log \text{Wealth}_{st} = \alpha + \beta t + \delta_{\text{s}} + \varepsilon$$

- t is year, δ_{s} is state s fixed effect.
- Apply estimated growth rate to 1870 Census Black wealth.[2]
- Calculate white wealth as national wealth - Black wealth.[3]
- Incorporate and adjust Work (1922) Black wealth estimates using Census extrapolation (1900) and SCF (1950).

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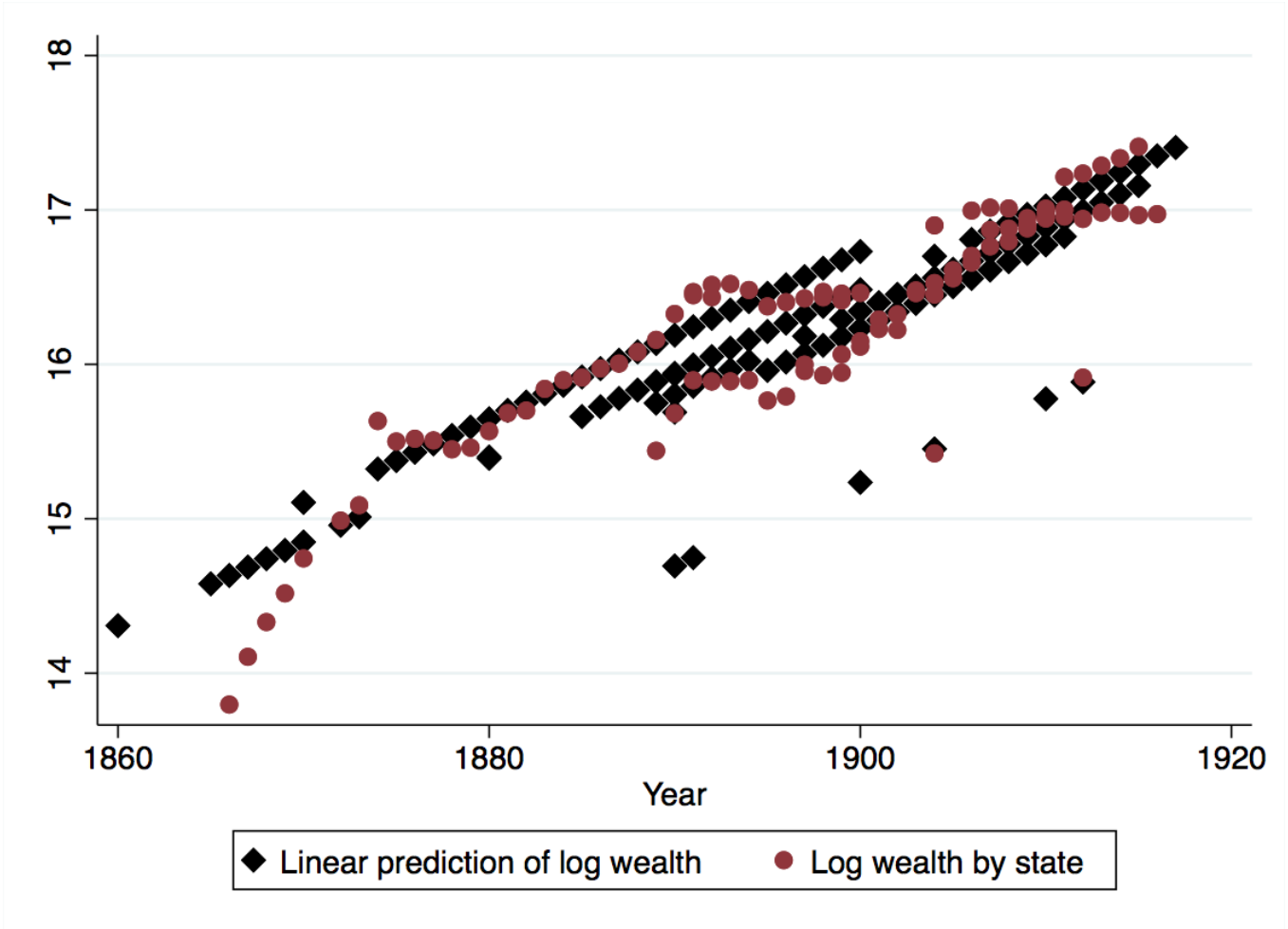
[2] Results robust to sensitivity checks addressing censoring.

[3] National wealth from 1907 Census report *Wealth, Debt, and Taxation*.

Log wealth and predicted log Black wealth in South

Back



Data sources: *Southern state auditor reports; Work (1922); Margo (1984). Notes*: Log wealth and log wealth predicted using a linear time trend and state fixed effects. States included are Kentucky, North Carolina, Georgia, Arkansas, Virginia, and Louisiana.

Alternative wealth gap estimates for early 20C

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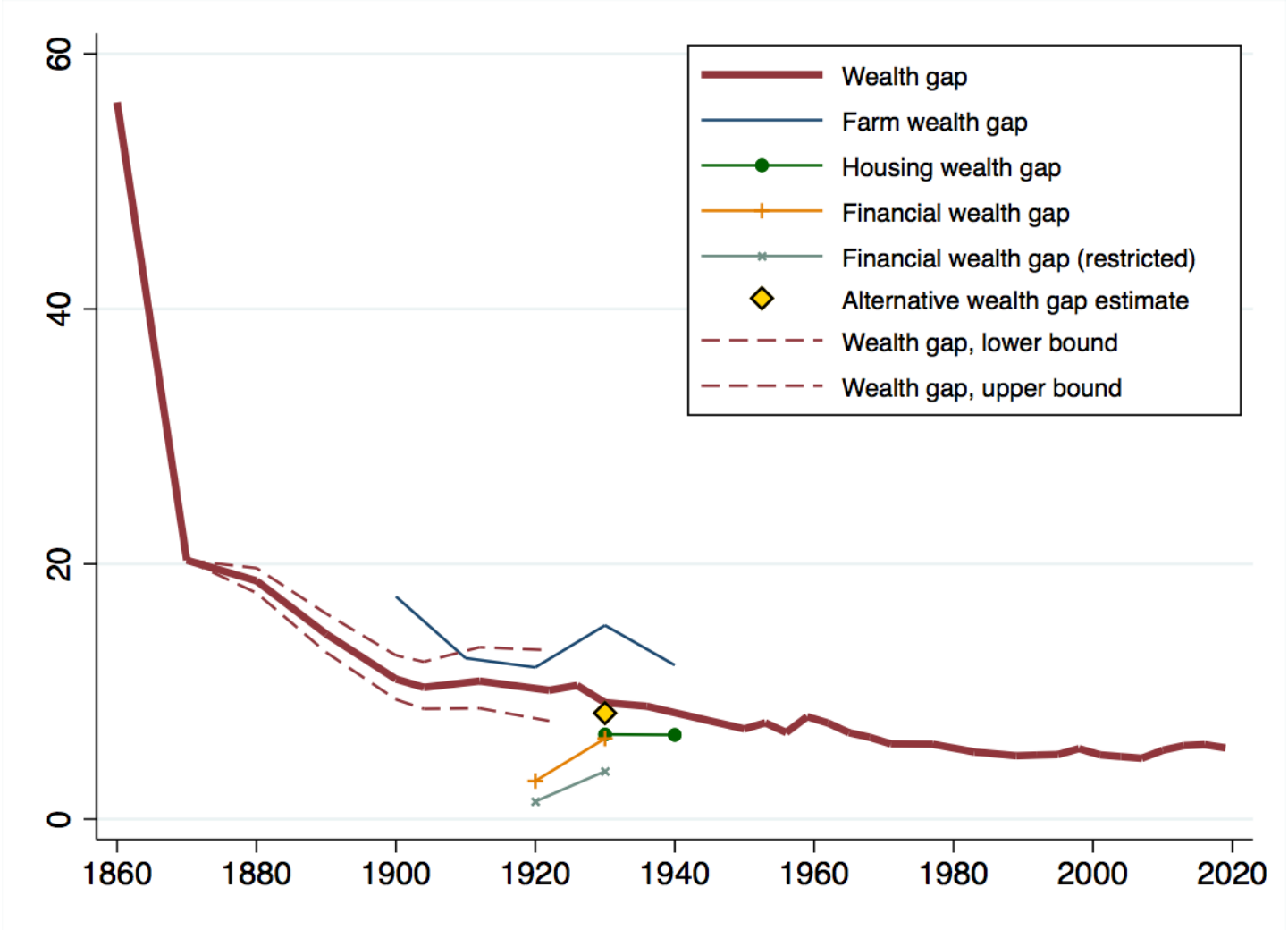

Data sources: Censuses of Agriculture & Population; Black banks (Clarke, 2019); Saez & Zucman (2016); Authors' series. *Notes*: All gaps are per capita. Alt. wealth estimate = Farm + Housing + Financial.

Alternative wealth gap estimates for early 20C

Back

- Farm wealth gap (Census of Agriculture, 1900-1940):

$$\frac{\text{Farm wealth}^{W}/\text{White pop}}{\text{Farm wealth}^{NW}/\text{NW pop}}$$

where $\text{Farm wealth}^{W} = \text{Farm value}^{\text{All}}_{\text{operated}} - \text{Farm value}^{\text{NW}}_{\text{owned}}$
and $\text{Farm wealth}^{NW} = \text{Farm Value}^{\text{NW}}_{\text{owned}}$

Alternative wealth gap estimates for early 20C

Back

- Housing wealth gap (Census of Population, 1930-1940):

$$\frac{\text{Housing wealth}^{W}/\text{White pop}}{\text{Housing wealth}^{B}/\text{Black pop}}$$

Alternative wealth gap estimates for early 20C

Back

- Financial wealth gap (Clarke (2019); Saez & Zucman (2016)):

$$\frac{\text{Fin. wealth}^{W}/\text{White pop}}{\text{Fin. wealth}^{B}/\text{Black pop}}$$

where $\text{Fin. wealth}^{W} = \text{Resources}^{\text{US banks}} - \text{Resources}^{\text{Black banks}}$
and $\text{Fin. wealth}^{B} = \text{Resources}^{\text{Black banks}}$

The racial housing gap: 1860-2020

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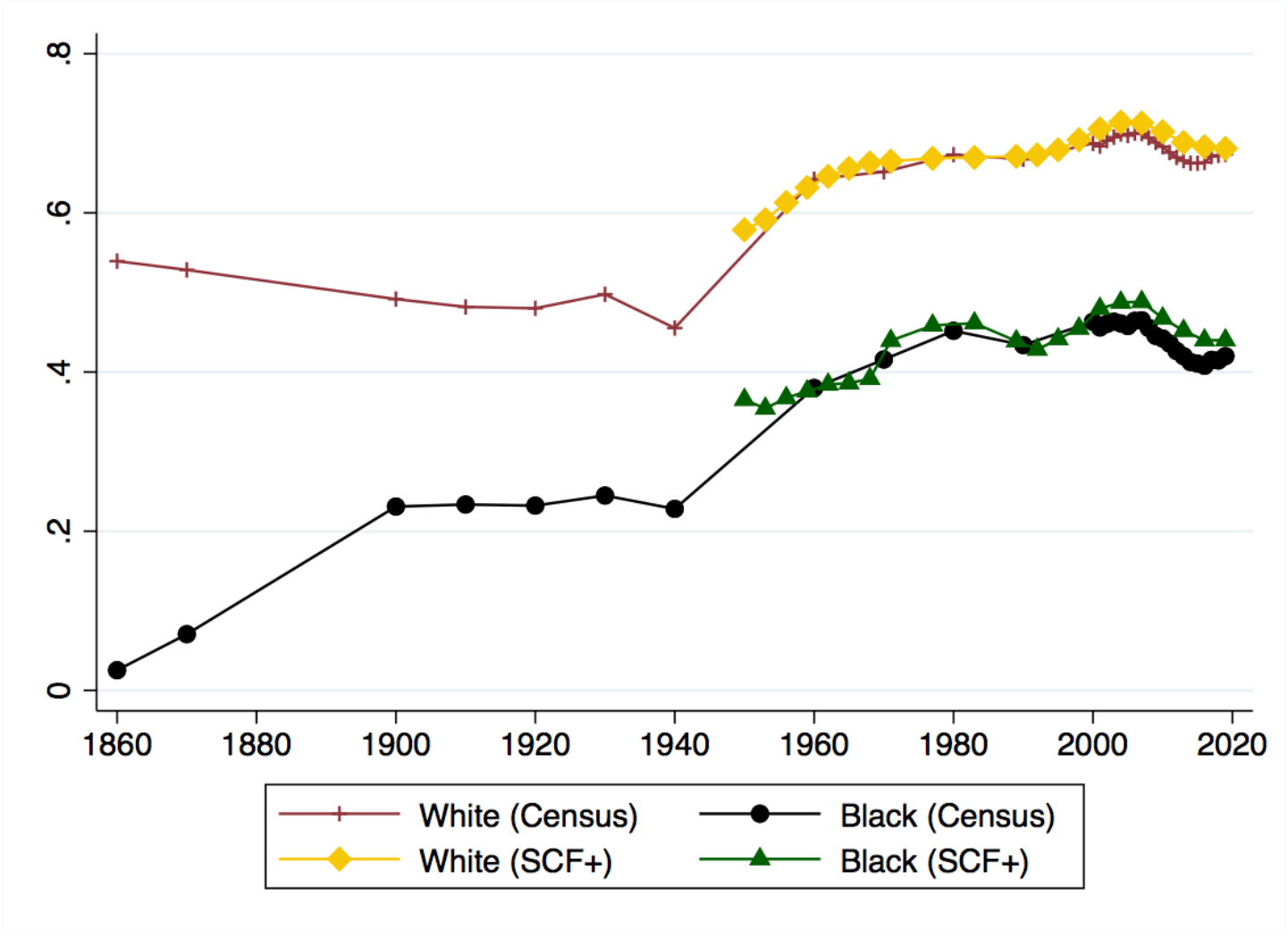

Data sources: Census of Population; SCF+.

The racial home values gap: 1930-2020

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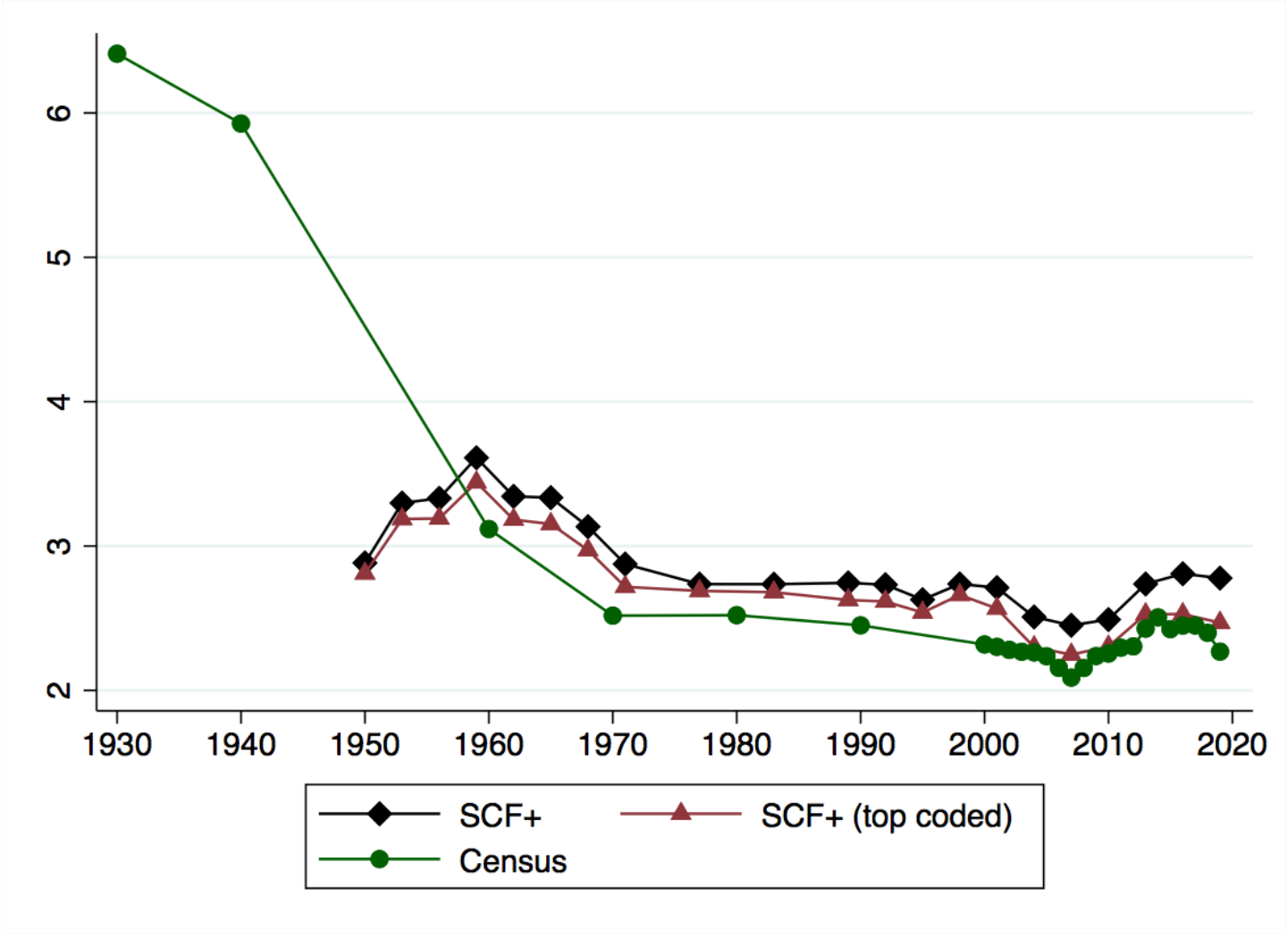

Data sources: Census of Population; SCF+.

Share with positive wealth by racial group: 1860-2020

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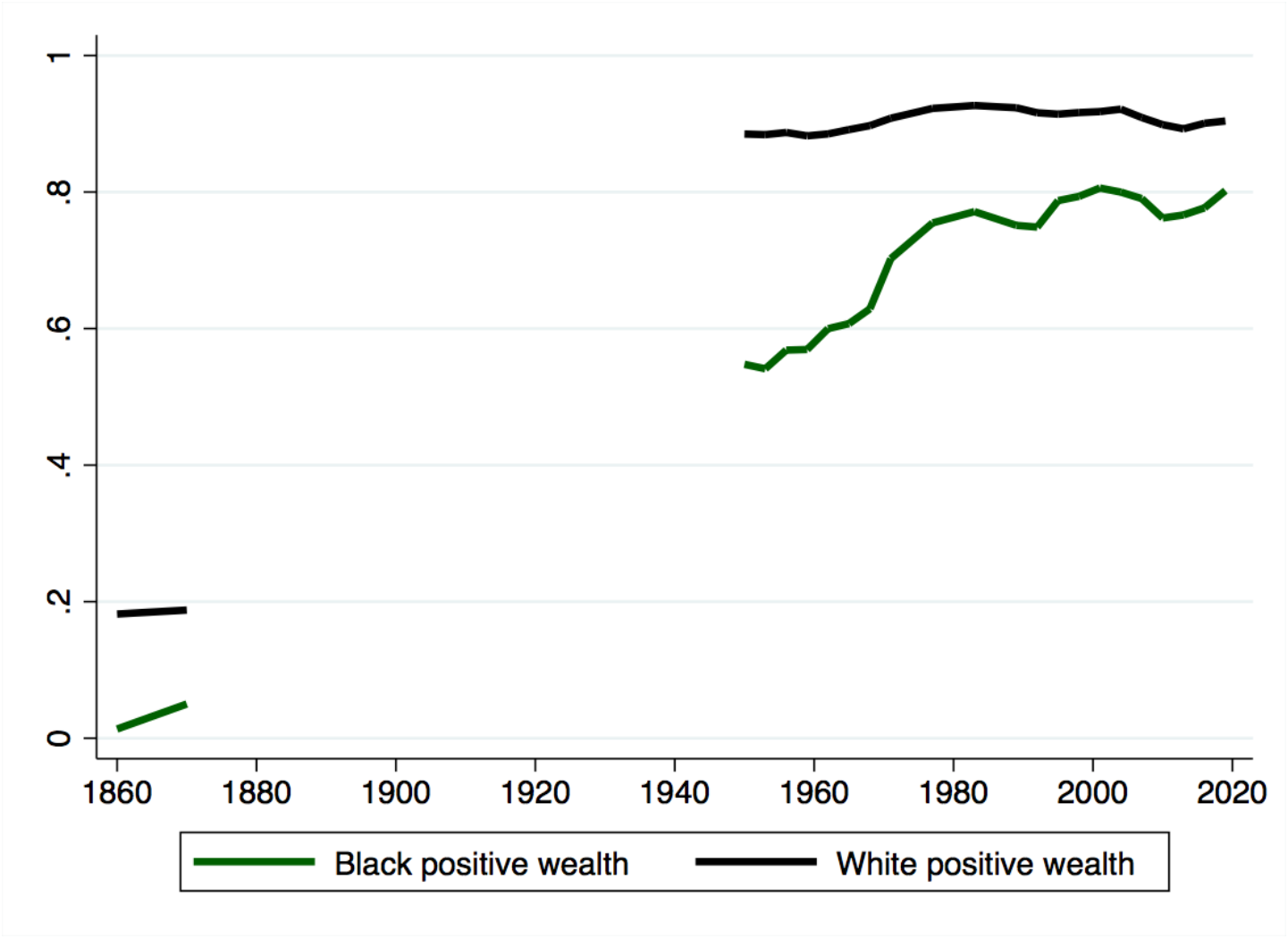
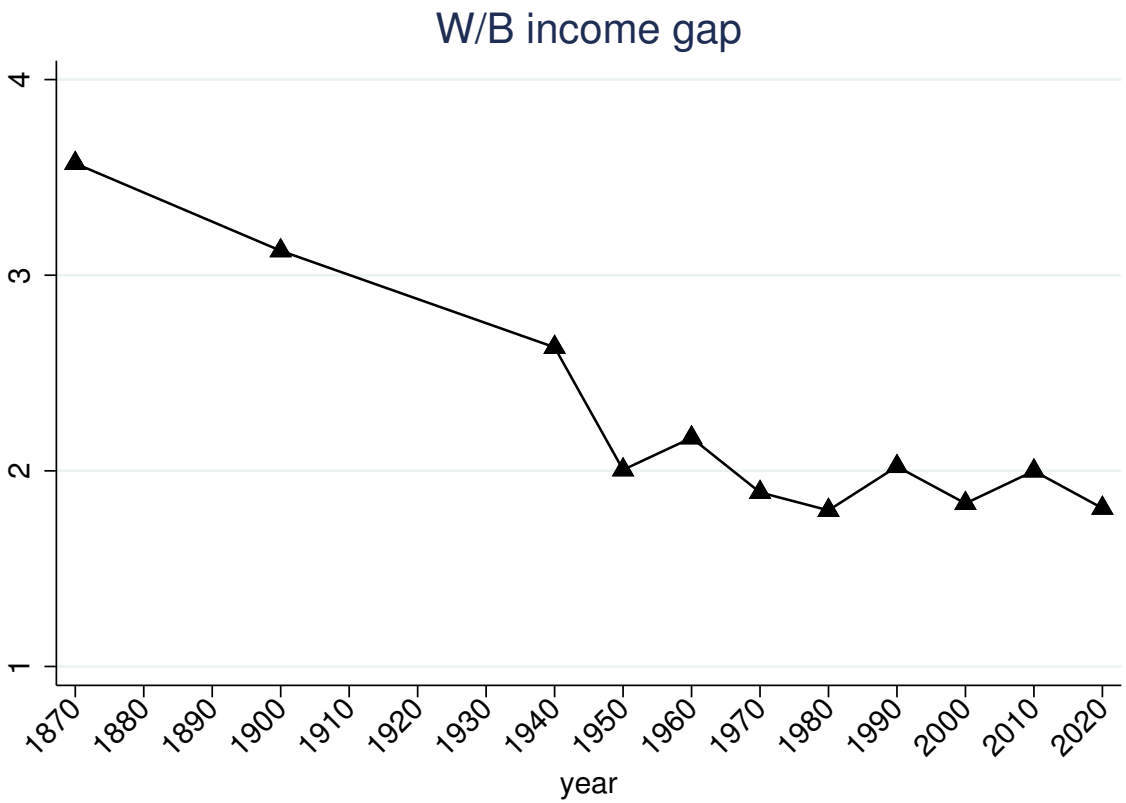


Data sources: Census of Population; SCF+.

Stalled income convergence



- 1980-2020: $g^b = g^w = 1.3\%$
- Compare 1870-1980: $g^b = 2.6\%$ vs. $g^w = 2\%$

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Model simulation with time-varying parameters

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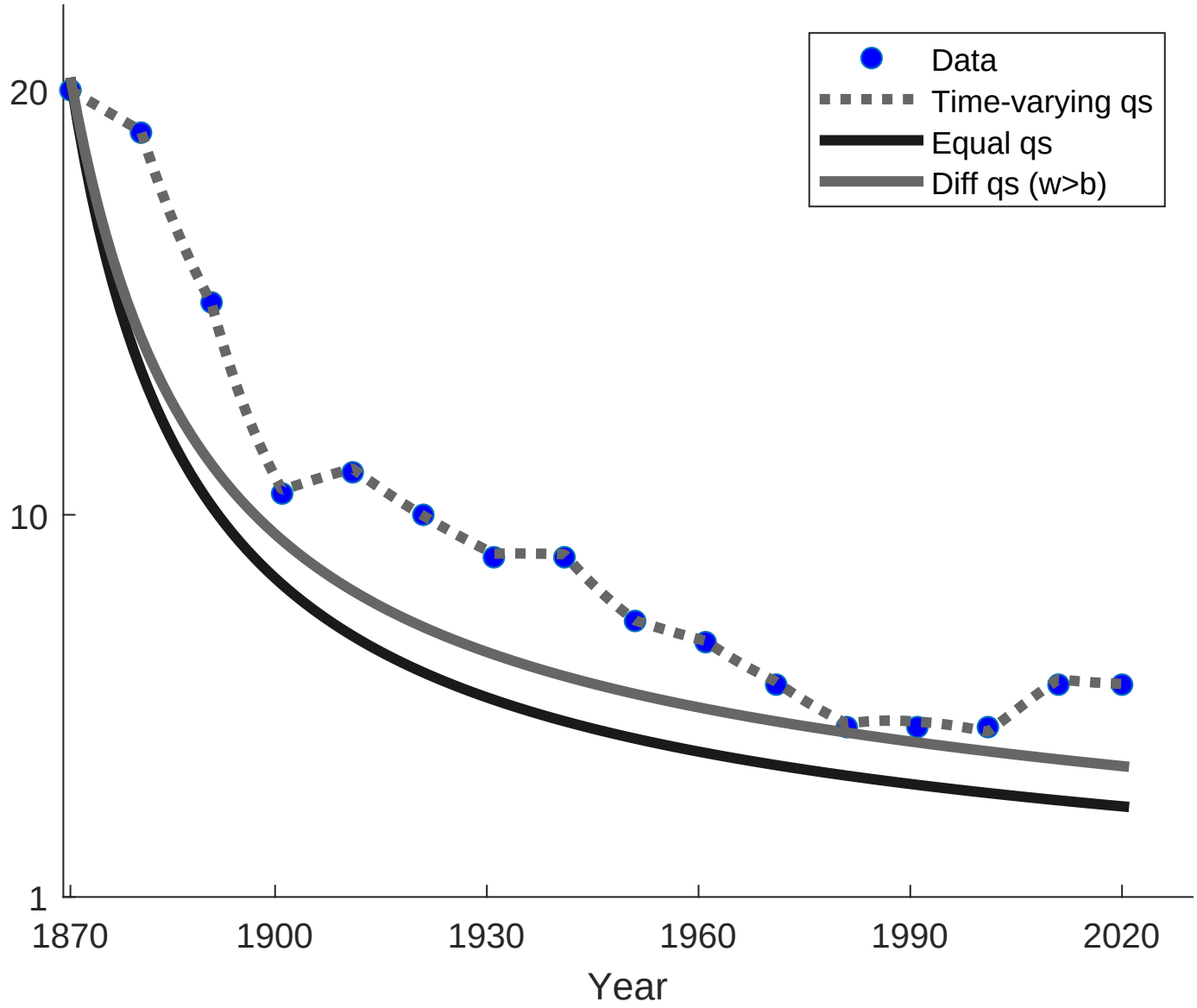
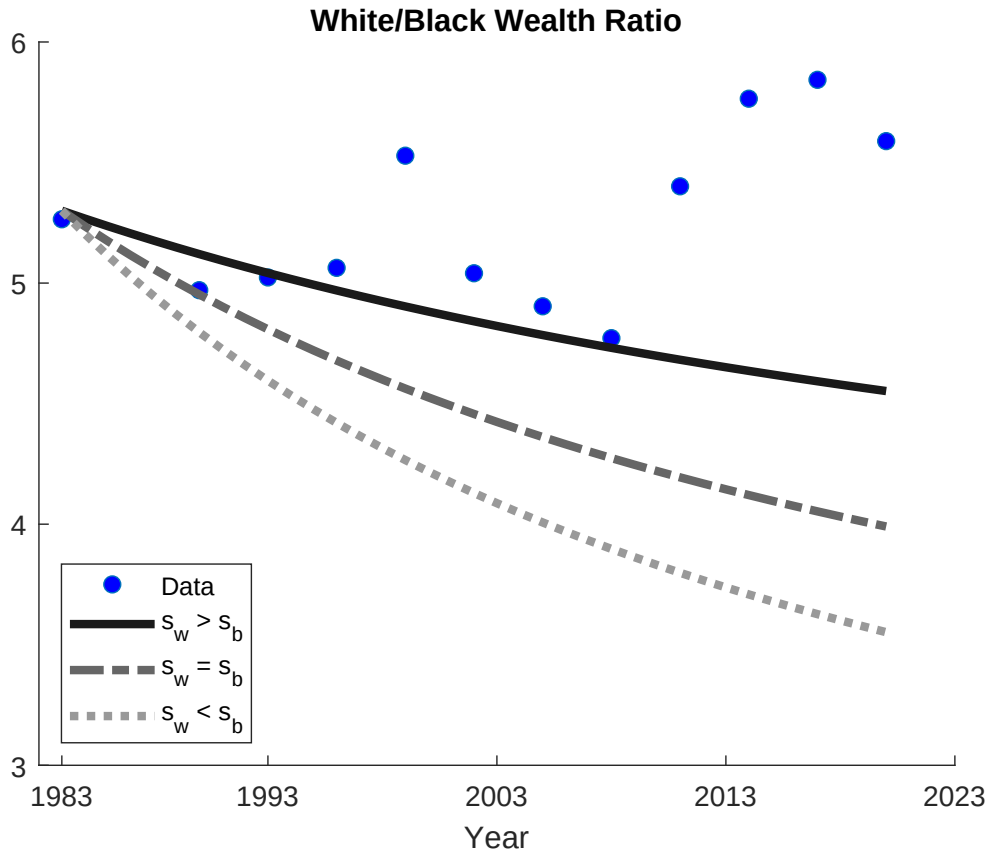


Wealth convergence under different saving rates



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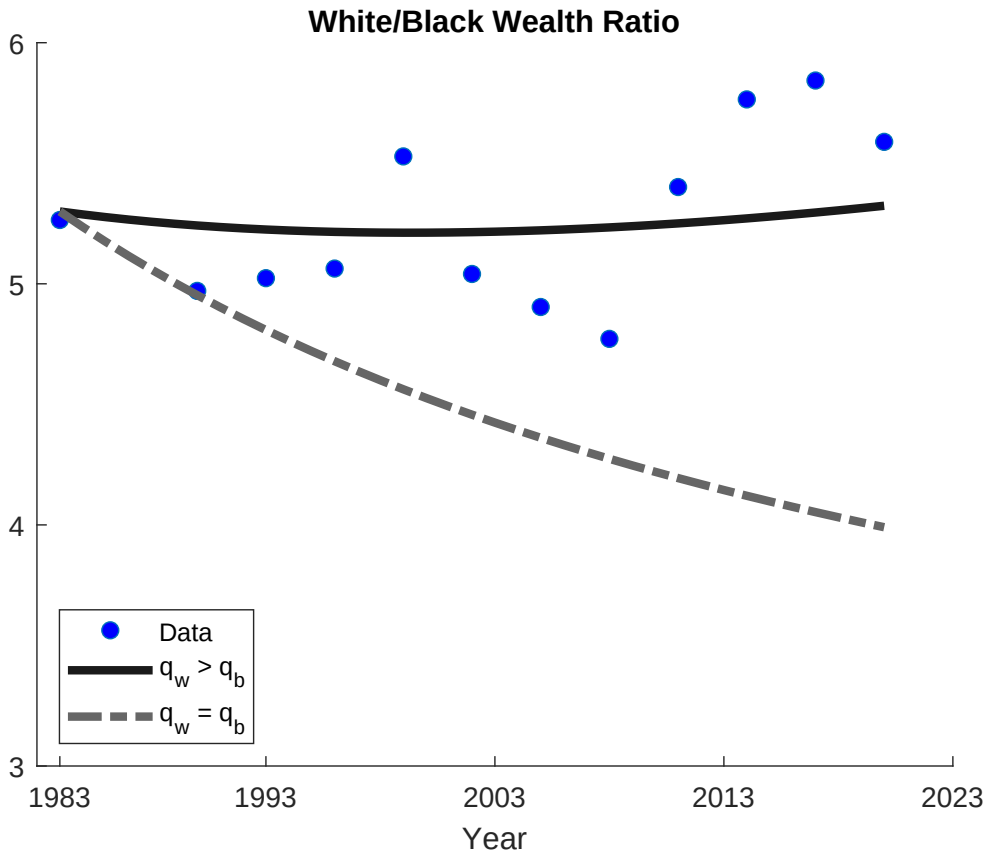
Increasing importance of capital gains post-1980



- Differences in q change slope of convergence substantially

  ▸ Different s

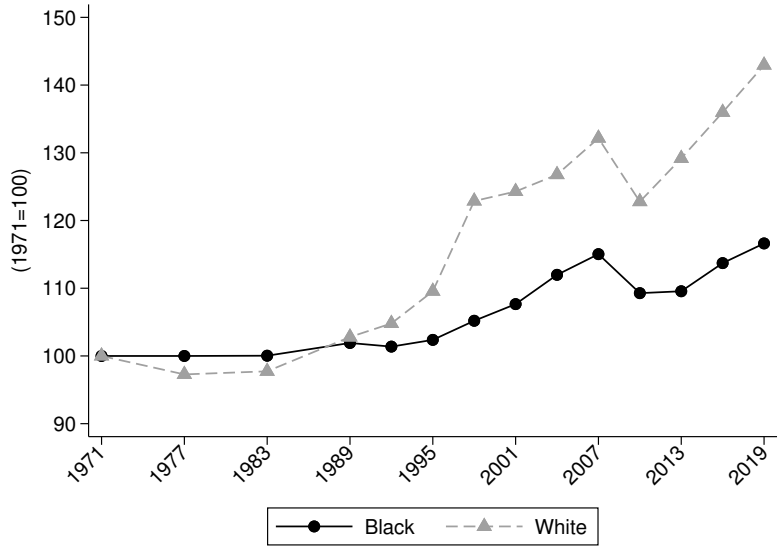
- $q^b < q^w$: captures diverging patterns of observed data

▸ Back

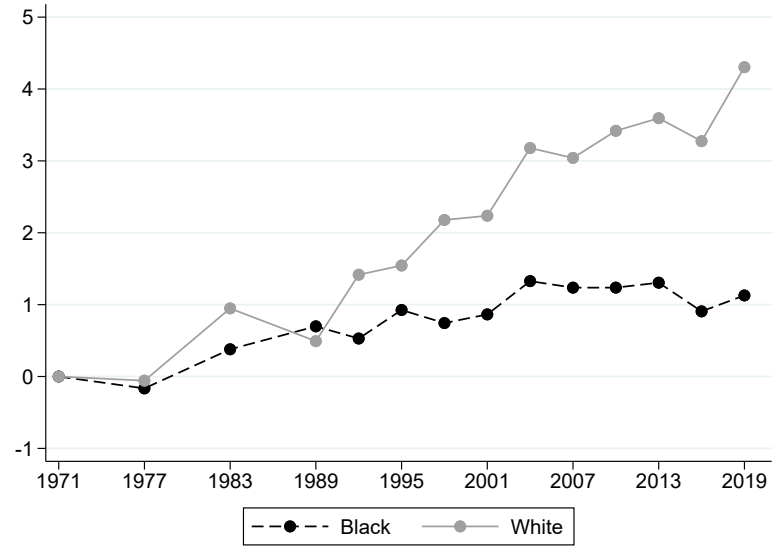
Heterogeneous capital gains within assets

- PSID (1989-2019): Calculate race-specific capital gains on equity, business, and housing

Growth accum. capital gains



Wealth-to-Income ratio



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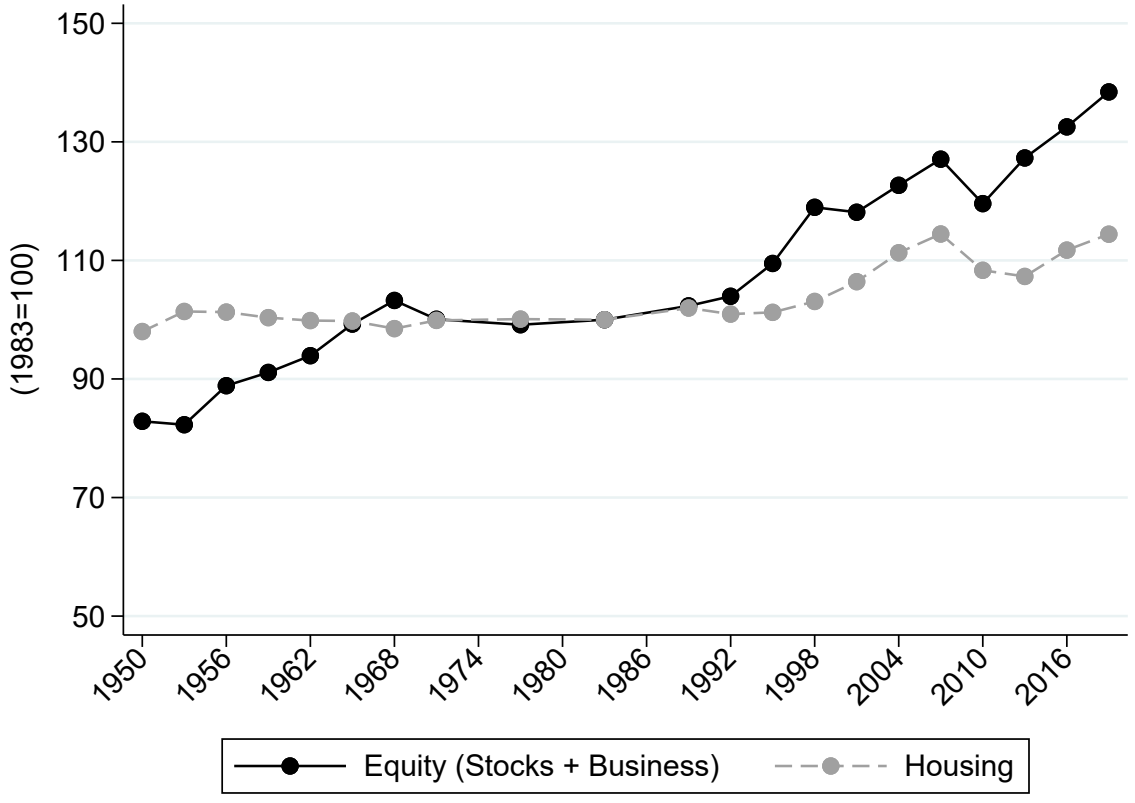
Accumulated capital gains across assets



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Different saving rates

- Dynan et al. (2004): Active saving rates 1984-2017
- Panel Study of Income Dynamics

	White	Black
Bottom 50%	6.08%	4.11%
50%-90%	7.97%	6.15 %
Top 10%	10.02%	8.75%
Total	7.23%	5.39%

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Different capital gains

$$CG_w = \sum_c \omega_c CG_c$$

- CG_w: Capital gain on total portfolio, CG_c: Capital gain on asset class c, ω_c: Weight as a share of total wealth
- Data: SCF+, Macrohistory Database, US Financial Accounts

	Average capital gain	White	Black
Equity	5.50%	0.94%	0.28%
Liquid assets	0%	0%	0%
Housing	0.8%	0.30%	0.50%
Business	3.37%	0.81%	0.51%
Total on portfolio	1.99%	2.01%	1.29%

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Different rates of return

$$RR_w = \sum_c \omega_c RR_c$$

- RR_w: Return on total portfolio, RR_c: Return on asset class c, ω_c: Weight as a share of total wealth
- Adopt method of Kartashova (2014) and Xavier (2021) using SCF+

Asset	White	Black
1989-2019		
Interest-earning assets	1.62%	0.53%
Public equity	2.1%	0.59%
Private businesses	12.12%	17.37%
Real estate	3.18%	3.07%
Total yield	4.64%	4.45%

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Income estimation approach adapted from Margo (2016)

1. Use agricultural income to estimate rural Black income
   - Census of Agriculture: Farm income of farm owners and tenants (value farm products - expenditures)
   - Farm laborer wage (Historical Statistics of the United States)
2. Urban Black workers' wages
   - Use Margo (2016) estimates for 1870
   - Estimate using Margo (2016) method for 1900
   - Use IPUMS occ score to calculate median income for urban laborers from 1910-1940
3. Use urban/rural share to calculate Black income per capita

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