The racial wealth gap, 1860-2020\(^1\)

Ellora Derenoncourt (Princeton University)
Chi Hyun Kim (University of Bonn)
Moritz Kuhn (University of Bonn)
Moritz Schularick (University of Bonn)

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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
- 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:

- Fill in ~100 missing years of data on white-Black wealth gaps
- Combine with Solow-style model to explain persistence
- Explain key mechanisms behind slow convergence
- Shed light on future gap, policy implications (e.g., reparations)
White-Black wealth ratio, 1860-2020

Incorporates enslaved population with zero assumed wealth in 1860. Census measure of per capita Black wealth.
White-Black wealth ratio, 1860-2020

1870 wealth ratio from Census
Robust to sensitivity analyses addressing censoring from below.
White-Black wealth ratio, 1860-2020

Authors’ series

White-Black wealth ratio, 1860-2020


Authors’ series
White-Black wealth ratio, 1860-2020

Housing

% Pos.

SCF+: 1950-2020,
wealth = marketable assets - debt
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 ~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?
Modeling convergence

We draw on the long-run wealth inequality literature (Garbinti et al., 2020; Saez & Zucman, 2013) and use the following wealth accounting equation for each racial group:

\[
\begin{align*}
W_{t+1}^b &= (1 + q^b) \left[ W_t^b + s^b(Y_t^b + r^b W_t^b) \right] \\
W_{t+1}^w &= (1 + q^w) \left[ W_t^w + s^w(Y_t^w + r^w W_t^w) \right]
\end{align*}
\]

- \( r \) = return on wealth, \( q \) = capital gains, \( s \) = savings rate
- \( W \) = wealth, \( Y \) = labor income, \( rW \) = capital income
Simulating wealth convergence

Thought experiment: what would be the path of convergence assuming equal capital gains, rates of return, and savings rates across racial groups?

▶ $q = 1\%, r = 6\%, s = 8\%$

[Piketty and Zucman (2014), Saez and Zucman (2016)]

▶ Labor income evolves with different growth rates

\[
Y^b_t = (1 + g^b)Y^b_{t-1}
\]
\[
Y^w_t = (1 + g^w)Y^w_{t-1}
\]

$\Rightarrow g^b = 2.4\%, g^w = 1.8\%$

▶ Initial (1870) wealth & (labor) income gap (W/B): 20 and 3.6
Hockey stick shape of convergence follows from model
Simulation vs. data

<table>
<thead>
<tr>
<th></th>
<th>2020 (data)</th>
<th>2020</th>
<th>2050</th>
<th>2130</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealth ratio (W/B)</td>
<td>5.7</td>
<td>2.9</td>
<td>2.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Income ratio (W/B)</td>
<td>1.5</td>
<td>1.7</td>
<td>1.5</td>
<td>1</td>
</tr>
</tbody>
</table>

- Simulation yields large wealth gap of 2.9 to 1 in 2020
- Despite full income convergence, wealth gap still by 1.8 to 1
- Observed wealth convergence slower
  - Differences in q, r, s help explain this discrepancy
  - Since 1980s: Slight divergence of the racial wealth gap, why?
Dif. wealth growth conditions $\rightarrow$ stalled convergence
Diverging Wealth-to-Income ratios post-1980

⇒ Decreasing importance of savings for wealth accumulation
Heterogeneous capital gains due to portfolio composition

\[ q_{\text{total}}^{b/w} = \sum_c \omega_c^{b/w} R_c \]

- $\omega_c$: share of asset $c$ (SCF+)
- Assume identical $R_c$ within asset class (JST, FA)
- Period: 1983-2019

<table>
<thead>
<tr>
<th></th>
<th>Housing</th>
<th>Equity</th>
<th>Business</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Portfolio share</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White ($\omega^w$)</td>
<td>39%</td>
<td>19%</td>
<td>19%</td>
<td>77%</td>
</tr>
<tr>
<td>Black ($\omega^b$)</td>
<td>58%</td>
<td>8%</td>
<td>8%</td>
<td>74%</td>
</tr>
<tr>
<td><strong>Capital gains</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White ($q^w$)</td>
<td>0.45%</td>
<td>0.88%</td>
<td>0.78%</td>
<td>2.72%</td>
</tr>
<tr>
<td>Black ($q^b$)</td>
<td>0.66%</td>
<td>0.30%</td>
<td>0.38%</td>
<td>1.43%</td>
</tr>
</tbody>
</table>
Paths to convergence through $q$, $r$, $s$, or $g$?

- 2019: Wealth gap still high and persistent (5.7)
  - Wealth accumulating conditions worsened since the 1980s
- What would it take to reach convergence in the near future?
- Estimate $q^b$, $r^b$, $s^b$, or $g^b$ that yield convergence by 2050
  - 5.4% capital gains, 75% rate of return, 31% savings rate
  - Or 9.5% income growth

Stalled income 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
- Stabilizes around 1.4, in range where $q$, $r$, and $s$ matter
The effect of reparations

- Stabilizes around 1.4, in range where $q$, $r$, and $s$ matter
- Policies targeting $q$ may help maintain post-reparations path
Conclusion

- New white-to-Black wealth ratio for the US, 1860-2020
  - Rapid convergence in decades after Emancipation
  - Slow convergence since early-to-mid 20C
  - Divergence post-1980

- Model insights: wealth convergence a distant scenario, even equal parameters or bold policies
  - Stalled income convergence and rising overall wealth inequality have dimmed prospects for closing wealth gap
  - Extreme savings or income/capital gains advantages for Black individuals needed to reach convergence by 2050
  - Darity & Mullen style reparations yield 1.3 ratio in 2020
  - Post-reparations, policies targeting capital gains critical
Aggregate Black wealth by state, 1863-1917

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

Alternative wealth gap estimates for early 20C

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

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

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

where Farm wealth\textsuperscript{W} = Farm value\textsubscript{All operated} − Farm value\textsubscript{NW owned}

and Farm wealth\textsuperscript{NW} = Farm Value\textsubscript{NW owned}
Alternative wealth gap estimates for early 20C

- 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

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

Data sources: Census of Population; SCF+.
The racial home values gap: 1930-2020

Data sources: Census of Population; SCF+.
Share with positive wealth by racial group: 1860-2020

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. $g^w = 2\%$
Wealth convergence under different saving rates
Increasing importance of capital gains post-1980

- Differences in $q$ change slope of convergence substantially

- $q^b < q^w$: captures diverging patterns of observed data
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
Accumulated capital gains across assets

![Accumulated capital gains across assets](chart)

- Stocks
- Housing
Different saving rates

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

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom 50%</td>
<td>6.08%</td>
<td>4.11%</td>
</tr>
<tr>
<td>50%-90%</td>
<td>7.97%</td>
<td>6.15%</td>
</tr>
<tr>
<td>Top 10%</td>
<td>10.02%</td>
<td>8.75%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7.23%</td>
<td>5.39%</td>
</tr>
</tbody>
</table>
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 \( c \), \( \omega_c \): Weight as a share of total wealth

Data: SCF+, Macrohistory Database, US Financial Accounts

<table>
<thead>
<tr>
<th></th>
<th>Average capital gain</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>5.50%</td>
<td>0.94%</td>
<td>0.28%</td>
</tr>
<tr>
<td>Liquid assets</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Housing</td>
<td>0.8%</td>
<td>0.30%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Business</td>
<td>3.37%</td>
<td>0.81%</td>
<td>0.51%</td>
</tr>
<tr>
<td>Total on portfolio</td>
<td>1.99%</td>
<td>2.01%</td>
<td>1.29%</td>
</tr>
</tbody>
</table>
Different rates of return

\[ RR_w = \sum_c \omega_c RR_c \]

- \( RR_w \): Return on total portfolio, \( RR_c \): Return on asset class \( c \),
- \( \omega_c \): Weight as a share of total wealth

- Adopt method of Kartashova (2014) and Xavier (2021) using SCF+

<table>
<thead>
<tr>
<th>Asset</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1989-2019</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest-earning assets</td>
<td>1.62%</td>
<td>0.53%</td>
</tr>
<tr>
<td>Public equity</td>
<td>2.1%</td>
<td>0.59%</td>
</tr>
<tr>
<td>Private businesses</td>
<td>12.12%</td>
<td>17.37%</td>
</tr>
<tr>
<td>Real estate</td>
<td>3.18%</td>
<td>3.07%</td>
</tr>
<tr>
<td><strong>Total yield</strong></td>
<td>4.64%</td>
<td>4.45%</td>
</tr>
</tbody>
</table>
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