WEALTH OF TWO NATIONS: THE U.S. RACIAL WEALTH GAP, 1860–2020[*]

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The racial wealth gap is the largest of the economic disparities between Black and white Americans, with a white-to-Black per capita wealth ratio of 6 to 1. It is also among the most persistent. In this article, we construct the first continuous series on white-to-Black per capita wealth ratios from 1860 to 2020, drawing on historical census data, early state tax records, and historical waves of the

Survey of Consumer Finances, among other sources. Incorporating these data into a parsimonious model of wealth accumulation for each racial group, we document the role played by initial conditions, income growth, savings behavior, and capital returns in the evolution of the gap. Given vastly different starting conditions under slavery, racial wealth convergence would remain a distant scenario, even if wealth-accumulating conditions had been equal across the two groups since Emancipation. Relative to this equal-conditions benchmark, we find that observed convergence has followed an even slower path over the past 150 years, with convergence stalling after 1950. Since the 1980s, the wealth gap has widened again as capital gains have predominantly benefited white households, and convergence via income growth and savings has come to a halt. *JEL codes:* D31, E21, J15, N11, N12.

"Thus, the efforts to provide the freedman with land and tools ended, and by 1870 he was left to shift for himself amid new and dangerous social surroundings. No such curious and reckless experiment in emancipation has been made in modern times."

—W.E.B. Du Bois (1901), *The Negro Landholder of Georgia*

I. Introduction

In a speech to Congress in 1920, U.S. Senator Selden Spencer (R-MO) lauded the amount of wealth accumulated by Black Americans since the Civil War, stating that it "surpassed any progress under any like circumstances in the history of the world."[1] One hundred years after this sanguine assessment, the racial wealth gap remains the largest of the economic gaps between Black and white Americans. In 2019, Black Americans held just 17 cents on average for every white dollar of wealth. By comparison, the income gap is 50 cents to the dollar.[2] What's more, the racial wealth gap has shown remarkable stability over the past several decades, with little indication of further convergence. Although there is a large literature on the contemporary racial wealth gap, much less is known about the evolution of the wealth gap over the full post-Emancipation period.

To address this lack of information, we introduce the first continuous time series of white-to-Black per capita wealth ratios in the United States over the past 160 years. Our large-scale

1. From Senator Spencer's statement in favor of a commission on racial issues discussed during the 66th Congress (see Spencer 1920).

2. Authors' calculations using the Survey of Consumer Finances.

data collection and harmonization effort fills in about 100 years of missing data on the national racial wealth gap, from the 1880s to the 1980s, when most modern wealth surveys with information on race begin. We do this by building a national time series of Black wealth in the United States and combining it with aggregate wealth. We extend 1860 and 1870 estimates of Black wealth by digitizing 60 years of data on Black wealth, from the 1860s through the 1920s, from Southern state tax reports and estimating Black wealth growth rates from the data. We extend this time series through the 1930s using historical estimates of total Black and national wealth, verified using the census of agriculture and population and household survey data. Finally, we draw on newly compiled data from historical and modern waves of the Survey of Consumer Finances to complete our coverage from 1949 to 2019 (the SCF+, see Kuhn, Schularick, and Steins 2020). Our new series of white-to-Black per capita wealth and wealth ratios is now publicly available.[3]

Our data show that the most dramatic episode of racial wealth convergence occurred in the first 50 years after Emancipation. This initially rapid convergence gave way to much slower declines in the wealth gap in the second half of the 20th century. From a starting point of nearly 60 to 1, the white-to-Black per capita wealth ratio fell to 10 to 1 by 1920 and to 7 to 1 by the 1950s. Seventy years later the wealth gap remains at a similar magnitude of 6 to 1. We demonstrate that both this "hockey-stick" pattern of convergence and the large enduring gap today can be broadly rationalized by a parsimonious model of wealth accumulation for each racial group, where savings from income and capital gains are the drivers of wealth growth. Even under equal conditions for wealth accumulation after slavery, in other words, identical savings rates and capital gains rates across the two groups, our convergence model portends a racial wealth gap of 3 to 1 today. The main reason for such a large and lasting gap is the enormous difference in initial wealth between Black and white Americans on the eve of the Civil War.

3. The data and our full replication archive can be accessed at www. elloraderenoncourt.com/us-inequality-data. Note that we define white wealth as the difference between total wealth and Black wealth given historical data constraints. In per capita terms, non-Black wealth and white wealth are extremely close over this full historical period. For simplicity, we refer to this non-Black-to-Black wealth gap as the racial wealth gap or the gap between white and Black Americans.

Compared to this equal-conditions benchmark, wealth convergence has progressed more slowly between 1870 and the present. We use our model to quantify the average racial gaps in savings rates and capital gains rates consistent with the observed speed of convergence over this 150-year period. Slower savings-induced wealth accumulation by Black Americans can explain the convergence dynamics over most of the past 150 years. More recently, racial differences in capital gains rates have played a larger role in shaping the wealth gap. Should existing differences in wealth-accumulating conditions persist, racial wealth convergence will not only stop altogether but will even reverse course.

Our data allow us to document patterns in the speed of convergence over time. We compare observed growth rates of the wealth gap to growth rates derived from our equal-conditions benchmark, in which Black and white Americans enjoy equal savings rates and capital gains rates. Although Black wealth growth outpaced that of white Americans between 1870 and 1930, the rate of convergence in these years lags far behind what would be expected had the two groups enjoyed equal conditions for wealth accumulation. Indeed, the historical record is rife with instances of expropriation of Black wealth, exclusion of Black Americans from the political process, and legally sanctioned segregation and discrimination in land, labor, and capital markets. All of these factors likely contributed to sluggish convergence over this period.

During the 1960s through the 1980s, convergence regains speed, exceeding what would be predicted by our equal-conditions benchmark. The dismantling of Jim Crow through Black activism and civil rights legislation, expansions of the social safety net, and improved labor standards during this period may have boosted wealth-accumulating conditions for Black Americans. Although the wealth gap remained sizable in these decades, it remained on track to converge. From today's vantage point, however, these gains were short-lived. Starting in the 1980s, we document a racial gap in capital gains as well as a complete stalling of income and savings-induced convergence. These forces have caused the wealth gap to leave the convergence path altogether and start increasing again.

We shed light on mechanisms behind the recent redivergence of the wealth gap using the SCF+, which covers the entire post-World War II period. In line with the macroeconomic dynamics of the wealth distribution, we find that the combination of high wealth-to-income ratios and portfolio differences between Black and white Americans has played a key role in the dynamics of the

racial wealth gap since the 1980s (Kuhn, Schularick, and Steins 2020). For example, Black households hold nearly two-thirds of their wealth in housing and very little in equity. While housing wealth has appreciated since 1950, stock equity has appreciated by five times as much. These large price increases in equity markets have led to disproportionate capital gains for the wealthiest Americans, a group that is almost exclusively white. Gains for wealthy white households have caused average white wealth to rise relative to average Black wealth, linking the evolution of the racial wealth gap to the overall rise in wealth inequality in the United States.

Our long-run view of the racial wealth gap underscores the importance of slavery and post-slavery institutions for the persistence of the wealth gap. Until the 1860s, the vast majority of Black Americans were enslaved—contributing to building the nation's wealth while being legally barred from accumulating wealth themselves. As a result, at the time of Emancipation, Black Americans embarked on freedom with extremely low levels of wealth compared with white Americans. Furthermore, post-slavery wealth accumulation by Black Americans occurred under highly unequal circumstances. Growth in Black wealth lagged behind the benchmark in which Black and white Americans faced equal opportunities for wealth accumulation, consistent with nearly 100 years of explicit capital and labor market exclusion after slavery. Our data and simulation exercises show that erasing these traces of initial gaps and more than 100 years of differences in wealth-accumulating conditions would take more than 100 years in the future. Since the 1980s, meanwhile, higher capital gains and savings for white households and high wealth-to-income ratios for both groups have instead led the wealth gap to widen again.

Our findings contribute to a robust discussion of what policies can close the racial wealth gap. Several studies have emphasized the importance of racial income convergence, housing policies, or financial inclusion in closing the racial wealth gap (Aliprantis, Carroll, and Young 2021; Gupta, Hansman, and Mabille 2021; Kermani and Wong 2021; Boerma and Karabarbounis 2023).[4] Others discuss the role of financial regulation,

4. Boerma and Karabarbounis (2023) conclude that entrepreneurship subsidies are more effective than reparations because of pessimistic beliefs caused by historical discrimination in the financial sector. Kermani and Wong (2021) document substantial racial disparities in housing returns arising from distressed

assistance to families with children, and reparations for slavery in mitigating racial wealth inequality (Darity and Mullen 2020; Zewde 2020; Nam, Hamilton, and Famighetti 2021; Palladino 2023). Our study emphasizes the outsized role played by initial conditions under slavery in determining the speed of convergence between Black and white wealth. In light of these findings, we conclude that policies that redistribute large stocks of wealth, like reparations, lead to immediate reductions in racial wealth inequality while policies targeting portfolio composition can return us to a convergence path, but one that could take hundreds of years to play out. Nevertheless, we argue these approaches are complementary, as policies that redistribute stocks of wealth without addressing racial gaps in savings and capital gains have but a transient effect on the wealth gap.

Our article contributes to two strands of the existing literature on the racial wealth gap in the United States. Our long-run national series complements work on racial wealth disparities in the South in the immediate post-Emancipation decades that relied mainly on state-level tax records (e.g., Margo 1984). We summarize this literature in detail in Section II. A much larger literature focuses on the modern racial wealth gap from the 1980s onward.[5] This work has documented the role of marriage and family structure, income and demographics, differences in permanent income, inheritance, life-cycle effects, and the role of the Great Recession in shaping the gap in recent decades. Our long-run perspective contributes to this body of work by placing today's stagnant racial wealth gap in context: stalled convergence follows from initial conditions in the wealth gap and long-standing racial differences in the drivers of wealth accumulation.

We also contribute to the growing literature on the long-run dynamics of wealth inequality by bringing to light starkly different trajectories of wealth accumulation across racial groups in a country. Dray, Landais, and Stantcheva (2023) draw on similar tax records to construct estimates of national, state, and county-level wealth in the United States from the 1800s to the 1930s, documenting substantial regional persistence in wealth after the

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home sales, such as foreclosures, which particular forms of loan modification and mortgage restructuring could mitigate.

5. An incomplete list of such works includes Blau and Graham (1990); Chiteji and Stafford (1999); Altonji, Doraszelski, and Segal (2000); Wolff (2001); Barsky et al. (2002); Charles and Hurst (2002); Gittleman and Wolff (2004); Altonji and Doraszelski (2005); Meschede et al. (2016); Pfeffer and Killewald (2019).

Civil War. Several studies have documented patterns in overall wealth inequality in various countries from the eighteenth to twenty-first centuries (Piketty 2013; Piketty and Zucman 2014; Saez and Zucman 2016, 2020; Waldenström 2016, 2017; Alvaredo, Atkinson, and Morelli 2018; Madsen 2019; Smith et al. 2019; Kuhn, Schularick, and Steins 2020; Garbinti et al. 2021; Artola Blanco, Bauluz, and Martínez-Toledano 2021; Bartels and Morelli 2021; Assouad 2023). We adapt the accounting framework of wealth accumulation prevalent in this literature to racial groups in the United States who have faced vastly different historical institutions that have cast a long shadow on their respective wealth trajectories. We believe this framework can be applied to many post-slavery or postcolonial societies where certain groups faced severe limitations on their ability to accumulate wealth, thus shaping wealth trajectories for centuries to come.

The rest of the article is structured as follows. We provide historical background on the racial wealth gap in Section II. Section III describes the construction of our long-run series on per capita white-to-Black wealth ratios and presents the final series. In Section IV, we introduce a framework for wealth accumulation by racial group and use this to interpret trends in the wealth gap since Emancipation, focusing particularly on the role of savings-induced versus capital gains–induced wealth accumulation. Section V concludes. Additional details on data construction, supplemental results, and extensive sensitivity analyses are in the Online Appendix.

II. Historical Background on the Racial Wealth Gap

On the eve of the U.S. Civil War, nearly 4 million out of a total population of 4.4 million Black Americans were enslaved. Relegated to the status of property, the enslaved had no legal right to acquire or hold property or to earn or save from the fruits of their labor. What wealth that can be attributed to the Black population at the time was concentrated in the hands of a small number of free Black Americans. These property holders were distributed between a planter class in the lower South, craftsmen and entrepreneurs in the upper South, and merchants and real estate owners in the North (Berlin 1975; Walker 1983; Schweninger 1989, 1990). The Civil War induced a shift in the composition of Southern Black wealth holders away from planters and toward an emergent class of emancipated farmers,

skilled artisans, and small business owners (Du Bois and Eaton 1899; Du Bois 1901; Gatewood 1988).

Studies of Black wealth accumulation and racial wealth gaps in the decades after Emancipation paint a picture of remarkable progress by Black Americans against a backdrop of equally remarkable hostility (Du Bois 1901; Work 1912; Martin 1913). After the repeated failure of Reconstruction-era proposals for land provision to freed persons, the vast majority of the formerly enslaved embarked on freedom "landless, homeless ... without money or tools" and in circumstances where "starvation or practical reenslavement awaited them" (Du Bois 1901, 647). Drawing on taxation reports from Georgia, the state with the largest Black population at the time, Du Bois (1901) notes that the majority of counties in the state witnessed increases in Black property holding. Margo (1984) uses similar data from Louisiana, North Carolina, Virginia, and Kentucky and likewise finds sustained increases in Black wealth in all five states.[6] The higher growth rate in Black wealth compared with white wealth led to declines in the per capita racial wealth gap in these areas (Higgs 1982; Margo 1984). A study by Canaday (2008) matches individual property holders from tax lists for Calhoun County, South Carolina, to complete-count census data and finds that both Black men and women experience faster wealth accumulation than white individuals between 1910 and 1919. This convergence occurred not only in the absence of federal redistributive policy but in the context of a proliferation of Jim Crow laws throughout the South.

Several scholars have modeled and empirically tested the role of Civil War–era policy choices and discrimination in the dynamics of racial wealth inequality in this period and beyond. Miller (2020) studies the effect of land grants to Black families in the Cherokee Nation after Emancipation and finds subsequent reductions in the racial wealth gap in the Nation relative to the rest of the South. Using property tax data from Virginia, Spriggs (1984) examines the pace of Black wealth accumulation in that state, noting that discrimination in land and labor markets inhibited racial wealth convergence in the decades after the Civil

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6. Margo (1984) argues that part of this growth may be due to discriminatory overassessment of Black-owned property for tax purposes—a pattern that has been documented in tax assessment today (Avenancio-León and Howard 2022).

War.[7] DeCanio (1979) uses a theoretical model to show that the redistribution of "40 acres and a mule" to Black families would have substantially improved their relative position, but in the best-case scenario would have only allowed Black families to eventually achieve half of per capita white wealth.

Evidence on racial wealth dynamics beyond the early twentieth century tends to come from studies of housing or real estate wealth, given the lack of data on other property by demographic group during this time period. Akbar et al. (2019) document how neighborhood racial transition in 10 Northern cities during the first Great Migration led to changes in rental and house prices that eroded the value of Black homes and thus posed a barrier to Black wealth accumulation in the early to mid-twentieth century. Collins and Margo (2011) trace the evolution of the national racial homeownership gap from 1870 to 2007. However, this measure of housing inequality does not incorporate the self-reported value of homes, available starting in 1930.[8] Francis et al. (2022) estimate Black land loss from 1920 to 2017 by combining information on declines in acreage owned by Black farmers with compounded land values over time. The loss they estimate is significant, equal to about $326 billion in today's dollars.

Additional evidence on mid-twentieth-century racial wealth gaps can be found in Kuhn, Schularick, and Steins (2020). The authors harmonize the historical and modern files of the Survey of Consumer Finances (SCF), creating a new data set of household-level wealth and income information for the United States from 1949 to 2019. Although primarily focused on the role of asset prices and portfolio composition in wealth dynamics in the postwar period, the authors provide a brief analysis of the racial wealth gap confirming stability and persistence of this gap over the postwar period.

This body of prior work provides important insights into racial wealth inequality for time periods not covered in modern survey data. Yet data constraints for the historical period limit coverage to specific states, regions, or counties; specific time periods; or specific types of property. What has been lacking is a unified picture of white-to-Black wealth gaps in the nation as a

7. Collins, Holtkamp, and Wanamaker (2022) and Collins and Wanamaker (2022) also document substantial racial gaps in intergenerational transmission of wealth and land ownership after Emancipation.

8. We extend Collins and Margo (2011) and provide a time series of the housing wealth gap in Online Appendix H.

whole, from before the Civil War to the present. The value of this long-run, national perspective is that it places existing snapshots of the racial wealth gap in context. The picture that emerges from the new long-run series we build here is a highly regular trajectory of wealth convergence that can be rationalized by a standard wealth accumulation model. In the next section, we describe our data sources and the construction of our series in detail.

III. CONSTRUCTION OF THE LONG-RUN RACIAL WEALTH GAP SERIES AND RESULTS

We build our long-run series of white-to-Black per capita wealth ratios by drawing on numerous sources. For the period from 1860 to 1930, we use a combination of complete-count census data, state property tax data, and national wealth reports and estimates. For the 1930s, we rely on estimates for aggregate Black wealth from Monroe Nathan Work's *Negro Year Book*, in combination with estimates of national wealth for these years. We supplement these estimates with others based on the censuses of population and agriculture and survey data from the 1930s. For 1950 onward, we rely on historical and modern waves of the SCF (SCF+). Online Appendix Table A.1 provides a period-by-racial-group breakdown of the sources underlying our baseline series. A full description of these data sources is in Online Appendix A, and additional details of the construction are in Online Appendix B.

III.A. *Construction of the Data Series*

Based on the available data, we construct racial wealth gap estimates decadally from 1860 to 1900; for 1904, 1912, 1922, 1926, 1930, and 1936; and every four years on average from 1950 to 2020. Below we describe how we construct wealth gap estimates for the different time periods and then discuss the results from the final data series.

1. *1860 and 1870: The Full Count Census and National Wealth Reports.* Our series begins in 1860 because the 1850 census only recorded real property.[9] For 1860, we calculate wealth as the sum of real and personal property values reported by

9. We estimate that personal property made up 58% of total wealth in 1860. Assuming that the ratio of real to total property was the same in 1850, we compute a racial wealth gap in 1850 that is extremely similar to the gap in 1860 (56.51 in 1850 compared to 56.19 in 1860).

individuals in the census.[10] To compute per capita wealth for the Black population, we include the enslaved and assume zero wealth for this group.[11] For the count of the enslaved in 1860 we aggregate county-level statistics from Haines (2010) and confirm that these match the number for the enslaved from the U.S. Census's Black population report covering 1790 to 1915 (Cummings and Hill 1918): a total of 3,953,760 enslaved Black individuals (89% of the total Black population). We assign zero wealth to all observations missing wealth data. For top-coded observations, we impute wealth using the distribution of wealth at the top in 1913 from Saez and Zucman (2016), the earliest year for which such an estimate is available. Details on the imputation are provided in Online Appendix B.1. Using these data, we compute per capita wealth for the non-Black and Black populations and take the ratio as our estimate for the racial wealth gap in 1860.

We proceed similarly for our estimates of wealth in 1870, but there are two differences worth noting. First, the formerly enslaved were enumerated in the population census for the first time, so we are able to measure per capita Black wealth directly using census data.[12] Second, enumerators were instructed to record personal property values for those with at least $100 in personal property. Thus, in addition to top coding, the 1870 census also exhibits censoring from below. We check the

10. The 1850, 1860, and 1870 censuses are the only censuses that recorded wealth of the population. In 1850, enumerators collected information on real estate wealth only. In 1860 and 1870, questions on personal property were added to the census. According to census enumerator questionnaire instructions in 1860, personal property valuations were to include "the value of bonds, mortgages, notes, slaves, live stock, plate, jewels, or furniture; in fine, the value of whatever constitutes the personal wealth of individuals." See https://usa.ipums.org/usa-action/variables/PERSPROP. The 1870 instructions regarding personal property were similar, but because this census was taken after abolition of slavery, they no longer referenced slave wealth.

11. This is a conservative assumption in that we do not take into account the debt implied by a lifetime in bondage.

12. Economic historians have pointed out that the 1870 census appears to have suffered from a severe undercount of the Black population. According to Sutch (2017), "Because many of those excluded were young children and the very poorest of adults the likelihood of a serious bias is reduced. If anything, the rich with their substantial dwelling units and their social prominence are likely to have been relatively well counted." Ransom and Sutch (1975) estimate that the undercount of the Black population was as much as 6.6%. Thus, assuming uncounted Black people had zero wealth, we estimate an upper bound for the wealth gap in 1870 of 24.5 (23×1.066).

significance of this bottom censoring for our estimates by imputing average personal property below the $100 threshold for 1870 (see Online Appendix B.2 for details). The effects of the imputation are very minor as we estimate that most households below the threshold indeed had no wealth at all. To address top coding, we apply the same approach that we use for 1860. To calculate non-Black wealth, we turn to the census report "Wealth, Public Debt, and Taxation" (hereafter "census wealth report"), which was published in 1922 and contains estimates of total taxable national wealth from 1860 to 1922. We subtract Black wealth from these measures to obtain total non-Black wealth.[13] Dividing Black and non-Black wealth by the populations for each and taking the ratio, we arrive at our racial wealth gap estimate for 1870.

2. *1880–1926: State Tax Data and National Wealth Estimates.* Between 1870 and 1950, microdata on wealth are not readily available. For the period from 1870 to 1926, we extrapolate aggregate Black wealth in 1870 using growth rates estimated from state-level data on assessed property and tax payments. An intricate system of real and personal property taxation existed in every U.S. state in the nineteenth and early twentieth centuries. State auditor, treasurer, or comptroller offices regularly published reports on the finances of their state, including assessed property, taxes, and revenue collected. These data on assessed property can be used to construct wealth estimates for the relevant populations (Dray, Landais, and Stantcheva 2023). We digitized reports on assessed property and taxation for Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia, as these were the only states that tabulated property or taxes separately by racial group (hereafter "tax data states").[14]

We also digitized assessment ratios for these states—the ratio of the assessed to market value of wealth from the census wealth report—and corroborated our digitization with data kindly shared by Dray, Landais, and Stantcheva (2023). It is important to collect information on assessment ratios as changes

13. We calculate total wealth in 1870 using the wealth report instead of the census because total wealth in the report exceeds aggregate wealth in the census. Nevertheless, if we estimate white wealth using the census instead, the resulting racial gap is only slightly lower than when using the wealth report—21 to 1 as opposed to 23 to 1.

14. Reports from Southern states with wealth breakdowns by racial group were used in Du Bois (1901); Higgs (1982); Margo (1984), discussed in Section II.

in assessed wealth over time may reflect changes in assessment ratios rather than true wealth dynamics. A further consideration is the likely overassessment of Black taxpayers during this period (see Margo 1984). Estimates of the latter are sparse, but we use what information is available to evaluate how changes in overassessment might affect our estimates of Black wealth growth.

Our first step is to estimate the growth rate of aggregate Black wealth in the six tax data states by regressing log wealth on a time trend and state fixed effects. Online Appendix B.3 provides our regression equation and a comparison of raw and predicted wealth in Online Appendix Figure B.1. The prediction and raw data align closely, supporting a linear prediction of log wealth over this time period. Our estimated coefficient on the time trend, 0.0534, serves as our measure of the growth rate of Black wealth after 1870. We use this measure to extrapolate aggregate Black wealth levels between 1870 and 1929. We stop in 1929 because we expect wealth dynamics during the Great Depression to look very different, relative to before the Depression and in the states with data during this time period versus the rest of the country.[15]

We construct non-Black wealth as before, as the difference between national wealth and the wealth of the Black population. Our national wealth estimates come from the census wealth report and Saez and Zucman (2016). Estimates of total taxable U.S. wealth are available from the census wealth report for 1880, 1890, 1900, 1904, 1912, and 1922. Our 1926 estimate of the wealth gap combines our estimate of Black wealth for 1926 with data on national private wealth from Saez and Zucman (2016) averaged over the 1923–1929 period. Results are not sensitive to the particular year chosen for the late 1920s period. Per capita wealth by group is constructed by dividing each group's total wealth by their estimated population from the census (linearly interpolated for the intercensal years). Using these estimates for per capita wealth, we calculate the racial wealth gap as before.

Our extrapolation of Black wealth using this approach relies on two key assumptions, each of which we consider in turn. First, we must assume that the growth rate of Black wealth in the six tax data states can be taken as a proxy for the national growth rate of Black wealth. Second, we must take a

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15. After 1925, only data from Georgia and North Carolina are available.

stance on how changes in assessment ratios and potential dynamics in Black overassessment affect our estimated growth rate for Black wealth. We address these questions in detail in Online Appendix B.3, but we briefly summarize the main takeaways below.

i. *Representativeness of Southern States for Black National Wealth Growth.* It is first important to note that Southern states were home to the vast majority of the U.S. Black population until the early twentieth century. As of 1900, 41% of the Black population lived in the tax data states. Although this share declined as a result of northward migration during and after World War I, what is relevant for the representativeness of the growth rate we estimate is how much the share of aggregate Black wealth located in these six states changed over this period. If by the late 1920s, the share of aggregate Black wealth located in these states fell substantially from what it was in 1870, that would imply faster growth rates in the remaining states.[16]

Thus, as a first check, we examine how much the share of aggregate Black wealth located in the tax data states changed between 1870 and 1950, when we can measure aggregate Black wealth by region in the census and the SCF+, respectively. In 1870, the share of Black wealth located in the tax data states was 25%. By 1950, the share was virtually the same, at 24%. Focusing on real property only, we can assess how much the share changed by 1930 and 1940, using real property measures in the 1870 census and home values from the census in the latter years.[17] We find that the share of Black real wealth in the tax data states also remained very stable: falling from 25% to 20% in 1930, possibly due to regionally heterogeneous effects of the Depression, but rising back to 26% in 1940 (see Online Appendix Figure B.3a). Assuming the total wealth share of the tax states declined similarly and that this decline occurred entirely between 1870 and the late 1920s rather than during the Depression, we would understate national wealth growth by just 2.30 basis points annually, a growth rate

16. Online Appendix B.3.2 provides a formal decomposition of the national Black wealth growth rate into the wealth-share-weighted average of growth rates in Southern states versus the rest of the United States. Stability in wealth shares implies that the Southern growth rate and non-Southern growth rates are equal to each other and to the national growth rate.

17. In 1930, the census started collecting information on home values of owner-occupied homes. We use this as our proxy for real property in 1930 and 1940.

of 0.0536 compared to our baseline of 0.0534. All of the above bolsters our confidence in using wealth growth rates in these six states to measure Black growth rates in the nation overall.

As a second check, however, we provide an alternative growth rate estimate based on the evolution of Black church property values over roughly the same period. Because Black churches were formed by Black congregations buying buildings or plots of land and fundraising for building improvements and other purchases, the value of the church's property reflected the prosperity of the local community. In addition, Black churches were present wherever there was a sizable Black community, including in Northern states and states not covered by our tax data. We measure Black church property values using data from the census of religious bodies. The time trend in church wealth over this period is 0.0549, very close to the growth rates we estimate using the tax data. Details, including additional historical background on Black churches and our estimation approach, are provided in Online Appendix B.3.3.

Finally, when we present robustness checks on our estimate of the wealth gap for this period, we also report confidence intervals in the wealth gap that reflect the uncertainty from our Black wealth growth rate estimate. In other words, we use the standard errors on our estimated growth rate to compute upper and lower bounds for the wealth gap during these years. We discuss the results from these and other checks in Section III.C.

ii. *Assessment Ratios and Black Overassessment.* The ratio between assessed to the market value of wealth over this time period was typically well below one (Dray, Landais, and Stantcheva 2023). In addition, there are documented differences in the assessment rates of Black taxpayers compared to white, both in the historical and contemporaneous period (Higgs 1982; Margo 1984; Avenancio-León and Howard 2022). These issues alone do not give rise to bias in our estimated growth rates. What affects the growth rate estimate are any dynamics in assessment ratios and Black overassessment.

Using the data we digitized from census wealth reports on assessment ratios for our sample of Southern states, we estimate the overall change in assessment ratios using an identical equation to the one used to estimate Black wealth growth rates. We regress log assessment ratios on state fixed effects and a time trend. We estimate a 3 basis point decline in assessment ratios over 1870–1929, which matches national trends in assessment

ratios for this period. Revising our growth rate estimates to account for this decline would result in a growth rate of 0.0564 as opposed to 0.0534. However, this assumes that assessment ratios fell equally for white and Black taxpayers. Historical evidence suggests that Black taxpayers faced higher assessment ratios compared with white taxpayers. Part of this could be simply driven by the differential geographic distribution of Black taxpayers and their tendency to live in counties with higher assessment ratios, such as the Black belt and more urban counties (Margo 1984). Given that Jim Crow regimes of political and economic suppression of Black Southerners tightened over this period, there's reason to believe that Black taxpayers did not see the benefit of falling assessment ratios during this time or even saw their assessment ratios increase relative to white taxpayers.

In Section III.C, we compute alternative estimates of the wealth gap that take changes in assessment ratios and Black overassessment into account. Because these two forces work in opposite directions in terms of the bias they generate, our alternative estimates typically fall within the confidence intervals of our baseline estimate. Only by imposing extreme assumptions (no decline in assessment with large increases in Black overassessment or declines in assessment but no increase in Black overassessment) do we obtain wealth growth estimates at the upper and lower bounds of our original confidence intervals.

For these reasons, and given the difficulty in calculating race-specific assessment ratios over time, we take the middle approach for our baseline estimate and assume that the small decline in assessment ratios was offset by slightly worsening Black overassessment over this period, or equivalently, that Black taxpayers did not enjoy the gains from falling assessment ratios. We nevertheless provide a range of alternative estimates that combine different assumptions about Black overassessment (high, medium, versus low growth) and assessment ratios (fully applying the decline to Black taxpayers, partially applying the decline, or having the decline more than offset by rising Black overassessment). We corroborate our baseline estimate using data from an early twentieth-century publication that reported Black and white per capita wealth levels in 1900 (Martin 1913). These alternative estimates are discussed in Section III.C.

3. *1930 and 1936: The Negro Year Book and National Wealth Estimates.* For the years between 1930 and 1940, we build our

baseline estimate using measures of aggregate Black wealth from Monroe Nathan Work's *The Negro Year Book*, a series of annual reports on Black economic progress covering topics such as business, education, wealth, politics, and social organizations. Estimates of Black wealth are available for 1930 and 1936 from these reports. Earlier reports include national wealth estimates from 1863 to the 1920s. Although the methodology used to generate these estimates is not explicitly described in these reports, we were able to reconstruct Work's estimates from raw sources. Our reconstruction suggests that although early estimates understated Black wealth, his picture of contemporaneous dynamics lines up well with other available data for the time period. We discuss Work's data, our reconstruction, and our adjustment of the data in detail in Online Appendix B.5 and briefly summarize here.

In every section reporting national wealth estimates, Work referenced Black real and personal property valuations from Georgia, North Carolina, and Virginia auditor reports. Using our raw data from these reports and population statistics from the census, we are able to closely reconstruct Work's estimates of national Black wealth levels.

Work's initial estimates of Black wealth in 1870 are lower compared to the census, and we believe this is because Work started with Georgia's wealth levels and scaled by Georgia's share of the Black population rather than Georgia's share of Black wealth. Applying a combination of population share adjustments and Black wealth growth rates for Georgia, North Carolina, and Virginia to Work's initial levels of national wealth results in a series that almost exactly matches that of Work (see Online Appendix Figure B.6). We conclude that Work's information on Black wealth levels was more accurate for the 1930s than for 1870 and that his estimation of the dynamics during the Depression might be particularly insightful given his position as a contemporaneous researcher.

We thus use the time series variation implied by Work's 1930s estimates to compute Black wealth during the Great Depression. Our approach is to make a level adjustment to the estimates from Work using our preferred estimates from the late 1920s (see Section III.A.2) and the 1950s from SCF+ (see Section III.A.4). We combine these adjusted estimates with national wealth estimates from Saez and Zucman (2016) used to construct the level of wealth of the white population. As before, we subtract Black wealth from total wealth and divide non-Black and Black wealth by the populations for each respective group

to arrive at per capita wealth estimates. We then adjust the level of these estimates using our wealth gap estimates in the 1920s and in the 1950s from the SCF+. Details are provided in Online Appendix B.5.

Given the greater degree of uncertainty surrounding these Depression-era estimates of the wealth gap, we supplement with two other approaches that use completely different data and estimation methods. First, we calculate Black and non-Black housing and farm wealth in 1930 and 1940 from the censuses of population and agriculture, the latter of which reported farm ownership and value statistics separately by race between 1900 and 1940. We construct the white-to-Black ratio in farm and housing wealth using this approach. Second, we use the 1936 Study of Consumer Purchases conducted by the Bureau of Labor Statistics. The survey provides individual-level data on business and nondwelling rental income as well as farm and home values. We use the capitalization approach of Saez and Zucman (2016) to derive wealth stock estimates from the various income flows and add this to farm and housing wealth. All three approaches yield highly consistent estimates of the wealth gap during the Great Depression.

4. *1950–2020: SCF+.* For the period starting in 1950, we rely on data from the SCF+, which contains measures of assets—including liquid assets, housing and other real estate, bonds, stocks, and corporate and noncorporate equity—and liabilities. We focus on marketable net wealth as our measure of wealth and investigate the role of debt in Section III.C. To increase precision, we calculate three-wave moving averages of Black and non-Black household average wealth and household sizes over time. We compute the time series of average per capita wealth by dividing these smoothed average household wealth estimates by the number of household members. Based on these per capita estimates of wealth for the Black and non-Black populations, we construct the racial wealth gap from 1950 to the present.

III.B. *The Evolution of the Racial Wealth Gap 1860–2020*

Figure I presents our final time series of the white-to-Black per capita wealth gap from 1860 to 2020. Overall, we observe a hockey stick shape of convergence, where the pace of convergence was fast in the early decades after Emancipation, then slowed down considerably afterward. In 1860, before Emancipation, the
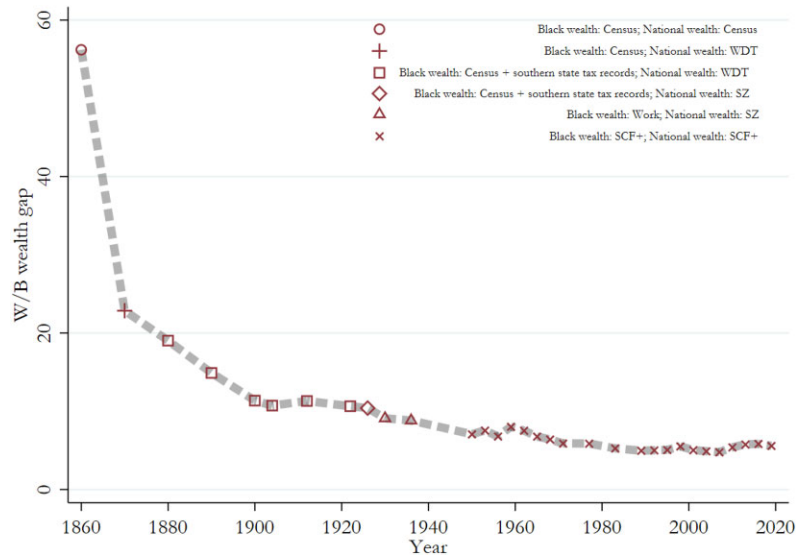
FIGURE I

White-Black per Capita Wealth Ratios: 1860–2020

White-to-Black per capita wealth ratios from 1860 to 2020. Details on the construction of this series are available in Section III and Online Appendix B. Data sources: See figure legend. WDT is "Wealth, Public Debt, and Taxation" report; SZ is Saez and Zucman (2016). A full description of the data sources underlying the baseline series is described in Section III and Online Appendix A.

white-to-Black per capita wealth ratio was 56:1, corresponding to the average Black American owning less than 2 cents for every white dollar of wealth. This large wealth gap can be explained by the fact that 89% of the Black population was enslaved in 1860 and thus legally barred from any form of wealth holding. We then observe a steep drop in the racial wealth gap between 1860 and 1870, the first post-Emancipation census, with the gap falling to a level of 23:1, or a more than a 50% decrease relative to 1860.

The Civil War eliminated what wealth slaveholders held in enslaved individuals through the abolition of slavery. It also resulted in the depreciation of Southern land values and afforded the formerly enslaved an opportunity to accumulate wealth for the first time. How much of the decrease in the wealth gap in the decade of the Civil War can be attributed solely to the elimination of slave wealth versus these other factors? Using an estimate of total slave wealth from the Historical Statistics of the United

States (Sutch 1988), we calculate that slave wealth made up around 15% of total wealth in 1860.[18] If we subtract slave wealth from white wealth in 1860, the wealth gap falls from 56:1 to 47:1. Thus, all else equal, eliminating slave wealth would reduce the gap by 9, or 27% of the total drop of 33 (from 56 to 23). In other words, the elimination of slave wealth alone cannot account for the entire reduction in the wealth gap from 1860 to 1870. In addition, land prices dropped dramatically in the South with the abolition of slavery and the destruction from the war (Ager, Boustan, and Eriksson 2021). At the same time, and at least in part facilitated by low land prices, newly emancipated Black southerners began to rapidly accumulate property. The resulting higher relative growth rate of Black wealth during this period drove wealth convergence.[19]

Greater relative growth in Black wealth continues in the late nineteenth and early twentieth century, but at a slower pace. In the 50 years after 1870, the gap fell by 50% again, to 11 to 1 in 1922. This continued convergence occurred in a period that saw initial enforcement of Black Americans' rights during Reconstruction give way to a retrenchment of the racial order by the end of the nineteenth century. The Union Army withdrew from the South in 1877, and the former slave-holding elite recovered their positions at the helm of Southern politics and society. Starting in the 1890s, former Confederate states passed numerous Jim Crow laws greatly curtailing the newly won social, political, and economic rights of Black Americans, and the early 1920s saw a revival of the Ku Klux Klan. Even as the Jim Crow regime reached a crescendo, the racial wealth gap continued to fall, declining a further 10% to 9 to 1 by 1930.[20]

During the decade of the Great Depression, we estimate a relatively stable gap of about 9 to 1 despite the fact that New Deal-era relief and social insurance policy tended to exclude regions or sectors with a large representation of Black workers (Katznelson 2005). The 1940s through the 1970s saw dramatic

18. Data on slave wealth are available at https://hsus.cambridge.org/HSUSWeb/toc/showTable.do?id=Bb209-218.

19. According to the census, Black per capita wealth tripled between 1860 and 1870, from approximately $13 per person to $39 per person, while white wealth increased by just 7%. Thus, the annualized growth rate of Black wealth was three times that of white wealth over this decade.

20. For a history of the Reconstruction and post-Reconstruction periods, see Du Bois (1935); Woodward (1957); Kousser (1974); Foner (1988).

changes in the landscape of racial progress and discrimination, as well as an acceleration of Black migration from the South to the North during the Great Migration. Yet such changes, notable for their influence on racial income gaps, appear to have had little effect on racial wealth convergence from a long-run point of view. Indeed, the past 70 years are instead characterized by stagnation in the gap, at a level between 5 and 7, and, in the most recent decades, the wealth gap has actually widened rather than continue to close.[21]

III.C. Robustness of Long-Run Wealth Gap Series and Sensitivity Checks

The extremely regular shape of convergence that emerges from the data prompts the question of what could be the drivers of racial wealth differences after Emancipation. Before answering this question, we describe a range of sensitivity checks we perform on our new long-run series. Our conclusion from these checks is that our baseline estimates are consistent with the alternative data that can be used to validate the level and trend of the racial wealth gap over the past 150 years. We also demonstrate the robustness of our findings to different estimation approaches, wherever applicable.

1. *Alternative Estimates for the Historical Period (1870–1940).* We provide a range of estimates of the wealth gap from 1870 to 1940 to assess the plausibility of our baseline estimates for this period. Figure II presents the full range of our alternative estimates.

First, we present in dashed lines the confidence intervals for our baseline wealth gap estimates for 1880 to 1926, which rely on our extrapolation of 1870 Black wealth using growth rates from the Southern state tax data. We also show a range of estimates based on alternative growth rates that take into

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21. While our article provides the first long-run analysis of the white-to-Black wealth gap, a large literature examines the long-run patterns in other dimensions of racial inequality, such as income, life expectancy, and education. According to Margo (2016), the income gap experienced its fastest convergence during World War II and the civil rights era, rather than after Emancipation. By contrast, the racial literacy gap and the health gap experienced the fastest convergence in the aftermath of Emancipation, thus exhibiting dynamics similar to those of the wealth gap (Costa 2015; Margo 2016). Like the wealth gap, many of these gaps have stagnated in recent decades.
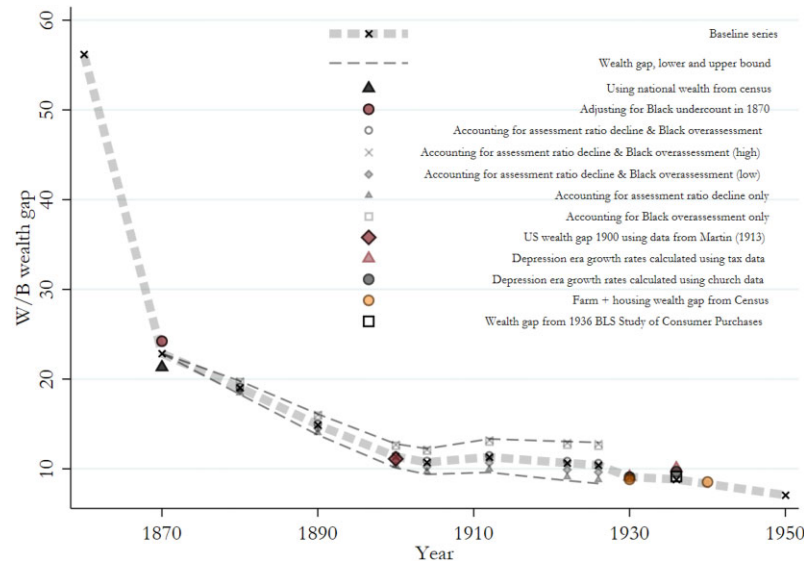
FIGURE II

Robustness of Historical Wealth Estimates: 1860–1940

Robustness and alternative estimates for white-to-Black per capita wealth ratios from 1860 to 1940. Details on the construction of these estimates are available in Section III and Online Appendix B. Data sources: See figure legend. WDT is "Wealth, Public Debt, and Taxation" report; SZ is Saez and Zucman (2016). A full description of the data sources underlying the baseline series is described in Section III and Online Appendix A.

account declining assessment ratios as well as increases in Black overassessment. For the most part, these alternative assumptions on Black overassessment and their interaction with slightly declining assessment ratios produce wealth gap estimates within our confidence intervals. Though estimates of the wealth gap during this period are difficult to come by in existing literature, Martin (1913) studied the wealth gap in Kansas City, MO, in 1911. He provided context for the wealth gap in Kansas City by citing information on Black and white per capita wealth nationally, from which it is possible to construct an estimate of the nationwide racial wealth gap at this time. Martin (1913) reports an estimate for Black per capita wealth in 1900 of $90 (originally from Thomas 1901) and a white per capita estimate of $1,000 in

nominal terms.[22] This yields a wealth gap of 11.1 to 1 for 1900, extremely similar to our baseline estimate of 11.4.

We also provide an alternative measure of the wealth gap in 1930, 1936, and 1940, the period for which we draw on estimates from Monroe Work's *Negro Year Book* in our baseline series. For 1930 and 1940, we produce an alternative estimate of the wealth gap by combining data on housing wealth from the census of population and farm wealth from the census of agriculture. The wealth gap we obtain from combining farm and housing wealth is close to that of our benchmark series: for example, in 1930, we estimate a gap of 8.8 if including farm and housing wealth, while our benchmark estimate is a gap of 9.1.

We generate alternative estimates for 1930 and 1936 by applying growth rates estimated from various sources to our 1929 extrapolation of Black wealth. Using the change in log Black church property from 1926 to 1936 as an alternative growth rate, for example, we estimate a wealth gap of 9.1 and 9.7 in 1930 and 1936, respectively. Using the tax data from Georgia and North Carolina to estimate growth rates between 1926–1936, we estimate a wealth gap of 9.1 and 10.1 in 1930 and 1936, respectively.

Finally, we generate an alternative estimate of the wealth gap in 1936 using data from the Study of Consumer Purchases, a survey conducted by the Bureau of Labor Statistics. This nationally representative survey contains information on households' rental income, business income, home values, and farm values. To construct estimates of Black and white wealth from these data, we apply the capitalization approach of Saez and Zucman (2016) to the various income sources and add housing and farm wealth.[23] Using this approach, we estimate a wealth gap of 9.1.

22. Martin (1913, 32) writes "Mr. H. H. Thomas ... places the individual average accumulation throughout the South at the present day at $90.00 per capita, but this is evidently an estimate of the total, rather than the assessed valuation. The $80.61 per capita wealth of the Kansas City Negro, while $28.01 above the first estimate for the Negroes of the whole United States, seems, of course, very small when compared with the $667.96 per capita owned by the whites of Kansas City, or with the $1,000 for the whole United States." Thomas (1901) was actually providing an estimate for the whole Black population (see Thomas 1901, 76), so we take this as the national estimate. The estimate of $1,000 for white per capita wealth in the United States overall seems reasonable and compares well to the estimate from Piketty and Zucman (2014) of $1,024.

23. Here we only include the value of homeowners' dwelling as our capitalization of rental income captures other sources of housing wealth.

The similarity between this estimate of the wealth gap, which uses an entirely different data source and approach, to our baseline estimate of 8.8, gives us confidence in our measure of the racial wealth gap in these interwar years. Online Appendix C.2 provides a detailed description of the data and our methodology.

Although there is naturally a degree of uncertainty in our historical estimates of the wealth gap, we believe we provide reasonable baseline estimates as well as ranges for the wealth gap at this time. The resulting collection of estimates suggests substantial convergence from 1870 levels as well as continued convergence until 1950, after which convergence stagnates.

2. *Definition of White.* Our baseline series measures the ratio between per capita wealth of the non-Black population and the Black population, which we call the white-to-Black per capita wealth gap. Historically, the non-Black, non-white share of the population in the United States was small, but today's non-Black non-white population is much larger. To the extent that non-Black, non-white populations have lower wealth than white Americans, we understate the white-to-Black wealth gap by including these groups. We produce an alternative series that directly measures per capita white wealth in 1860, 1870, and 1950–2020 (see Online Appendix Figure D.2). As expected, this alternative measure of the wealth gap is almost identical to our baseline measure up to the modern period. Using white per capita wealth as opposed to non-Black per capita wealth does not alter our estimate of the wealth gap between 1870 and 1970. The post-1970 wealth gap is larger when restricting to white individuals for the non-Black population. Thus, if anything, our baseline series understates the white-to-Black wealth ratio in the more recent period.

3. *Gross Wealth versus Net Wealth.* Prior to 1950, we are unable to consistently measure and subtract debt from our measures of wealth, thus these estimates of the wealth gap reflect gaps in gross wealth or total assets as opposed to net wealth. After 1950, we are able to construct measures of net wealth. Historically, access to credit was highly restricted. We estimate that household debt made up 33% of GDP while the debt-to-GDP ratio today exceeds 100%. In the early twentieth century, Black homeowners were less likely to have mortgages than white ones, due to their concentration in the South where mortgage rates were

lower than in other regions of the country. As Southern financial institutions developed, and Black emigration from the region increased, however, mortgage holding rates among homeowners equalized across the two groups (Collins and Margo 2001).

We check the sensitivity of our wealth gap estimates to the inclusion of debt in two ways. First, we provide a lower bound wealth gap estimate for 1870 that assigns our estimates of total national debt entirely to the non-Black population, bringing the total wealth gap down from 23 to 20 (see Online Appendix Figure D.3).[24] Second, we present an alternative series that focuses only on assets and ignores debt in the post-1950 period as well (see Online Appendix Figure D.4). The asset gap is lower than the total gap. This measure of the gap, however, ignores greater debt levels among Black individuals, of whom a greater proportion have negative net worth compared to white individuals. We discuss the distribution of debt holding in greater detail in Section IV.D.

4. *The Role of Household Size.* Fluctuations in the per capita wealth gap could stem from differences in fertility and household size across the two groups. In particular, if Black households are smaller than white households on average, the per capita wealth gap will be smaller than the per household gap. On the other hand, if Black households are larger, the opposite is true. We assess this by first examining differences in household size between the two groups from 1870 to the present (see Online Appendix Figure D.5). From 1880 to 1950, average household size for the groups was nearly identical. In 1870, Black households were smaller than white households on average, and larger between 1940 and 2000. At the peak of these differences in 1960, Black households had on average one additional person compared with white households.

We then construct the per household racial wealth gap (see Online Appendix Figure D.6). Differences in the per capita and per household gap follow the trend of the differences in

24. Information on debt holding by race is unavailable for this period. We also conduct an additional exercise using the distribution of home mortgage holding across Black and white households in 1900 to assign national debt to the two groups, assuming an equal allocation of debt, conditional on having a home mortgage. Using this approach, we arrive at a wealth gap for 1870 that is almost identical to our original estimate.

household size. The per household wealth gap is slightly smaller than the per capita wealth gap between 1950 and 1990, after which it is slightly larger. Nevertheless, we conclude that the role of household size in the full evolution of the wealth gap has been limited.

III.D. *Additional Statistics and Measures of Racial Wealth Inequality*

We provide alternative measures of racial wealth inequality over the historical period in a series of appendices, which we briefly describe here.

1. *The Inverse Wealth Gap and Black Share of National Wealth*. In Online Appendix G, we provide two additional data series to document the evolution of Black wealth in the United States over time. First, we present the Black-to-white per capita wealth gap (the inverse of our baseline gap) in Online Appendix Figure G.1. This view of the wealth gap provides a more detailed view of early convergence patterns and confirms our finding that convergence occurs until 1980 and reaches a standstill or even reverses thereafter. Second, we show estimates of the Black population's share of national wealth, along with the Black population share (see Online Appendix Figures G.2 and G.3). Throughout history, Black Americans' share of national wealth has been substantially lower than their share of the population. The wealth share started at below 0.5% of national wealth in 1860 and stands at 2.5% today while the population share is 12.4%.

2. *Homeownership and Housing Wealth Gaps*. In Online Appendix H, we construct white-to-Black homeownership and housing wealth gaps for the whole 150-year period using the census, the American Community Survey (ACS), and SCF+. Convergence in housing wealth by race has followed a similar pattern of convergence as overall wealth (see Online Appendix Figures H.1 and H.2).

3. *Distributional Racial Wealth Gaps*. Our primary focus is the per capita or mean wealth gap as we can consistently

measure this over the full historical period.[25] However, the SCF+ microdata allow us to dissect the evolution of racial disparities along the household wealth distribution, at least after 1950. In Online Appendix K, we contrast the mean racial wealth gap to the racial wealth gap at the median and the 90th percentile for the seven decades from 1950 to today (see Online Appendix Figure K.1). While the wealth gap at the 90th percentile largely follows the levels and trend of the mean wealth gap, the median wealth gap is higher throughout the whole period. The median wealth gap starts at very high levels in 1950, converges dramatically between 1950 and 1970, and stalls after 1980. Today, the median wealth gap today remains at 10:1, equivalent to the typical Black household holding just 10 cents for every dollar the typical white household holds.

In addition, we provide evidence on the racial rank gap in wealth through 2020, updating previous estimates from Kuhn, Schularick, and Steins (2020). We define the racial rank gap in wealth following Bayer and Charles (2018), who document Black-white income rank gaps. We measure the position a particular Black household holds in the white household wealth distribution. We measure this gap in rank for households at the median and 90th percentile of the Black household wealth distribution and find that despite reductions in the rank gap over time, gaps remain sizable. The median Black household falls below the 30th percentile in the white household wealth distribution, while the 90th percentile Black household falls below the 75th percentile of the white wealth distribution (see Online Appendix Figure K.2).

4. *Per Capita Black and Non-Black Wealth Series, 1860–2020.* Although our primary contribution is a time series of national white-to-Black wealth ratios, a secondary contribution is a dataset of Black and non-Black wealth levels in the United States from 1860 to 2020. We view our wealth gap estimates as the primary contribution because we are able to validate these estimates more systematically than Black per capita estimates alone. Nevertheless, we present our per capita estimates of Black and non-Black wealth in Online Appendix Figure D.8 (Online Appendix Figure D.9 presents these series

25. In years where we lack microdata, we are still able to estimate or collect data on total wealth for each racial group and divide by their respective populations.

in logs). In addition, we separately present the real per capita Black wealth series, together with various robustness checks in Online Appendix Figure D.10.

5. *The Conditional Racial Wealth Gap.* A large literature explores demographic and socioeconomic determinants of Black-white wealth gaps using Blinder-Oaxaca-Kitagawa regression decomposition methods (Kitagawa 1964; Blinder 1973; Oaxaca 1973). This literature broadly concludes that a large portion of the wealth gap cannot be explained by observable characteristics, due to a weaker mapping from observables to wealth among the Black population. The focus of our work is on the historical determinants of the unconditional racial wealth gap. Nevertheless, in Online Appendix E, we contribute to the literature on the conditional wealth gap by leveraging the long time span of our SCF+ data and asking specifically whether the explanatory power of sociodemographic characteristics has changed over time. We conduct a regression decomposition analysis, where we control for (i) income, (ii) educational attainment, (iii) family characteristics, and (iv) labor market characteristics. Consistent with the literature, we find much lower explanatory power of these characteristics when estimated on the Black population compared to the white, but that this explanatory power is greater today than compared with the pre-1980 period.

6. *Wealth Gap between White Americans and Other Racial and Ethnic Minorities.* Due to data and scope limitations, we leave a full exploration of historical wealth inequality among other racial and ethnic groups in the United States for future research. Still, we present some comparisons between the modern per capita white-Black wealth gap and other per capita gaps (white versus Hispanic Americans and white versus all other racial groups) in Online Appendix D.3. We find that the white-to-Hispanic wealth gap exhibits similar dynamics after 1980 as the white-to-Black wealth gap—the level is persistent around 6 with a slightly diverging trend, while the white-to-other wealth gap is much lower and has continued to converge over the past 40 years (see Online Appendix Figure D.11). One reason for these commonalities may be that Black and Hispanic households have similar wealth portfolios (see Online Appendix Table D.1)—we explore the role of portfolio composition in the white-to-Black wealth gap in Section IV.D. A salient difference between the

two groups is that a larger share of the Hispanic population is made up of immigrants, around 37% compared to around 8% for Black Americans. Immigrants tend to have lower wealth than second- or third-generation-plus Americans (see Campbell and Kaufman 2006), and we find that indeed the wealth gap between white Americans and Hispanic immigrants is more than twice as large as the gap between white Americans and US-born Hispanic Americans. We hope that future research can shed more light on the role of the unique historical institutions affecting the evolution of the white-Hispanic as well as other wealth gaps.[26]

IV. Conceptual Framework for Racial Wealth Convergence: 1870–2020

The gap in per capita wealth between Black and white Americans has followed a hockey stick pattern over the long run. Rapid convergence in the post-slavery and Jim Crow era gave way to much slower gains during periods of known racial progress, such as World War II and the civil rights era. In this section, we develop a stylized theoretical framework of wealth accumulation to rationalize the shape of convergence from Emancipation onward, that is, from the point from which most Black Americans were able to accumulate wealth. The framework emphasizes three distinct factors: (i) initial conditions, (ii) savings-induced wealth accumulation, and (iii) capital gains. We use this framework to understand the drivers of wealth convergence depicted in our long-run series (Figure I).

We model wealth accumulation dynamics following Saez and Zucman (2016) but apply these wealth accumulation functions to Black and white Americans separately. Average wealth for each group evolves according to

$$(1) \qquad W_{t+1}^{j} = (1+q^{j})[W_{t}^{j} + s^{j}Y_{t}^{j}], \text{ with } Y_{t}^{j} = (1+g^{j})Y_{t-1}^{j},$$

and $j = \{b, w\}$ represents the two racial groups (b for Black, and w for white), and W_{t}^{j} denotes the real per capita wealth of group j at time t. Wealth accumulation is governed by two key flow parameters: the capital gains rate, q^{j}, and saving rates of individuals, s^{j}. Y_{t}^{j} is the per capita income of group j at time

26. See, for example, work by Feir, Jones, and Redish (2023) on Indigenous wealth in the twentieth-century United States.

t, which grows at rate g^j.[27] We begin our discussion with the simplifying assumption of fixed q^j, s^j, and g^j over time.

Combining the law of motion for average Black and white wealth, we get the following law of motion for the white-to-Black wealth ratio (WR):

$$(2) \qquad WR_{t+1} \equiv \frac{W_{t+1}^w}{W_{t+1}^b} = WR_t \times \frac{1+q^w}{1+q^b} \times \frac{1+s^w \frac{Y_t^w}{W_t^w}}{1+s^b \frac{Y_t^b}{W_t^b}}.$$

Taking logs, we can decompose the (log) growth rate of the racial wealth gap from t to $t+1$ as follows:

$$(3) \quad \log\left(\frac{WR_{t+1}}{WR_t}\right) \approx \underbrace{(q^w - q^b)}_{\text{Differences in capital gains rates}} + \underbrace{\left[s^w \frac{Y_t^w}{W_t^w} - s^b \frac{Y_t^b}{W_t^b} \right]}_{\text{Differences in savings}}.$$

Equation (3) shows how two distinct components influence the evolution of the racial wealth gap: (i) racial differences in capital gains rates and (ii) racial differences in savings-induced wealth accumulation. Differences in capital gains rates between Black and white Americans have a one-to-one effect on the growth rate of the racial wealth gap. Hence, even if the savings-induced wealth accumulation of Black and white Americans were equal, any difference in capital gains rates in favor of white individuals would set the racial wealth gap on a diverging path. Compared to this, the effect of savings differences on the growth rate of the racial wealth gap is dampened by the level of wealth of each group. Therefore, differences in income growth rates will influence the savings-induced component of the wealth gap, but their effect is scaled by the stock of wealth to which savings flow.

IV.A. Wealth Convergence under Equal q and s: The Importance of Initial Conditions

We first use this framework to explore the role of initial conditions on the evolution of the wealth gap. Taking observed income convergence as given, we ask, "How would the racial wealth gap have evolved had Black and white Americans faced equal conditions for wealth accumulation, namely equal q and s?" Equal q and s would imply, for example, that Black and white

27. Note that income is total income, including labor and capital income.

households had equal access to financial markets and institutions and that both groups were equally able to transmit wealth across generations for the past 150 years. In this case, equation (3) simplifies to:

$$(4) \qquad \log\left(\frac{WR_{t+1}}{WR_t}\right) = s \cdot \left(\frac{Y_t^w}{W_t^w} - \frac{Y_t^b}{W_t^b}\right).$$

It follows that the evolution of the racial wealth gap is then solely driven by (i) racial differences in initial income and wealth levels and (ii) differences in Black and white income growth rates. The higher wealth-to-income ratios are, the smaller the role income convergence and savings play in racial wealth convergence. By contrast, very low levels of wealth of the Black population at the outset of Emancipation imply very strong convergence from initial wealth accumulation.[28] The speed of convergence slows down once the wealth stock increases relative to income flows, such that savings out of income only lead to small changes in the wealth gap.

As mentioned already, when simulating the long-run wealth gap, we allow for heterogeneous income growth across the two racial groups. We derive annualized income growth rates from 1870–2020 using data on Black and white per capita income levels from Margo (2016) for 1870 and the SCF+ for 2019. Over the full 150-year period, Black income per capita grew at a higher annualized rate than white (2.3% versus 2%), indicating income convergence between the two groups over this period. For q and s, we plug in annualized averages of national estimates from Saez and Zucman (2016), which are $q = 1\%$ and $s = 5\%$. For initial values of the racial wealth gap, we use the 1870 white-to-Black per capita wealth ratio from our time series (23:1), and the income ratio (3.6:1) is constructed from historical estimates of Black and white per capita income from Margo (2016). We trace out the evolution of the white-to-Black per capita wealth ratio using equation (1) and plug in the income growth rates, capital gains and savings rates, and starting conditions listed above.

The solid black line in Figure III presents the evolution of the simulated wealth gap with equal wealth accumulation conditions across Black and white individuals. As a comparison, we also plot

28. Spriggs (1984) documents a similar pattern when analyzing the racial wealth gap and Black wealth accumulation in post-Emancipation Virginia.
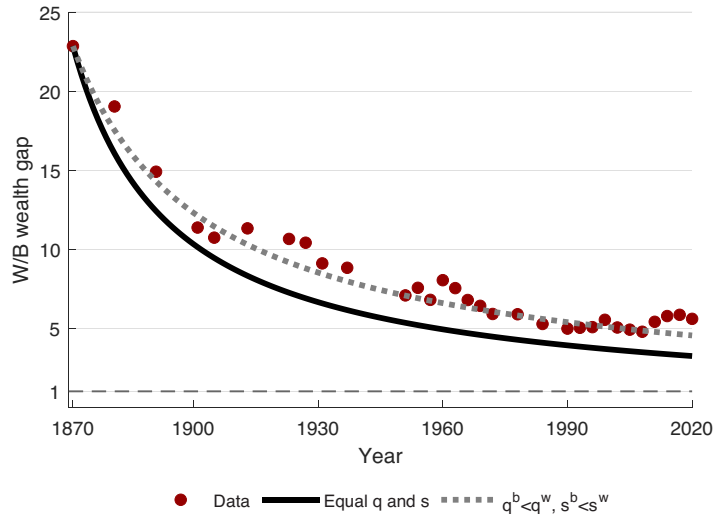
FIGURE III

Simulation of the Racial Wealth Gap: 1870–2020

The solid line traces the path of the wealth gap from our simulation in Section IV, where we assume equal $q = 0.01$ and $s = 0.05$ for Black and white individuals after 1870. The dashed line presents the simulation result with q^b and s^b that gives us the best fit with the data. Our estimation yields $q^b = 0.0085$ and $s^b = 0.039$ (with $q^w = 0.01$ and $s^w = 0.052$). In both simulations, we let Black and white incomes grow according to their respective annualized growth rates calculated using data from Margo (2016) and the SCF+. The dots show the observed white-to-Black per capita wealth ratios from our series. Data sources: Various, described in Section III and Online Appendix A.

our wealth gap series as dots. Overall, the simulated wealth gap follows a hockey-stick pattern, very similar to our estimated long-run time series of the racial wealth gap. Convergence is rapid immediately post-Emancipation until the early to mid-twentieth century, after which convergence slows down considerably. This shape is consistent with Black individuals starting from very low initial levels of wealth compared to their income and experiencing rising wealth-to-income ratios in the early years. White people started with much higher initial wealth in 1870, with a wealth-to-income ratio of 6.6 while Black people started with a wealth-to-income ratio of around one. Therefore, in this early period, the contribution of savings to wealth accumulation is extremely high for Black individuals (equation (4)). Yet as Black

wealth grows, so do wealth-to-income ratios for Black Americans, and convergence slows down over time.

Our simulation implies that under equal wealth-accumulating conditions over the past 150 years, the wealth gap in 2020 would be 3:1. Thus, even in a stylized scenario with equal capital gains and savings rates across the two groups, the initial wealth difference in 1870 is so large that the gap does not fully disappear after 150 years. Indeed, our framework implies that even by 2200, by which time the racial income gap would have closed in our model, we would still have a wealth gap of 1.4.[29]

IV.B. Estimating Long-Run Mean Differences in q and s

Relative to the equal-conditions benchmark of Section IV.A, observed convergence has unfolded more slowly, as can be seen in Figure III. The convergence curve under the assumption of equal q and s falls below the historically observed data points. In the model, slower convergence can only stem from racial differences in savings and capital gains, because we have taken the third factor, the long-run path of income convergence, directly from the data.

There are good reasons to assume that our benchmark scenario of equal q and s is unrealistic. Lower savings and capital gains for Black Americans may reflect their lower average income and wealth levels compared to white Americans, as well as their historical exclusion from land, housing, and capital markets. Systemic disadvantages in wealth accumulation faced by Black Americans are well documented for the immediate post-Emancipation era and beyond. Although the abolition of slavery signaled an end to the most extreme form of economic exploitation of Black Americans, barriers to Black economic progress were pervasive after Reconstruction.[30] For instance, in the decades

29. We also run an alternative simulation, where the racial income gap reaches its 2020 level in 1870, in addition to q and s being equal across Black and white Americans. Despite much lower levels in the racial wealth gap today (1.8:1 instead of 3:1), the convergence path exhibits the same hockey stick shape, where convergence stalls in beginning of the twentieth century. Even under immediate, full convergence in income after Emancipation, the wealth gap would still take over 150 years to close.

30. A large literature explores the role of post-slavery institutions in the Deep South in perpetuating racial inequality. Recent work in this area includes Baker (2022) and Althoff and Reichardt (2023). Althoff and Reichardt (2023), in particular, document the role of these institutions on persistent gaps in economic

after the Civil War, Black Americans were barred from equal access to financial institutions (Baradaran 2017), frustrated in their attempts to purchase land (Ransom and Sutch 2001), experienced violent destruction or expropriation of their property (Cook 2014; Messer, Shriver, and Adams 2018; Albright et al. 2021), and relegated to highly segregated housing markets (Akbar et al. 2019; Aaronson, Hartley, and Mazumder 2021). Black Americans were also denied equal access to education and faced extreme labor market discrimination in the South (Wright 1986; Margo 1990), and the structure of Southern agriculture led to pervasive indebtedness among Black farmers, potentially lowering the incentive to save (Ransom and Sutch 2001). These conditions are likely to have hindered Black Americans' ability to transmit wealth to future generations, skewed the composition of their wealth toward lower return assets, and have led to lower returns in asset classes, all of which would imply lower capital gains rates relative to white Americans. In addition, differences in labor market and educational opportunities could slow down income convergence and thus savings-induced wealth convergence.

Estimating q and s for Black and white Americans for the full 150-year period is impossible due to the lack of micro-level data for this period. Nevertheless, we can use our wealth convergence model to estimate the average racial difference in q and s that is consistent with the convergence path we observe in our wealth gap series. These estimated q and s gaps can be interpreted as follows: how much lower would average Black capital gains rates and savings rates need to be since 1870 for wealth convergence to follow the trend we observe in our data? We will show that the wealth accumulation framework described in equation (1) does a good job fitting our wealth gap series once these average differences in q and s are taken into account.

To conduct this exercise, we fix white savings rates and capital gains at the national average (i.e., $q^w = 1\%$ and $s^w = 5\%$), and then use nonlinear least squares to fit the observed path

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outcomes between Black descendants of the American enslaved versus descendants of those who were free before the Civil War. Although direct examination of the effect of historical institutions and episodes of racial violence on the racial wealth gap is beyond the scope of this article, we provide an exploration of this relationship in Online Appendix F. In this appendix, we document the link between states' histories of slavery and Black wealth accumulation, the relationship between Jim Crow intensity and the racial wealth gap, and finally, episodes of racial violence on racial wealth inequality.

of the wealth gap with differential savings rates (s^b) and differential capital gains rates (q^b) for Black Americans. In essence, we ask which combination of savings rates and capital gains rates fits the observed data most closely, taking income growth and the path of wealth convergence as given. Full details on the estimation are provided in Online Appendix I. Figure III shows the regression curve for estimated values of q^b and s^b.[31] Our best-fit estimates imply that the average savings rate and capital gains rates of Black Americans were 1.3 percentage points and 0.2 percentage points lower, respectively, compared to those of white Americans. Using these estimates for q^b and s^b, we can also calculate the savings-induced and capital gains–induced wealth gap convergence rate; see equation (3). Our calculations imply that during the past 150 years, the savings channel reduced the per capita white-to-Black wealth gap at a speed of 1.25% a year, while capital gains rates differences led to a slight divergence of about 0.2% a year. This result emphasizes the importance of the savings-induced channel, rather than capital gains, for the long-run convergence of the racial wealth gap.[32]

IV.C. Time Variation in the Convergence Process: q versus s

The results in the previous section shed light on long-run average differences in savings and capital gains between Black and white Americans. Nevertheless, time variation in wealth convergence rates and the dynamics in *q* and *s* gaps are also of interest. In this section, we take a closer look at the fluctuations in wealth convergence around the long-term trend to understand which time periods are associated with slower versus faster convergence and why.

31. In Online Appendix I, we present similar results when using OLS to estimate the q^b and s^b that best fit the evolution of the log wealth gap.

32. Here, we are referring to the importance of the savings-induced channel in a pure accounting sense, calculating what share of convergence is attributable to the savings term in equation (3). In a micro-founded model of wealth accumulation, savings rates are endogenously determined, and capital gains rates will affect savings behavior. If lower capital gains rates are expected ex ante, Black households may save less and consume more via a substitution effect. Alternatively, if households are confronted with lower than expected capital gains rates ex post, this might induce higher savings to reach targeted wealth levels. In our framework, we abstract from such interplay between capital gains rates and saving rates.

To facilitate the discussion, we plot the racial wealth gap in logs in Figure IV, Panel A. The figure confirms the pattern described in Section III.B. The most rapid decline in the wealth gap occurred in the first 30 years after Emancipation. Wealth convergence slowed down in the first decades of the twentieth century, resumed between 1930 and 1980, and stalled thereafter. A comparison of these convergence dynamics to our equal-conditions benchmark is illustrative. Figure IV, Panel B juxtaposes observed growth rates in the wealth gap to those from our baseline simulation for five time periods—1870–1900, 1900–1930, 1930–1960, 1960–1980, and 1980–2020. These intervals align well with the patterns shown in Figure IV, Panel A.[33] During the first 60 years after Emancipation (1870–1930), wealth convergence was slightly slower than the expected path of convergence under equal capital gains and savings rates. From 1870–1900, the observed annual convergence rate was a little below 2.5% compared with close to 3% in our simulation. A larger difference opens up between 1900 and 1930. Observed wealth convergence essentially stalled at 0.3%, while according to our benchmark, it should have continued at a pace of 1.4%.

After 1930, racial wealth convergence speeds up again. The growth rate in the gap matches that predicted by the model with equal wealth-accumulating conditions. From 1930 to 1960, Black and white wealth converged at an annual rate of around 1%, and from 1960 to 1980, we observe even higher convergence rates in the data of approximately 1.5% a year. Stronger convergence in the racial wealth gap during this period coincides with major events affecting Black economic progress and reductions in racial inequality. These include compression of wages and Black occupational upgrading during World War II (Collins 2000; Margo 2016; Aizer et al. 2020); the introduction of the Fair Employment Practice Committee in 1941, which represented early attempts to diminish discrimination in the labor market (Collins 2001); and the Civil Rights Act of 1964, the Voting Rights Act of 1965, and minimum-wage legislation in the 1960s (Brown 1984; Donohue and Heckman 1991; Aneja and Avenancio-León 2019; Derenoncourt and Montialoux 2021), which led to relative wage

33. We also apply the backward Cumulative Sum (CUSUM) test of Otto and Breitung (2023) to identify structural breaks in the time series of the per capita white-to-Black wealth gap. The test gives us five subperiods—1870–1900, 1900–1920, 1920–1949, 1949–1983, and 1983–2019—which aligns very well with the subsamples that we analyze based on historical events.
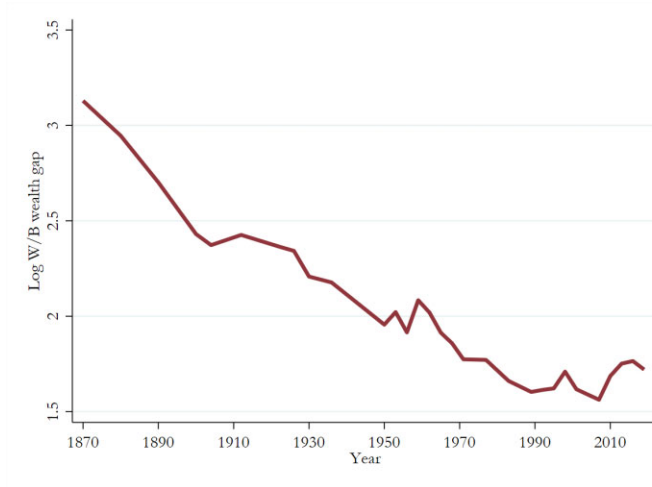
(A) **Log wealth gap**
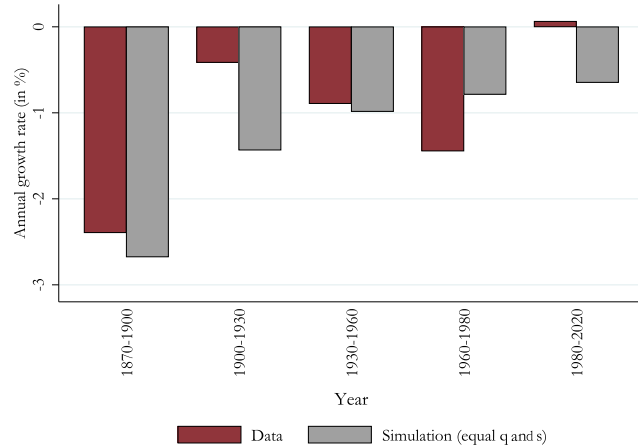
(B) **Annual wealth gap growth rates**

FIGURE IV

Dynamics of Racial Wealth Convergence, 1870–2020

Panel A presents logs of white-to-Black per capita wealth ratios from 1860 to 2020. Panel B shows annual average growth rates of the racial wealth gap for five periods: 1870–1900, 1900–1930, 1930–1960, 1960–1980, and 1980–2020. Data sources: Various, described in Section III and Online Appendix A.

gains for Black workers. Finally, the Fair Housing Act of 1968 attempted to strike down barriers to home ownership for Black Americans, which may have led to relative improvements in housing outcomes. However, this episode of convergence ends by the 1980s, at which point the racial wealth gap stalls and, most recently, begins to diverge again—a phenomenon we return to in detail in Section IV.D.

Despite a rich literature on the drivers of different phases of racial economic convergence, confirming such dynamics with data for the whole 150-year period is not feasible, as prior to World War II, we do not have micro-level data to estimate Black and white saving rates or capital gains rates. However, after 1950, we can study the dynamics of savings- and capital gains–induced convergence in greater detail using the SCF+, which combines the "modern" Survey of Consumer Finances with archival survey waves (Kuhn, Schularick, and Steins 2020).

We rely on the SCF+ data to estimate two key components of equation (3). The first component is the difference in the white-Black savings rate, adjusted by wealth-to-income ratios, that is, $s^w \frac{Y_t^w}{W_t^w} - s^b \frac{Y_t^b}{W_t^b}$. This captures the savings-induced component of wealth convergence. Wealth-to-income ratios are directly taken from the data while saving rates are estimated separately for Black and white households using the synthetic savings approach by Saez and Zucman (2016), which we apply to our SCF+ data. Saez and Zucman (2016) provide estimates of asset-specific capital gains rates (housing, business assets, bonds and deposits, and equity) that they estimate using information on aggregate changes in asset stocks and flows from U.S. national accounts. By assuming that all households experience the same capital gains rates in an asset class, we can use the asset-specific capital gains rates together with the micro-level data of the SCF+ to estimate saving rates as the residual change in wealth by group not explained by capital gains. Full details of this approach are explained in Online Appendix J.

The second component of equation (3) is the absolute difference between white and Black capital gains $(q^w - q^b)$, which has a one-to-one effect on the racial wealth gap convergence. We estimate capital gains on Black and white wealth portfolios following the method of Wolff (2017, 2018, 2022) and Xavier (2021). This approach assumes that Black and white households earn the same capital gains rates in the same asset class, thus racial

TABLE I

SAVINGS VERSUS CAPITAL GAINS–INDUCED WEALTH CONVERGENCE

	$s^w \frac{Y_t^w}{W_t^w} - s^b \frac{Y_t^b}{W_t^b}$ (percentage points)	$q^w - q^b$ (percentage points)
1950–1980	-1.82	0.10
1980–2020	-0.11	0.32
1950–2020	-0.96	0.21

Notes. Differences between white and Black saving rates (W − B), which are adjusted by their wealth-to-income ratios ($s^w \frac{Y_t^w}{W_t^w} - s^b \frac{Y_t^b}{W_t^b}$), and capital gains rates ($q^w - q^b$) during 1950–1980 and 1980–2020. Data sources: Various, described in Section III and Online Appendix A.

differences in total capital gains are solely coming from their differences in portfolio composition. Online Appendix J presents a full description of our estimation method of capital gains.

We report the results in Table I. During 1950–1980, racial wealth gap convergence worked mainly through the savings-induced channel. Adjusted for wealth-to-income levels, white savings rates were lower by -1.82 percentage points than Black (adjusted) saving rates. This savings-induced convergence was much larger in absolute terms than the gap between white and Black capital gains rates (which led to 0.10 percentage point divergence per year), leading the wealth gap to fall over this period. However, the savings channel weakened substantially after 1980, contributing only -0.11 percentage points to convergence. In absolute terms, savings-induced convergence became smaller than the widening gap in capital gains rates. There are two main drivers for this turnaround. First, white-to-Black income convergence, which was robust in 1950–1980, completely stalled after 1980 (Charles and Hurst 2002). In addition, racial differences in (unadjusted) saving rates increased after 1980, in line with overall trends of decreasing saving rates at the bottom of the wealth distribution, where Black Americans are concentrated (Saez and Zucman 2016; Mian, Straub, and Sufi 2020; Bauluz, Novokmet, and Schularick 2022). Although it is not the main focus of this article, we explore these drivers of savings-induced wealth convergence in greater detail in Online Appendix J.2.1.

As savings-induced wealth convergence essentially came to a halt, racial differences in capital gains rates have begun to play the dominant role in racial wealth dynamics. Furthermore, while capital gains rates for white Americans have exceeded those of Black Americans since 1950, the racial difference in capital gains

rates widened after 1980. According to our estimates, the return gap rose substantially after 1980 from about 10 to more than 30 basis points a year (Table I, column (2)).[34]

We conclude this part by illustrating the importance of the capital gains channel for the end of racial wealth convergence after 1980. We plug the estimated values of savings rates and capital gains rates into our wealth accumulation model. For income growth rates, we use the observed income growth rates of Black and white Americans as estimated in the SCF+ and plug these into the model as well. Figure V presents our simulation, which demonstrates how differences in these key parameters influence the dynamics of the racial wealth gap. We present three scenarios: one where the racial wealth gap evolves with equal wealth-accumulating conditions, one where there are differences in savings rates and capital gains rates (which we estimate from the data), and a third where there are only differences in savings rates. In all three scenarios, we use the estimated post-1980 income growth rates of Black and white Americans.

In contrast to the scenario with equal wealth-accumulating conditions (light dashed line), the data show no convergence over this period. If we only accounted for the estimated racial differences in saving rates, without accounting for differences in capital gains rates, the wealth gap would still be on a path to convergence (solid line). However, if we take into account both lower savings rates and lower capital gains rates for Black Americans after 1980, our simulation reproduces the recent divergence in the wealth gap that we observe in the data (dark dashed line). In the next section, we discuss the drivers of this recent divergence in greater detail.

34. Note that during the housing boom from 2001 to 2007, Black Americans earned higher capital gains on their wealth portfolios as discussed by Wolff (2022). The major reason for this phenomenon is that Black households were highly leveraged on their housing assets, which increased their rate of return relative to whites. In Online Appendix Table J.3 we estimate capital gains on Black and white wealth portfolios for different subperiods and show that there have been indeed periods of higher capital gains for Blacks. However, in the aftermath of the global financial crisis and the reversal of the house price boom, Black Americans disproportionately experienced particularly high capital losses and foreclosures. Finally, our approach assumes homogeneous returns on assets across the racial groups, therefore likely providing a lower bound for the white-to-Black differences in capital gains rates as there is evidence that shows how Black Americans earned lower capital gains than white households (Kermani and Wong 2021; Kroeger and Wright 2021; Avenancio-León and Howard 2022; Boerma and Karabarbounis 2023).
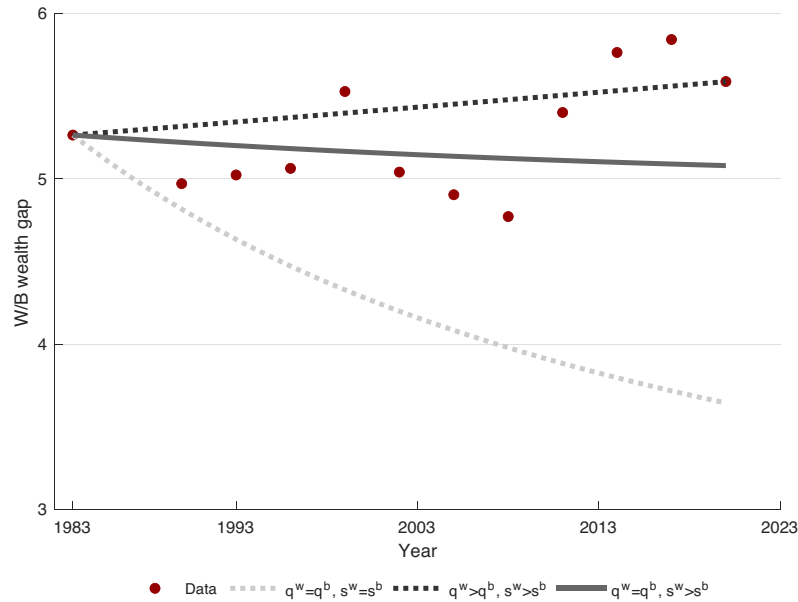
FIGURE V

Wealth Gap Convergence Since 1980

The simulated white-to-Black per capita wealth gap from the 1980s to the present under three different scenarios. The light dashed line presents the convergence path under equal wealth-accumulating conditions (q and s). The solid line shows how the wealth gap would evolve under equal capital gains across Black and white households ($q^w = q^b$), but where white Americans have higher saving rates than Black Americans ($s^w > s^b$). Finally, the dark dashed line is our simulation using estimated values of q and s for Black and white households. Data sources: SCF+ and authors' simulations.

IV.D. *Divergence Post-1980: the Importance of Portfolio Composition*

Starting in the 1980s, booming asset markets and rising wealth-to-income ratios have given greater prominence to capital gains over savings flows in the dynamics of the wealth distribution (Piketty 2013; Piketty and Zucman 2014; Saez and Zucman 2016; Kuhn, Schularick, and Steins 2020). Under these conditions, the portfolio composition of households plays an ever-increasing role in wealth accumulation. In this section, we show that racial differences in portfolio composition combined with asset price dynamics largely account for the post-1980 evolution

TABLE II

PORTFOLIO COMPOSITION, 1983–2019

	Average value ($)		Total assets share (%)		Debt-to-value ratio (%)	
	Black	White	Black	White	Black	White
Assets						
Housing	88,816	273,760	58	39		
Stocks	15,408	133,544	9	18		
Business	12,477	140,175	8	19		
Fixed income	24,414	138,493	16	20		
Other nonfin. assets	12,492	29,032	9	4		
Liabilities						
Total debt	43,734	84,116			28	12
Housing debt	31,371	67,302			34	24
Educational debt	4,728	3,637				

Notes. Average portfolio shares of Black and white households over 1983–2019. The first two columns present the average value of assets and liabilities (in $2019); the next two columns present the share each asset class makes up of households' total asset value (summing to 100%); and the final two columns present debt-to-value ratios, for Black and white households separately. The debt-to-value ratio for total debt represents the ratio of total debt to total assets while the debt-to-value ratio for housing debt represents the ratio of housing debt to total housing assets. Data source: SCF+.

of the wealth gap. We then discuss some of the likely drivers of these differences.

In Table II, we present the average portfolio composition of Black and white households from 1983 to 2019 using SCF+ data. Not only do white households hold far more assets on average, the composition of wealth differs starkly across the two groups. Housing and other nonfinancial assets make up almost 70% of the total assets of Black households whereas business wealth amounts to 8% and equity (both direct and indirect holdings in the form of mutual funds and defined contribution pensions) make up just 9%. For white households, housing and other nonfinancial assets make up a much smaller share of their total assets—43%—while business and stock equity account for 19% and 18%, respectively. Hence, over this full time period, portfolios for white households have been more diversified than those of Black households.

The bottom panel of Table II explores the distribution of liabilities across asset classes and racial groups.[35] Strikingly, despite having less than one fifth of the assets of white households, Black household debt is about half the debt of the average

35. For a detailed analysis of the debt composition of U.S. households overall, see Bartscher et al. (2020).

white household. This implies that Black households are substantially more leveraged. Debt makes up 28% of total asset values for Black Americans, but just 12% of asset values for white households. Examining housing debt specifically, we see that Black households have higher housing debt than white households, namely, 34% of housing value versus 24%. Higher levels of leverage in housing imply that Black households' wealth is more exposed to changes in house prices. A given change in housing prices leads to larger fluctuations in home equity for Black compared to white households (Kermani and Wong 2021; Wolff 2022). In the final row of Table II, we show differences in educational debt. Compared to housing debt, educational debt makes up a much smaller portion of overall debt, yet racial differences in educational debt holding are striking. For Black households, about 10% of total household debt is education debt, while for white households, education debt makes up less than 5% of total debt. Furthermore, the average Black household holds more education debt than the average white—the white-to-Black education debt ratio is 0.77:1.[36]

Such pronounced portfolio differences between Black and white households mean that asset price changes will affect the dynamics of the racial wealth gap. If housing prices boom (holding everything constant), Black households will benefit more due to their higher exposure to this asset class, and the racial wealth gap will decrease. By contrast, a booming stock market will increase the racial wealth gap as Black households benefit substantially less from rising stock prices and the associated capital gains.[37] We illustrate these dynamics by simulating what the racial gap would have been had there been capital gains only in the stock market versus only in the housing market.

We start our counterfactual simulation in 1983, the first post-1980 year available in SCF+. For simplicity, we fix initial wealth portfolios and levels in this year and consider the effect of solely changing asset prices, ignoring the contribution of savings and portfolio adjustments to the racial wealth gap over time. The first counterfactual, W_t^{equity}, shows the evolution of wealth if there had been only capital gains in equity markets. The

36. These stark differences in education debt holding likely have implications for debates on student loan forgiveness and the racial incidence of college debt—an important area for further research.

37. Relatedly, Bartscher et al. (2022) show how different responses of asset prices following monetary policy shocks affect racial differences in total capital gains.

second counterfactual, $W_t^{housing}$, considers the scenario where only housing market capital gains occurred. We also construct W_t^{cg}, which allows for capital gains in both markets. We construct counterfactual wealth series for each racial group as follows:[38]

$$W_t^{equity} = W_{1983} + \sum_{t=1984}^{2019} q_{t,t-1}^{equity} \cdot A_{t-1}^{equity}$$

$$W_t^{housing} = W_{1983} + \sum_{t=1984}^{2019} q_{t,t-1}^{housing} \cdot A_{t-1}^{housing}$$

$$(5) \quad W_t^{cg} = W_{1983} + \sum_{t=1984}^{2019} q_{t,t-1}^{equity} \cdot A_{t-1}^{equity} + \sum_{t=1984}^{2019} q_{t,t-1}^{housing} \cdot A_{t-1}^{housing},$$

where W_{1983} is mean wealth of the respective group in 1983, and A^{equity} and $A^{housing}$ are the mean values of equity and housing. Because we concentrate on just the contribution of capital gains to wealth accumulation, $A_t^{asset} = A_{1983}^{asset} \prod_{t=1984}^{t=2019}(1 + q_{t,t-1}^{asset})$ for each asset $\in \{equity, housing\}$. Therefore, our counterfactual simulation illustrates how the racial wealth gap would have evolved if Black and white households had only accumulated capital gains on their 1983 wealth portfolios. Finally, we define the capital gains rate in equity and housing markets as $q_{t,t-1}^{equity} = \frac{P_t^{equity}}{P_{t-1}^{equity}} - 1$ and $q_{t,t-1}^{housing} = \frac{P_t^{housing}}{P_{t-1}^{housing}} - 1$, respectively, where P represents the average real price of each asset type. Note that both asset prices are deflated with the CPI with 2019 as the base year. Based on these equations, we construct W_t^{equity}, $W_t^{housing}$, and W_t^{cg} separately for Black and white households and simulate the white-to-Black wealth gap under each scenario.

Figure VI presents the results for 1983 to 2019. These simulations highlight the contributions of asset price changes in stock versus housing markets to the evolution of the racial wealth gap. Figure VI, Panel A shows the scenario with just stock market gains (W_t^{equity}). We find that capital gains in the stock market contributed to a substantial widening in the racial wealth gap after 1980. Fixing portfolios to their 1983 composition and only allowing capital gains in the stock market to influence the wealth gap, the white-to-Black wealth gap would have increased by 40% between 1983 and 2019 to a level of 8. This exceeds the

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38. We apply the same equation to both groups therefore we suppress the subscripts for racial group at this time.
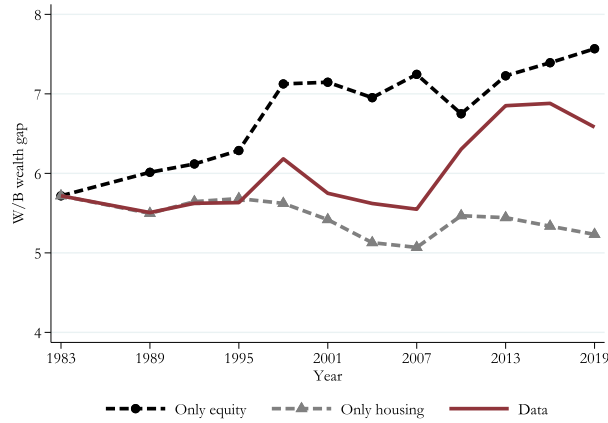
(A) **Capital gains from equity and housing separately**
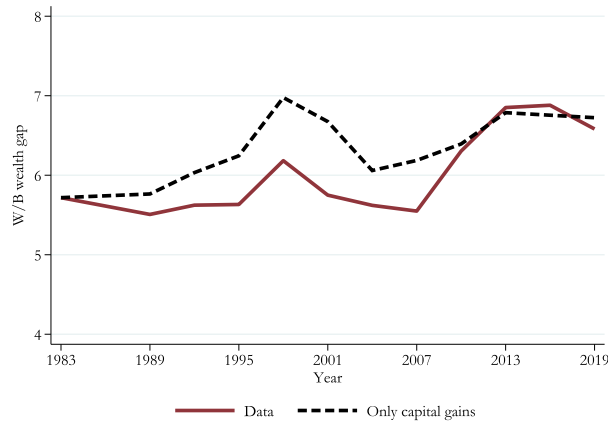
(B) **Total capital gains from equity and housing**

FIGURE VI

Contribution of Capital Gains to the Racial Wealth Gap

Panel A presents counterfactual and observed white-to-Black per capita wealth gaps. The dashed line with dots shows the per capita wealth gap if there had been only capital gains in equity markets. The dashed line with triangles presents the per capita wealth gap if there had been only capital gains in the housing market. The solid line is the observed per capita white-to-Black wealth gap. In Panel B, the dashed line shows the counterfactual with both housing and equity capital gains, and the solid line once again shows the observed wealth gap. Data sources: SCF+ and authors' simulations.

observed wealth gap by about 20%. By contrast, if there had only been capital gains in the housing market, then the racial wealth gap would have continued to converge. Under this scenario, the wealth gap would be 5.2 today, compared to the observed gap of 6.6, a decrease of 21%. Figure VI, Panel B combines the two counterfactual developments and looks at the total effect of housing and stock price developments on the racial wealth gap. We make two observations. First, the counterfactual evolution of the wealth gap under this scenario closely matches the dynamics in the observed wealth gap between 1983 and 2019. The counterfactual series shows a stronger increase for 1990 and 2010, a period of turbulent movements in asset markets with booms and busts, but tracks the observed wealth gap almost exactly in the period between 2010 and 2019. Overall, our simulation of the wealth gap under housing and stock capital gains increases alone suggests that white households benefited more on net from secular asset price increases since 1980 and that this is due to their greater exposure to equity markets.

Our results emphasize the important role of racial differences in portfolio composition and capital gains on the evolution of the racial wealth gap over recent decades, thus leading to the question of what drives these portfolio differences between the average Black and white American. A detailed answer to this question is beyond the scope of this article and is an important avenue for future research. Nevertheless, we believe a promising starting point for such research is the empirically documented relationship between wealth levels and portfolio composition (Kuhn, Schularick, and Steins 2020). One reason a deeper investigation is beyond the scope of this work is that even the leading microfounded models of historical wealth dynamics with portfolio differences take the relationship of wealth and portfolio composition as exogenous (Hubmer, Krusell, and Smith 2021).

Table III provides motivating evidence that wealth levels may matter for portfolio differences between racial groups. The table shows the portfolio composition of Black and white households after excluding the wealthiest 10% of Americans.[39] Once we exclude all households from the top of the wealth distribution, the portfolio composition of Black households barely changes, while the portfolio composition of white households becomes closer

39. See Online Appendix K for a more detailed analysis on the racial wealth gap along the distribution.

TABLE III

PORTFOLIO COMPOSITION WITHOUT THE WEALTHIEST 10% OF AMERICANS, 1983–2019

	Without top 10% (%)		All (%)	
	Black	White	Black	White
Housing	62	58	58	39
Stocks	10	11	9	18
Business	3	4	8	19
Fixed income	17	19	16	20
Other nonfin. assets	8	8	9	4

Notes. Average portfolio shares of Black and white households over 1983–2019. The first and second columns present the portfolio shares of Black and white households after excluding the top 10% wealthiest Americans. The next two columns present the shares of all households by race. Data source: SCF+.

to that of Black households. The reason for this is because the wealthiest Americans are disproportionately white, whereas only 2% of the total Black population belongs to the wealthiest 10%. This finding directly relates our results on the historical roots of racial wealth differences to portfolio differences between Black and white Americans today. Dramatically lower initial wealth for Black Americans under slavery, followed by persistent institutional discrimination in the twentieth century, has resulted in an underrepresentation of Black Americans and overrepresentation of white Americans at the top. Because these top households are more likely to invest in high-return-yielding assets, such as stocks, rising relative capital gains in equity have widened the average racial wealth gap.

In addition to proximate drivers such as wealth differences, a large existing literature has established several other important drivers of portfolio differences (see Gomes, Haliassos, and Ramadorai 2021 for a recent survey). These include socioeconomic characteristics that partially account for Black-white differences in portfolio composition. For instance, Black Americans have on average lower income and educational attainment compared to white Americans, and both characteristics are associated with lower investment in high-return-yielding assets (Blau and Graham 1990; Dynan, Skinner, and Zeldes 2004; Van Rooij, Lusardi, and Alessie 2011; Bucher-Koenen and Ziegelmeyer 2014; Cole, Paulson, and Shastry 2014). Black Americans are also exposed to greater risk over the life cycle, which may lower their optimal investment in risky assets such as stocks. For exam-

ple, Black Americans have a higher risk of becoming unemployed (Altonji and Doraszelski 2005; Bayer and Charles 2018; Derenoncourt et al. 2023b) and are also less likely to receive unemployment insurance than white Americans (Skandalis, Marinescu, and Massenkoff 2023). They also have lower life expectancy than white Americans and face higher divorce probabilities (Costa 2015; Alsan and Wanamaker 2018; Boen, Keister, and Aronson 2020; Chiteji and Hamilton 2002; Keister 2004).

Some recent research also focuses on racial differences in portfolio choices and provides evidence that historical discrimination and expropriation help explain lower levels of equity investment among Black Americans. The failure of the Freedman's Saving Bank led to huge losses of Black Americans' wealth shortly after Emancipation, potentially leading to distrust in financial markets (Baradaran 2017; Célérier and Tak 2022; Traweek and Wardlaw 2023).[40] Such negative experiences can have long-lasting consequences on portfolio choices, for which Malmendier and Nagel (2011) provide evidence across all US households. We leave exploring the quantitative importance of the different drivers of historical and modern Black and white portfolio choices to further research.

IV.E. *The Future of the Racial Wealth Gap*

The long-run picture of the racial wealth gap brings to light how stark differences in initial conditions for Black and white Americans in the aftermath of slavery affected the path of wealth inequality until today. Furthermore, the growing and racially disparate role played by capital gains in wealth accumulation potentially paints a sobering picture for the future of the wealth gap. Wealth concentration increased dramatically during the COVID-19 pandemic, reaching its highest level since World War II. The top 0.01% of households now own 36.1% of private wealth (Blanchet, Saez, and Zucman 2022). The foregoing analysis suggests that this has implications for the racial wealth gap. In an environment of high wealth-to-income ratios, the importance of savings-induced wealth convergence decreases and the importance of capital gain differences increases. Moreover, as there

40. Using data from the Michigan Survey of Consumers, Boerma and Karabarbounis (2023) document that Black households are today more pessimistic than white households with regard to risky returns and argue that such differences affect their portfolio choices, in their case, for business equity.

are only very few Black households among the top 1%, continued growth in wealth at the top will bring about further increases in racial wealth inequality.

A large class of commonly discussed policies for reducing racial wealth inequality seeks to reduce gaps in income, savings, and capital gains. These include policies that encourage financial diversification or stock equity holdings among Black households; policies aimed at financial literacy and retirement or savings behavior; or policies aimed at improving educational and labor market outcomes of Black Americans through improved school quality or reductions in discrimination. Yet on a realistic note, our simulation in Section IV.A shows that even if wealth accumulation conditions had been equal since 1870, the wealth gap would still be 3 to 1 today, and full convergence would be more than 200 years away. Put differently: to close the racial wealth gap in the immediate term via flow parameters, Black Americans would need a substantial positive lead over whites, not "just" more equality. To illustrate the magnitudes: to close the wealth gap by 2050, for example, Blacks would need more than double the capital gains rates of white Americans (7.5% compared to 2%), a savings rate of 37% (as opposed to a 4% savings rate for whites), or annual real income growth of nearly 15% (as opposed to 1.5% for whites).[41]

In contrast to flow-based policies, proponents of reparations argue for direct payments to Black Americans in recognition of the harms inflicted by slavery and post-slavery institutions. For instance, citing the wealth gap itself as a summary statistic of past harm, Darity and Mullen (2020) proposes a reparations payment of $267,000 per person for each American descendant of the enslaved, or an amount that would eliminate the average wealth gap between this group and white Americans. Such a transfer, applied to eligible Black Americans in the form of a helicopter drop, would reduce the overall white-to-Black wealth gap to 1.4.[42]

41. If racial differences in q, s, and g would remain at their post-1980 levels, then the racial wealth gap will diverge from 5.6 to a level of 5.8 in 2050.

42. Per capita wealth equalization could also be achieved through taxes and transfers. In this case, payments of $166,460 to every Black American financed via a 9% tax on white wealth, would equalize white and Black per capita wealth (total payment amount is around $7.13 trillion). A 44% tax on the wealth of the top 0.1% of the wealth distribution (or 27% tax on the top 0.5% wealthiest Americans) would generate the same required revenue.

Nevertheless, the evidence on the effects of large wealth shocks in the past offers a cautionary tale. The elimination of slave wealth had only a temporary effect on the wealthiest slaveholding families of the South. Through various mechanisms such as social networks and marriage, these families reconsolidated their position as economic elites one generation after the Civil War (Ager, Boustan, and Eriksson 2021). The Chinese Communist and Cultural Revolutions greatly reduced wealth and income inequality in the mid- to late twentieth century; however, scholars have found that the prerevolution elite have once again emerged on top (Alesina et al. 2020). Finally, scholars studying the effects of large wealth transfers have also often found the effects to be transient (Bleakley and Ferrie 2016). This evidence may speak to the evolution of wealth inequality when shocks to the original distribution of wealth do not fundamentally alter the accumulation process.[43]

By contrast, wealth shocks that influence gaps in wealth-accumulating conditions may lead to more persistent change. Miller (2020), which studies the effect of land and capital redistribution to the formerly enslaved in the Cherokee Nation, provides a useful case study.[44] Racial wealth gaps fell in the Nation relative to the rest of the South, and educational outcomes of the next generation also improved. Black farmers in the Cherokee Nation were more likely to plant fruit trees, a more lucrative crop choice than staples like corn that has have a longer gestational period. This difference in investment choices is suggestive of their greater sense of secure property rights compared with farmers outside the Nation. The question that emerges from this body of evidence is whether reparations policy today would also influence white-Black gaps in savings rates, capital gains, and income, thus potentially reducing racial wealth inequality over a much longer time horizon.

V. Conclusion

Our prior understanding of racial wealth differences has relied on limited snapshots, focused either on particular

43. According to our model, in the absence of changes in savings and capital gains gaps, such transfers would have just a transient effect on the wealth gap.

44. Under an 1866 treaty with the U.S. government, the formerly enslaved in the Cherokee Nation had the right to claim land and were furnished with initial starting capital for their farms (Miller 2020).

geographies in the historical period or on recent decades, when the gap has barely changed. To address the lack of a comprehensive account of white-Black wealth inequality in the United States, we assembled a new historical series of white-to-Black per capita wealth ratios from 1860 to 2020. To do this, we drew on numerous data sources, including complete-count historical censuses, state tax data, and 70 years of SCF data. Our new long-run series exhibits a "hockey stick" shape of racial wealth convergence. After a period of initial rapid convergence during the first 50 years after the abolition of slavery, racial wealth convergence slowed substantially and even reversed after 1980. The wealth gap in 2020 is effectively as large as it was in 1950.

We show that the path of wealth convergence can be explained by a simple wealth accumulation model that accounts for the initial wealth and income levels of Black and white Americans and the observed income convergence between the two groups. With very low levels of Black wealth at the time of Emancipation, even modest accumulation implied a high growth rate for Black wealth that greatly exceeds that of white wealth, thus generating rapid convergence initially. However, as the racial wealth gap decreases, convergence slows and differences in returns on wealth begin to matter more for the shape of convergence. Even under equal conditions, full wealth convergence remains a distant or even unattainable scenario if post-1980 trends continue. This is because in the past decades, capital gains on existing assets have become an important driver of racial wealth inequality. Portfolio differences between Black and white Americans are key for understanding this new development. White households have a significant share of their wealth in equity and benefited from booming stock prices. For Black households, housing continues to be the most important asset, so they have been largely bypassed by the boom in equity prices.

Finally, our research underscores the challenges faced by policies aimed at equalizing wealth accumulation parameters, such as savings rates and capital gains rates. Closing the gap generated by Black Americans' exclusion from wealth building with flow parameters alone does not promise to change the wealth gap over the time horizon of a generation or two. Reparations payments would equalize stocks of Black and white per capita wealth and undo the gap in initial wealth. However, if such a wealth transfer leaves the existing wealth accumulation parameters on the flow side intact, the wealth gap could also widen

again. An important area for future research is an investigation into specific combinations of stock- and flow-based policies that hold promise to foster greater racial wealth equality in the future.

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SUPPLEMENTARY MATERIAL

An Online Appendix for this article can be found at *The Quarterly Journal of Economics* online.

DATA AVAILABILITY

The data underlying this article are available in the Harvard Dataverse, https://doi.org/10.7910/DVN/H6NXUH. (Derenoncourt et al. 2023a).

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