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WEALTH OF TWO NATIONS: THE U.S. RACIAL WEALTH GAP, 1860-2020

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ABSTRACT

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 paper, 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 last 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 income convergence has stopped.

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"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.

1 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." One hundred years after this sanguine assessment, however, 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. What's more, the racial wealth gap has shown remarkable stability over the last 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 U.S. over the past 160 years. Our large-scale 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 digitizing 50 years of data on Black wealth, from the 1860s to the 1910s, from southern state tax reports and combining this with information from the complete-count digitized censuses of 1860 and 1870. We extend this time series through the mid-20th century using historical estimates of total Black and national wealth, verified using the census of agriculture and population and household survey data from the 1930s. 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 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.

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

²Authors' calculations using the Survey of Consumer Finances.

³The data and our full replication archive can be accessed at www.elloraderenoncourt.com/us-inequality-data. Note, 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.

70 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 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.

Compared to this equal-conditions benchmark, wealth convergence has progressed more slowly between 1870 and the present. We use our model to quantify the racial gaps in savings rates and capital gains consistent with the observed speed of convergence. Slower savings-induced wealth accumulation by Black Americans can explain the convergence dynamics over most of the past 150 years. More recently, however, racial differences in capital gains have played the more dominant 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. 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 widening of the racial gap in capital gains as well as a complete stalling of income convergence. These forces have caused the wealth gap to leave the convergence path altogether and to start increasing again.

We shed light on mechanisms behind the recent re-divergence 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 U.S.

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 to 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, rising capital gains and high wealth-to-income ratios 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, 2021). Others discuss the role of financial regulation, assistance to families with children, and reparations for slavery in mitigating racial wealth inequality (Palladino, 2022; Nam, Famighetti, and Hamilton, 2021; Darity Jr. and Mullen, 2020; Zewde, 2020). 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.

Previous literature: Our paper contributes to two strands of the existing literature on the racial wealth gap in the U.S. 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 2. A much

⁴Boerma and Karabarbounis (2021) 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 home sales, such as foreclosures, which particular forms of loan modification and mortgage restructuring could mitigate.

larger literature focuses on the modern racial wealth gap from the 1980s onwards.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 within a country. Several studies have documented patterns in overall wealth inequality in various countries from the 18th to 21st centuries (Piketty, 2013; Piketty and Zucman, 2014; Saez and Zucman, 2016; Kuhn, Schularick, and Steins, 2020; Assouad, 2021; Garbinti, Goupille-Lebret, and Piketty, 2021; Smith et al., 2019; Saez and Zucman, 2020; Alvaredo, Atkinson, and Morelli, 2018; Artola Blanco, Bauluz, and Martinez-Toledano, 2021; Waldenström, 2017; Waldenström, 2016; Bartels and Morelli, 2021; Madsen, 2019). We adapt the accounting framework of wealth accumulation prevalent in this literature to racial groups in the U.S. 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 post-colonial societies where certain groups faced severe limitations on their ability to accumulate wealth, thus shaping wealth trajectories for centuries to come.

The rest of our paper is structured as follows. We provide historical background on the racial wealth gap in Section 2. Section 3 then describes the construction of our long-run series on per capita white-to-Black wealth ratios and presents the final series. In Section 4, 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 5 discusses the policy implications of our findings, and Section 6 concludes. An appendix with details on data construction, additional results, and extensive sensitivity analyses follows.

2 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 themselves, 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 (Schweninger, 1989; 1990; Walker 1983; Berlin 1975). The Civil War

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

induced a shift in the composition of southern Black wealth holders away from planters and towards an emergent class of emancipated farmers, skilled artisans, and small business owners (Gatewood, 1988; Du Bois, 1899, 1901).

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. 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). Drawing on taxation reports from Georgia, the state with the largest Black population at the time, Du Bois (1901) notes that, nevertheless, 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 to white 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 impact 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 War. 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 20th century tend to come from studies of housing or real estate wealth, given the lack of data on other property during this time period. Akbar et al. (2019) document how neighborhood racial transition in ten 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-20th century. Collins and Margo (2011) trace the evolution of the national racial homeownership gap from 1870 to 2007.

⁶Margo (1984) argues that part of this growth may be due to discriminatory over-assessment of Black-owned property for tax purposes – a pattern that has been documented in tax assessment today (Avenancio-León and Howard, 2019).

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

However, this measure of housing inequality does not incorporate the self-reported value of homes, available starting in 1930.⁸ Francis et al. (forthcoming) 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-20th 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 dataset of household level wealth and income information for the U.S. 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 also provide a brief analysis of the racial wealth gap confirming stability and persistence in this gap over the postwar period.

This body of prior work provides important insights on 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 whole, from the pre-Civil-War era 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 in this paper is a highly regular trajectory of wealth convergence that can be rationalized by a standard wealth accumulation model. In the next section, we describe the construction of our series in detail and present our resulting estimates.

3 The long-run racial wealth gap series: construction and results

Our long-run series of white-to-Black per capita wealth ratios draws on numerous sources. For the period from 1860 to 1922, we use a combination of complete-count digitized census data, state tax data, and national reports. For the period after 1922 until 1950, we rely on estimates for aggregate Black wealth from Monroe Nathan Work's *The Negro Year Book*, in combination with estimates of national wealth for these years. For 1950 onwards, we rely on historical and modern waves of the SCF (SCF+). A full description of these data sources is in Appendix A. Below we describe how we construct wealth gap estimates for the different time periods and compile the final data series.

For 1860, we calculate wealth as the sum of real and personal property values reported by household heads in the census.¹⁰ To compute per capita wealth for the Black population, we

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

⁹We refer to the racial gap as the white-to-Black gap as a shorthand. As noted in footnote ³, our measure is the broadly equivalent non-Black-to-Black per capita ratio—see Section 3.2 for a comparison of the two.

¹⁰The 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 as this census was taken after abolition of slavery, they no longer referenced slave wealth.

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 also 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 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. 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 significance of this bottom-censoring for our estimates by imputing average personal property below the \$100 threshold for 1870 (see Appendix B.2 for details). The effects of the imputation are very minor as we estimate that most households below the threshold for personal property indeed had no wealth at all. To address top-coding, we apply the same approach we use for 1860. To calculate white wealth, we turn to the census report "Wealth, Public Debt, and Taxation" (hereafter "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. 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.

Between 1870 and 1950, microdata on wealth are not readily available. For the period from 1870 to 1922, we extrapolate Black wealth using information from state auditor reports. We digitize assessed wealth and tax payments data by race from Arkansas, Georgia, Kentucky, Louisiana, North Carolina, and Virginia reports. These are the only states we are aware of that tabulated this information for their Black and white populations separately. Appendix A.1 provides more details on these reports and our digitization. A key assumption in using these data to estimate the growth rate of Black wealth is that the trajectory of Black wealth in these states is a reasonable proxy for the trajectory of Black wealth in the nation as a whole. Southern states were home to the vast majority of the U.S. Black population until the early 20th century and as of 1900, 41% of the Black population lived in the six states in question. Importantly, this set of states includes both the Lower and Upper South, which differed in their economic structure and demographics in both the

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

¹²We 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 census instead, the resulting racial gap is only slightly lower than when using the wealth report.

¹³Reports from these states were used in Du Bois (1901), Higgs (1982), and Margo (1984), discussed in Section 2. We also digitize tabulations from Georgia comptroller reports from Du Bois (1901).

antebellum and postbellum period.¹⁴ Nevertheless, in Section 3.2, we discuss alternative estimates of the growth rate and check for systematic regional differences in Black wealth accumulation during this period.

We estimate the growth rate of aggregate Black wealth in these states by regressing log wealth on a time trend and state fixed effects. Our estimated coefficient on the time trend, 0.054, serves as our estimate of the average growth rate for Black wealth after 1870. Appendix B.3 provides additional details including our regression equation and a comparison of raw and predicted wealth in Appendix Figure B.1. We find that after 1870, the prediction and raw data align closely. We calculate aggregate Black wealth from the 1870 census and extrapolate forward to 1922 using our estimated wealth growth rate. We stop in 1922 because it is the last year for which we have estimates of national wealth from the wealth report. We construct non-Black wealth as before, as the difference between national wealth and the wealth of the Black population. We construct per capita wealth for the Black and non-Black populations by dividing each group's total wealth by their estimated population from census (linearly interpolated for the intercensal years). Using these estimates for per capita wealth, we calculate the racial wealth gap as before.

For the years between 1922 and 1940, we take estimates of aggregate Black wealth in the U.S. 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 three years within this window: 1926, 1930, and 1936. We combine Work's estimates with national wealth estimates from Saez and Zucman (2016) 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. In describing Black wealth accumulation during this period, Work appears to draw on state auditor reports, which record assessed property values. As ratios of assessed to market values of wealth for this time period are less than one and sometimes as low as 50%, we adjust the wealth gap constructed from these estimates downwards by an adjustment factor derived from average wealth ratios on either end of the 1926-1936 window (see Appendix B.4 for details). In Section 3.2, we check our adjusted estimate against alternative estimates of the wealth gap derived from a variety of different data sources.

For the period starting in 1950, we rely on data from the SCF+. 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 for wealth of the Black and non-Black population, we construct the racial wealth gap from 1950 to the present.

¹⁴The Lower South was more agricultural and contained the cotton belt while the Upper South was more urbanized and had a more diversified economy (see Du Bois (1901) and Schweninger (1990)).

¹⁵We present the full series alongside the unadjusted 1926, 1930, and 1936 estimates in Appendix Figure B.3. The diamonds show the unadjusted wealth gap based on the original data from Work. Absent this adjustment, we would have a larger wealth gap estimate for these years.

3.1 Racial wealth gap estimates from 1860-2020

Figure 1 presents our final time series of the white-to-Black per capita wealth gap starting 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 afterwards. In 1860, before Emancipation, the 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 abolition of slavery in the U.S. eliminated what wealth slaveholders held in enslaved individuals. It also 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 to the elimination of slave wealth versus wealth accumulation by the newly emancipated? 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. 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 25% of the total drop of 34 (from 56 to 22). In other words, slave wealth cannot account for the entire reduction in the wealth gap from 1860 to 1870. Instead, it is the higher relative growth rate of Black wealth that drives convergence. 17

Greater relative growth in Black wealth continues in the late 19th and early 20th century, but at a slower pace. In the 50 years after 1870, the gap fell by 50% again, to 10 to 1 in 1920. This continued convergence occurred in a period that saw initial enforcement of the Black Americans' rights during Reconstruction give way to a retrenchment of the racial order by the end of the 19th 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 KKK. Yet even as the Jim Crow regime reached a crescendo, the racial wealth gap continued to fall, declining a further by 10% to 9 to 1 by 1930. ¹⁸

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

 $^{^{16}\}mathrm{Data}$ on slave wealth are available at: https://hsus.cambridge.org/HSUSWeb/toc/showTable.do?id=Bb209-218.

¹⁷According to census, Black per capita wealth tripled between 1860 and 1870, from approximately \$13 per person to \$39 per person, while white wealth increased by 18%. Thus, Black wealth grew 2.5 times faster than white wealth over this decade.

¹⁸For a history of the Reconstruction and post-Reconstruction periods, see, e.g., Du Bois (1935), Woodward (1957), Kousser (1974), and Foner (1988).

the 1970s saw dramatic 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 impact on racial wealth convergence from a long-run point of view. Indeed, the last 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.

3.2 Robustness of long-run wealth gap series

The extremely regular shape of convergence that emerges from the data begs the question of what could be the drivers of racial wealth differences in the post-Emancipation era. 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 last 150 years. We also demonstrate the robustness of our findings to different estimation approaches, wherever applicable.

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 U.S. 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 from 1950-2020 (see Appendix Figure C.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.

Gross wealth vs. 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 construct measures of net wealth. Historically, access to credit was highly restricted. We estimate that debt made up 33% of GDP while the debt-to-GDP ratio today exceeds 100%. In the early 20th century, Black homeowners were less likely to have mortgages than white, 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 Appendix Figure C.3). Second, we present an alternative series that focuses only on assets and ignores debt in the post-1950 period as well (see Appendix Figure C.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. We discuss the distribution of debt holding in greater detail in Section 4.3.

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 Appendix Figure C.5). From 1880 to 1950, average household size for the two 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 to white households.

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

Robustness of estimated growth rate for historical Black wealth, 1870-1922 We provide several checks on our estimate of the Black wealth growth rate from 1870 to 1922, the full details of which are provided in Appendix Section C.1. First, we assess the representativeness of the six southern states directly by comparing real property wealth growth rates for the Black population in those states versus in the nation as a whole, using census data. The 1870 Census contains measures of real wealth. In 1930, the census collected information on home values of owner-occupied homes. We use this as our proxy for real wealth in the early 20th century. Appendix Figure C.8 shows that the average growth rate across the southern states with tax records is very similar to the national growth rate.

Next, 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

¹⁹Information 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.

congregations buying buildings or plots of land and fundraising within the community for building improvements and other purchases, the value of the church's property reflected the prosperity of the local community. Additionally, 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 0.055, very close to the growth rates we estimate using the tax data. Details, including additional historical background and our estimation approach, are provided in Appendix Section C.1.2.

Finally, we also use the upper and lower bounds of our estimated growth rate from the state tax data to compute lower and upper bounds of Black wealth in this period. This produces lower and upper bounds for our wealth gap for the period 1870 to 1922, which we show in Appendix Figure D.1 in Appendix D.

Alternative wealth gap estimates from census for the interwar period 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 *The 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. Appendix Figure D.1 depicts our benchmark series alongside an alternative wealth gap estimate based on these data. 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 9 if including farm and housing wealth while our benchmark estimate is a gap of 9.2.

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.²⁰ Using this approach, we estimate a wealth gap of 9.1. The similarity between this estimate of the wealth gap, which uses an entirely different data source and approach, to our baseline estimate of 8.9, gives us confidence in our measure of the racial wealth gap in these interwar years. Appendix E provides a detailed description of the data and our methodology.

Alternative measures of the racial wealth inequality We provide alternative measures of racial wealth inequality over the historical period in a series of appendices. In Appendix F, 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 Appendix Figure F.1. This view of the wealth gap provides a more detailed view of early

²⁰Here, we only include the value of homeowners' dwelling as our capitalization of rental income captures other sources of housing wealth.

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 Appendix Figures F.2 and F.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%.

In Appendix G, 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 Appendix Figures G.1 and G.2).

Our primary focus is the per capita or mean wealth gap as we can consistently measure this over the full historical period.²¹ However, the SCF+ microdata allow us to dissect the evolution of racial disparities along the household wealth distribution, at least after 1950. In Appendix J, 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 Appendix Figure J.1). While the wealth gap at the 90th 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 10:1, equivalent to the typical Black household holding just 10 cents for every dollar the typical white household holds.

Finally, 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 Appendix Figure J.2).

4 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 of convergence over the long run. Rapid convergence in the post-slavery and Jim Crow era gave way to much slower convergence 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

²¹In years where we lack microdata, we are still able estimate or collect data on total wealth for each racial group and divide by their respective populations.

to rationalize the shape of convergence from Emancipation onwards, 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 1).

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 the below equation:

$$W_{t+1}^j = (1+q^j) \left[W_t^j + s^j Y_t^j \right], \text{ with } Y_t^j = (1+g^j) Y_{t-1}^j, \tag{1}$$

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 capital income of group j at time t, which grows at rate g^j .²² We make the simplifying assumption of fixing 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):

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

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

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

Equation (3) shows how two distinct components influence the evolution of the racial wealth gap: (i) racial differences in capital gains and (ii) differences in savings-induced wealth accumulation. Differences in capital gains between Black and white Americans have a one-to-one impact on the growth rate of the racial wealth gap. Hence, even if savings-induced wealth accumulation of Black and white Americans were equal, any difference in capital gains in favor of white individuals would set the racial wealth gap on a diverging path. Compared to this, the effect of saving rate 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.

²²Note that income is total income, including labor and capital income.

4.1 Wealth convergence under equal q and s: the role 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 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:

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

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.²³ 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 above, when simulating the long-run wealth gap, we allow for heterogeneous income growth across the 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% vs. 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. ²⁴ We trace out the evolution of the white-to-Black per capita wealth ratio using equation (1) and plugging in the income growth rates, capital gains and savings parameters, and starting conditions listed above.

The solid black line in Figure 2 presents the evolution of the simulated wealth gap with equal wealth accumulation conditions across Black and white individuals. As a comparison, we also plot 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 20th century, after which convergence slows down considerably. This shape is consistent with Black individuals starting from very low initial

²³Spriggs (1984) documents a similar pattern when analyzing the racial wealth gap and Black wealth accumulation in post-Emancipation Virginia.

²⁴The construction of the 1870 wealth ratio estimate is described in detail in Section 3. The income ratio is calculated using data from Margo (2016). Based on per capita income data from Margo (2016) and our wealth estimate for 1870, the wealth-to-income ratio for white Americans in this year is 6.1:1.

levels of wealth compared to their income and experiencing rising wealth-to-income ratios in the early years. White individuals started with much higher initial wealth in 1870, with a wealth-to-income ratio of 6.1 while Black individuals 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). 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 the year 2200, by which time the racial income gap would have closed in our model, we would still have a positive wealth gap of 1.4.

4.2 Drivers of slower convergence: racial gaps in savings and capital gains

Relative to the equal-conditions benchmark, observed convergence has unfolded more slowly, as can be seen in Figure 2. The convergence curve under equal q and s falls below the data points from our long-run series. In our model, slower convergence must stem from racial differences in savings and capital gains, as we have taken income convergence from the data. Lower savings and capital gains for Black Americans can reflect their lower average income and wealth levels compared to white Americans, as well as their historical exclusion from land, housing, and capital markets. We discuss the role of these factors when we explore changes in the speed of convergence over time. First, we use our model and data to provide insights into the magnitude of these gaps in drivers of wealth accumulation.

As a first step, we take our model as given and estimate time-constant racial gaps in q and s that provide the best fit with the data. Fixing white savings rates and capital gains at the national average (i.e., $q^w=1$ and $s^w=5$), we use non-linear least squares to estimate q^b and s^b . Full details are provided in Appendix H. The results suggest that over the full post-1870 period, savings rates of Black Americans have been 1.1 pp smaller than those of white Americans and capital gains 0.2 pp lower. Figure 2 shows that simulating the wealth gap with these estimated values for q^b and s^b tracks the course of observed convergence extremely closely.²⁵

The above results shed light on average differences in savings and capital gains between Black and white Americans over the long-run. To better understand dynamics in racial differences in wealth accumulation, we plot the racial wealth gap in logs in Figure 3a. The figure confirms the pattern described in Section 3.1 that the most rapid decline in the wealth gap occurred in the first 30 years after Emancipation. Wealth convergence slows in the first decades of the 20th century, resumes between 1930 and 1980, and stalls thereafter. A comparison of these convergence dynamics

²⁵In Appendix H we show that we get consistent results when using OLS to estimate the q^b and s^b that best fit the evolution of the log wealth gap.

to our equal-conditions benchmark is illustrative. Figure 3b juxtaposes observed growth rates in the wealth gap to those from our simulation for five intervals – 1870-1900, 1900-1930, 1930-1960, 1960-1980, and 1980-2020 – intervals that align well with the major patterns shown in Figure 3a. During the first 60 years after Emancipation (1870-1930), wealth convergence was slower than simulated convergence under equal capital gains and savings rates. From 1870-1900, the observed annual convergence rate was around 2.5% compared to 3% in our simulation, and from 1900 to 1930, the it was around 0.3% compared to 1.4%.

These deviations are in line with a large literature that documents systemic disadvantages faced by Black Americans in the post-Emancipation and Jim Crow era. 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 in the post-Reconstruction era. 26 In the decades 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 (Albright et al., 2021; Cook, 2014; Messer, Shriver, and Adams, 2018), and relegated to highly segregated housing markets (Akbar et al., 2019; Aaronson, Hartley, and Mazumder, 2020). Black Americans were also denied equal access to education and faced extreme labor market discrimination in the post-Civil-War South (Margo, 2007; Wright, 1986). 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 towards lower return assets, and to have led to lower returns within 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.

After 1930, observed racial wealth convergence speeds up and the growth rate in the gap matches that predicted by the model. From 1930 to 1960, Black and white wealth converged at an annual rate of almost 1% (this is almost three times higher than the convergence rate during the period 1900 to 1930), while from 1960 to 1980, we observe even higher convergence rates in the data of approximately 1.5% per year. Stronger convergence in the racial wealth gap during this period concurs 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 (Aizer et al., 2020; Collins, 2000; Margo, 2016); 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 (Donohue and Heckman, 1991; Brown, 1984; Aneja and Avenancio-Leon, 2019; Derenoncourt and Montialoux, 2021), which led to relative wage gains for Black workers. Finally,

²⁶A large literature explores the role of post-slavery institutions in the Deep South in perpetuating racial inequality. Recent work in this area includes Baker (forthcoming) and Althoff and Reichardt (2022). Althoff and Reichardt (2022), in particular, document the role of these institutions on persistent gaps in economic outcomes between Black descendants of the American enslaved versus descendants of those who were free before the Civil War.

the Fair Housing Act of 1968 attempted to strike down barriers to homeownership 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 4.3.

Given these patterns in the speed of convergence over time, we examine whether racial differences in capital gains q, savings rate s, and income growth g have changed over this time period as well. We estimate Black and white differentials in these parameters for three periods: 1870 to 1950, 1950 to 1980, and 1980 to 2020. We compute the white-Black difference in annualized income growth rates for all three time periods using data from Margo and the SCF+. We provide white-Black differences in savings rates and capital gains from 1950 onwards using the SCF+. To calculate savings rates for each racial group, we apply the synthetic savings approach of Saez and Zucman (2016).²⁷ We estimate capital gains for each racial group using the approach of Xavier (2020). For a full description of our estimation method of savings rates and capital gains, see Appendix I.

We report results on dynamics in g, s, and q in Table 1. Income convergence, indicated by larger income growth rates for Black Americans compared to white, was strongest during the period 1870 to 1950. During this 80-year period, Black income grew at an annual rate that was 0.60 pp faster than white income. Strong income convergence continued between 1950 and 1980; Black income grew 0.45 pp faster than white income, consistent with the historical and political forces alluded to above. The post-1980 period is noteworthy for complete stagnation in income convergence, a fact that has been documented in the literature on racial income gaps (see, e.g., Bayer and Charles (2018)).

From 1950 onwards, we document racial gaps in savings rates and capital gains. Despite robust income convergence between 1950 and 1980, white savings rates exceeded those of Black Americans' by 1.43 pp. This gap decreased slightly to 1.15 pp over the 1980-2020 period. Importantly, we uncover a dramatic worsening of the capital gains gap between Black and white Americans over the last 70 years. The first 30 years of this period show no racial gap in capital gains. However, in the last 40 years, white Americans earned 0.65 pp higher capital gains than Black Americans. As indicated in Equation 3, such differences translate directly into increases in the racial wealth gap.

To illustrate this, we use our wealth accumulation model and plug in the estimated values of income growth, savings rates, and capital gains for the post-1980 period. Figure 5 presents our simulation results, which demonstrate how these differences quantitatively translate into 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 (which we estimate from the data), and a third where there are only differences in savings rates. In all three scenarios, we plug in the estimated post-1980 income growth rates of Black and white Americans.

²⁷We verify these estimated savings rates differentials for the post-1980 period using panel data from the PSID (available from 1984 onwards). Both approaches yield a white-Black savings rate gap of about 1.1%. See Appendix I for more details.

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, the wealth gap would still be on a path to convergence (solid line). However, if we take into account both lower savings rates and capital gains 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.

4.3 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 account in large part for the post-1980 evolution of the wealth gap.

In Table 2, we present the average portfolio composition of Black and white households from 1950 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 non-financial assets make up 67% of the total assets of Black household whereas business wealth amounts to 13% and equity (direct and indirect) make up just 5%. For white households, housing and other non-financial assets make up a much smaller share of their total assets -41% – while business and stock equity account for 24% and 16%, respectively. Hence, over this full time period, portfolios for white households have been more diversified than those of Black households.²⁹

The bottom panel of Table 2 explores the distribution of liabilities across asset class and racial group. 30 Strikingly, despite having less than a fifth the assets of white households, Black household debt is about half the debt of the average white household. This is consistent with Black households being more leveraged. Debt makes up 25% of total asset values for Black Americans, but just 10% of asset value of white households. Examining housing debt specifically, we see that Black households hold more housing debt than white households, 29% of housing value versus 21%. Though the gap in housing debt is smaller, 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

²⁸Equity includes both direct and indirect holdings in the form of mutual funds. However, this share does not include indirect holdings of equity (or fixed-income assets) in the form of defined-contribution pension plans. After reveiling, equity holdings still account for just 7% of the assets of Black households while making up 18% of the assets of white households.

²⁹Table 2 presents averages over the full 1950-2019 period. In Appendix Table J.1, we show that differences in portfolio composition have been highly persistent over time, with white household wealth portfolios consistently more diversified than those of Black households.

³⁰For a detailed analysis of the debt composition of U.S. households overall, see Bartscher, Kuhn, Schularick, and Steins (2020).

larger fluctuations in home equity for Black compared to white households and places them at greater risk of foreclosure.³¹ In the final row of Table 2, 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 educational debt while for white households, educational debt makes up less than 4% of total debt. Furthermore, the average Black household holds more educational debt than the average white—the white-to-Black educational debt ratio is 0.75:1.³²

Overall, these portfolio differences between Black and white households mean that asset price dynamics will shape the dynamics of the racial wealth gap over time. 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.³³ 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 the year 1983, the first post-1980 year available in SCF+. For simplicity, we fix initial wealth portfolios and levels in this year and consider the impact 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 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 follows³⁴:

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

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

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

where W_{1983} is mean wealth of the respective group in 1983, while 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, $A_t^{asset} = A_{1983}^{asset} \prod_{t=2019}^t (1+q_{t,t-1}^{asset})$ for each asset $\in \{equity, housing\}$.

³¹See Kermani and Wong (2021) for an in-depth analysis of the role of distressed sales and foreclosures in racial differences in housing returns.

³²These stark differences in educational debt holding likely have implications for debates on student loan forgiveness and the racial incidence of college debt—an important area for further research.

³³Relatedly, Bartscher, Kuhn, Schularick, and Wachtel (2021) show how different responses of asset prices following monetary policy shocks affect racial differences in total capital gains.

³⁴We apply the same equation to both groups therefore we suppress the subscripts for racial group at this time.

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^{eg} separately for Black and white households and simulate the white-to-Black wealth gap under each scenario.

Figure 4 presents the results for the time period from 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 4a shows the scenario with just stock market gains (W_t^{equity}) . We find that capital gains in the stock market contribute to a strong and rapid increase 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 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 4.7 today, compared to the observed gap of 6.6, a decrease of 18%. Figure 4b 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 years 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.

4.4 The future of the racial wealth gap

The recent role of capital gains in the widening of the racial wealth gap paints a sobering picture for the future of racial wealth convergence. Wealth concentration increased dramatically over the Covid-19 pandemic, reaching its highest levels since World War II, and the top 0.01% of households now own 36.1% of private wealth (Blanchet, Saez, and Zucman, 2022). The above analysis suggests this has clear implications for the racial wealth gap. Given that there are so few Black households at the top of the wealth distribution, faster growth in wealth at the top will lead to further increases in racial wealth inequality.

To assess the future evolution of the white-to-Black wealth gap under continued racial differences in capital gains and savings, we use our wealth accumulation model from Section 4 to simulate the

wealth gap from 2019 onwards. We simulate two scenarios. In the first, we allow the racial differences in wealth-accumulating conditions that we observe in the 1980s (see bottom panel of Table 1) to continue to persist. Notably, in this simulation, we take into account that income convergence has also stalled. In the second scenario, we model the future of racial wealth convergence under equalized wealth-accumulating conditions ($q^w = q^b$ and $s^w = s^b$), and with the same annualized rate of racial income convergence from the past 150 years.³⁵ For each scenario, we simulate the racial wealth gap in two future time periods, 2050 and 2200.

Table 3 presents our results. As expected, given current differences in wealth-accumulating conditions, our model predicts that the white-to-Black wealth gap will continue to diverge in the future, following its post-1980 trajectory. By 2200, the gap will increase by more than 50%, reaching a level of 8.4. Additionally, as income convergence has stalled and is even possibly reversing, savings-induced wealth convergence will no longer occur. In the absence of policy interventions or other forces leading to improvements in the relative wealth-accumulating conditions of Black Americans, wealth convergence is not only a distant scenario, but an impossible one.

Compared to this scenario, equal q and s and continued racial income convergence will indeed produce further wealth convergence, closing the wealth gap by 28% by 2050. However, even 180 years from now, by which time income would have converged, the wealth gap will still be nearly 2:1. Thus, this simulation underscores the insights that (i) income convergence is insufficient for wealth convergence and (ii) even with equal flow parameters ($q^w = q^b$ and $s^w = s^b$) it will be centuries before per capita Black and white wealth equalize.

5 Discussion: implications for policy

These patterns in the racial wealth gap raise the question of what policy interventions could meaningfully reduce racial wealth inequality and when. In this section, we use our framework to comment on two distinct policy approaches aimed at closing the racial wealth gap, those that target equalization of flow parameters—savings rates, capital gains, and income via income growth rates—versus policies targeting redistribution or equalization of stocks of wealth. The previous discussion already foreshadows that the former set of policies have limited effects on the racial wealth gap in the near future. By comparison, policies like reparations that involve large transfers that increase the stock of Black wealth have greater immediate impact on the wealth gap.

A large class of commonly discussed policies for reducing racial wealth inequality seek to reduce gaps in capital gains, savings, or income. These include policies that encourage financial diversification or stock equity holding 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.³⁶ Yet,

³⁵Recall that Black income has grown at an annualized rate of 2.3% while white income has grown at a rate of 2.0%, reflecting income convergence between 1870 and today.

³⁶Altonji and Doraszelski (2005) explore the extent to which income and demographic factors can explain the

our simulation in Section 4.1 shows that even if wealth accumulation conditions had been equal since 1870, the wealth gap would still be 3 to 1 today, 150 years later, and full convergence would be over 200 more years away. Put differently, to close the racial wealth gap in the immediate term via flow parameters, Black Americans would need substantial advantages in these domains, not mere equality. To close the wealth gap by 2050, for example, they would need more than double the annual capital gain rates of white Americans (5% compared to 2%), a savings rate of 31%, or income growth of nearly 8%.

In contrast to these 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. Citing the wealth gap itself as a summary statistic of past harm, Darity Jr. 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. We calculate that such a transfer, applied to the eligible number of Black Americans in the form of a helicopter drop, would reduce the overall white-to-Black wealth gap to 1.4.³⁷

Importantly, our framework also highlights that in the absence of changes in savings and capital gains gaps, such transfers would have but a transient effect on the wealth gap. Figure 6 presents three different scenarios illustrating the sensitivity of the post-reparations wealth gap to differences in wealth-accumulating conditions across racial groups. If wealth-accumulating conditions were equalized, and Black and white income continued to converge, the post-reparations wealth gap would stabilize (solid line). In the absence of such equalization, the wealth gap would open again (light grey dashed line). Finally, if today's capital gains and saving rates differences – and stagnated income convergence – were to persist, the post-reparations racial wealth gap would widen dramatically (dark dashed line). Within the next 30 years, the gap would increase by 30%, and divergence would continue over time.

The evidence on the effects of large wealth shocks in the past offers a cautionary tale. The elimination of slave wealth had but a temporary effect on the wealthiest slave-holding families of the South. Through social connections and marriage, these families re-consolidated their position

racial wealth gap. Using the PSID, the authors estimate the relationship between different measures of wealth and permanent income and other factors first on the sample of white households and then on the sample of Black households. While the coefficients estimated on the white sample imply that income and other demographics explain the entirety of the wealth gap, those estimated on the Black household sample fall very short of explaining racial wealth differences. In other words, wealth is less responsive to income and education for Black Americans compared to white Americans. The authors conclude a large role could be played by savings and different rates of return. We reach a similar conclusion using a simple reweighting exercise. We calculate a counterfactual 2019 racial wealth gap after (i) reweighting the Black income distribution to match the white income distribution down to the decile (matching mean income by decile) and (ii) reweighting Black non-high-school, high school, and college attainment to match the white educational distribution. Under equalized income, the 2019 wealth gap of 6.6 decreases to a level of 3.6. Under equal education attainment, the gap falls from 6.6 to 5.2. These counterfactual wealth gaps remain economically large, highlighting persistent racial wealth gaps within income and education group.

³⁷Per 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.

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 20th century; however, scholars have found that the pre-revolution elite have once again emerged on top (Alesina et al., 2020). Finally, those studying the impacts of large wealth transfers have also found their effect 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.

By contrast, wealth shocks that influence gaps in wealth-accumulating conditions may lead to more persistent change. Miller (2020), which studies the impact of land and capital redistribution to the formerly enslaved in the Cherokee Nation, provides a useful case study.³⁸ 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, but which have a longer gestational period. This difference in investment choices is suggestive of their greater sense of secure property rights compared to 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.

6 Conclusion

Our prior understanding of racial wealth differences has relied on limited snapshots, focused either on particular 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 U.S., 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 Survey of Consumer Finances data. Our new long-run series exhibits a clear "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 in the mid-20th century to the point where the wealth gap in 2020 is effectively the same value as it was in 1950.

We show that this basic shape of convergence is well 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. Given extremely low levels of Black wealth under slavery, even modest accumulation can imply 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 and savings begin to matter more for the shape of convergence. Given existing differences in the wealth-accumulating

³⁸Under 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).

conditions for white and Black individuals, our analysis suggests that full wealth convergence is still an extremely distant or even unattainable scenario. Furthermore, rising asset prices have become an important driver of racial wealth inequality in recent decades. The average white household holds a significant share of their wealth in equity and has therefore benefited from booming stock prices while the average Black household, for whom housing continues to be the most important asset, has been largely left out of these gains.

Our data and framework illustrate the uphill battle faced by policies aimed at equalizing wealth accumulation parameters, such as savings rates and capital gains. Closing the gap generated by centuries of Black Americans' exclusion from wealth-building with just these flow parameters alone is simply a matter of centuries. Reparations payments that equalize stocks of Black and white per capita wealth eliminate this long convergence horizon, which we argue is itself a byproduct of the historical gap. However, if transfers of this kind fail to close gaps in wealth accumulation parameters, our framework indicates the wealth gap will widen again.

An important area for future research is an investigation into what specific combinations of stock- and flow-based policies are most effective at fostering greater racial wealth equality in the future.

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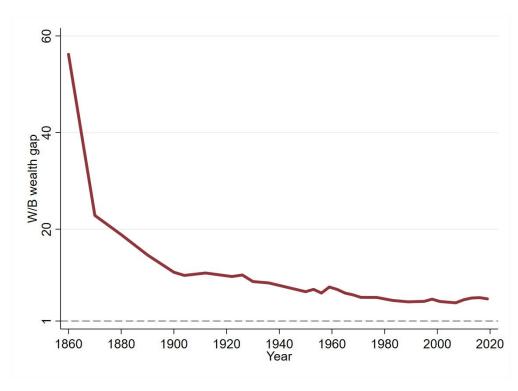
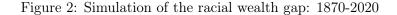
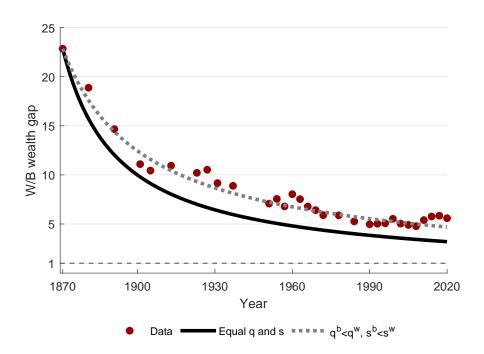


Figure 1: White-Black per capita wealth ratio: 1860-2020

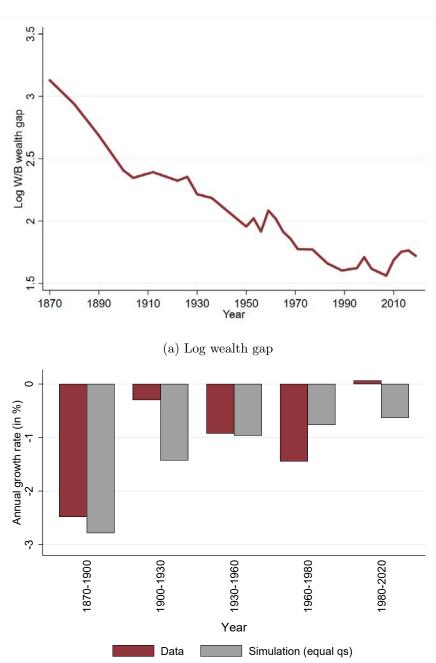
Notes: White-to-Black per capita wealth ratio from 1860 to 2020. Details on the construction of this series are available in Section 3. Data sources: Various, described in Section 3 and Appendix A.





Notes: The solid line traces the path of the wealth gap from our simulation in Section 4, where we assume equal q and s for Black and white individuals throughout the post-1870 period. The dashed line presents the simulation result with q^b and s^b that gives us the best fit with the data. 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 3 and Appendix A.

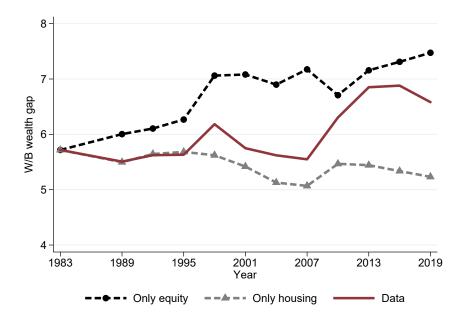
Figure 3: Dynamics of racial wealth convergence, 1870-2020



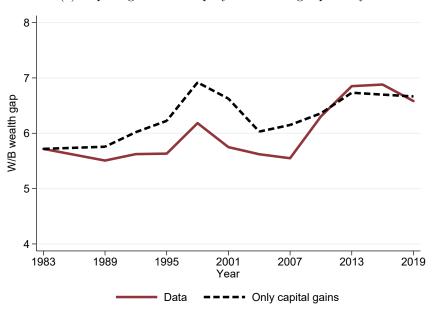
(b) Annual wealth gap growth rates

Notes: 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 3 and Appendix A.

Figure 4: Contribution of capital gains to the racial wealth gap

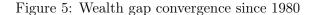


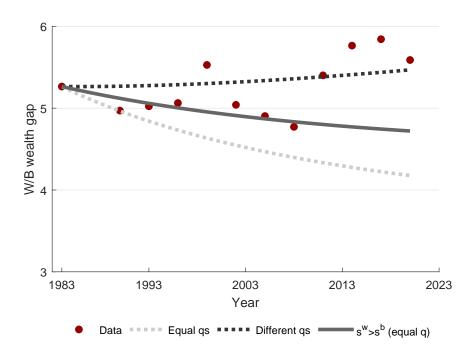
(a) Capital gains from equity and housing separately



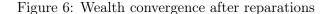
(b) Total capital gains from equity and housing

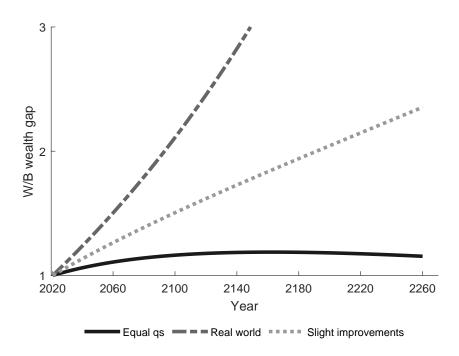
Notes: First panel (a) presents counterfactual and observed white-to-Black per capita wealth gaps. The dashed line with dots shows the per capita wealth gap if there had been only capital gains in equity markets. The dashed line with triangles presents the per capita wealth gap if there had been only 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 while the solid line once again shows the observed wealth gap. Data sources: SCF+ and authors' simulations.





Notes: The simulated white-to-Black per capita wealth gap from 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.





Notes: The simulated white-to-Black per capita wealth gap after reparation payments designed to close the wealth gap in 2020. We present the evolution of the post-reparations wealth gap under three different scenarios. The solid line is the convergence path under equal wealth-accumulating conditions across the two racial groups, and continued income convergence. We also simulate the post-reparations wealth gap using estimated racial differences in wealth-accumulating conditions (q, s, and g) that we observe since the 1980s (dark dashed line). Lastly, the light dashed line represents the convergence path if we assume slightly better wealth-accumulating conditions for Black Americans than we observe in the data $(s^w - s^b = 0.5\%)$ and $q^w - q^b = 0.3\%$, as opposed to $s^w - s^b = 1.1\%$ and $q^w - q^b = 0.7\%$. Data sources: Authors' simulations.

Table 1: Changes in wealth-accumulating conditions

	$g^w - g^b$	$s^w - s^b$	$q^w - q^b$
1870-1950	-0.60 p.p.	-	-
1950-1980	-0.45 p.p.	1.43 p.p.	0.00 p.p.
1980-2020	$0.07 \mathrm{p.p.}$	1.15 p.p.	0.65 p.p.
Whole sample period	-0.39 p.p.	1.23 p.p.	0.58 p.p.

Notes: Differences between white and Black income growth $(g^w - g^b)$, saving rates $(s^w - s^b)$, and capital gains $(q^w - q^b)$ over three different historical periods. Data sources: Various, described in Section 3 and Appendix A.

Table 2: Portfolio composition, 1950-2020

	Average	Average value (\$)		Asset share		Debt-to-Value ratio	
	Black	White	Black	White	Black	White	
\underline{Assets}							
Other nonfin	8,613	19,099	8%	3%			
Housing	62,611	194,025	59%	38%			
Business	11,248	113,216	13%	24%			
Equity	4,013	72,581	5%	16%			
Liquid assets	7,196	54,391	6%	11%			
Other fin	14,058	61,583	8%	8%			
$\underline{Liabilities}$							
Total debt	28,978	55,820			25%	10%	
Housing debt	20,364	44,557			29%	21%	
Educational debt	2,815	2,104					

Notes: Average portfolio shares of Black and white households over 1950-2020. Columns 1 and 2 presents 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 next 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 sources: SCF+.

Table 3: Future evolution of the racial wealth gap: 2019-2200

	2019	2050	2200
$q^w > q^b$ and $s^w > s^b$	_		
Wealth ratio (W/B)	5.58	5.60	8.44
Income ratio (W/B)	2.00	2.06	2.38
Equal conditions			
Wealth ratio (W/B)	5.58	4.02	1.88
Income ratio (W/B)	2.00	1.79	1.00

Notes: The simulated white-to-Black per capita wealth and income ratios in 2019, 2050, and 2200. The first two rows present the racial wealth and income gaps in the scenario with continued racial gaps in wealth-accumulating conditions (capital gains, savings rates, and income growth). The last two rows present the racial wealth and income gaps under equal wealth-accumulating conditions (equal capital gains and savings rates and continued income convergence). Data sources: SCF+ and authors' simulations.