Unfulfilled Promises of the Fintech Revolution

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While financial technology (fintech) has the potential to make financial services more accessible and affordable, hope that technology alone can solve the complex issue of wealth inequality is misplaced. After all, fintech companies are still subject to the same market forces as traditional financial institutions, with little incentive to address contributing causes such as unequal access to credit and financial services, lower rates of return, and discrimination. Yet, key players in the industry promote fintech as a primary means to advance financial inclusion for historically marginalized communities.

Despite the fintech industry’s promises of financial inclusion, underserved populations continue to experience unequal access to financial services and wealth. This Article is the first to evaluate claims relating to five key components of the so-called “fintech revolution” to determine whether fintech can address underlying causes of wealth inequality. While fintech developments may have the potential to expand financial inclusion, these technologies have not yet been employed to significantly address the underlying causes of the wealth gap. Further, in some instances, fintech may exacerbate existing inequalities. Given this lack of sufficient progress and potential exploitation vis-à-vis fintech innovations, this Article explores oversight of fintech as well as other reforms to address the underlying causes of wealth inequality.

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INTRODUCTION

In the wake of the financial crisis of 2008, a collection of startups and venture capital-backed companies began exploring developments in information technology and digital infrastructures to reimagine financial services. Some of these financial technology (fintech) firms aimed to revolutionize wealth management and investment advisory services, others lending, and still others mobile and digital payments. The promise of the so-called “fintech revolution” was to broaden access to capital and provide fairer lending standards, better investment advice, and more secure transactions. Because delivering on these promises would address some of the underlying causes of wealth inequality, some are optimistic about fintech’s ability to reduce the wealth gap. Indeed, a
technotopian philosophy seems to animate innovation-friendly government policies.5

Although policymakers have allowed and encouraged fintech to innovate, underserved populations continue to experience unequal access to financial services and wealth. Indeed, the COVID-19 pandemic and its economic effects have highlighted and exacerbated long-existing inequalities. Not only have minorities disproportionately suffered the health effects of the coronavirus,6 they have also been hit the hardest economically.7 In turn, the racial wealth gap has grown during this crisis.8 And in the early months of the pandemic, these wealth disparities converged with the outrage caused by the deaths of George Floyd, Ahmaud Arbery, and Breonna Taylor that brought about a summer of unrest and protests.9 In response, corporate America, including the financial industry, has designed policies and products for advancing inclusion and diversity.10 These campaigns have particularly focused on increasing access to credit and financial services among minority populations.11

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Not only has this recent focus on equity advanced important justice claims, but policymakers and scholars have also identified racial equity as key to unlocking the nation’s untapped economic potential. For example, estimates show that closing the racial wealth gap would lift gross domestic product (GDP) by 8 to 12 percent. The fintech industry in particular could be well-positioned to capitalize on underserved and important markets. Further, if their actions follow their rhetoric, fintech companies could indeed prove instrumental in promoting financial inclusion. Yet the industry must contend with a substantial legacy of explicit and persistent discrimination on the part of banks and other financial institutions.

This legacy of discrimination is partly attributable to policies of the federal government. In the 1930s, the Federal Housing Administration (FHA) established redlining policies that steered private mortgage investors away from predominantly minority areas. Although these practices were eventually made illegal, the racial disparities that redlining caused persist to this day. For greater access to . . . credit in communities of color”; Tracy Jan, Jena McGregor & Meghan Hoyer, Corporate America’s $50 Billion Promise to Confront Racial Justice Shows Limits of Power to Catalyze Change, WASH. POST (Aug. 23, 2021), https://www.washingtonpost.com/business/interactive/2021/george-floyd-corporate-america-racial-justice/ [https://perma.cc/97E2-WYWH] (reporting that 90% of the $50 billion promise made by major companies to address racial equity was attributable to financial institutions for loans or investments and more than half of that in the form of mortgages). But see Tracy Jan, Jena McGregor, Renae Merle & Nitasha Tiku, As Big Corporations Say “Black Lives Matter,” Their Track Records Raise Skepticism, WASH. POST (June 13, 2020), https://www.washingtonpost.com/business/2020/06/13/after-years-marginalizing-black-employees-customers-corporate-america-says-black-lives-matter/ [https://perma.cc/M8CZ-7B27] (reporting on the “performative allyship” of financial institutions that has not been backed up by changes to policies that lead to lending discrimination).


15. Williams, supra note 14, at 311.

example. Black and Latinx mortgage applicants are rejected more frequently than other groups and pay higher interest rates on loans.17 Indeed, banks have admitted to steering racial minorities toward more expensive and predatory products.18 Black and Latinx households also rely on payday loans and short-term credit more frequently than other groups—a direct result of the racial wealth gap and the fewer affordable credit options to get them through difficult times.19

Reversing the racial underbanking problem and increasing access to capital continue to be identified as critical to closing the racial wealth gap and achieving racial equity.20 Banks lack a sufficient physical presence in minority communities, leaving Black and Latinx neighborhoods underserved.21 This lack of access to capital has been crucial in constraining the growth of minority businesses.22 Both the lack of physical presence and the legacy of discrimination on the part of the banking industry have left fintech companies with a market eager for attention.


Some fintechs have launched with the intention of providing financial services to underserved populations. For example, Esusu, a United States-based fintech with a $1 billion valuation, claims to “unleash the power of data to bridge the racial wealth gap” by including “everyone on the journey from financial identity and stability toward financial wellness that leads to wealth building.” To accomplish this noble ambition, Esusu’s platform enables property managers to report monthly rent payments to the credit bureaus. Viewed in the most favorable light, the platform does advance financial inclusion by providing an opportunity for renters to build a credit history without incurring debt. At the same time, though, property managers can mandate reporting and thereby generate leverage to extract rents from vulnerable tenants. Indeed, Esusu markets its services to property managers by claiming to decrease delinquencies and increase net operating income. A similar disconnect between financial inclusion narratives and the ultimate interests that fintechs serve exists across various components of the fintech revolution.

Beyond misleading marketing tactics, fintech has also been employed in ways that may exacerbate existing inequalities. For example, Rise Credit, an online lender that makes small loans ranging from $500 to $5,000, has targeted desperate borrowers for high-interest loans based on data collected from internet search engines. Unfortunately, Rise Credit is just one of hundreds of online lenders that market loans with 200 to 500 percent annual interest rates to borrowers who search online for financial help. While these terms could lead to financial ruin for any borrower, their impact is not experienced equally. Online payday loans disproportionately affect Black households, as Black people comprise 13.2 percent of the national population but 26 percent of online payday borrowers.

25.  See id. (reporting a 25 percent increase in on-time payments and $16,500 in additional net operating income).
26.  See infra Part II.
27.  See Coulter Jones, Jean Eaglesham & AnnaMaria Andriotis, How Payday Lenders Target Consumers Hurt by Coronavirus, WALL ST. J. (June 3, 2020), https://www.wsj.com/articles/how-payday-lenders-target-consumers-hurt-by-coronavirus-11591176601 [https://perma.cc/SG7X-AGUR] (reporting that hundreds of lenders have been marketing loans that carry 200 to 500 percent annual interest rates to consumers who are searching online for financial help). See also Christopher K. Odinet, Predatory Fintech and the Politics of Banking, 106 IOWA L. REV. 1739, 1760–65 (2021) (analyzing Elevate, which owns the Credit Rise brand, as a case study of a fintech lender that uses alternative data and ultimately operates like an online payday lender).
28.  See Jones et al., supra note 27.
29.  Fraud and Abuse Online: Harmful Practices in Internet Payday Lending, PEW CHARITABLE TRS. 28 (Oct. 2014). Note, African Americans account for a lower percentage (23 percent) of storefront payday borrowers. Id. Even after controlling for income, Black people are more than twice as likely than other races or ethnicities to take out a payday loan. NICK BOURKE, ALEX HOROWITZ, WALTER LAKE & TARA ROCHE, PEW CHARITABLE TRS., PAYDAY LENDING IN AMERICA: WHO
Given this lack of sufficient progress and the potential for exploitation vis-à-vis some fintech innovations, this Article explores other means to address wealth inequality and oversight of financial technology. While others have also drawn connections between wealth inequality and fintech, this Article is the first to assess a broader range of fintech business models that affect household wealth—e-trading, robo-advising, alternative credit platforms, neobanks, and decentralized payments—and measure them against their potential to address specific problems that contribute to wealth inequality.

To this end, Part I of this Article explores wealth inequality in the United States. It assesses evidence that the lack of access to credit and traditional financial services has significantly contributed to disparities in wealth between racial groups. Part II then evaluates claims that fintech developments can address underlying causes of wealth inequality and concludes that without oversight, some of these technologies may exacerbate existing inequalities. Next, Part III reviews various proposals to address wealth inequality and concludes that absent multi-dimensional reforms, wealth inequality will persist indefinitely. While piecemeal reforms might address some underlying issues, other weaknesses would continue to be exploited. This Article argues that any solution to this complex, deeply rooted problem will necessarily include oversight of developing technologies and financial services, investment in infrastructure to improve access, and updates to tax policies and wealth transfers.

I. RACIAL WEALTH INEQUALITY IN THE UNITED STATES

This Section explores how differential access to credit and financial services have contributed to the racial wealth gap. It defines wealth as an asset-based concept that is distinct from income and then sketches the now-familiar problem of wealth inequality. This Section underscores the intergenerational, compounding nature of wealth and explains how past federal government


policies have contributed to the persistent racial wealth gap. Moreover, by summarizing some of the proposed explanations for the racial wealth gap, this Section underscores that these accounts are incomplete and discusses how historical systemic discrimination set the stage for current predatory inclusion practices that continue to exacerbate racial wealth disparities.

A. The Causes of Today’s Troubling Racial Wealth Gap

In this Article, we are interested in a general definition of wealth—one that encompasses anything of monetary value. For this purpose, wealth can be defined as an individual’s economic assets or net worth. Thus, wealth is measured as an individual’s assets minus that person’s debts. Assets can include bank accounts, houses, stock, 401(k)s, and so forth. Debts include mortgages, vehicle loans, credit card balances, payday loans, and the like. Of course, there are also less tangible components to wealth that may be even more important than material assets. For example, social networks can be vital to status attainment, financial literacy, and asset accumulation. Moreover, parents pass on many intangible advantages to their children that could be considered cultural wealth.

We do not necessarily mean to exclude these from our conception of wealth. But because these can be harder to measure, along with other complicating factors such as respect for family privacy, we primarily focus on material assets. Indeed, it is typically easier to account for material assets for purposes of designing tax and other governmental policies.

The asset-based conception of wealth is important because, traditionally, the story of economic inequality in the United States has disproportionately

31. A more sophisticated way of saying this is the net value of all goods available for an individual’s exclusive use through time discounted to the present at the appropriate interest rate.


33. These noneconomic components of wealth include social networks, love, integrity, and family morale, which make wealth difficult to reach unless society is prepared to compromise its commitment to privacy of the family and private ownership.

34. See, e.g., Nan Lin, Social Networks and Status Attainment, 25 ANN. REV. SOCIO. 467, 470–72 (1999) (tracing the development of social resources theory, which argues that social capital enhances chances of attaining better statuses and is contingent on initial positions in the social hierarchy).

35. See, e.g., Walter J. Blum & Harry Kalven, Jr., The Uneasy Case for Progressive Taxation, 19 U. CHI. L. REV. 417, 504 (1952) (“[T]he gravest source of inequality of opportunity in our society is not economic but rather what is called cultural inheritance.”); see also Liam Murphy & Thomas Nagel, The Myth of Ownership: Taxes and Justice 158–59 (2002) (noting that this source of inequality may be more important than inherited wealth and yet it may be impossible to eliminate).

36. See Blum & Kalven, supra note 35, at 504 (noting the difficulty in reaching cultural inheritance through economic measures).
focused on income. Income refers to the flow of dollars over a period of time, which can be derived from salaries, wages, investments, alimony, government transfers, and so forth. For most Americans, income data is typically easier to obtain from pay stubs, bank records, and tax returns, for example. Wealth, on the other hand, is harder to measure, as individuals often underestimate their wealth holdings. As such, income is often erroneously used as a proxy for wealth, and the two concepts can be conflated. But the relative ease of measuring income as compared to wealth breaks down for the wealthiest Americans (and other Americans who primarily earn investment income) for whom an asset-based conception of wealth may often be easier to measure with greater accuracy.

A useful way to distinguish income from wealth is that income is more sensitive to life’s ups and downs. Thus, an individual may lose their job (a source


38. See MELVIN L. OLIVER & THOMAS M. SHAPIRO, BLACK WEALTH/WHITE WEALTH: A NEW PERSPECTIVE ON RACIAL INEQUALITY 58–59 (2nd ed. 2006) ("Surveys of assets and wealth invariably underestimate the upper levels, primarily because of the difficulty in obtaining the cooperation of enough very wealthy subjects. Thus, random field surveys conservatively understated the magnitude of wealth inequality.") (footnote omitted).


of income) but still have substantial investments (a source of wealth) to survive until they find a new job. Wealth usually changes over longer periods of time and can reach across generations. Importantly, wealth can derive from interfamily gifts and inheritances, which are often excluded from measures of taxable income. Income, moreover, is certainly unequally distributed—but much less so than wealth. Therefore, observing income alone does not fully capture the degree of wealth concentration in the United States.

A crucial and largely unaddressed aspect of wealth inequality in the United States is the racial wealth gap. For the sake of simplicity, as with most scholarship on this topic, this Article primarily focuses on the Black-White wealth gap, partly because it is the starkest and because many proposed interventions would also help other disadvantaged groups. The median and mean wealth of other racial and ethnic minority groups is less than that of White families but more than that of Black families.

According to the Urban-Brookings Tax Policy Center, the total racial wealth gap is $10.14 trillion. According to data from the 2019 Survey of Consumer Finances, White families have mean wealth of $983,400 and median wealth of $188,200. Black families have considerably less wealth: their mean wealth is $142,500 and their median wealth is $24,100. Both of those figures represent less than 15 percent of the wealth holdings of White families. Moreover, the racial wealth gap widens with age. White Americans’ wealth compounds over time, so that White persons start with 3.5 times more wealth in their thirties but end up with seven times more wealth in their sixties. In the

45. See Bhutta et al., supra note 43.
46. Id.
47. McKernan et al., supra note 32, at 2.
past twenty years, two events have further exacerbated the racial wealth gap: the Great Recession\textsuperscript{48} and the COVID-19 pandemic.\textsuperscript{49}

The racial wealth gap matters partly because it is a direct link to the past. Because of the intergenerational reach of wealth, the racial wealth gap gives a nuanced picture of racial progress in America. By focusing on statutory law and Supreme Court cases, one might assume that Black Americans have fully overcome past discrimination. But wealth provides a more sobering assessment.\textsuperscript{50} As noted sociologists Melvin Oliver and Thomas Shapiro have stated, the wealth gap also underscores the path on which the nation is headed and provides a “reliable racial justice filter for policy and institutional practice.”\textsuperscript{51} Economic research has revealed that, on our current path, it would take over 200 years to close the racial wealth gap.\textsuperscript{52} Further research has confirmed that without major interventions, the wealth gap will take hundreds of years to close.\textsuperscript{53}

Again, this does not mean that racial poverty and the racial income gap are not important, but rather that they tell an incomplete story. Oliver and Shapiro similarly warned of dangers to a one-sided focus on income when analyzing economic inequality in the United States.\textsuperscript{54} In their groundbreaking 1995 study of racial wealth, they argued that a focus on income was part of a Black progress narrative that linked civil rights movement-era gains to Black prosperity.\textsuperscript{55} That is because the income gap is not as pronounced as the wealth gap. At the time of Oliver and Shapiro’s study, Black Americans represented a 9.2 percent share of the population and held a 7.4 percent share of total income.\textsuperscript{56} More recently, an

\begin{itemize}
  \item \textsuperscript{48} \textit{Id.}
  \item \textsuperscript{49} \textit{WELLER & FIGUEROA, supra note 8, at 1 (showing that Black households faced more financial emergencies during the pandemic, widening the racial wealth gap).}
  \item \textsuperscript{50} \textit{See, e.g., Brown v. Bd. of Educ., 347 U.S. 483 (1954) (ending racial segregation in schools); Grutter v. Bollinger, 539 U.S. 306, 343 (2003) (suggesting that in twenty-five years, race-based affirmative action programs would no longer be necessary).}
  \item \textsuperscript{51} \textit{Melvin L. Oliver & Thomas M. Shapiro, \textit{Disrupting the Racial Wealth Gap, 18 CONTEXTS} 16, 18 (2019).}
  \item \textsuperscript{52} \textit{Dionissi Aliprantis & Daniel Carroll, \textit{What Is Behind the Persistence of the Racial Wealth Gap?}, ECON. COMMENT., Feb. 28, 2019, at 4.}
  \item \textsuperscript{53} \textit{See Ellora Derenoncourt, Chi Hyun Kim, Moritz Kuhn & Moritz Schularick, \textit{The Racial Wealth Gap, 1860-2020} 3, 25–26 (Nat’l Bureau of Econ. Rsch., Working Paper No. 30101, 2021) (showing that even under ideal conditions, racial wealth convergence is a remote possibility given vastly different starting conditions under slavery).}
  \item \textsuperscript{54} \textit{OLIVER & SHAPIRO, supra note 38, at 25. See also MCKERNAN ET AL., supra note 32, at 1; Maury Gittleman & Edward N. Wolff, \textit{Racial Differences in Patterns of Wealth Accumulation}, 39 J. HUM. RES. 193, 194 (2004) (“While studies of earnings and income are important for assessing the extent to which labor market discrimination exists and the ability of African Americans to move closer to [W]hites in terms of acquiring the skills and connections that are currently rewarded by the markets, they provide what is clearly an incomplete picture.”).}
  \item \textsuperscript{55} \textit{OLIVER & SHAPIRO, supra note 38, at 103–05. For racial wealth studies before Oliver and Shapiro, see, e.g., Henry S. Terrell, \textit{Wealth Accumulation of Black and White Families: The Empirical Evidence}, 26 J. FIN. 363, 363 (1971) (finding that race studies focused on income and earnings rather than wealth because of the greater availability of data).}
  \item \textsuperscript{56} \textit{OLIVER & SHAPIRO, supra note 38, at 105.}
\end{itemize}
Urban Institute study found that for every dollar that Black and Hispanic Americans earned, Whites earned two. In stark contrast, wealth disparities reveal a much more compelling “no progress” narrative. While the income gap has not changed much over the past three decades, the wealth gap has grown. In 1983, the average wealth of Whites was about five times as much as that of Blacks and Hispanics. Today it has grown to six times that of those racial minorities.

Black Americans are less likely to own homes and retirement accounts and generally lack the same asset-building opportunities as White Americans. For example, Black and Hispanic families are five times less likely than White families to inherit money that can help with a down payment for a home. A lack of assets translates into vulnerability during tough times like the Great Recession and the COVID-19 pandemic. It also means less money for education and retirement.

These racial wealth disparities are partly born of the explicit barriers that denied Blacks the right to acquire wealth. Those explicit barriers largely do not exist anymore, however. Instead, their legacy continues because of the intergenerational nature of wealth. Because of the importance of wealth, the average Black person in America still faces unequal life prospects solely as a result of their ancestry.

There are several factors that are sometimes offered to explain the size of the racial wealth gap, but they only provide partial explanations. These include predatory lending, zip code inequality, and a higher unemployment rate exacerbated the effects of the Great Recession for Black Americans. For example, Vincent Adejumo, African Americans’ Economic Setbacks from the Great Recession Are Ongoing—And Could Be Repeated, CONVERSATION (Feb. 5, 2019), https://theconversation.com/african-americans-economic-setbacks-from-the-great-recession-are-ongoing-and-could-be-repeated-109612 (describing disparities in income, wealth, educational attainment, and health stemming from “the racist policies that have been entrenched in America’s financial, economic and educational fabric since the beginning,” such as Jim Crow laws and redlining policies); CHRISTIAN E. WELLER & LILY ROBERTS, CTR. FOR AM. PROGRESS, ELIMINATING THE BLACK-WHITE WEALTH GAP IS A GENERATIONAL CHALLENGE 2 (2021), https://www.americanprogress.org/wp-content/uploads/2021/03/BlackWhiteWealthGap-report11.pdf ("From the brutal exploitation of Africans during slavery, to systematic oppression in the Jim Crow South, to today’s institutionalized racism—apparent in disparate access to and outcomes in education, health care, jobs, housing, and criminal justice—government policy has created or maintained hurdles for African Americans who attempt to build, maintain, and pass on wealth.").
differences in (1) consumption and savings patterns, (2) income, (3) education, (4) asset holdings, (5) rates of return on assets, (6) access to credit and financial services, (7) the birth lottery and intergenerational transfers, and (8) mass incarceration. The research generally concludes that structural factors like asset ownership contribute more to the racial wealth disparity than behavioral factors like family structure and spending patterns. This Article focuses on lack of access to credit and financial services, but these causes cannot be completely isolated. Instead, they form a part of a complex web of factors that contribute to today’s racial wealth inequality. For this reason, the racial wealth gap is frustratingly persistent. One study found that even if Black Americans had the same levels of income, business ownership, stock ownership and home ownership as White Americans, the racial wealth gap would only be cut in half, leaving substantial work to be done.73

Many studies have found some unexplained portion of the racial wealth gap. Often these causes are left open as a catch-all for all past and current discrimination, including historical legacy, public policy, and institutional racism.75 In the past fifteen years, this black box has been significantly filled in

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65. OLIVER & SHAPIRO, supra note 38, at 103; Gittleman & Wolff, supra note 54, at 203–05.

66. OLIVER & SHAPIRO, supra note 38, at 112; Gittleman & Wolff, supra note 54, at 203–05.


70. OLIVER & SHAPIRO, supra note 38, at 83.


73. Id. at 15.


75. See, e.g., id. at 4 (“[T]he unexplained portion of the wealth gap in our regressions potentially includes some effects that could be related to current and past racial discrimination as well as all other unobserved factors.”); Oliver & Shapiro, supra note 51, at 18.
by the concept of stratification economics.\textsuperscript{76} Stratification economics questions the traditional approach in that it assumes that discrimination is rational in maintaining social hierarchy and promoting the relative status of the privileged group(s).\textsuperscript{77} This is an explicit move away from orthodox approaches that point to cultural differences between Blacks and Whites to explain the racial wealth gap. Importantly, stratification economics considers “various institutional and systemic factors that offer sources of privilege to members of the favored group.”\textsuperscript{78}

The economic stratification approach looks to deep-seated structures that perpetuate racism and points back to history.\textsuperscript{79} It also allows for some flexibility in the development of clever ways to exclude Black Americans. What some call the “old inequality”\textsuperscript{80} encompasses the periods of slavery and Jim Crow, when society attempted to exclude Black Americans almost completely. The “new inequality,”\textsuperscript{81} which is the focus of this Article, is inclusionary but on differential and predatory terms. New inequality does not police exclusion. Rather, because of limited past wealth-building opportunities and current differential opportunities for upward mobility, new inequality maintains the racist status quo. The next Section of this Article will thus seek to summarize some of that history to show how yesterday’s discriminatory public policies and governmental choices are directly linked to the current racial wealth gap.

1. The Government’s Role in Limiting Access to Credit

The previous Section emphasized the importance of assets in building wealth. The federal government has encouraged wealth building through at least two methods: (1) outright transfers of assets and (2) offering credit and other incentives on favorable terms. One example of historical and wide-ranging asset transfer is the Homestead Acts of the late nineteenth and early twentieth centuries.\textsuperscript{82} This Article and Section largely focus on the latter method—more

\textsuperscript{76} William Darity, Jr., \textit{Stratification Economics: The Role of Intergroup Inequality}, 29 J. ECON. & FIN. 144 (2005).


\textsuperscript{79} See, e.g., Hamilton & Darity, supra note 19, at 70–71 (examining the mismatch between the political discourse around individual agency, education, and financial literacy, and the actual racial wealth gap).

\textsuperscript{80} For a more detailed definition of the old and new inequalities, see Richard Williams, Reynold Nesiba & Eileen Diaz McConnell, \textit{The Changing Face of Inequality in Home Mortgage Lending}, 52 SOC. PROBS. 181, 182 (2005).

\textsuperscript{81} Id.

\textsuperscript{82} These laws gave an applicant ownership of federal land at little or no cost. See, e.g., Homestead Act of 1862, Pub. L. No. 37-64, 12 Stat. 392 (1862); Southern Homestead Act of 1866, ch. 127, 14 Stat. 66 (1866).
specifically, the federal government’s role in excluding Black individuals from favorable credit opportunities.

\[\text{a. The Federal Housing Administration Limited Credit Opportunities for Black Americans}\]

Later in this Article, we discuss some of the ways that predatory credit opportunities can strip assets. That is, of course, not the full story. Credit is crucial to well-being and asset building. Much like wealth, access to debt can help individuals absorb financial downturns, buy a house, start a business, or afford additional education to increase earnings. Good debt is an asset. Accordingly, the federal government radically increased its involvement in credit markets at one of the nation’s most difficult times. It did so, however, in a discriminatory fashion, cementing the racial wealth gap that originated during slavery.

Securing financing for home purchases was difficult in the early 1900s due to high down payment requirements and short-term financing that required balloon payments. During the Great Depression, nearly a quarter of American homeowners lost their homes to foreclosure, and the private market was unable to provide liquidity. As such, the federal government stepped in during the Depression to infuse liquidity and build a regulatory structure, creating the Federal Housing Administration (FHA) and tasking it with stimulating asset development across the nation. The FHA incentivized homeownership by improving housing standards, providing an adequate home financing system, and

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83. See, e.g., Edward J. Bird, Paul A. Hagstrom & Robert Wild, Credit Card Debts of the Poor: High and Rising, 18 J. POL’Y ANALYSIS & MGMT. 125, 126 (1999) (“Credit cards are a flexible and readily available source of funds; they can be used both as a convenient payment vehicle for purchases and as a way to temporarily maintain standards of living during an income shortfall.”).


85. Raphaël Charron-Chénier & Louise Seamster, (Good) Debt is an Asset, 17 CONTEXTS 88, 89 (2018) (“Debt allows households to pay for expensive things that will be worth even more in the future. It means improved credit scores and tax-deductible interest payments.”).

86. Id.

87. Id.


89. See, e.g., James Midgley, Asset-Based Policy in Historical and International Perspective, in INCLUSION IN THE AMERICAN DREAM: ASSETS, POVERTY, AND PUBLIC POLICY 42, 49–50 (Michael Sherraden ed., 2005) (describing the creation of the FHA as “specifically intended to link employment creation with home ownership”).
stabilizing the mortgage market. To this day, the agency insures loans made by banks and other private lenders for home building and home buying.

Unfortunately, the FHA has been notoriously discriminatory in both its policies and delivery of aid. In the 1930s, the FHA established its now-infamous redlining policies as part of an initiative to develop the first underwriting criteria for mortgages. These guidelines were designed to steer private mortgage investors away from risky areas and borrowers. The least favorable areas—disproportionately racial minority neighborhoods—were shaded red marking Black borrowers as bad credit risks. This effectively discouraged lending and investment in Black-majority areas, even as Black home buyers continued to be excluded from White neighborhoods, promoting an almost exclusively White suburban expansion.

These practices did not become illegal until Congress enacted the Fair Housing Act of 1968. Thus, by preventing housing purchases and depressing home values, FHA policies significantly impeded Black wealth acquisition and transmission. To this day, the resulting patterns of residential segregation persist: on average, Black households face higher poverty rates and lower home values, in addition to related spatial discrimination effects. That is, there are still many segregated Black neighborhoods where residents struggle to access services and infrastructure compared to neighborhoods inhabited predominantly by White residents.

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93. See, e.g., Richard Rothstein, The Color of Law: A Forgotten History of How Our Government Segregated America 9–14 (2017) (describing the FHA’s refusal to insure loans to housing cooperatives that included African-American members or insure mortgages for African Americans in designated White neighborhoods and for Whites in neighborhoods where African Americans were present).
94. Tillotson, supra note 90, at 34.
95. Id. at 36.
find jobs. For instance, one study concluded that Black men who grew up in racially segregated neighborhoods were substantially less likely to gain upward economic mobility.

b. The Government’s Role in the Credit Market Was Even More Pervasive than Is Commonly Assumed

While the FHA is often rightly the focus, the federal government influenced the credit market in other ways that ultimately exacerbated today’s racial wealth gap. Two prominent examples are the Federal Home Loan Bank (FHLB) System and the G.I. Bill.

Congress chartered the Federal Home Loan Bank System in 1932, providing considerable support to the private mortgage market. The FHLB System consisted of twelve regional, government-sponsored Home Loan Banks chartered to provide liquidity and low-cost financing to their member institutions. Until 1989, the Federal Home Loan Bank Board (FHLBB or Bank Board) supervised the FHLB System. Members of the FHLB System had access to secured loans financed by the regional banks. This government-sponsored liquidity enhanced the financing of housing and community lending. The Bank Board also promoted the expansion of the savings and loans (S&L) industry through its supervision of the Federal Savings and Loan Insurance Corporation (FSLIC). Congress established the FSLIC in 1934 to administer deposit insurance for S&L institutions, which were seen as key to promoting homeownership. All S&L institutions were required to apply for

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104. The Bank Board originally oversaw the system, but the system was abolished by the Financial Institutions Recovery, Reform, and Enforcement Act of 1989, Pub. L. No. 101-73, § 703, 103 Stat. 183 (1989).

105. See Gissler & Narajabad, supra note 103.


insurance with the FSLIC,\textsuperscript{109} which sought to promote confidence in the system and encourage homeownership.\textsuperscript{110}

In 1933, Congress also created the now-defunct Home Owners’ Loan Corporation (HOLC) as an emergency agency under the supervision of the FHLBB.\textsuperscript{111} The HOLC issued bonds and then used these bonds to purchase mortgage loans from lenders for homeowners struggling to make payments.\textsuperscript{112} The HOLC saved the homes of thousands of distressed borrowers through refinancing and thereby became the primary lending and appraisal arm of the FHLBB.\textsuperscript{113} Unfortunately, the HOLC would ultimately deem entire minority neighborhoods hazardous investments by utilizing appraisal techniques that relied on neighborhood composition.\textsuperscript{114} Compounding the problem, these discriminatory HOLC maps were utilized by subsidiary banking agencies throughout the federal government and private actors who depended on federal aid (including the FHLBs, S&L associations, and regional banks receiving federal deposit insurance).\textsuperscript{115}

The federal government thus wielded considerable influence on the private market. Black Americans were largely excluded not through statutes, but through the influence of HOLC racial guidelines. Indeed, HOLC’s racial neighborhood hierarchy held sway with many private lenders. Regardless of stakeholders’ personal convictions, it was safer for an individual lender, builder, or appraiser to discriminate against racial minorities, who were seen as risky propositions. To be sure, these lenders and appraisers were not required to follow the HOLC appraisal and lending guidelines—but they were incentivized to do so.

While less pervasive than the Depression programs, the Servicemen’s Readjustment Act of 1944 (G.I. Bill) provided a range of benefits to World War II veterans, including low-cost mortgages; low-interest loans to start a business; cash payments of tuition and living expenses to attend college, high school, or vocational education; and one year of unemployment insurance.\textsuperscript{116} The G.I. Bill was even more favorable than the FHA programs because it involved both outright transfers and favorable loan terms. For example, the U.S. Department

\begin{quote}
110. Id. at 801.
112. See, e.g., BRUCE MITCHELL & JUAN FRANCO, NAT’L CMTY. REINVESTMENT COAL., HOLC “REDLINING” MAPS: THE PERSISTENT STRUCTURE OF SEGREGATION AND ECONOMIC INEQUALITY 6 (2018), https://ncrc.org/wp-content/uploads/dlm_uploads/2018/02/NCRC-Research-HOLC-10.pdf [https://perma.cc/9VUT-VFFL] (“In the case of the HOLC, stabilization of the nation’s mortgage lending system was the primary goal. It accomplished this task by purchasing mortgages that were in default, providing better terms for financially struggling families.”).
114. Id. at 1038.
115. Id.
\end{quote}
of Veteran Affairs (VA) eliminated down payment requirements and waived fees to borrowers or lenders for its services until 1966. However, because of discriminatory policies and uneven delivery of aid, military service has also led to uneven patterns of wealth building among Black and White Americans.

Although the G.I. Bill increased the Black American collegiate and homeowning population, several factors prevented these beneficiaries from taking full advantage of the bill’s policies. For instance, the VA, which was closely linked to the all-White American Legion and Veterans of Foreign Wars, could and did deny Black veterans’ claims. The VA also adopted FHA appraisal standards in its underwriting manual, including its rules about color and property. As such, banks and mortgage agencies also refused loans to Black veterans at alarming rates. For example, an Ebony Magazine survey of thirteen cities revealed that, by the summer of 1947, only two out of the 3,229 loans the VA had guaranteed went to Black veterans.

By promoting the racially discriminatory appraisal and lending standards of the FHA, this combined federal infrastructure virtually shut Black Americans out of conventional mortgage markets. Instead, racial minorities were forced to build homes themselves, use smaller lenders, or utilize installment contracts wherein they paid the seller directly over time while building no equity in the home. All of these options were considerably riskier and more expensive than conventional mortgages, limiting the growth of Black wealth in America. The picture becomes starker considering that wealth compounds over time, such that missed financial opportunities from nearly a century ago persist across generations. For example, in their book on reparations for Black Americans, William Darity and A. Kirsten Mullen estimated the extent of forgone wealth among freed slaves who were denied their forty acres of land. According to Darity and Mullen, the shortfall would range between $240,000 to $267,000 per individual Black American who descended from slavery.

117. Freund, supra note 97, at 181.
119. Herbold, supra note 118, at 106. One survey conducted in 1947 found that of the 1,700 veterans employed by the VA in one southern state, only seven were Black. Howard Johnson, The Negro Veteran Fights for Freedom!, 26 POL. AFFS. 429, 430 (1947).
120. Freund, supra note 97, at 181.
124. Id. at 404–05.
c. Unbanking, Underbanking, and Lack of Trust

Minority exclusion from mainstream financial services further contributes to racial wealth inequality. Various studies on developing countries have shown that financial inclusion on favorable terms encourages asset accumulation, entrepreneurship, and health investment.\(^\text{125}\) Studies have also shown that banked households accumulate more assets than their unbanked counterparts in the United States.\(^\text{126}\) Yet poorer and minority neighborhoods are less likely to have banks and credit unions, with payday lenders and check-cashing centers taking their place.\(^\text{127}\)

Historically, this lack of physical access to institutions traced back to the FHA-influenced segregation of neighborhoods and services. Denial of services occurred either explicitly or implicitly through the selective raising of prices. Black residents were explicitly denied services like healthcare and supermarkets.\(^\text{128}\) Banks and other service providers also purposely built their facilities far away from Black neighborhoods. As a result, segregated areas of the inner city were distant from and poorly connected to major centers of employment growth, and Black Americans thereby faced strong geographic barriers to finding and keeping well-paid jobs.\(^\text{130}\) In response to concerns over such redlining and lack of investment in these communities, the federal government passed legislation in later decades—most notably the 1977 Community Reinvestment Act (CRA).\(^\text{131}\) This law was designed to expand access to lending markets for families living in low- and middle-income neighborhoods. The CRA, however, made no mention of race and only encouraged (rather than mandated) banks to consider the needs of low-income members of communities.\(^\text{132}\)

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127. See, e.g., Steven M. Graves, Landscapes of Predation, Landscapes of Neglect: A Location Analysis of Payday Lenders and Banks, 55 PRO. GEOGRAPHER 303, 303 (2003).

128. Anthony L. Nardone, Joan A. Casey, Kara E. Rudolph, Deborah Karasek, Mahasin Mujahid & Rachel Morello-Frosch, Associations Between Historical Redlining and Birth Outcomes from 2006 Through 2015 in California, 15 PLOS ONE, Aug. 7, 2020, at 3.


Gaps in the utilization of financial services do not solely derive from historical discrepancies in education and market outcomes caused by discrimination, but also from Black Americans’ mistrust in the financial system. This lack of confidence in financial institutions has historical roots as well. Several historians have argued that Black Americans’ mistrust in financial institutions stems from the deposits they lost when the Freedman’s Savings Bank (FSB) collapsed during Reconstruction.

Congress incorporated and chartered the FSB as part of the Freedmen’s Bureau Bill, signed into law by President Lincoln in 1865, which was intended to aid formerly enslaved freedmen who had few economic resources. Growth of the FSB was at first largely fueled by Black soldiers, who deposited their modest paychecks at branches across the country. However, the White management of the FSB engaged in speculative investing, leading the bank to acquire bad debt. Ultimately, rumors of corruption and investments that violated the bank’s charter left the FSB vulnerable to the Panic of 1873, leading to a series of runs on several of its branches. After the Panic, attempts to restore Black Americans’ confidence in the FSB proved unsuccessful, and the bank ultimately closed in 1874. The bank’s closing proved disastrous. In addition to considerable delays in winding down the FSB, some depositors never received any of their deposits, while others received discounted amounts. Bank managers misled depositors to believe that their deposits had been guaranteed by the federal government. Thus began an intergenerational pattern of Black Americans distrusting financial institutions and government guarantees.

regulation. It does not strictly prohibit any acts nor does it establish civil penalties, damages, or injunctions.”).


137. OSTHAUS, supra note 135, at 5–6.

138. Id. at 138, 152–53.

139. Id. at 176.

140. Id. at 184, 211.

141. Id. at 211–13.

142. Id. at 56.

143. BARADARAN, supra note 135, at 31.
The loss of the FSB should not only be measured in the deposits lost and the distrust it engendered; Black Americans also lost the correlated and downstream effects that financial inclusion can provide. For instance, a 2020 study found that individuals in families with an FSB account were more likely to attend school, be literate, work outside the home, and have higher income and real estate wealth. Similarly, the Federal Deposit Insurance Corporation’s (FDIC) 2019 Survey of Household Use of Banking and Financial Services found that the unbanked rate among Black households (13.8 percent) remains substantially higher than the rate for White ones (2.5 percent). Approximately one-half of American households cite lack of money as a reason they do not have bank accounts, with almost 30 percent citing it as the main reason. The second most cited reason is lack of trust in banks. Specifically, over one-third of households indicate a lack of trust in banks as a reason for not having a bank account, with 16.1 percent citing it as the main reason. While these numbers are not broken down by race, distrust nonetheless remains a major factor for minorities, who are more likely to be wary of the financial system due to past racist practices, lack of transparency about fees, and feelings that banks do not want customers who look like them.

This lack of trust extends beyond banks to other financial institutions and services, such as those offered by financial professionals. Mistrust also leads to conservative investing strategies, which further contribute to the racial wealth gap. To wit, Black Americans are less likely to hold risky assets and more likely to invest most of their wealth in their homes. Less risk often results in less wealth because returns on stocks have historically been higher than those for other assets. Moreover, Black Americans are less likely to engage wealth

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144. Stein & Yannelis, supra note 134, at 5336.
146. Id. at 3.
147. Id.
150. See, e.g., Thompson & Suarez, supra note 74, at 34–37 (finding that the mean wealth difference between Black and White families is due to higher likelihood of White families owning homes and stock); Petach & Tavani, supra note 68, at 115.
management professionals because they do not believe they have sufficient assets, because of high fees, or, importantly, because they do not trust these traditionally White institutions. Perhaps some of the trust deficit could be closed by taking investment advice from friends and family, but Black households are much less likely than White households to have financial experts in their social networks. As a result, Black Americans have less access to the types of information associated with successful investing. This discrepancy cannot only be explained by differences in financial literacy but is also the result of racialized discrepancies in social networks.

B. The New Inequality: Predatory Inclusion

Given the compounding and long-lasting nature of wealth, the historical legacy of inequality is important. Rather than disappearing, however, inequality has simply morphed. Whereas the old, FHA-influenced inequality largely excluded Black Americans, the new conception of inequality includes everyone but does so in ways that reinforce historical inequalities and contribute to the racial wealth gap. This process, called “predatory inclusion,” grants members of marginalized groups access to financial services, but only on terms that eliminate its very benefits.

Mistrust and lack of access create opportunities for predation. Not only are payday lenders more commonly located in minority neighborhoods, but those lenders also engage in deliberate target marketing. In turn, where the old inequality involved redlining, the new inequality uses reverse redlining.

Reverse redlining, used in the years leading up to the Great Recession, involved

153.  Burton, supra note 149, at 688.
155.  Id. at 981.
158.  See, e.g., Paul S. Calem, Kevin Gillen & Susan Wachter, The Neighborhood Distribution of Subprime Mortgage Lending, 29 J. REAL ESTATE FIN. & ECON. 393, 394 (2004) (“[A]ll previous studies find significant concentration of subprime lending among minority borrowers or within neighborhoods where minority households predominate.”); Jacob S. Rugh & Douglas S. Massey, Racial Segregation and the American Foreclosure Crisis, 75 AM. SOCIO. REV. 629, 630 (2010) (“[T]he financial institutions that do exist in minority areas are likely to be predatory.”).
targeting subprime mortgages to areas with larger minority populations. The highly segregated patterns fostered by historical redlining set the stage for this practice by making address a proxy for race. And this predatory lending raised default rates during the financial crisis. Lenders tailored pitches to Black borrowers, operated out of bank branches in targeted Black-majority neighborhoods, and filled in inflated income figures on loan applications without borrowers’ knowledge.

Payday lenders similarly target Black borrowers. Moreover, Black borrowers receive less favorable terms on their car loans. Even educational loans, often viewed as a means to minority advancement, are plagued with predatory inclusion—Black students more likely to incur educational debt and to be targeted by the for-profit sector. As such, Black borrowers receive lower average returns on educational investment. Predatory inclusion and loan denials by mainstream institutions also have a chilling effect, as many Black applicants do not apply for bank loans because they do not believe their applications will be approved.

These disparate loan outcomes contribute to the racial wealth gap. One study estimated that the average Black family’s net worth would be anywhere from 2 to 8 percent higher if those families could borrow at the same interest rates as White families.

The COVID-19 pandemic has led to an increase in the number of unbanked households and reliance on predatory products like payday loans. These changes, coupled with Black Americans’ lack of access to affordable credit, mean that Black Americans continue to fall further behind in wealth accumulation.


164. Seamster & Charron-Chénier, supra note 156, at 204.

165. Id. at 200.


167. Chiteji, supra note 163, at 357.

168. Kutzbach et al., supra note 145, at 10–12.
Bad debt is thus highly racialized.\textsuperscript{169} The growth of fintech and ever more complex financial products has only aggravated the issues identified above.\textsuperscript{170} The problem is not only high interest rates, as with payday loans, but also unregulated financial intermediaries offering financial products that the average consumer does not understand. The complexity only steepens the financial literacy learning curve. Distinguishing between good and bad debt, and wise and unwise investments, is an ever more daunting task. These issues are discussed in more detail in Part II.

II. THE (BROKEN) PROMISES OF FINTECH

Key players in the fintech revolution often claim that their products foster financial inclusion, which would address some of the issues that underlie wealth inequality as described in Part I.\textsuperscript{171} In this Section, we review the specific promises of the most prominent fintech developments—e-trading, robo-advising, alternative credit platforms, neobanks, and decentralized payments—and evaluate how well each innovation has lived up to its promises. Surveying the fintech revolution, we acknowledge that the impacts of these business models vary considerably. While we identify instances in which some technologies have exacerbated existing inequities, we also identify less-problematic structures within fintech business models that simply reduce the likelihood that the technology could succeed in reducing racial inequality.

A. E-Trading

As discussed in Part I, the racial wealth gap in the United States is estimated at roughly $10.14 trillion.\textsuperscript{172} Disparities in stock ownership contribute to that gap: about 61 percent of White households report stock ownership, while only 34 percent of Black households and 24 percent of Hispanic households do.\textsuperscript{173}

\begin{itemize}
  \item \textsuperscript{169} Charron-Chénier & Seamster, supra note 154, at 980.
  \item \textsuperscript{170} Id. at 989.
  \item \textsuperscript{171} See, e.g., Welcome to the Historical White Paper, DIEM (Apr. 2020), http://web.archive.org/web/20220122052956/https://www.diem.com/en-us/white-paper/ [https://perma.cc/U48K-JU6U] (“With more than 1.7 billion people who are either unbanked or underbanked around the world, large-scale innovation that promotes financial inclusion, compliance, and competition could help those who need it the most.”). In its initial white paper for its digital payment system, the Diem Association discussed how blockchains can address problems of accessibility and trustworthiness that exclude people from the traditional financial system. Id. While the Diem Association is technically a separate organization from Meta (formerly Facebook), its funding came from the firm. Facebook-Funded Cryptocurrency Diem Winds Down, BBC NEWS (Feb. 1, 2022), https://www.bbc.com/news/technology-60156682 [https://perma.cc/LZ8Q-L2LR].
  \item \textsuperscript{172} See Williamson, supra note 44 and accompanying text.
\end{itemize}
Research by Thomas Piketty suggests that these inequalities in stock ownership will exacerbate wealth inequality over the coming decades.\footnote{See Thomas Piketty, Capital in the Twenty-First Century 53 (2014).}

Two massive disruptions transformed retail stock trading from the province of the wealthy elite into a booming market accessible to anyone with a smartphone.\footnote{To the Moon, Part 3: A People’s History of Investing, WALL ST. J. & GIMLET (June 6, 2021), https://www.wsj.com/podcasts/the-journal-to-the-moon-part-3-a-people-history-of-investing/f2727ca6-06ef-4248-aa0b-6c62eedf9b18 [https://perma.cc/387N-JCKC] (hereinafter To the Moon, Part 3).} The first development was Jack Bogle’s creation of the first index mutual fund in 1975.\footnote{Id.} Tied to the performance of the entire market, index funds provided a means for middle-class Americans to invest in the stock market without high management fees.\footnote{Id.} The second major disruption was the launch of Robinhood in 2015.\footnote{Id.}

1. The Promise: To “Democratize Finance for All”

On March 12, 2015, Stanford roommates Vladimir Tenev and Baiju Bhatt launched their new mobile trading platform, Robinhood.\footnote{Id., Registration Statement (Form S-1) (July 1, 2021) (“As of December 31, 2020 and as of March 31, 2021, we had 12.5 million and 18.0 million Net Cumulative Funded Accounts, respectively, and from January 1, 2015 to March 31, 2021, over half of the customers funding accounts on our platform told us that Robinhood was their first brokerage account.”).} While other online brokers charged $7.99 or more per trade, Robinhood promised a commission-free trading experience aimed at millennial customers that Bhatt claimed would “unlock[] the market for the micro investor.”\footnote{Id.} Robinhood had an immediate impact on the trading industry. In the days following Robinhood’s launch, nearly every major online brokerage eliminated commissions for buying and selling stocks.\footnote{Id.} With its commission-free trading app, Robinhood has indeed opened the stock markets to millions of first-time investors.\footnote{Id.}

Robinhood’s commission-free trading structure is made possible by a rebate paid to the brokers called Payment for Order Flow (PFOF).\footnote{See Robinhood Mkts., Inc., Registration Statement (Form S-1) (July 1, 2021) (“As of December 31, 2020 and as of March 31, 2021, we had 12.5 million and 18.0 million Net Cumulative Funded Accounts, respectively, and from January 1, 2015 to March 31, 2021, over half of the customers funding accounts on our platform told us that Robinhood was their first brokerage account.”).}

\footnote{See Thomas Piketty, Capital in the Twenty-First Century 53 (2014).}
makers, alternatively known as wholesalers, pay firms like Robinhood fractions of a penny per trade in exchange for marketable stock order flows. These tiny amounts add up, and their scope has grown dramatically: the aggregate PFOF revenue nearly tripled from $892 million in 2019 to $2.5 billion in 2020 at four major broker-dealers—TD Ameritrade, Robinhood, E*Trade, and Charles Schwab. Not all brokers have fully disclosed this source of revenue, however. Indeed, in late 2020, the U.S. Securities and Exchange Commission (SEC) charged Robinhood with intentionally hiding its PFOF revenues from its customers. Such concealment of PFOF hinders customers’ informed decisions about broker choice, as it obscures how PFOF creates a conflict of interest and ultimately affects execution prices.

2. The Reality: Lower Returns and Conflicts of Interest

A potential problem with PFOF is that Robinhood and other brokers are incentivized to increase the number of trades per user on their platform to increase their revenue. Yet, studies have shown that small investors who trade stocks more frequently tend to earn lower returns. In particular, Robinhood users tend to trade much more frequently than do other investors. Alphacution, a research firm, analyzed new filings from nine brokerage firms and found that Robinhood’s users trade at the fastest pace. Specifically, in the first quarter of 2020, Robinhood users traded nine times as many shares as E*Trade’s customers and forty times as many shares as Charles Schwab’s customers.

At the heart of the ongoing policy debate over PFOF are concerns that the arrangement may compromise a broker’s duty to seek the best execution

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184. Id. Market makers buy the stocks at the bid price and sell to them at a slightly higher price. Id. The SEC’s approach to PFOF involves disclosing its existence. Id. Under rules 606 and 607 of Regulation NMS of the Securities Exchange Act of 1934, key aspects of PFOFs must be disclosed. See 17 C.F.R. §§ 242.606–607 (2023).

185. See To the Moon, Part 3, supra note 175.


189. Id.
available for its customers’ orders. During his nomination hearing, SEC Chair Gary Gensler stated that PFOF “raises a number of policy questions, including whether and how it enables best execution for investors, its role in growing concentration in market making, and its effects on fair, orderly and efficient markets.” Putting those concerns into action, Gensler announced in June of 2021 that he had asked the agency’s staff to make recommendations to amend a host of market structure rules, including PFOF.

The SEC is not alone in its concerns about PFOF. The Massachusetts Securities Division filed an enforcement action against Robinhood in 2020, asserting that Robinhood profited from allowing and even encouraging inexperienced investors to trade frequently on its platform. In its complaint, Massachusetts claimed that Robinhood gamified its platform in order to “lure customers into consistent participation.” The complaint pointed to Robinhood’s use of confetti falling on screen when a user bought or sold stock, along with the use of ranked waitlists for certain app features. The State alleged that these tactics facilitated “frequent, risky, and unsuitable trading.”

Massachusetts also noted that Robinhood sends users push notifications that identify certain stocks as “Top Movers” or “Most Popular.” Such tactics are effective. Using data from Robinhood, a 2020 study found that Robinhood executed orders at prices that were inferior to other brokers. Robinhood apportioned less PFOF to price improvement than its competitors (a 20/80 split as opposed to an 80/20 split).

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190. SHORTER, supra note 183, at 2. “Best execution” denotes the broker’s obligation to seek the most favorable terms for a customer’s transaction in the context of the prevailing circumstances. Id. In its 2020 case against Robinhood, the SEC charged Robinhood with breaching its duty by executing orders at prices that were inferior to other brokers. Robinhood Fin., LLC, supra note 186, at 5. Robinhood apportioned less PFOF to price improvement than its competitors (a 20/80 split as opposed to an 80/20 split). Id. at 6. A 2021 study, however, found that the adoption of PFOF-facilitated zero commissions led to improved trade execution quality. See Samuel Adams & Connor Kasten, Retail Order Execution Quality Under Zero Commissions 26 (Jan. 7, 2021) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3779474 [https://perma.cc/WX87-SLDR].


196. Id. at 14.

197. Id. The Massachusetts Securities Division stated that these lists have the potential to influence the securities that “new, unsophisticated customers with no investment experience purchase” and yet “Robinhood does not conduct a suitability analysis of the securities contained in the list.” Id. at 12.
investors engage in more attention-induced trading than other retail investors.\textsuperscript{198} While these results are consistent with Robinhood attracting relatively inexperienced investors, the study showed such attention-induced trading is at least partially attributable to the app’s unique features—including Robinhood’s identification of trending investments.\textsuperscript{199} Further, consistent with previous models, the study showed that users who engage in attention-induced trading generally earn negative returns.\textsuperscript{200}

Not only do Robinhood investors trade more frequently to their detriment, they also trade the riskiest products.\textsuperscript{201} Robinhood has made high-risk options trading easily accessible to users with little to no investment experience.\textsuperscript{202} Indeed, when the Financial Industry Regulatory Authority (FINRA) fined Robinhood $65 million in 2021, it charged the firm with failing to exercise due diligence before approving customers to trade options.\textsuperscript{203} FINRA asserted that Robinhood relied on computer algorithms with limited oversight to approve thousands of customers who did not satisfy the firm’s eligibility criteria or whose accounts contained red flags.\textsuperscript{204} In addition, FINRA found that Robinhood misled its customers about the riskiness of options trading.\textsuperscript{205}


\textsuperscript{199} Id. at 23.

\textsuperscript{200} Id. The top 0.5 percent of stocks bought by Robinhood users each day experience negative average returns of approximately 5 percent over the next month. Id. at 29. “[E]xtreme herding events” (at least a 50 percent increase in Robinhood users representing a minimum of 1,000 new users) are followed by negative average returns of almost 20 percent. Id.

\textsuperscript{201} Popper, supra note 188. Robinhood users bought and sold eighty-eight times as many risky options contracts as Schwab customers, relative to the average account size, according to Alphacution Research Conservatory.

\textsuperscript{202} Id. The company advertises options with the tagline “quick, straightforward & free.” Id. Even though beginners are legally barred from trading options, customers can trade options after answering a few multiple-choice questions. Id. Those who indicate that they have no investing experience are then coached by the app on how to change the answer to “no much” experience. Id. Then people can immediately begin trading. Id. These policies have sometimes resulted in devastating consequences. A University of Nebraska student, Alex Kearns, took his own life after seeing a negative $730,165 balance in his Robinhood account. Sergei Klebnikov, 20-Year-Old Robinhood Customer Dies by Suicide After Seeing a $730,000 Negative Balance, FORBES (June 17, 2020), https://www.forbes.com/sites/sergeiklebnikov/2020/06/17/20-year-old-robinhood-customer-dies-by-suicide-after-seeing-a-730000-negative-balance/?sh=6f9927016384 [https://perma.cc/G3GE-2QFH]. In his suicide note, Kearns expressed anger toward Robinhood, writing that he had “no clue” what he was doing and that he had never authorized margin trading. Id.


\textsuperscript{204} Id. at 3–4.

\textsuperscript{205} Id. at 3.
paid to enter [a] debit spread” when customers could, and many did, lose much more than the premiums they paid.206

3. Conclusion

Robinhood has forever changed the retail trading market by providing easy, commission-free trading and introducing a new generation to retail investing and risky options trading. Without commissions, though, Robinhood and other brokers have relied more heavily on PFOF as a source of revenue. In an apparent effort to maximize its PFOF, Robinhood has designed its app to increase the number of trades by gamifying the user experience and highlighting certain stocks for purchase. Given that increased trading frequency and attention-induced trading are associated with lower or even negative returns, it is unlikely that the platform will democratize finance in a way that will reduce the racial wealth gap.

B. Robo-Advisers

Another component of the racial wealth gap derives from disparities in rates of return on investments.207 Robo-advisers could be a potential solution to this issue as they are ostensibly more accessible than human wealth management advisers.208 A robo-adviser is an online wealth management tool that uses algorithms to generate financial advice with minimal human involvement.209 Robo-advisers create a risk profile based on customer input, which they leverage to allocate clients’ funds to investments based on their individual preferences.210

Robo-advisers differ in the types of services they provide and the extent to which they supplement their digital services with human guidance and monitoring.211 Although newer technologies exist, the most commonly utilized robo-advisers rely on decision trees or heuristics developed based on human knowledge.212 Given the current pace of development, however, robo-advisers...
that employ fully automated deep neural networks will likely replace older systems in the next few years.\textsuperscript{213}

Since launching more than a decade ago, robo-advisement has grown into an industry that managed $460 billion in assets in 2020.\textsuperscript{214} While the first robo-advisers were stand-alone firms, many existing financial firms including banks, broker-dealers, technology firms, and asset managers have now entered the market.\textsuperscript{215} In 2020, Betterment, the largest start-up robo-adviser, managed $29 billion in assets, while Vanguard Personal Adviser, the largest incumbent robo-adviser, managed $231 billion in assets.\textsuperscript{216} The field of robo-advisers is expanding as well—a 2016 study by BlackRock identified thirty-seven new robo-adviser firms that launched in 2014 and forty-four more in 2015.\textsuperscript{217}

1. The Promise: To Make Quality Investment Advice More Accessible

As with many other fintech developments, robo-advisers launched during the 2008 financial crisis. The first consumer-facing robo-advisers, Wealthfront and Betterment, began operations in 2008 and started advising retail investors in 2010.\textsuperscript{218} Initially, Wealthfront sought to provide financial advice to the tech community, but the founders broadened their focus to make investment advice accessible to more people at lower costs.\textsuperscript{219} Similarly, Betterment sought to offer financial advice at a lower cost by automating the selection and management of investments.\textsuperscript{220}

More recently, entrepreneurs have launched robo-adviser start-ups with the express purpose of catering to underserved groups. For example, Carlos Garcia created Finhabits, a bilingual robo-adviser platform designed to help first-time savers develop good investing habits.\textsuperscript{221} Similarly, Ellevest offers algorithmic

\begin{itemize}
\item[] 213. Id. at 132.
\item[] 216. Victor Chatenay, Charles Schwab’s $200 Million Fine Signals SEC Scrutiny of Robo-Advisors, BUS. INSIDER (July 8, 2021), https://www.businessinsider.com/charles-schwab-fine-signals-sec-scrutiny-of-robo-advisors-2021-7 [https://perma.cc/T76J-WELU]. Although algorithmic-driven investment services have experienced rapid growth, they still represent a relatively small market share in comparison with more traditional investment advisers.
\item[] 218. Fisch et al., supra note 215, at 16–17.
\item[] 219. Id. at 17.
\item[] 220. Id.
\end{itemize}
investing for women with the purpose of closing gender wealth gaps.\textsuperscript{222} Although Ellevest now manages $1 billion in assets,\textsuperscript{223} and Finhabits over $21 million,\textsuperscript{224} these platforms represent a small slice of the overall wealth management market.\textsuperscript{225}

2. The Reality: Repackaged Goods

Some scholars claim that in addition to charging lower fees, robo-advisers offer more transparency and suffer from fewer conflicts of interest than traditional human financial advisers.\textsuperscript{226} With these features, robo-advisers may improve access to good investment advice and thereby offer at least a partial solution to wealth inequality. To evaluate this claim and the other promises of robo-advisers, this Section assesses robo-advisers’ customer populations, their investment performance, and the extent of their conflicts of interest.

a. A Tool for Younger but Affluent Investors

Although robo-advisers purport to benefit investors of modest means, a 2020 study concluded that investors who use robo-adviser services are more likely to have higher amounts of investable assets and higher levels of perceived investment knowledge than non-users.\textsuperscript{227} The study analyzed a large sample of investors with non-retirement investment accounts and concluded that most investors who use robo-advisers already owned substantial investable assets.\textsuperscript{228} The study’s findings run counter to the narrative that robo-advisers serve underserved markets. Instead, robo-advisers provide a less expensive alternative to traditional investment advisers for younger but relatively affluent investors.\textsuperscript{229}

\begin{itemize}
\item \textsuperscript{222} Start Investing Today, ELLEVEST, https://www.ellevest.com/investing [https://perma.cc/AFC6-UBDG].
\item \textsuperscript{227} Lu Fan & Swarn Chatterjee, The Utilization of Robo-Advisors by Individual Investors: An Analysis Using Diffusion of Innovation and Information Search Frameworks, 31 J. FIN. COUNSELING & PLAN. 130, 143 (2020).
\item \textsuperscript{228} Id.
\item \textsuperscript{229} See id. (concluding that adopters of robo-advisers are “less likely to be older” and more likely to “possess higher amounts of investable assets”).
\end{itemize}
b. Mixed Investment Performance

Another element of the promise of robo-advisers is that they provide quality investment advice. However, while robo-advisers have delivered services at relatively lower costs, their investment choices have generated mixed returns.230 A 2019 study concluded that under-diversified investors benefited from increased portfolio diversification using a robo-adviser, but found that diversified investors tended to increase their trading activity, which did not translate into improved investment performance.231 One possible explanation is that, relative to traditional investment advisers, robo-advisers confer a greater degree of autonomy on the investors themselves.232 Giving more control to investors increases the likelihood of suboptimal behavior caused by lack of self-control233 and overtrading.234

c. Misleading Advertising

Like other investment advisers, robo-advisers must register with the SEC and are subject to agency oversight and enforcement.235 The SEC brought its first enforcement actions against a robo-adviser in 2018, when it fined Wealthfront and Hedgeable $250,000 and $80,000, respectively, over false disclosures about investment performance and misleading advertising.236 Specifically, Wealthfront claimed that it would monitor certain client accounts for transactions triggering a wash sale but failed to do so.237 As a result, wash sales occurred in 31 percent of the accounts enrolled in Wealthfront’s tax loss harvesting program.238 Further, the SEC found that Wealthfront had

231. Id.
232. See id. at 1989.
234. See D’Acunto et al., supra note 226, at 1989; see also Brad M. Barber & Terrance Odean, All That Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors, 21 REV. FIN. STUD. 785, 812–13 (2008) (finding individual investors display attention-driven buying behavior and discussing that this attention-driven trading does not generate superior returns).
237. Id. A wash sale occurs when an investor sells a security at a loss and then purchases that same security or “substantially identical” securities within thirty days (before or after the sale date). Hayden Adams, A Primer on Wash Sales, CHARLES SCHWAB (Feb. 3, 2021), https://www.schwab.com/resource-center/insights/content/a-primer-on-wash-sales [https://perma.cc/29S6-E6GL]. The IRS’s tax sale rule prohibits the investor from claiming a loss on the sold security. Id.
238. Press Release, SEC, supra note 236.
“improperly re-tweeted prohibited client testimonials” and “paid bloggers for client referrals without the required disclosure and documentation.”

In a separate order, the SEC found that Hedgeable made misleading statements about its clients’ investment performance. According to the order, Hedgeable’s website and social media accounts included misleading comparisons of its clients’ investment performance with those of two robo-adviser competitors. The performance comparisons included less than 4 percent of Hedgeable’s client accounts, which had higher-than-average returns. “Hedgable compared this with rates of return that were not based on competitors’ actual trading models.”

While Wealthfront and Hedgeable are not necessarily indicative of the entire market, their active efforts to mislead customers inhibit investors from accurately evaluating their adviser options. Further, once a customer has enrolled with a robo-adviser, the robo-adviser may employ simple choice architecture techniques to mislead consumers—especially when those techniques are combined with a biased or inaccurate ranking algorithm. Given the potential for robo-advisers to misdirect customers, the next Section evaluates whether robo-advisers are vulnerable to conflicts of interest with their customers.

d. Conflicts of Interest

The fines imposed against Wealthfront and Hedgeable pale in comparison to the $200 million fine the SEC levied against Charles Schwab’s robo-adviser service in 2021. Although the SEC has not yet disclosed specific details of the case, commentators speculate that the action is in response to the company advertising that it charges “no fee” while earning income on customers’ cash held in deposit accounts. Such a compensation structure creates a conflict of interest, as it could drive the company to allocate more of a customer’s portfolio to cash even if that strategy does not maximize customer returns.

The proceedings against Charles Schwab highlight a problem in the robo-adviser industry generally. With firms competing to offer investment advice at low or no cost, robo-advisers face increased pressure to produce alternative revenue streams that may not serve clients’ best interests. For example, a 2017

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239. Id.
240. Id.
241. Id.
242. Id.
243. Id.
244. Tom Baker & Benedict Dellaert, Regulating Robo Advice Across the Financial Services Industry, 103 IOWA L. REV. 713, 732 n.68 (2018). For example, a study found that switching the medals (e.g., gold, silver, bronze) assigned to particular health insurance plans changed consumer choices. Peter A. Ubel, David A. Comerford & Eric Johnson, Healthcare.gov 3.0—Behavioral Economics and Insurance Exchanges, 372 NEW ENGL. J. MED. 695 (2015).
246. Id.
247. Id.
lawsuit alleged that Morningstar, a robo-adviser designer, and Prudential, the investment management company, colluded “to design a robo-adviser program to steer [users] toward investments that paid Prudential high fees.” Although the lawsuit was eventually dismissed, the complaint alleged that Morningstar and Prudential modified their adviser technology “to generate ‘revenue sharing fees’ . . . by limiting the investment options available to [the plaintiffs] and other plan participants.” If true, such practices would violate the fiduciary duties imposed upon investment advisers pursuant to the Investment Advisers Act.

3. Conclusion

Robo-advisers are touted as providing more affordable investment advice without the cognitive limitations and behavioral biases that affect traditional human advisers. The hope is that this technology will help to reduce the wealth gap by making investment advice more accessible and bias-free. But this assumption ignores that humans still develop, run, and maintain the algorithms that provide financial advice. With many of the same flaws as traditional investment advisers, policymakers cannot rely on the technology alone to reduce


250. See SEC v. Cap. Gains Rsch., Inc., 375 U.S. 180, 201 (1963) (holding that the Investment Advisers Act of 1940 creates fiduciary duties for registered investment advisers vis-à-vis their clients). The SEC has interpreted these duties to include a “fundamental obligation to act in the best interests” of clients as well as a “duty of undivided loyalty and utmost good faith.” Information for Newly-Registered Investment Advisers, SEC & EXCH. COMM’N (Nov. 23, 2010), https://www.sec.gov/divisions/investment/advoverview.htm [https://perma.cc/2RX8-5445]. The SEC has also specifically stated that the fiduciary standards apply to robo-advisers. See SEC & EXCH. COMM’N, DIV. OF INV. MGMT., GUIDANCE UPDATE NO. 2017-02 2–3 (2017), https://www.sec.gov/investment/im-guidance-2017-02.pdf [https://perma.cc/3LYH-CT6W] (noting that an investment robo-adviser, as defined in that guidance statement, is a fiduciary and, thus, must provide disclosures that are “sufficiently specific so that a client is able to understand the investment adviser’s business practices and conflicts of interest”). The question of whether robo-advisers are capable of fulfilling fiduciary duties has been given some scholarly attention. See generally Megan Ji, Note, Are Robots Good Fiduciaries? Regulating Robo-Advisers Under the Investment Advisers Act of 1940, 117 COLUM. L. REV. 1543, 1545 (2017) (arguing that robo-advisers are “structurally capable” of meeting duty of care standards required under the Investment Advisers Act of 1940 if regulated properly); John Lighthoue, Note, Algorithms & Fiduciaries: Existing and Proposed Regulatory Approaches to Artificially Intelligent Financial Planners, 67 DUKE L.J. 651, 678–79 (2017) (arguing that robo-advisers can meet a fiduciary standard as currently modeled).


wealth gaps. Rather, the technology’s potential to address the problem cannot be realized without additional oversight.253

C. Alternative Credit Platforms

As discussed in Part I, the inability to access credit has impeded the ability of generations of Black Americans to build wealth.254 After the official end of redlining, barriers in the form of minimum credit scores have continued to exclude historically disadvantaged groups from accessing favorable credit terms.255 Because the variables used to calculate credit scores still reflect the effects of discriminatory policies, credit scoring perpetuates the cycle of restricted access.256 Fintech lenders and credit scorers claim to remedy this issue with the use of alternative credit data.257

1. The Promise: To Provide Credit Opportunities to the Unscored and Underscored

Fintech credit rating agencies and lenders purport to use alternative credit data to “unlock more credit opportunities for millions of hardworking people.”258 This alternative scoring generally takes two different forms: (1) an opt-in

253. For some, the recent probe into Charles Schwab’s robo-advisory service suggests that the industry will receive greater scrutiny under new SEC Chair Gary Gensler. Chatenay, supra note 216. In Gensler’s first testimony to Congress in his new role, he specifically discussed robo-advisers, emphasizing that their business models “put additional demands on SEC resources . . . [and] raise a variety of policy questions around gamification, behavioral prompts, the use of data analytics, and more.” Gary Gensler, Testimony Before the Subcommittee on Financial Services and General Government, U.S. House Appropriations Committee, SEC & EXCH COMM’N (May 26, 2021), https://www.sec.gov/news/testimony/gensler-2021-05-26 [https://perma.cc/E5SZ-3P4T]. Further signaling increased attention on ensuring that investment advisors are fulfilling their fiduciary duties to provide advice that is in their clients’ best interests, the SEC sent out a series of deficiency letters to “nearly all of the examined advisers.” Div. of Examinations, SEC & EXCH COMM’N, Observations from Examinations of Advisers that Provide Electronic Investment Advice 4 (2021), https://www.sec.gov/files/exams-eia-risk-alert.pdf [https://perma.cc/N8KP-CSJQ]. With increased regulatory focus on robo-advisers, regulators may be able to address some of the issues identified herein.

254. See supra Part I.B.

255. Janine Hiller & Lindsay Sain Jones, Who’s Keeping Score?: Oversight of Changing Consumer Credit Infrastructure, 59 AM. BUS. L.J. 61, 63–64 (2022). While the introduction of algorithms and the removal of human bias were supposed to eliminate discrimination in lending, studies have shown that algorithms have a bias of their own. Using data from mortgages in the United States, one recent study found that Black and Hispanic borrowers are disproportionately less likely to gain from the introduction of machine learning in credit scoring models. Andreas Fuster, Paul S. Goldsmith-Pinkham, Tarun Ramadorai & Ansgar Walther, Predictably Unequal? The Effects of Machine Learning on Credit Markets, 77 J. Fin. 5, 5 (2022).

256. See Lisa Rice & Deidre Swesnik, Discriminatory Effects of Credit Scoring on Communities of Color, 46 SUFFOLK U. L. REV. 935, 940–43 (2013) (describing the policies of the HOLC, FHA, and VA that were explicitly discriminatory).

257. See, e.g., About, UPSTART, https://www.upstart.com/#!/about [https://perma.cc/8U6Q-KS6E] (“Upstart goes beyond the FICO score, using non-conventional variables at scale to provide superior loan performance and improve consumers’ access to credit.”)

structure that allows applicants to choose to share their financial data for a chance to increase their credit score or (2) the use of non-permissioned data collected from proprietary databases, third-party data aggregators, and publicly available data to supplement traditional scoring models. This Section examines these methods that ostensibly “empower consumers to establish or improve their credit worthiness.”

2. The Reality: Coerced Surveillance and Predatory Inclusion

Alternative credit scoring is often presented to applicants as a “second chance” after they have been denied credit based on a traditional credit score. An applicant is then asked to grant permission to the scorer to directly access their checking, savings, or utility account histories. For example, UltraFICO calculates an alternative credit score based on the length of time the permissioned accounts have been open, recency and frequency of transactions, evidence of consistent cash on hand, and history of positive account balances, together with traditional credit data.

Although this arrangement is technically voluntary, an applicant may feel compelled to opt in after being denied credit. Given that the services are marketed as free with no downside, applicants are also “insufficiently informed of the nature of the bargain.” An applicant provides access to their bank accounts, utility, or subscription services until the applicant proactively takes steps to disconnect their accounts. In exchange for providing this

261. FINICITY, supra note 259, at 2.
263. See id.
265. See Hiller & Jones, supra note 255, at 67 (arguing that “opting out is not a feasible option for the majority of Americans” because most people need credit to buy homes and cars, to go to school, or to start a business).
266. See, e.g., EXPERIAN, supra note 264 (advertising that “Experian Boost is completely free” and that consumers can raise “credit scores fast”).
continuing access, the average credit score boost is only thirteen points, which is not likely to change the outcome of a credit application.

While the opt-in arrangement is not ideal in terms of consumer consent, other forms of alternative credit scoring are not disclosed to applicants at all and may further discriminatory lending practices. Lenders may use data from an applicant’s interaction with the application itself or may buy data from aggregators who pull relevant information from the web, social media, or public records. Rather than opening up credit opportunities for disadvantaged groups, then, alternative credit scoring could serve to extend discriminatory lending practices. After all, with the use of this expansive data, algorithms may evaluate applicants based upon facially neutral alternative data points that are strongly correlated with immutable traits (e.g., race and sex). Further, the alternative data makes it easier for high-interest lenders to target vulnerable populations for high-interest loans, thus perpetuating the discriminatory cycle.

3. Conclusion

While the rhetoric around alternative lending and scoring is focused on financial inclusion, lack of access to affordable credit continues to contribute to wealth gaps in this country. Although the use of alternative data could improve

269. See EXPERIAN, supra note 264 (“Users who received a boost from non-rental data improved their FICO Score 8 from Experian by an average of 13 points.”).

270. See Liz Weston, Is Better Credit Worth Exposing Your Bank Data?, AP NEWS (May 6, 2019), https://apnews.com/article/41404bfa14a240f9ae23d3599edfae [https://perma.cc/P65Y-RHVQ]. Even the best-case scenarios, the applicant would be unlikely to move from a “bad” to “fair” or from a “fair” to “good” score. See id.


274. See Jones et al., supra note 27 (reporting that lenders have been marketing loans that carry 200 percent to 500 percent annual interest rates to consumers who are searching online for financial help); see also Odinet, supra note 27, at 1760–65 (2021) (analyzing Elevate as a case study of a fintech lender that uses alternative data and ultimately operates like an online payday lender). The CFPB recently announced an inquiry into a particular fintech business model that has experienced rapid growth, buy-now-pay-later (BNPL) providers, highlighting concerns about fees and who uses the service. Press Release, Consumer Fin. Prot. Bureau, Consumer Financial Protection Bureau Opens Inquiry into “Buy Now, Pay Later” Credit (Dec. 16, 2021), https://www.consumerfinance.gov/about-us/newsroom/consumer-financial-protection-bureau-opens-inquiry-into-buy-now-pay-later-credit/ [https://perma.cc/NS4X-PAU9]. Questions arise as to whether it’s credit by another name. Further, if the user-base is primarily low-income people, the Bureau would have concerns. See generally Nicole K. McConlogue, Discrimination on Wheels: How Big Data Uses License Plate Surveillance to Put the Brakes on Disadvantaged Drivers, 18 STAN. J. C.R. & C.L. 279 (2022) (arguing that the use of automated license plate reader technology in auto financing and insurance will exacerbate economic and racial disparities in car ownership).

275. See supra Part I.B.
financial inclusion, alternative credit scoring in its current form cannot meaningfully reduce wealth gaps. As Terri Friedline has noted, these tools can be used for surveillance of “Black and Brown communities by requiring individuals to sacrifice their privacy in order to participate.” Further, the tools have been used to exclude historically disadvantaged groups from credit and to target these groups for high-interest, short-term loans.

D. Neobanks

As discussed in Part I, a significant portion of Americans remain outside of the traditional banking system. Many of the unbanked rely on check-cashing services and payday lenders who charge higher interest than any chartered bank can legally impose. Those who manage to open bank accounts incur disproportionately high fees and penalties for small overdrafts. The past decade has seen the emergence of fintech banks, also known as neobanks or challenger banks, who are thought to be positioned to address some of these issues. Neobanks operate entirely virtually, avoiding the overhead associated with brick-and-mortar branches. With incumbent banks jumping into the mix, the estimated size of the digital banking market was over $7 trillion in 2017 and is expected to grow to $9 trillion by 2024.

1. The Promise: To Provide Fee-Free Checking

Currently, more than thirty neobanks exist in the United States, and many of them launched in just the past few years. For example, Chime, a neobank with approximately 12 million customers, claims to provide “lower-cost options for everyday Americans who aren’t being served well by traditional banks.”

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278. See supra Part I.C.

279. See supra Part I.C.


281. Id. at 140–43.


283. Id.


Chime and other neobanks aim to attract the unbanked and the underbanked by offering features such as fee-free overdrafts, no minimum balance requirements, and early access to paychecks.\footnote{287}{See Online Banking, CHIME, https://www.chime.com/online-banking/ [https://perma.cc/ZST2-XUYE].}

2. **The Reality: Higher Fees Charged to Merchants and Problems with Scale**

Neobanks’ structures are key to their strategies but may ultimately leave them unable to fulfill their promises. Generally, neobanks are not “banks,” but are rather fintech companies that rely on relationships with chartered regional banks to provide financial services.\footnote{288}{BRADFORD, supra note 282, at 1. By definition, a bank is a chartered financial institution that is licensed to receive deposits and make loans. Id.}

Regulators allow smaller banks to charge at least double the interchange fees that large banks can charge.\footnote{289}{Id. In 2020, the average interchange charge for transactions covered by the Durbin Amendment was $0.23, while the average interchange charge for exempt transactions was $0.44. Average Debit Card Interchange Fee by Payment Card Network, BD. OF GOVERNORS OF THE FED. RSRV., https://www.federalreserve.gov/paymentsystems/regii-average-interchange-fee.htm [https://perma.cc/KKBH-SSDP].}

Regulators allow smaller banks to charge at least double the interchange fees that large banks can charge.\footnote{290}{Id. Can Neobanks’ Popularity Outlast the Pandemic?, ECONOMIST (Aug. 21, 2021), https://www.economist.com/finance-and-economics/2021/08/21/can-neobanks-popularity-outlast-the-pandemic [https://perma.cc/9SLY-WCZ].}

Interchange fees are charged by debit and credit card issuers to businesses as they process card payments.\footnote{291}{Why Big Banks and Fintechs Are Battling Over Interchange, FINLEY (June 22, 2021), https://www.finleycns.com/why-big-banks-and-fintechs-are-battling-over-interchange [https://perma.cc/9UWU-U6UG].}

The Durbin Amendment in the Dodd-Frank Act capped interchange fees that a bank with $10 billion or more assets may charge.\footnote{292}{The Durbin Amendment in the Dodd-Frank Act capped interchange fees that a bank with $10 billion or more assets may charge. Id. § 1693o-2(a)(2) (2018). The bill was a last-minute addition to the Dodd-Frank Act proposed by Senator Dick Durbin of Illinois. Tim Chen, What the Durbin Amendment Means for You, U.S. NEWS (July 12, 2011), https://money.usnews.com/money/blogs/my-money/2011/07/12/what-the-durbin-amendment-means-for-you [https://perma.cc/9C7Y-GRBH].}

Neobanks thus partner with smaller banks to capitalize on their ability to charge higher interchange fees.\footnote{293}{The rule does not apply to issuers with assets less than $10 billion. 15 U.S.C. § 1693o-2(a)(6)(A) (2018).}

Branch is among the leading providers in this segment, with 3 million customer accounts.\footnote{294}{FINLEY, supra note 292.}
One problem with this structure is that neobanks must stay under $10 billion in assets to remain exempt from the Durbin Amendment. This could present issues of scalability for neobanks. Branch, for example, is a neo-bank that offers fee-free checking, but its accounts are not available to the general public. Branch accounts are only available to employees whose employers sign up with the neobank. Further, Chime, which provides app-based banking services to an estimated 12 million customers, has reportedly closed accounts with little notice to customers.

3. Conclusion

With their low- or no-fee accounts, neobanks provide a hopeful alternative to traditional financial intermediaries. Questions arise, though, as to whether the business model is sustainable in the long run as it requires ongoing partnerships with small banks. Not only does the business model present issues of scale, but it also shifts the burden of fees entirely to the merchants. Indeed, neobanks’ ability to charge higher fees is contingent upon their ability to charge merchants higher interchange fees. These fees are particularly challenging for minority-owned businesses that already face higher costs just to do business. For large companies, the increased fees may prove less problematic. But for small businesses, the reduction in margin can be devastating. Further, a study released by the Boston Federal Reserve showed that the interchange fee system transfers wealth from the lowest-income households to the highest-income households.

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299. Id.

300. See FAIRLIE & ROBB, supra note 22, at 3.


E. Decentralized Finance (DeFi)\textsuperscript{303}

Using the pseudonym Satoshi Nakamoto, an unknown computer programmer proposed a new platform that would allow users to make transfers of digital representations of value to be recorded on a public ledger called a blockchain.\textsuperscript{304} Implementing the proposal, Nakamoto created the first block of the chain in January of 2009, known as the genesis block.\textsuperscript{305} The native currency on this blockchain, dubbed Bitcoin, is the first known cryptocurrency.\textsuperscript{306} Since the creation of the first block, cryptocurrencies have progressed from relative obscurity to a mainstream investment, with a peak total market capitalization of over $1 trillion.\textsuperscript{307}

1. The Promise: To Provide a Trust-less Alternative with Lower Costs and Broader Access

Nakamoto proposed an electronic payment system based on cryptographic proof rather than trust in order to eliminate the need for financial intermediaries.\textsuperscript{308} From improving financial access for the unbanked to reducing transaction costs, many crypto-enthusiasts posit that cryptocurrencies and their underlying distributed ledger technology have the potential to transform financial services.\textsuperscript{309} If true, cryptocurrencies could potentially address some of the underlying issues that contribute to wealth inequality identified in Part I. For example, if blockchain technology allows users to have confidence in

\textsuperscript{303} Although a precise definition of “DeFi” is elusive, we use the term to refer to a software application that provides financial services using coins or tokens hosted on a permissionless, distributed ledger. Hilary J. Allen, DeFi: Shadow Banking 2.0?, 64 WM. & MARY L. REV. (forthcoming 2023) (manuscript at 9–10), https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=3195&context=facsch_lawrev.


\textsuperscript{305} See supra note 304.

\textsuperscript{306} See DAVID W. PERKINS, CONG. RSCH. SERV., CRYPTOCURRENCY: THE ECONOMICS OF MONEY AND SELECTED POLICY ISSUES 1 (2020).

\textsuperscript{307} Gertrude Chavez-Dreyfuss & Tom Wilson, Bitcoin Hits $1 Trillion Market Cap, Surges to Fresh All-Time Peak, REUTERS (Feb. 18, 2021), https://www.reuters.com/article/us-cryptocurrency-bitcoin-bitcoin-hits-1-trillion-market-cap-surges-to-fresh-all-time-peak-idUSKBN2AJ0GC.

\textsuperscript{308} NAKAMOTO, supra note 304, at 1.

transactions without an intermediary or the government, the technology could provide a viable alternative to the institutions that many Black Americans have grown to distrust. Whether this potential will bear out over time remains to be seen. But for now, reality is more complicated.

2. The Reality: Intermediation, Stability, and Access Issues

Notwithstanding the fact that the blockchain protocol was developed to allow for transacting without intermediaries, the system still requires trust in intermediaries. DeFi users must place their trust in core software developers, miners, wallets, stablecoin issuers, exchanges, and application programming interfaces (APIs) that allow access to distributed ledgers. Indeed, over $829 billion in cryptocurrencies are traded on over 524 exchanges each day. Many of these exchanges employ the same intermediation practices as their traditional counterparts. The largest platforms, such as Coinbase, Gemini, Bittrex, and Binance, collect fees for matching buy and sell orders. Coinbase, which operates the largest cryptocurrency exchange, reportedly charges purchasers a spread of approximately 0.5 percent plus a fee ranging from $0.99 to $2.99. Coinbase then charges users who sell their cryptocurrencies a spread as well.

However, some alternative platforms are less centralized as they do not match buyers’ and sellers’ orders. These “decentralized” platforms still rely

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311. See supra notes 134–154 and accompanying text.
312. Lindsay Sain Jones, Beyond the Hype: A Practical Approach to CryptoReg, 25 VA. J.L. & TECH. 176, 190 (2022) (explaining that crypto recipients can still incur fees).
314. Allen, supra note 303, at 3.
315. Id.
317. See Johnson, supra note 313, at 1953–54.
318. Id.
321. COINBASE, supra note 320.
322. See Johnson, supra note 313, at 1963–64.
on some aspects of traditional intermediation, such as liquidity pools, to facilitate trades. Providers are incentivized to contribute to market liquidity through trading fees paid by users who use the pool. Traders on these decentralized platforms tend to pay higher network fees because the infrastructure requires additional steps for verifications and posting transactions. Thus, regardless of the type of exchange, users must pay to use a platform’s services.

In addition to the fees, the relative complexity of cryptocurrencies is another impediment to their use as a path to financial inclusion. Despite their apparent ubiquity, only 16 percent of the U.S. population owns cryptocurrency. And while people of color invest in cryptocurrency at higher rates than in other investment realms, the average cryptocurrency owner is still White, male, and relatively affluent. The choices before potential cryptocurrency investors are as follows: (1) undertake the research necessary to understand cryptocurrencies prior to investing, (2) invest in cryptocurrencies without fully understanding the technology, or (3) opt-out of investing in cryptocurrencies entirely. While many have profitably chosen the first two options, those same options are less feasible for individuals who are already excluded from the financial system. Those living outside of the financial system generally do not have the time and resources to research cryptocurrencies, nor do they have the income certainty to invest in something they do not fully understand.

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323. See Johnson, supra note 313, at 1956.
325. See Johnson, supra note 313, at 1956.
328. According to a 2021 report, the average cryptocurrency investor is a thirty-eight-year-old White male with an annual income of $111,000. GEMINI, supra note 326, at 6 (reporting that of cryptocurrency owners, 74 percent are male, 77 percent are under the age of forty-five, and 71 percent are White). See also Yosef Bonaparte, On the Portfolio Choice of Crypto Asset Class: Why the Millennials Own Crypto? 29 (Apr. 18, 2021) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3829275 [https://perma.cc.3WLA-JF6Z] (finding that being White, male, and having a college degree are the strongest demographic determinants in cryptocurrency ownership).
329. See Bonaparte, supra note 328, at 13 (finding that cryptocurrency owners have less income uncertainty than their non-crypto-owning counterparts).
With the additional complexity of cryptocurrencies comes additional risks to financial stability as well. As is clear from past financial crises, complexity increases the likelihood that risks will be underestimated when times are good and overestimated in a downturn. Hilary Allen posits that DeFi is a new form of shadow banking that contributes to systemic risks in the same manner as other complex instruments did leading up to the 2008–2009 financial crisis. In spite of the risks, DeFi remains largely unregulated. This is especially concerning given that the last financial crisis exacerbated wealth inequality in the United States.

The prices of cryptocurrencies, such as Bitcoin, are notoriously volatile, which prevents their use as a true medium of exchange. Some look to stablecoins as a solution. As the name suggests, stablecoins are digital currencies that are programmed to maintain a stable value relative to a reference asset, such as the U.S. dollar. However, a recent report found that stablecoins suffer from the same hurdles as other forms of retail finance. For example, stablecoin users still need a bank account to convert their stablecoins back to fiat currency. On top of the standard barriers, the study identified additional problems of illiquidity, insolvency, and potential technical failure at the blockchain or smart contract levels.

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330. See Allen, supra note 303, at 4. Allen discusses how key fragilities (leverage, rigidity, and susceptibility to runs) are present in the DeFi ecosystem. See id. See generally HILARY J. ALLEN, DRIVERLESS FINANCE: FINTECH’S IMPACT ON FINANCIAL STABILITY (2022).

331. See Allen, supra note 303, at 10–15.


335. Id. at 36.


Lastly, even if cryptocurrencies could improve access to financial services by providing an alternative payment method, cryptocurrencies do not carry the same legal protections as other forms of payment, such as credit or debit cards. If an unauthorized transfer occurs, for example, there is generally no intermediary to cover the loss. Further, cryptocurrency payments are irreversible. Once a scammer has received the funds, a user cannot reverse the transaction.

3. Conclusion

The creator of Bitcoin, Satoshi Nakamoto, envisioned Bitcoin as a means to send payments without financial intermediaries. A financial system that does not require trust in the institutions that have failed Black Americans and other historically disadvantaged groups is an appealing prospect. Rather than disintermediating financial services, however, exchanges have profited from cryptocurrencies like Bitcoin by facilitating their trading for fees. The fees such exchanges charge, combined with cryptocurrency’s relative complexity, financial instability, and lack of consumer protections, leave the promise of improving access to financial services unfulfilled. Ironically, while promising

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340. See Some Things You Need to Know, BITCOIN, https://bitcoin.org/en/you-need-to-know [https://perma.cc/D7NP-Q2VW] (“A Bitcoin transaction cannot be reversed, it can only be refunded by the person receiving the funds.”).

341. Id. Researchers at Aalto University and NEC Laboratories have considered one possible solution by identifying and comparing payment-for-receipt protocols to leverage functionality from the blockchain and increase fairness in cryptocurrency payments. See Jian Liu, Wenting Li, Ghassan O. Karame & N. Asokan, Toward Fairness of Cryptocurrency Payments, 16 IEEE SEC. & PRIV. 81, 81–89 (2018).

342. See NAKAMOTO, supra note 304, at 1 (describing Bitcoin as a “purely peer-to-peer version of electronic cash [that] would allow online payments to be sent directly from one party to another without going through a financial institution”).

343. Stepping into the role of a traditional financial intermediary has proven to be a profitable venture for many exchanges. When Coinbase went public in 2021, it was valued at $85.7 billion. Jason Henry, Coinbase Valued at $86 Billion in ‘Landmark Moment’ for Crypto, N. Y. TIMES (Apr. 14, 2021), https://www.nytimes.com/live/2021/04/14/business/stock-market-today [https://perma.cc/AL87-B5UP].
decentralization and disintermediation, DeFi essentially asks users to place their trust in newer, less-regulated intermediaries.  

III.
The Proposal

This Article has examined racial wealth inequality in the United States and analyzed fintech’s potential to address some of its underlying causes. Given the inherent limitations in each fintech tool, we understand that innovation alone cannot close this gap. Further, any solution that only addresses the shortcomings of technology would be insufficient. Rather, solving the deeply complex problem of racial wealth inequality necessitates a comprehensive solution that includes technological oversight as well as solutions that account for the historical roots of the wealth gap.

Over the years, scholars and policymakers have offered promising potential solutions to the issues identified in this Article. This Section groups these proposals into five basic types: (1) changes to financial services, (2) infrastructure improvements, (3) technology oversight, (4) tax policy changes, and (5) federal government wealth transfers. Then, this Section argues that a comprehensive solution that combines elements of each category would be most effective to address wealth inequality. Finally, this Section considers the hurdles to this multidimensional reform effort.

A. Types of Proposals

1. Changes to Financial Services

Over the years, scholars have proposed modifying our financial system to improve access and trust among underserved communities. Prominent among such proposals is providing a public banking option that competes with traditional banks and fintechs. For example, Mehrsa Baradaran has proposed reestablishing postal banking, which would allow post offices to accept small deposits again. The prevalence of local post offices would increase.

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347. See Baradaran, supra note 346, at 166–72.
accessibility. In addition to offering checking and savings accounts with online accessibility, postal banks would provide a viable alternative to predatory lenders via check-cashing services and emergency loans with manageable interest rates.

There is an ongoing debate about whether a central bank digital currency (CBDC) could improve access to financial services as well. As a government-backed alternative to stablecoins, a CBDC could facilitate faster and cheaper payments with fewer risks. However, many remain skeptical about a CBDC’s ability to improve financial inclusion on its own. CBDC proposals that also incorporate the use of accounts provided by the Federal Reserve or the Treasury Department would better increase access to affordable financial services.

351. See JACKSON & MASSAD, supra note 349, at 6–7. For example, faster and cheaper payments could reduce the need for check-cashing services. See id. at 6. For a discussion of the issues relating to stablecoins, see supra notes 334–337 and accompanying text.
353. JACKSON & MASSAD, supra note 349, at 6. For a FedAccounts proposal that calls for a simplified CBDC, see John Crawford, Lev Menand & Morgan Ricks, FedAccounts: Digital Dollars, 89
accounts could be an alternative to the accounts offered by for-profit institutions, with interest on balances, real-time payments, instant access to government benefits, no minimum balance requirements, and no interchange fees. 354

Civil rights leaders and segregationists alike have long promoted notions of self-help and Black capitalism as a means to address wealth inequality. 355 These ideals have been so politically appealing that every president since Nixon has advanced some form of Black capitalism. 356 For example, the Financial Institutions Reform, Recovery, and Enforcement Act, signed by President George H.W. Bush, contained the first legislative decree on minority depository institutions (MDIs), instructing banking regulators to work toward preserving the “present number” and “character” of MDIs. 357 Thus far, the assistance provided to MDIs has largely included education, guidance, training, and counseling. 358 Beyond mere training, some scholars have suggested more substantive support of MDIs through capital-access or capital-injection programs, technical assistance, and deposit programs, as MDIs can play a special role in markets underserved by other institutions. 359

Instead of creating new financial service options, other proposals have focused on strengthening existing frameworks. Since the CRA, which was intended to address redlining by requiring banks to meet the credit needs of their communities, has long been criticized as “toothless,” 360 many proposed reforms

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355. BARADARAN, supra note 135, at 3.

356. See BARADARAN, supra note 135, at 3. Unfortunately, the self-help narrative has also been used to thwart more direct means to address the wealth gap. Id.

357. Pub. L. No. 101-73, 103 Stat. 183 (1989). According to the FDIC, an MDI is “a federal insured depository institution for which (1) 51 percent or more of the voting stock is owned by minority individuals; or (2) a majority of the board of directors is minority and the community that the institution serves is predominantly minority.” MINORITY DEPOSITORY INSTITUTIONS PROGRAM, FED. DEPOSIT INS. CORP., https://www.fdic.gov/regulations/resources/minority/mdi.html [https://perma.cc/5BQ5-FMJS].

358. BARADARAN, supra note 135, at 264.


360. BARADARAN, supra note 135, at 232. Having been criticized as “toothless” and more about process than reform, the CRA has also been blamed for causing the financial crisis. See id. at 232–33. However, the theory has been largely debunked because CRA loans represented a very small fraction of the subprime loans leading up to the financial crisis. Neil Bhutta & Daniel Ringo, Assessing the
have sought to strengthen the CRA and its implementing regulations.\textsuperscript{361} Following the rescission of Trump-era reforms to CRA regulations that would have “lessein[ed] public accountability of banks to their communities,”\textsuperscript{362} community groups submitted a position paper to federal banking regulators that calls for, among other things, consideration of race on CRA exams.\textsuperscript{363} Currently, rather than evaluating banks’ services to customers by race, CRA exams assess services provided to low- and moderate-income neighborhoods.\textsuperscript{364} Measuring progress toward race-based goals would more efficiently address discriminatory lending practices and the racial wealth gap. Others have proposed broadening the application of the CRA beyond just banks to include other financial service providers.\textsuperscript{365} If applied to fintechs, such a reform could address some of the concerns discussed in Part II.

\textsuperscript{361} See, e.g., Roberto Quercia, Janneke Ratcliffe & Michael A. Stegman, The CRA: Outstanding, and Needs to Improve, in REVISITING THE CRA: PERSPECTIVES ON THE FUTURE OF THE COMMUNITY REINVESTMENT ACT 47, 57 (Prabal Chakrabarti, David Erickson, Ren S. Essene, Ian Galloway & John Olson eds., 2009) (suggesting the following improvements to strengthen the CRA: expanding the scope of activities considered, fine tuning measurements, strengthening the service test, and revitalizing the public’s role).

\textsuperscript{362} Analysis of the OCC’s Final CRA Rule, NAT’L CMTY. REINVESTMENT COAL. (June 15, 2020), https://ncrc.org/analysis-of-the-occs-final-cra-rule/ [https://perma.cc/5M7H-C22D]. Within three months of the OCC’s announcement regarding the rescission, the National Community Reinvestment Coalition, an association of more than six-hundred community-based organizations, submitted a position paper that called for revisions to the CRA, including consideration of race on CRA exams and an expansion of assessment areas. NAT’L CMTY. REINVESTMENT COAL., POSITION PAPER ON CRA REFORM 1–2 (2022), https://www.ncrc.org/position-paper-on-cra-reform/ [https://perma.cc/G5TR-MP4S].

\textsuperscript{363} See id. The proposal also calls for more objective measures of performance and the expansion of assessment areas. Id. at 1. In May of 2022, the banking agencies issued a notice of joint rulemaking to “strengthen and modernize” CRA regulations. Press Release, Off. of the Comptroller of the Currency, Community Reinvestment Act: Interagency Notice of Proposed Rulemaking to Implement the CRA (May 5, 2022), https://www.occ.treas.gov/news-issuances/bulletins/2022/bulletin-2022-14.html [https://perma.cc/RR7Q-K4CX]. While newly proposed regulations under the Biden administration would require disclosure of “borrower race and ethnicity of the bank’s home mortgage loan originations and applications” in the public portion of the CRA exams, the impact is reduced because the proposed regulations expressly state the data is not to be used in banks’ ratings. Community Reinvestment Act, 87 Fed. Reg. 33884 (June 3, 2022) (to be codified at 12 C.F.R. § 345).

\textsuperscript{364} See 12 U.S.C. § 2903 (2006) (requiring the banking agencies to “assess the institution’s record of meeting the credit needs of its entire community, including low- and moderate-income neighborhoods, consistent with the safe and sound operation of such institution”).

\textsuperscript{365} For example, Representative Eddie Bernice Johnson introduced the Community Reinvestment Modernization Act of 2009 that would have expanded the scope of CRA to include non-bank financial institutions. H.R.1479, 111th Cong. (2009). See also Josh Silver, Why the Community Reinvestment Act Should Be Expanded Broadly Across the Financial Industry, NAT’L CMTY.
Another proposal to improve access to the financial system is a federal maximum interest rate. Currently, there is only one group federally protected against maximum interest rates: active-duty service members. In 2006, Congress passed the Military Lending Act (MLA), which capped interest rates at 36 percent for loans to such individuals. In 2015, the Department of Defense issued a revised rule expanding the reach of the MLA to additional credit products, including credit cards. The proposed Veterans and Consumer Fair Credit Act (VCFCA) would extend these protections to all consumers. This proposal has been under consideration for several years and was last reintroduced in the House and Senate in 2021.

Increased oversight by the Consumer Financial Protection Bureau (CFPB) could also address underlying causes of inequality in fintech. The CFPB issued a rule in 2017 to impose strict limits on payday loans, but the regulation was gutted under Trump-appointed officials in 2019 and 2020. These rescinded regulations prohibited making certain payday and car loans without reasonably determining the debtor’s ability to repay. The only part of the rule still in effect—requiring lenders to receive authorization before attempting to withdraw...
missed payments from bank accounts—is currently being challenged in courts. However, the political situation has since evolved: the Biden administration’s CFPB could propose to restore the 2017 payday rules.

Sociologists Frederick Wherry, Kristin Seefeldt, and Anthony Alvarez have focused on the high costs of credit exclusion or “credit invisibility,” which they propose combating by expanding the financial system to allow individuals to fully participate in society regardless of their financial status. They propose mechanisms such as lending circles to expand credit outside of the traditional banking system. Moreover, they argue that dignity assessments (e.g., measuring the level of “indignity” of financial services, products, or debt collectors) and participatory design of financial products (e.g., incorporating the experiences of low- and moderate-income families when building financial products) could expand access to financial tools. Some of their proposals, like baby bonds (discussed later in this Article), could transform the racial imbalance of inherited wealth.

2. Infrastructure Improvements

While fintech innovations offer some hopeful solutions for underserved communities, access to broadband internet service to use these services remains unequal. In an effort to address this issue, Congress included $65 billion in the Infrastructure Investment and Jobs Act to improve internet access and broadband affordability in rural areas. The law allocated $2.75 billion specifically for states to develop and fund projects, such as WiFi hot spots in schools, to ensure internet access for historically underserved communities. Although hailed as a major step toward addressing inequalities, the final bill did not include

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379. Id. at 65–79.
380. Id. at 107, 108.
381. Id. at 104.
383. FRIEDLINE, supra note 277, at 138.
385. Id. § 60301.
provisions to develop municipal broadband networks. In fact, nineteen states have banned municipal broadband networks, and a group of Republicans in Congress have proposed a ban on municipal providers. Nonetheless, continued investment in expanding broadband internet is advisable, given that fintech’s ability to fulfill its promise to expand financial access is predicated upon users’ ability to access their services.

Infrastructure improvements to two inextricably intertwined contributors to wealth inequality—education and home values—could also increase financial access in underserved communities. A 2014 study found that low home values are linked to poorly performing, underfunded schools. For example, schools that are designated as “in need of improvement” under the No Child Left Behind Act depress surrounding neighborhood prices by an average of 6 percent. The designation is also linked to social stigma, which then negatively impacts the very neighborhoods those designations were designed to help. Conversely, investments in public education in Black neighborhoods could have the added benefit of boosting home values and increasing Black wealth. These investments could spur a virtuous cycle because as the property values rise, so does the tax base to support spending in nearby public schools.

The federal government could also take more robust action against discrimination. To reverse the Trump administration’s efforts to weaken fair housing regulations, President Biden signed executive orders aimed at increasing racial equity and eliminating housing discrimination. The Biden administration has also sought to restore two rules that the Trump

391. Id. at 804.
393. See Matthew Davis & Fernando V. Ferreira, Housing Disease and Public School Finances, 88 ECON. EDUC. REV. 1, 16 (2022) (finding an increase in spending after increases in home prices).
395. Id.
397. Jan, supra note 394.
administration gutted: (1) the disparate impact rule and (2) a 2015 rule requiring communities to identify and dismantle barriers to racial integration.

Public investment to address inequitable exposure to environmental harms is another promising strategy to combat the racial wealth gap. A Brookings Institute study found that homes in Black neighborhoods were undervalued by $48,000 per home on average, amounting to $156 billion in cumulative losses.\footnote{[https://www.brookings.edu/wp-content/uploads/2018/11/2018.11_Brookings_Devaluation_Annex.pdf]} Several scholars have documented how Black-majority neighborhoods and cities are disproportionately impacted by negative environmental externalities.\footnote{See e.g., James T. Hamilton, Testing for Environmental Racism: Prejudice, Profits, and Power?, 14 J. POL’Y ANALYSIS & MGMT. 107, 111 (1995) (finding that communities targeted for capacity expansion plans by hazardous waste facilities have a greater proportion of minority residents); Laura Pulido, Rethinking Environmental Racism: White Privilege and Urban Development in Southern California, 90 ANNALS ASS’N AM. GEOGRAPHERS 12, 15–16 (2000) (explaining how suburbanization and decentralization have contributed to contemporary patterns of environmental racism); Allison Shertzer, Tate Twinam & Randall P. Walsh, Race, Ethnicity, and Discriminatory Zoning, 8 AM. ECON. J.: APPLIED ECON. 217, 219 (2016) (finding that neighborhoods with larger populations of Southern-born Blacks or first-generation immigrants were more likely to be zoned for industrial uses); Spencer Banzhaf, Lala Ma & Christopher Timmins, Environmental Justice: The Economics of Race, Place, And Pollution, 33 J. ECON. PERSPS. 185, 186–88 (2019) (showing that emissions facilities are more likely to be operating in tracts that are more than 80 percent non-White than in those that are more than 80 percent White).} Flint, Michigan, is the most recent well-known example of this phenomenon.\footnote{See Lindsey J. Butler, Madeleine K. Scammell & Eugene B. Benson, The Flint, Michigan, Water Crisis: A Case Study in Regulatory Failure and Environmental Injustice, 9 ENV’T JUST. 93, 94 (2016).} Measures such as relocation of hazardous waste facilities, modernization of water-treatment infrastructure, and increased pollution regulation could help to increase the value of homes in Black neighborhoods.

3. Technology Oversight

As discussed in Part II, fintech business models inherently impede their own ability to meaningfully address wealth inequality. Neobanks, for example, can only provide free checking by partnering with small banks and charging
merchants higher fees. However, policymakers could address other issues identified in Part II through stronger enforcement and stricter interpretation of existing laws and regulations. For example, broker-dealers are already subject to Regulation Best Interest, which requires brokers to act in the best interest of their clients when making recommendations. Under those guidelines, the SEC could interpret Robinhood’s tactics to induce trading as a “recommendation” and thus require the firm to ensure that the promoted investments are in the best interest of its clients. Others have argued that enforcement of existing laws is not enough and that new laws or regulations are needed to address the problems.

Perhaps the most alarming of the concerns raised in Part II is lenders’ use of algorithms and new data that may negatively impact historically disadvantaged groups and exacerbate existing wealth gaps. Again, this issue could be addressed by stronger enforcement of existing laws such as the Equal Credit Opportunity Act (ECOA). Several scholars have considered the role that the toxic combination of (1) the increasing use of algorithms and (2) inherent

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404. See supra Part II.E.2.

405. Scholars, such as William Magnuson, have argued that more regulatory attention should be paid to fintechs due to the unique concerns that fintech poses. Magnuson, supra note 1, at 1172. Chris Brummer and Yesha Yadav have identified the difficulties in promulgating rules for fintechs that are clear, maintain market integrity, and encourage financial innovation simultaneously. Chris Brummer & Yesha Yadav, Fintech and the Innovation Trilemma, 107 GEO. L.J. 235, 244 (2019).


407. See Gary Gensler, Chair, Sec. & Exch. Comm’n, Prepared Remarks at the “SEC Speaks” Conference (Oct. 12, 2021) (suggesting that design elements and psychological nudges could cross the line to become recommendations); see also Kyle Langvardt & James Fallows Tierney, On “Confetti Regulation”: The Wrong Way to Regulate Gamified Investing, 131 YALE L.J.F. 717, 738 (2022) (suggesting that gamification tactics could be considered making a recommendations under Regulation Best Interest).

408. See Magnuson, supra note 1, at 1215 (contending that regulation of fintech must contain different substantive standards than regulations imposed on other financial institutions).

409. See supra Part II.C.2.

algorithmic bias play in perpetuating inequality.411 Solutions may include increased transparency, auditing or oversight, and more human autonomy.412 One method of addressing potential misuse of alternative data (like social media activity, contacts, and college grades) in credit decisions would be to treat credit scores as a public utility.413 This regulation would acknowledge the necessary and fundamental role of fair consumer credit ratings in the U.S. economy.414 Further, the reform would make the credit scoring entities directly responsible to the public and subject them to further regulation.415 Finally, treating credit scores as a public utility might give consumers control over what data they consent to share.

The increased use of behavioral data gleaned from social media activity, called social credit, has led some scholars to call for a limited right to be unnetworked.416 More regulation could help prevent the potential privacy harms, due process violations, and discrimination that social credit generates.417 This right would broadly disallow the use of social information unless the creditor satisfies one of several exceptions, such as using the information to comply with state and federal requirements.418 While all these measures could help fintech to

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414. Id. at 108.

415. Id. at 115–20.


418. Id. at 419.
better deliver on its promises, any reforms that fail to examine the areas that have increased the wealth gap—such as our tax policies—will prove incomplete.

4. Updates to Tax Policies

The public has increasingly focused on wealth taxation in the past decade in recognition of wealth’s central place in our economic structure. By taxing labor income more heavily than wealth, the tax system holds back disadvantaged groups. The renewed interest in wealth taxation is at least partly due to Thomas Piketty’s best-selling book *Capital in the Twenty-First Century,* which prompted robust discussions about wealth disparities. Piketty proposed a global wealth tax to combat increasing wealth disparities. Economists Emmanuel Saez and Gabriel Zucman also helped to revive interest in a wealth tax with their book *The Triumph of Injustice.* The debate became especially vibrant during the 2020 election season when Zucman served as a policy adviser for Elizabeth Warren and helped to write her annual wealth tax proposal.

Tax policies provide a viable path for reducing wealth inequality. While such changes would likely need to be race-neutral to pass constitutional scrutiny, tax treatment can (and presently does) differ depending upon income and wealth levels. Currently, our system taxes everyone based on income, but also favors those with more wealth by subsidizing homeownership, retirement accounts, and retirement property, thereby expanding the wealth gap. In turn, some have proposed a wealth tax or an enhanced estate tax as a means to reverse course and

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420. See generally PIKETTY, supra note 174 (arguing that inequitable returns on capital exacerbate wealth inequality that in turn threatens democratic values).

421. Id. at 515.


reduce wealth inequality. Tax scholar Dorothy Brown, for example, has highlighted how U.S. tax policies negatively impact Black Americans. As a race-neutral solution, Brown proposes a “wealth-based refundable tax credit for individual taxpayers whose wealth is below the median.”

Several other legislative proposals have also sought to tackle wealth inequality, including increased taxation of capital gains, a financial transaction tax, and a millionaires and billionaires tax. While such solutions would certainly help to reduce the racial asset gap, those solutions alone are insufficient solve the long-lasting nature of wealth inequality. Instead, these solutions must be used in concert with other antidiscrimination policies.

5. Federal Government Wealth Transfers

Along with wealth taxation, the tax system could also make direct transfers to the least wealthy to support wealth building, similar to the Earned Income Tax Credit. For example, scholars have proposed a refundable credit that would fund wealth-building accounts for minorities. Minorities could use these funds to buy a home, start a small business, or fund an education. Similarly, some economists have proposed the use of baby bonds. A bond of up to $60,000 would be deposited into an account for each child depending on their wealth. The average middle-class child would receive around $20,000. These bonds would remain locked until the child turned eighteen when the funds would become available to pay for college, buy a home, or start a business.

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428. Id. at 220. Brown acknowledges that a race-based solution to reforming the tax system would likely be unconstitutional. Id. at 217.


435. Id. at 156.


437. Id. at 215.

438. Id.

439. Id.
Moreover, forgiving student loan debt could reduce the racial wealth gap.\textsuperscript{440} Black households carry more student debt, which hurts their credit worthiness and impedes their ability to purchase homes.\textsuperscript{441} A policy that reduced student loan debt would disproportionately help racial minorities and address a portion of the racial wealth gap.\textsuperscript{442} Contrary to popular belief, the plurality of outstanding debt is held by individuals with low incomes.\textsuperscript{443} Advocates of debt cancellation argue this reform would boost GDP and allow Black households to make decisions they currently defer, like purchasing a home or launching a business.\textsuperscript{444} Indeed, in August 2022, the Biden administration took the relatively modest step of forgiving between $10,000 and $20,000 in student loans for each borrower.\textsuperscript{445} By allowing Pell Grant recipients to receive a higher amount ($20,000) of debt cancellation, this measure targeted Black borrowers who are twice as likely to receive Pell Grants as their White peers.\textsuperscript{446} Yet, the promise of this debt cancellation is in question, as a federal court issued a temporary injunction halting the program.\textsuperscript{447}

Scholars have long identified reparations for slavery and racial discrimination as both necessary for justice and as another means of closing the racial wealth gap.\textsuperscript{448} Reparations would involve wealth transfers to descendants of enslaved people to compensate for some of the wealth lost because of slavery and subsequent discrimination. H.R. 40, originally drafted by Representative John Conyers\textsuperscript{449} and now sponsored by Representative Sheila Jackson Lee, calls for the establishment of a commission to investigate the history of racial injustice

\textsuperscript{440} Oliver \& Shapiro, supra note 38, at 20.


\textsuperscript{442} Id.

\textsuperscript{443} Id.

\textsuperscript{444} Id.


\textsuperscript{446} Id.


\textsuperscript{448} See sources cited supra note 37.

in the United States.450 Meanwhile, several different proposals have sought to structure a reparations program. One of the more recent proposals would make wealth transfers to Americans who (1) have at least one ancestor who was enslaved in the United States and (2) prove that they self-identified as Black at least twelve years before the enactment of the reparations program.451 Instead of using present-value calculations of unpaid wages, this plan would use the racial wealth gap itself to measure the amount to be transferred. 452 Notably, the proposal would deposit money into trust accounts with a twelve-member reparations supervisory board.453 The board would monitor the program and develop a financial management curriculum, while also documenting America’s history of racism.454 While this reparations program would fail to cover Black Americans who do not descend from slavery, an infusion of over $200,000 per descendant would substantially close the racial wealth gap for millions of Black individuals.

B. Our Proposal: Everything at Once

Having considered various proposals to tackle wealth inequality, we now return to our recommendation: enacting policies from each category. This recommendation does not just take the easy way out. Instead, it reflects the complex and embedded nature of the racial wealth gap. 455 Some scholars have acknowledged this and called for reforms that both tackle inequality and address the predatory actions of lenders.456 Others have called for multidimensional solutions to problems of inequality.457 For the reasons described below, we believe that a packaged solution is necessary, although that position could make its success doubtful.

450. Commission to Study and Develop Reparation Proposals for African Americans Act, H.R. 40, 117th Cong. (2021) (as introduced by Representative Sheila Jackson Lee) (“The commission shall identify (1) the role of the federal and state governments in supporting the institution of slavery, (2) forms of discrimination in the public and private sectors against freed slaves and their descendants, and (3) lingering negative effects of slavery on living African Americans and society.”); S. 40, 117th Cong. (2021) (as introduced by Senator Cory Booker).
451. DARIETY & MULLEN, supra note 123, at 258.
452. Id. at 259–60.
453. Id. at 264, 267.
454. Id. at 267–69.
455. See, e.g., Christian E. Weller & Angela Hanks, The Widening Racial Wealth Gap in the United States After the Great Recession, 47 F. FOR SOC. ECON. 237, 238 (2018); DALTON CONLEY, BEING BLACK, LIVING IN THE RED: RACE, WEALTH, AND SOCIAL POLICY IN AMERICA 25 (1999) (“Wealth has the particular attribute of tending to reproduce itself in a multiplicative fashion from generation to generation.”).
As briefly discussed in Part I, the insights of stratification economics are helpful in analyzing the racial wealth gap. Stratification economists see wealth inequality as persistent, and therefore an effective vehicle for reproducing stratification across generations because of its durability and transferability. When discrimination is seen as a rational exercise in maintaining a superior position on a hierarchy, the embedded nature of the wealth gap makes more sense. The difficulty in uprooting the wealth gap also more clearly comes into view. In the absence of radical, multidimensional action, closing the racial wealth gap may take centuries.

Building on stratification economics, scholars have rejected approaches that rely on single-cause determinants of the racial wealth gap. Instead, they have highlighted the “overlapping and compounding effects of various factors linking racism and economic inequality.” For example, if the fintech industry is regulated without tackling structural racism, clever human beings (e.g., lawyers, entrepreneurs, and others) will find loopholes or variations on their current predatory operations. On the other hand, if there is a large transfer of federal funds to disadvantaged minorities but no reforms to tackle financial institutions’ disparate treatment of Black Americans, much of the wealth may quickly transfer back to predatory actors. To wit, racial wealth inequality has thrived for generations despite past piecemeal reform efforts. It is clear that more comprehensive action is necessary.

1. **Hurdles**

Today’s political climate makes it difficult to countenance the passage of a comprehensive package. Any one of these proposals on its own would be difficult to pass. For example, the so-called Billionaire’s Income Tax floundered despite robust support by the American public for more taxation of the

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458. See Darby, supra note 76, at 146.
459. Id.
460. Note that some legal scholars have also conceptualized racial discrimination as a quest for superior status. See, e.g., Richard H. McAdams, Relative Preferences, 102 YALE L.J. 1, 95 (1992) (“Race discrimination by [W]hites may be seen not as an attempt to satisfy an irrational ‘taste’ for nonassociation with [B]lacks, but as an attempt to produce the ‘commodity’ of individual distinction by raising the relative status of a particularly salient social group—one’s race.”).
461. Aliprantis & Carroll, supra note 52, at 5.
463. Charron-Chénier & Seamster, supra note 154, at 979.
464. For example, the estate tax, which was enacted in 1916, has done little to curb the concentration of wealth. See, e.g., Aimee Picchi, Is America’s Low Estate Tax to Blame for Wealth Inequality?, CBS NEWS (Jan. 29, 2020), https://www.cbsnews.com/news/is-americas-low-estate-tax-to-blame-for-wealth-inequality/ [https://perma.cc/D6E8-2LQ9].
wealthy. Reparations, moreover, remain a contentious matter. And a reform as simple as placing a 36 percent interest rate cap on payday loans has yet to come up for a vote in Congress. Meanwhile, the structural hurdles of sixty votes in the Senate and the lobbying power of the financial interests involved cannot be underestimated. Political party differences between presidential administrations, too, mean that commitment to regulation efforts can ebb and flow.

Moreover, any race-based solutions will face constitutional hurdles in the courts. If the federal government cannot show that it actively or passively participated in past discrimination, race-based remedial measures violate equal protection principles. While addressing historic discrimination in general terms was once allowed, over time courts have begun to require more detailed explanations, along with substantial data to show that programs increase diversity.

And as the United States has moved further away from the enactment of civil rights laws, courts have become increasingly impatient with race-conscious government efforts to tackle racism. There is a sense that many


470. For a recent example, see Maynard, Biden’s Gambit, supra note 424, at 675–79 (explaining that courts struck down two race-based programs in the American Rescue Plan Act).

judges expect racism to be “fixed” by a certain time. Some scholars have tried to overcome these constitutional obstacles by offering race-neutral proposals that disproportionately benefit racial minorities. Yet, as several scholars have argued, tackling structural racism will require at least some race-based programs.

CONCLUSION

Ultimately, no single approach will solve wealth inequality and reform the fintech industry. Indeed, each of the categories of solutions suggested above are critical to reducing wealth inequality. If each solution is taken on its own, though, actors could continue to exploit the other weaknesses identified in this Article. Without comprehensive reforms, the effects of the official era of redlining, and the more subtle forms of discrimination that persist today, will continue to negatively affect generations of Americans. Reforms must include changes to delivery of financial services, improvements to infrastructure that improve access to financial services, oversight of financial technologies to improve their ability to deliver on their promises, overhauls of tax policies that favor the wealthy, and wealth transfers to disadvantaged individuals. Without these sweeping, large-scale reforms, progress toward wealth equality will be unacceptably slow.

Although we are clear-eyed about the many obstacles to enacting such reforms, those hurdles should not be the cause for complete pessimism. Human beings are terrible at predicting the future and cannot account for the political coalitions that will form moving forward. The optimism lies in acknowledging that inequality in general is not a genetic fait accompli. Rather, there are choices to be made and human ingenuity to be engaged in fixing these longstanding issues.

472. Justice O’Connor revealed a similar sentiment in Grutter when she suggested a twenty-five-year limit on race-conscious affirmative action programs. See Grutter v. Bollinger, 539 U.S. 306, 343 (2003). Eighteen years later, the United States is not much further along.

473. See, e.g., Samuel R. Bagenstos, Universalism and Civil Rights (with Notes on Voting Rights After Shelby), 123 YALE L.J. 2838, 2843 (2014); Maynard, Biden’s Gambit, supra note 424, at 685–86.

474. Derenoncourt et al., supra note 53, at 14 (showing that even under ideal conditions, racial wealth convergence will take hundreds of years).