A Framework for Explaining Black-White Inequality in Homeownership Sustainability

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Abstract

To explain racially differential housing outcomes, previous studies have tended to concentrate on discriminatory processes within the mortgage market while ignoring homeowning families' broad socioeconomic challenges. This study proposes a conceptual framework for understanding Black-White inequality in homeownership sustainability, which emphasizes Black homeowners' socioeconomic challenges that are external to mortgage market evaluations, with a particular focus on the mediating role of liquid assets. Based on the Panel Study of Income Dynamics, the framework is put to an empirical test on the differential exit rates between Black and White homeowners in the United States during the recent housing crisis. The findings indicate that the racial gap in homeownership exit is eliminated after liquid wealth is controlled in the model alongside other covariates and that the inclusion of liquid wealth renders all mortgage-oriented variables nonsignificant with regard to their explanatory power for Black-White inequality in exit rates. Policy implications of the findings are also discussed.

Keywords Homeownership · Race · Liquid assets · Wealth building · Social policy

Introduction

Because of various structural and economic barriers, African American families in the United States have long suffered from limited access to homeownership, which restricts their ability to build wealth, gain access to public services, avoid delinquent

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environments, and assimilate into mainstream economic and social life (Rohe et al. 2002; Sampson et al. 2002). After decades of federal initiatives to eliminate discriminatory practices in housing markets, the structural barriers to homeownership have been reduced, which has led to significant increases in African American homeownership rates (Rohe et al. 2002; Shlay 2006). Despite the advances, the Black-White homeownership gap remains substantial. According to the U.S. Census, the Black-White gap in homeownership rates never fell below 25 percentage points over the past two decades and exhibited a widening trend following the Great Recession (Rosenbaum 2012).

In the historical context of promoting an ownership society[1] (Clark 2013), research and policy efforts have concentrated on helping minority families become homeowners, although less attention has focused on their ability to retain ownership status. Two implications emerge with this imbalance. First, homeownership exit plays an essential role in determining a minority group's overall homeownership rate, which is the net outcome of both entry and exit (Turner and Smith 2009). More importantly, minority families' ability to sustain homeownership, to a great extent, determines their chances of reaping long-term homeownership-related benefits (e.g., wealth accumulation and social cohesion building), which constitute the central theme of the ownership society paradigm (Clark 2013; Davis 2012).

The issue of racial inequality in homeownership sustainability was brought to the forefront during the Great Recession, when the housing crisis delivered a disproportionately hard hit on African Americans (Clark 2013, 2019; Kuebler and Rugh 2013). Extensive works have assessed the unequal spread of foreclosure risk between Black and White homeowners. In general, African American families are found to have a higher likelihood of being steered into distressed neighborhoods (Galster 1990), hold a larger share of subprime mortgages (Avery et al. 2007), and be subject to a greater risk of predatory lending (Quercia et al. 2007). The combination of these factors, unsurprisingly, leads to African Americans' higher rates of foreclosure (Bocian et al. 2010).

Housing foreclosures, however, account for only extreme cases of homeownership exit (Herbert and Belsky 2008), and therefore underrepresent African American families' challenges beyond mortgage market dynamics. One set of such factors comprises liquid assets, which refer to cash or financial assets that can be easily converted to cash (Tippett et al. 2014). The positive effects of liquid assets on the economic well-being of low- and moderate-income households have been extensively documented (Gjertson 2016; Haveman and Wolff 2005), but their potential influence on homeownership sustainability has been neither theoretically discussed nor empirically tested. This underexploration carries particular importance when it comes to the Black-White disparity in homeownership sustainability. A substantial Black-White gap in the possession of liquid wealth exists (Oliver and Shapiro 2006). Additionally, liquidity-constrained families are likely to draw on home equity to compensate for stagnating wages and keep up with consumption needs (Clark 2013; Hurst and Stafford 2005), which could make their ownership status vulnerable in times of economic stress.

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[1] Compared with European welfare societies, where public rental housing plays a more significant role, U.S. housing policies have consistently focused on increasing private homeownership as part of a new so-called ownership society. For a discussion on the historical evolvement of the ownership society experiment as well as its contemporary challenges in the post-recession era, see Clark (2013) and Forrest and Yip (2011).

An investigation on the role of liquid assets in homeownership sustainability, therefore, could generate valuable policy information for eliminating homeownership-related Black-White inequalities. More importantly, because empirical description helps improve theorizing (Besbris and Khan 2017; Gross 2009), I propose a conceptual framework for understanding Black-White inequality in homeownership sustainability, which highlights homeowning families' broad socioeconomic challenges beyond mortgage market evaluations.

Based on the Panel Study of Income Dynamics (PSID), this study investigates the Black-White disparity[2] in homeownership exit during the housing crisis, with a particular focus on the mediating role of liquid assets. The findings show a substantial gap between Black and White homeowners in their exit rates during 2007–2013. As mediating variables are added, the raw gap starts to narrow and becomes statistically nonsignificant after liquid wealth is controlled in the model. Moreover, the inclusion of liquid wealth significantly weakens the explanatory power of the mortgage-oriented variables, pointing to the hidden significance of the socioeconomic dynamics that are external to the mortgage market.

Theoretical Explanation for Racial Homeownership Inequality

Microeconomic Thesis Versus Stratification Thesis

As a fundamental mechanism through which resources are distributed and maintained, homeownership draws considerable attention in the discussions on racial economic inequality (Conley 1999; Oliver and Shapiro 2006). Prior studies have been primarily built on microeconomic models conceptualizing housing tenure decisions, be it entry or exit, as the result of a household's housing needs and ability to command financial resources (Eilbott and Binkowski 1985; Gyourko and Linneman 1996). According to the microeconomic thesis, a household's housing needs are determined by life course characteristics, such as age and marital status. The ability to command resources to meet housing needs depends on socioeconomic characteristics, such as education and income. From a microeconomic perspective, therefore, Black-White differences in life course and socioeconomic attributes contribute to African American families' disadvantages in homeownership outcomes (Alba and Logan 1992; Rosenbaum 1996). The microeconomic thesis is criticized for its incompleteness but remains as a basic framework for explaining homeownership inequality. More recent developments along this line of reasoning have started to explore racial differences in financial and social resources embedded in extended social networks (Charles and Hurst 2002; Hall and Crowder 2011; Hilber and Liu 2008).

Unlike microeconomic theories that explain homeownership gaps through the uneven distribution of resources among individual families, stratification theories focus on structural barriers in housing markets. The stratification thesis emphasizes discriminatory forces on the part of mortgage lenders (Munnell et al. 1996), real estate agents (Besbris and Faber 2017), and land use policies (Rothwell 2011), which interact with

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[2] Although Hispanic/Latino homeowners were also hit by the housing crisis (Faber 2013; Rugh 2015), the residential experiences of Hispanic/Latino families are different from those of their African American counterparts in terms of both historical experiences (Jargowsky 1997) and contemporary challenges (Rugh 2015). Thus, this study leaves the specific issues facing Hispanic/Latino homeowners to be explored by other research.

race-based residential decisions by Whites (Ellen 2000) and create a dual housing market where African American families are restricted in their housing options (Apgar and Calder 2005; Massey and Denton 1993; Ross and Turner 2005). The dual market structure not only limits African American families' mortgage options but also restricts their location choices, which often leads to a less desirable residential environment (Adelman 2005; Ren 2019a), slower home equity accumulation (Krivo and Kaufman 2004), and greater risk of foreclosure (Bocian et al. 2010).

Mortgage-Oriented Framework

Based on the two overarching theories, numerous analytical models have been constructed to explore racial homeownership inequality. Most of these models, however, are designed within the mortgage-oriented framework—that is, they focus on racially differential outcomes of different life stages of the mortgage loan, from origination, through stress/default/modification, to maturity/foreclosure. The well-being of mortgage holders, often indiscriminately referred to as "homeowners," is implicitly equated to the performance of the loan. From a perspective of the mortgage-oriented framework, as illustrated in Fig. 1, prior studies explained racial homeownership inequality by exposing discriminatory practices involved in the two mortgage market processes, which either restrict minority families' access to mortgage entry (Berkovec et al. 1996; Horne 1994; LaCour-Little 1999; Ladd 1998; Longhofer 1996; Munnell et al. 1996) or undermine their ability to sustain the loan (Bayer et al. 2016; Bocian et al. 2010; Engel and McCoy 2016; Hall et al. 2015; Immergluck 2011). Although mortgage-oriented research has greatly enhanced understanding of racial dynamics within the housing market, it overlooks two crucial aspects of minority families' ability to sustain ownership status: (1) mortgage outcomes are determined by not only within-market but also beyond-market dynamics, and (2) mortgage outcomes portray an incomplete picture of minority families' homeownership challenges.
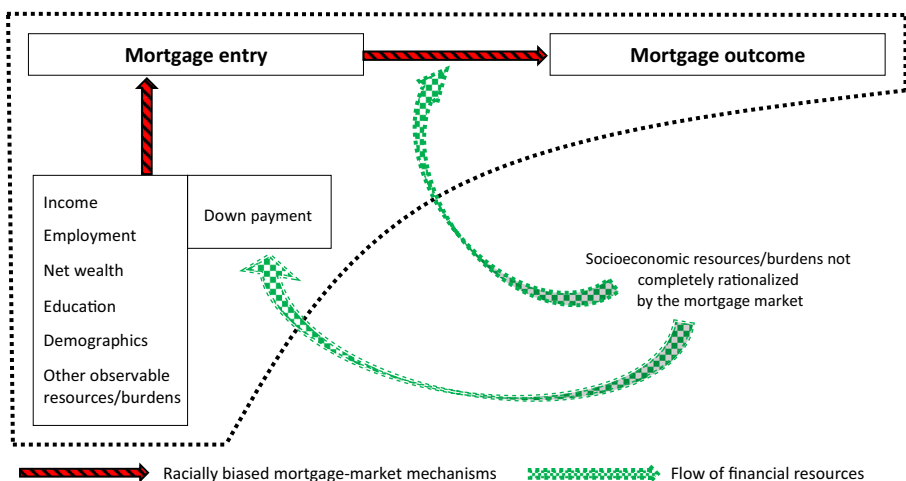

Fig. 1 Conceptual framework for the roles of external resources in mortgage market functions

A Framework for Homeownership Sustainability

External Variables

It takes only a slight change of focus, from the mortgage itself to the mortgage-holding family, to realize that homeownership sustainability depends on homeowners' direct and indirect abilities to sustain mortgage payments. Direct ability, as illustrated in Fig. 1, is determined by the homeowner's characteristics factored in during the lending process (e.g., income). Because the effects of these characteristics on homeownership outcomes are already incorporated in mortgage terms, they are referred to as *internal variables*. Indirect ability is determined by the homeowner's socioeconomic resources not directly accounted for during the lending process. Because the effects of these characteristics are not completely absorbed into mortgage terms, they are referred to as *external variables*. Examples of these include networking resources, insurance coverage, and other hidden financial resources/risks. Given that homeownership is sustained by the homeowner's both internal and external resources, a conceptual framework that goes beyond mortgage market evaluations is necessary.

As illustrated in Fig. 1, an important feature of external variables lies in their different functions in the two mortgage stages. During homeownership entry, resources in various aspects of the family's economic life are converged into the down payment. After homeownership entry, resources are also needed to sustain mortgage payments and other homeownership-related expenses. The two functions are apparently at odds with each other as they compete for limited financial resources, and this strain might be intensified during times of economic recession, when home equity appreciation stops. The strain will also have racial implications if racial groups have different patterns of allocating resources between homeownership entry and sustainability, as discussed in more detail shortly.

Liquid Assets

This study uses liquid assets as a key external variable to model Black-White inequality in homeownership sustainability for three reasons. First, liquid assets fit the nature of external resources. Although barriers to homeownership entry are viewed as a contributor to the racial wealth gap, the reverse causal link—the impacts of wealth on homeownership—receives little more attention than accumulated wealth being a condition in securing the down payment. Although some studies have considered the role of total wealth in retaining ownership status (Boehm and Schlottmann 2004, 2009; Haurin and Rosenthal 2004, 2005), they have modeled housing tenure transition as a single process without differentiating dynamics before and after homeownership entry—that is, they have treated greater wealth as simply better, whether it is used to obtain homeownership or retain it. The overlooked perspective is the nature of mortgage entry as a process of assets transformation, which brings about two conditions that elevate the importance of liquid assets in sustaining ownership status. On the one hand, liquid assets are drawn down as they are turned into home equity. On the other hand, new financial obligations are created (e.g., repayments and maintenance costs), which tend to

entail more liquid resources.[3] The simultaneously engendered increase in demand and decrease in availability—to the extent that these effects are not rationalized into mortgage terms—could make the possession of liquid assets a crucial factor in determining homeownership outcomes, particularly during times of economic stress.

Second, in addition to its direct effects, liquid wealth is chosen as the pillar of the new framework because of its function to proxy for other ownership-strengthening/- undermining variables, either external or internal to the mortgage market. Externally, liquid wealth helps weather negative impacts of shock events (e.g., divorce and job loss), which are found to undermine people's ability to sustain ownership status (Haurin and Rosenthal 2004; Sharp and Hall 2014). The availability of liquid assets also captures the financial benefits of social programs, which are found to strengthen homeownership (Berger et al. 2015). Internally, liquid wealth is correlated with many socioeconomic factors incorporated into mortgage terms, but it measures the remaining resources after the process of assets transformation during homeownership entry. In other words, what distinguishes those who successfully sustain homeownership might not be their internal characteristics (e.g., income), as suggested by previous findings (Boehm and Schlottmann 2004, 2009; Dieleman et al. 1995; Sharp and Hall 2014), but instead their ample liquid resources associated with these internal characteristics.

Finally, liquid assets carry particular importance when it comes to Black-White inequality in homeownership sustainability. First, African American families have lower possession of liquid wealth than White families (Haveman and Wolff 2005). As of 2011, median liquid wealth was $200 for African Americans but $23,000 for Whites, which translates to an astonishing ratio of 1 to 115 (Tippett et al. 2014). Second, home equity accounts for a larger share of the total wealth for African American families than for Whites. As of 2011, home equity accounted for 92% of the net worth for an average Black homeowner, compared with 58% for an average White homeowner (Tippett et al. 2014). Third, liquidity-constrained families are more likely to draw down home equity to weather financial shocks and keep up with consumption needs (Hurst and Stafford 2005), which increases the risk of exit.

All these factors considered, the transformation from nonhousing assets to home equity, in the context of stunning racial disparities in liquid wealth, could place African American homeowners at vulnerable positions during times of economic recession.

Empirical Studies on Racial Inequality in Homeownership Exit

Apart from its theoretical imperfections, another limitation of mortgage-oriented research on homeownership sustainability lies in the incomplete picture of minority families' housing challenges. With foreclosure being the least desirable way of exiting homeownership, financially stressed mortgage holders are likely to exert all possible options before foreclosure becomes inevitable (Herbert and Belsky 2008): refinancing, mortgage modification, and broker sales to avoid damaging credit records (Fields et al.

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[3] This is particularly true when it comes to racial inequality: minority homeowners tend to have limited financial resources, benefit less from tax deductions, and have to deal with unexpected home maintenance costs (Herbert and Belsky 2008).

2010). Recent studies found that African Americans are even more likely than Whites to seek counseling services to avoid foreclosure (Collins et al. 2013). Additionally, financial stress on homeowners goes beyond mortgage repayments, affecting both mortgage holders and nonmortgage holders. Tapping into usually the largest asset of their portfolios, moderate-income homeowners tend to rely on home equity to finance expenditures, such as college education (Lovenheim 2011) and health-related expenses (Davidoff 2010). Thus, when urgent financial needs occur, which are common during times of economic recession (Pilkauskas et al. 2012), the financial pressure on home equity is likely to increase the risk of exit. This mechanism might also deliver race-varying effects given African American families' well-known vulnerability during economic downturns (Ren 2019b).

The few empirical works that went beyond the mortgage market by including both non–mortgage holders and non–foreclosure exit cases can be found in the literature on housing tenure choice. For example, Boehm and Schlottmann (2004, 2009) analyzed the PSID's longitudinal data and found that minority homeowners were more likely than White homeowners to exit and were less likely to return to owning. Similarly, Hirschl and Rank (2010) used the PSID to track American families' housing tenure changes throughout their life trajectories and discovered a higher likelihood of homeownership exit among minority households. Using data from the National Longitudinal Studies of Youth (NLSY), Haurin and Rosenthal (2004) focused on first-time homeowners and found that minority families had shorter lengths of ownership spells than comparable Whites. Besides the studies on housing tenure choice that treated owning and renting as outcomes of the same longitudinal process, recent works have begun to specifically focus on homeownership exit. Based on the PSID, Turner and Smith (2009) investigated racial differences in the long-term trend of homeownership exit by breaking their temporal frame into two periods. They found that Black homeowners' higher exit rates could be fully explained for the 1968–1997 period but not for the more recent 1999–2005 period. Similarly, Sharp and Hall (2014) examined the homeownership exit trend over the past four decades and showed that Black homeowners were subject to an increasingly higher likelihood of exit. Berger et al. (2015) analyzed PSID data from 1999 to 2009 and discovered significant effects of social programs on homeownership retention.

Although these empirical tests verified the notion that housing discrimination has changed from pure racial exclusion to a system of economic exploitation (Bostic and Lee 2008; Engel and McCoy 2016), racial inequality in homeownership exit remains an underexplored field with several important limitations. First, previous efforts paid little attention to housing dynamics during times of economic recession. Three studies partially covered the Great Recession, but none explored the dynamics during this specific period. Two of them (Berger et al. 2015; Sharp and Hall 2014) concentrated on identifying long-term patterns of homeownership exit, whereas the other study (Seah et al. 2017) focused on comparing racial gaps in the homeownership rate before and after the housing bust rather than the processes through which homeownership exit took place.

Moreover, past research has primarily relied on the mortgage-oriented framework for model construction. Some treated homeownership entry and exit as two outcomes of the same process (Boehm and Schlottmann 2004, 2009) without considering the critical impacts of assets transformation on homeownership sustainability. Even for

those that specifically modeled homeownership exit, variables external to mortgage assessment have been inadequately explored. None of the previous models included liquid assets as a predictor variable. Other underexplored external variables include health insurance coverage[4] and resources embedded in one's family and social networks.[5]

Finally, previous studies generated limited policy-relevant information. For example, Sharp and Hall (2014) focused on trigger events (e.g., job loss) in modeling homeownership exit. By measuring trigger events as predictor variables, however, the study carried limited policy significance: after all, public policies do not control the odds of adverse life events. By contrast, access to liquid assets—which mitigate the impacts of adverse events when they occur—is much more readily affected by social programs and thus can be used as an effective tool to enhance minority homeowners' economic security.

The empirical part of this study, therefore, aims to put the outlined framework to an empirical test to assess its theoretical soundness and generate information for policy intervention. I evaluate two hypotheses.

First, I hypothesize that homeowners' external socioeconomic characteristics, particularly liquid assets, play a significant role in mediating the Black-White disparity in homeownership exit[6] during the housing crisis. Verification of this hypothesis would cast doubt on the role of internal variables in homeownership sustainability. That is, I suspect that internal variables' effects are not independent but are caused by their association with external variables because internal socioeconomic characteristics are, in theory, incorporated into mortgage terms.

Therefore, the second hypothesis is that the inclusion of external variables significantly weakens internal variables' explanatory power for Black-White difference in homeownership exit. I treat liquid assets as an external variable not to assert that they are completely irrelevant to mortgage assessment but rather to evaluate the degree to which their effects on homeownership sustainability are inadequately rationalized into mortgage terms and inadequately controlled by previous models.

Data and Methods

The PSID is a longitudinal survey on a nationally representative sample of U.S. families, launched in 1968 with follow-up interviews ever since. Unlike the data of the Home Mortgage Disclosure Act (HMDA), the PSID not only allows longitudinal observation of participating families' housing tenure status but also supplies a wealth of information on their changing characteristics. HMDA-based studies on mortgage denial

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[4] Insurance coverage serves as a security against health-related financial shocks, which reduces the pressure on home equity (Davidoff 2010). Berger et al. (2015) included health insurance as a predictor variable for homeownership exit, but they did not test its role in explaining racial inequality.

[5] Hilber and Liu (2008) included parental wealth in modeling the cross-sectionally measured overall racial homeownership gap. Hall and Crowder (2011) discovered significant effects of extended-family resources on racial disparity in transition to homeownership, although no analysis was performed on sustainability.

[6] Although homeownership sustainability broadly defined implies both the risk of exit and the duration of ownership status, my empirical model tests homeownership exit only, mainly because of this study's narrow temporal focus on the Great Recession. See Haurin and Rosenthal (2004, 2005) for similar studies on homeownership duration.

are often criticized for the lack of control for wealth and asset variables[7] (Munnell et al. 1996). The PSID's longitudinal structure and rich information make it a commonly used data set for homeownership studies (Dawkins 2005; Hall and Crowder 2011; Hirschl and Rank 2010; Sharp and Hall 2014; Turner and Smith 2009). Choosing the PSID, therefore, makes it convenient to compare findings with those of prior studies.

Measurement of Homeownership Exit and the Analytical Sample

Two approaches for measuring homeownership exit can be found in the literature. One treats housing tenure changes between renting and owning as a longitudinal process (Boehm and Schlottmann 2004, 2009) and cuts a family's lifetime housing tenure into short spells, typically one or two years, as analysis units. Tenure transition within each observation window is then explored by either time-fixed (Sharp and Hall 2014) or time-varying variables (Berger et al. 2015). Despite its strength in identifying general driving forces behind tenure transition, this approach is not adopted because of its mismatches with the framework of this study.

Theoretically, as discussed earlier, because liquid wealth plays different roles between the renting-to-owning and owning-to-renting transitions, it cannot be conceptualized as a consistent predictor for tenure status' longitudinal switches. Even if the attention is solely limited to the owning-to-renting transition, the interactions between liquid assets and homeownership exit are too complex to be thought of as an independent process that repeats itself in each observation window. For example, a homeowning household facing mortgage stress could draw on savings directly or liquidate other assets (e.g., retirement accounts). When the mortgage stress is carried to the next observation window, therefore, liquid wealth as a predictor variable could take either a high or low value contingent on the previous decision, but the homeownership outcome would be the same. That said, the conceptual challenge for the longitudinal approach, in the context of this study, lies in the fact that (1) the causal process of homeownership exit often takes more than one short window to complete; and (2) within the short window, it is almost impossible to hypothesize a reliable causal relationship between liquid wealth and tenure transition. Besides conceptual concerns, using repeatedly observed tenure spells as analysis units is in obvious violation with the independent and identically distributed (i.i.d.) assumption of linear regression.[8]

Based on both conceptual and methodological considerations, I adopt the more practically oriented approach (Haurin and Rosenthal 2004, 2005; Turner and Smith

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[7] Recent empirical tests based on more specialized surveys showed that race plays a significant role in mortgage-lending decisions even after wealth and asset variables are controlled (Munnell et al. 1996).

[8] Past studies have tended to handle this by reporting robust standard errors (Berger et al. 2015; Sharp and Hall 2014). Although robust standard errors raise the bar for accepting significant coefficients, they do not correct model misspecification (Fomby and Murfin 2005). That is, robust standard errors help validate a misspecified model only if the model is justified by strong theoretical reasons, which is apparently not the case for this study.

2009): homeownership exit is measured by tenure change within a single but wide observation window.[9] The choice of this method conveys three advantages over the longitudinal approach.

First, by focusing on homeownership exit from 2007 to 2013, corresponding to the period of the housing crisis,[10] this study can explore specific dynamics during times of economic recession, which not only matches the framework's focus on liquid assets but generates valuable information for policymaking. Second, the six-year window is wide enough to allow the homeownership outcome to be observed, avoiding modeling extremely complicated household decisions during the process of handling financial stress. Third, unlike the longitudinal approach that relies on complex interactions over time to explain housing tenure transition, this study employs a simple predictive model that uses beginning-of-period characteristics to predict end-of-period outcomes. Given the wide availability of cross-sectional data, therefore, the findings can be easily turned into policy-relevant information for constructing at-risk factors associated with homeownership exit (Haurin and Rosenthal 2004, 2005).

Three PSID intervals (2007–2009, 2009–2011, and 2011–2013) are combined into a single observation window, and homeownership exit is conceptualized as a process that operates throughout the 2007–2013 period. Accordingly, the model addresses what types of homeowning families are more likely than others to successfully sustain ownership status during the housing crisis. At the beginning of the 2007–2013 window, the PSID sample included 4,325 homeowning families[11] of either non-Hispanic Black or non-Hispanic White heads (1,130 Black and 3,195 White). After I eliminate missing cases due to attrition (4,325 to 3,353) and cases with missing values on explanatory variables (3,353 to 3,173), the final analytical sample contains 3,173 families[12,13] (808 Black and 2,365 White).

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[9] Haurin and Rosenthal (2004, 2005) defined an observation window as a completed housing tenure spell, which begins at the time of homeownership entry and ends at the time of exit. Turner and Smith (2009) employed a six-year fixed window to observe whether homeownership exit occurs.

[10] Because PSID surveys collect the information of the year before, the 2007–2013 period reflects an observation window from 2006 to 2012. The national mortgage delinquency rate started to ascend in 2006 and showed no sign of decline until the end of 2012 (Board of Governors of the Federal Reserve System 2018).

[11] Prior research on racial wealth gaps has sometimes treated the omission of renters as a sample selection bias (Flippen 2001). When it comes to homeownership sustainability, however, taking renters into account faces difficulty in interpreting results: if renters are considered part of the sample, the findings (on homeownership sustainability) should apply to renters as well, which makes little intuitive sense. For that reason, this study deems the renting-to-owning transition as a separate process and strictly focuses on homeowners as the target population.

[12] Results concerning the potential resampling biases indicate that the final sample is representative of the original sample (online appendix, Table A1).

[13] Black homeowners account for 25.5% of the sample, far exceeding their representation in the general population. The PSID purposely oversamples African Americans to improve the analytical reliability on issues where Black representation is low (Wilson et al. 2015). Thus, it is a common practice to not apply weights in race-oriented homeownership research (Berger et al. 2015; Boehm and Schlottmann 2004, 2009; Hall and Crowder 2011; Sharp and Hall 2014), and I follow this approach.

Variables

I use logistic regression for the multivariate analysis.[14] The dependent variable is defined as homeownership exit during the 2007–2013 period. The variable is coded 1 if the family's tenure status changed from owning to not owning and 0 if it remained owning in both 2007 and 2013.[15] All explanatory variables are measured in their 2007 values.[16] A dichotomous variable is created to indicate the racial identity of the family head, coded 1 for non-Hispanic Black and 0 for non-Hispanic White. Three demographic variables are used to measure life cycle stages: family head's age and gender, and number of children. The quadratic term of age is added to capture its nonlinear effects on housing outcomes.[17] Following the routine, family income is added as a numerical variable, and education is measured by the number of years of schooling. Employment status is measured by three binary variables indicating whether the head was working, not working, or retired.[18] Because African Americans are subject to higher incidences of illness (Williams and Jackson 2005), which might bring extra financial stress, I add health insurance coverage as a dummy variable (1 = no). Also, the background for the family of origin is used as a proxy for the availability of resources embedded in family and social networks. The variable takes three levels: relatively poor, average, and relatively well-off.

Based on the PSID's detailed information on a variety of financial assets, I create two variables to capture the homeowning family's portfolio characteristics. First, I calculate liquid wealth by aggregating values of bank accounts,[19] shares of stock, mutual funds, investment trusts, bond funds, cash value in life insurance policies, and other valuable collections. The variable is measured

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[14] Another option is to apply a survival model, which explores the variation (by two-year intervals) in homeownership duration. However, because this study's conceptual framework requires (1) a focus on the housing crisis (six-year limited window) and (2) a conceptualization of liquid assets as a time-fixed variable, a survival model will not materialize its major strength—the ability to explore longer-term processes with time-varying predictors—but instead lose the benefits associated with the logistic regression (e.g., compatibility with the conceptual framework, policy convenience, and the ability to assess predictor variables' mediating effects).

[15] The sample includes 84 (<3%) families who exited ownership in intermediate years (2009 and 2011) but returned to owning in 2013. These cases with only intermediate tenure changes are considered as "not exiting homeownership" during the study period. Also, excluding them from the sample does not lead to any change in major findings.

[16] When the dependent variable is measured as a change during a PSID interval, explanatory variables should be measured in their beginning-of-period values to avoid endogeneity. For example, Sharp and Hall (2014) regressed housing tenure change during one PSID window on the changes of a set of predictor variables (e.g., divorce) during the same window, creating a simultaneous causality problem because it is impossible to determine whether divorce causes tenure change or divorce occurs as a result of it.

[17] Prior research has shown that older families tend to exhibit a higher likelihood of maintaining ownership, but the positive effects of age on sustaining homeownership decline after passing retirement age (Painter and Lee 2009).

[18] I do not apply an age restriction on the sample because doing so runs the risk of underappreciating elderly homeowners' financial stress (Danziger et al. 2013). Instead of implementing an arbitrary threshold age, I retain all cases but specify the family head's labor-market status. In addition, I reestimated the model with different scenarios of age-restricted samples, and findings were consistent (online appendix, Table A2).

[19] *Bank accounts* includes money in checking or savings accounts, money market funds, certificates of deposit, government savings bonds, and Treasury bills.

ordinally[20] with nine levels, corresponding to the nine equal intervals of the sample distribution. Second, I calculate the family's net nonliquid and non–home equity wealth by summing total values of farm/business, other real estate, annuities, vehicles, and other nonliquid assets, minus total debts. The variable is measured by a nine-level ordinal variable in the same manner as the liquid wealth variable. The coefficients of these two ordinally measured wealth variables can be interpreted as the change in the odds of homeownership exit with one-unit ascendance on the nine-rung wealth ladder.

Comprehensively controlling for mortgage characteristics as previous mortgage-oriented studies is unnecessary for two reasons. First, because of the substantial portion of non–mortgage-holding families in the sample,[21] the number of mortgage variables must be limited to avoid multicollinearity. Second, consistent with the conceptual framework, I trust the market's ability to rationalize socioeconomic factors and test only those mechanisms with well-documented racial biases involved. Three mortgage-related variables are created. Loan-to-value (LTV), calculated by the outstanding loan divided by the house value, serves as a proxy for many unobserved variables that contribute to racial homeownership disparity, especially Black homeowners' slow equity accumulation due to discriminatory market practices and residential segregation (Krivo and Kaufman 2004). The other two variables are the length of homeownership and whether exit occurred in the past. Length of homeownership captures the recent trend of subprime lending (Herbert and Belsky 2008): those who obtained a mortgage more recently during the subprime boom might have a higher risk of exit. Whether exit occurred indicates the homeowner's credit history and other unmeasured attributes. Finally, regional geographic variables are added to control for regional differences in housing dynamics.[22]

The explanatory variables can be conceptualized into three categories: homeowner characteristics that are internal to mortgage market evaluations (e.g., income and education), homeowner characteristics that are external to mortgage market evaluations (e.g., liquid wealth), and mortgage characteristics. To the extent that the effects of liquid assets on homeownership sustainability are not rationalized into mortgage terms, I expect to see them play a significant role in mediating Black-White inequality in homeownership exit.

The mediating effects of explanatory variables are evaluated through a series of nested logistic regression models: newly added variables' mediating effects are captured by the changes in the race coefficient. This conventional approach has been employed by numerous studies, but its validity is facing increasing challenges (Mood 2010). Unlike models with a continuous dependent variable whose total variance does not change as new independent variables are added, the logistic regression has constant

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[20] This measuring strategy minimizes the influence of outlier cases by the PSID's self-reported data (Rohe et al. 2002) while retaining maximum information. I also tried log-transforming the asset variables, although it caused a substantial sample reduction (3,117 to 2,326) because of the eliminated cases with zero/negative wealth. The two versions of findings are nevertheless consistent. Detailed results are available upon request.

[21] About 24% of the homeowners in the sample were not holding a mortgage.

[22] This is not an ideal measurement because housing markets do not operate regionally but within each metropolitan area. Unfortunately, the PSID's public-access data do not contain metro-specific locational information. Given this study's focus on nonspatial analyses, the rough measure of geographic controls can be tolerated.

residual variance. Consequently, as new variables are added, the total variance of the logistic regression is rescaled, making it problematic to compare coefficients/odds ratios across nested models (Williams 2012). Fortunately, several approaches have been developed to address the problem. Here, I adopt the Karlson/Holm/Breen (KHB) method,[23] which can isolate the coefficient and odds ratio changes caused by additional explanatory variables from those caused by rescaling.

Results

Descriptive Statistics

Table 1 displays descriptive statistics for the pooled sample, alongside the two sub-samples by race. The data demonstrate a substantial Black-White gap in homeownership exit rate. During the 2007–2013 period, about 17.7% of Black homeowners exited ownership status, nearly doubling White homeowners' exit rate of 9.6%. Racial differences in explanatory variables are also evident. On average, Black homeowners are more likely to be unemployed, live in female-headed households with more children, and have no health insurance coverage. White homeowners tend to be older, have more education and income, and grow up in relatively wealthier families.

The most noticeable difference between the Black and White subsamples lies in financial portfolio characteristics. On average, the net value of nonliquid and non–home equity assets of White homeowners is more than five times that of Black homeowners ($272,956 vs. $51,885). When it comes to liquid assets, the average total value for White homeowners is about seven times that of Black homeowners ($137,482 vs. $19,608). Black homeowners also tend to have a shorter length of ownership status, are subject to a higher loan-to-value ratio, and are more likely to have previous exit experience. To summarize, the data show a large Black-White gap in homeownership exit as well as extensive racial differences. The remaining question is to what extent the homeownership exit gap can be explained by these observed racial differences.

Mediating Effects[24]

The logistic regression analysis proceeds in a stepwise manner. As shown in Table 2, the six nested models correspond to six blocks of explanatory variables. I add liquid wealth last to assess its independent effects on closing the racial gap. To address the rescaling issue when comparing odds ratios across models, I use the KHB method, the results of which are reported in the lower section of Table 2. Specifically, for each model, the KHB method breaks the total variance explained by the race variable into two parts: (1) the direct effect, or the variance explained by race independently; and (2)

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[23] For a detailed discussion on the KHB method and other solutions, see Karlson et al. (2012) and Williams (2012).

[24] All analyses of this study are performed using Stata 13. All data sets, syntax, and detailed Stata outputs are available upon request.

Table 1 Descriptive statistics for variables used in the analysis of the Black-White gap in homeownership exit: Panel Study of Income Dynamics, 2007–2013

	Pooled Sample (%/mean)	Black (%/mean)	White (%/mean)
Homeownership Exit (%)	11.6	17.7	9.6
Race (1 = Black) (%)	25.5		
Demographics			
Age (mean)	49.3	47.8	49.8
	(14.3)	(12.6)	(14.8)
Female-headed family (1 = yes) (%)	19.0	36.7	13.0
Number of children (mean)	0.77	0.91	0.72
	(1.09)	(1.13)	(1.07)
Socioeconomics			
Employed (1 = yes) (%)	78.6	74.1	80.0
Not working (1 = yes) (%)	7.4	14.7	4.9
Retirement (1 = yes) (%)	14.1	11.1	15.1
Years of schooling (mean)	13.62	12.76	13.91
	(2.31)	(2.26)	(2.25)
Annual family income (mean $)	90,495	59,891	100,950
	(94,158)	(44,044)	(103,944)
Health insurance coverage (1 = no) (%)	3.2	5.8	2.4
Family economic background (1 = poor) (%)	36.4	48.0	32.4
Family economic background (1 = average) (%)	47.7	35.7	51.9
Family economic background (1 = well-off) (%)	15.9	16.3	15.7
Assets (mean $)			
Total liquid assets	107,465	19,608	137,482
	(521,338)	(80,618)	(599,110)
Total nonliquid assets net of debts	216,661	51,885	272,956
	(1,333,857)	(200,961)	(1,536,570)
Mortgage (mean)			
Loan-to-value ratio	0.44	0.48	0.43
	(0.35)	(0.37)	(0.34)
Length of homeownership	17.55	13.61	18.89
	(11.97)	(10.06)	(12.28)
Previous Exit (1 = yes)	23.1	26.0	22.1
Region (%)			
Northeast	14.7	6.6	17.5
Northcentral	28.2	13.6	33.2
South	41.6	75.5	30.0
West	15.2	4.3	18.9
Number of respondents	3,173	808	2,365

Notes: All variables, except for homeownership exit, are measured in 2007 values. Standard deviations are shown in parentheses.

the indirect effect, or the variance explained by race through other variables in the model. Therefore, the net effects of race on homeownership exit (the direct effects) can be identified despite the obvious rescaling in the race coefficient (total variance explained) across nested models.

In Model 1, which considers race only, the race variable has an odds ratio of 2.04 and is statistically significant at the .001 level. That is, Black homeowners are 2.04 times as likely, or 1.04 times more likely, to exit homeownership as White homeowners.

Demographic controls are added to Model 2. Unsurprisingly, exit is more likely to occur among younger and female-headed families. After demographics are controlled for, the odds ratio on race drops from 2.04 to 1.82, indicating that Black homeowners' higher exit rates can be partially explained by their demographic and family characteristics. The mediating effects of demographic variables on the racial gap are also confirmed by the KHB results. As shown in Table 2, the total effects of race are broken into a direct effect of 0.60 and an indirect effect of 0.15, which means that race remains a significant predictor for homeownership exit.

Model 3 further includes homeowners' socioeconomic characteristics that are typically part of mortgage market evaluations. Among these variables, income and total nonliquid assets are significantly associated with the odds of exit. Families with employed or more educated heads also exhibit a reduced likelihood of exit, although the effects are not strong enough to pass significance tests. The addition of internal socioeconomic variables leads to a substantial drop in the odds ratio on the variable of female-headed family, indicating that the impacts of family structure on homeownership exit are partially realized through the possession of economic resources. At this stage, the racial gap further narrows but remains significant. As the KHB results show, the direct effect of race decreases as a response to the increase in the indirect effect, but both remain significant.

Model 4 includes mortgage variables, and their significant odds ratios prove that the discriminatory practices during homeownership entry affect homeownership exit as well. With all important variables that are internal to mortgage market evaluations controlled, Model 4 can be seen as a complete model based on the mortgage-oriented framework. Like previous models of the kind, Model 4 significantly reduces the effects of race but does not eliminate it: a further shift between the direct and indirect effects of the race variable is observed, but the independent effect of race on homeownership exit remains significant.

Finally, the three external variables are tested in Models 5 and 6. Although health-insurance coverage and family background incrementally reduce the effects of race (Model 5), the real change occurs when liquid wealth is included in Model 6. As confirmed by both the logistical regression and the KHB method, statistically significant Black-White difference in homeownership exit can no longer be detected after liquid wealth is controlled for. Moreover, the inclusion of liquid wealth renders the odds ratios for all internal socioeconomic variables nonsignificant, including income and nonliquid assets. This is strong evidence that when it comes to homeownership sustainability, these traditionally important predictors serve as proxies for liquid financial resources.

Table 2 Odds ratios from logistic regression for homeownership exit: Panel Study of Income Dynamics, 2007–2013

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Race (1 = Black)	2.04***	1.82***	1.46**	1.38*	1.36*	1.27
	(0.24)	(0.23)	(0.19)	(0.21)	(0.20)	(0.19)
Demographics						
Age		0.82***	0.84***	0.83***	0.83***	0.82***
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age, squared		1.01***	1.01***	1.01***	1.01***	1.01***
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Female-headed family (1 = yes)		1.98***	1.55**	1.53**	1.56**	1.53**
		(0.27)	(0.23)	(0.23)	(0.23)	(0.23)
Number of children		1.11†	1.09†	1.09	1.11†	1.10†
		(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
Socioeconomics						
Years of schooling			0.96	0.95†	0.96	0.98
			(0.03)	(0.03)	(0.03)	(0.03)
Family income ($1,000 per unit change)			0.99**	0.99*	0.99*	0.99
			(0.01)	(0.01)	(0.01)	(0.01)
Total nonliquid assets			0.91***	0.93*	0.93*	0.96†
			(0.02)	(0.03)	(0.03)	(0.03)
Employed (1 = yes)			0.86	0.91	0.94	0.96
			(0.17)	(0.19)	(0.20)	(0.20)
Retired (1 = yes)			0.59†	0.67	0.70	0.75
			(0.17)	(0.20)	(0.21)	(0.22)
Not working (1 = yes) (omitted)						
Mortgage and Location						
Loan-to-value ratio				1.37†	1.42†	1.37†
				(0.26)	(0.27)	(0.26)
Length of homeownership				0.96***	0.95***	0.96***
				(0.01)	(0.01)	(0.01)
Previous exit (1 = yes)				2.27***	2.24***	2.19***
				(0.32)	(0.32)	(0.31)
Northcentral				1.13	1.08	1.08
				(0.24)	(0.23)	(0.23)
South				1.06	1.03	1.01
				(0.22)	(0.21)	(0.21)
West				1.60*	1.56†	1.57†
				(0.37)	(0.36)	(0.36)
Northeast (omitted)						
External Variables						
Health insurance (1 = no)					1.95**	1.82*
					(0.50)	(0.46)
Family background					0.87	0.87
					(0.07)	(0.08)

Table 2 (continued)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Total liquid assets						0.87**
						(0.03)
Number of Observations	3,173	3,173	3,173	3,173	3,173	3,173
Likelihood-Ratio Chi-Square	35.93***	186.43***	227.96***	300.39***	309.23***	318.26***
Degrees of Freedom	1	5	10	16	18	19
Pseudo-R^2	.02	.08	.10	.13	.14	.14
KHB						
Total variance by race	2.04***	0.75***	0.84***	0.90***	0.90***	0.90***
	(0.24)	(0.12)	(0.12)	(0.13)	(0.13)	(0.13)
Direct effect by race	N/A	0.60***	0.38**	0.33*	0.31*	0.24
		(0.13)	(0.13)	(0.15)	(0.15)	(0.15)
Indirect effect by race	N/A	0.15**	0.46***	0.58***	0.59***	0.66***
		(0.05)	(0.08)	(0.10)	(0.10)	(0.11)

Note: Standard errors are shown in parentheses.

$^†p < .10$; $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$ (two-tailed tests)

A Parsimonious Model for Black-White Inequality

The nested models generate two important findings: (1) liquid wealth plays a key role in mediating the Black-White gap in homeownership exit; and (2) liquid wealth, as an external variable, is a more efficient predictor for homeownership outcomes than traditional variables that are internal to mortgage evaluations. To further assess the relative role of internal and external variables in predicting racial inequality in homeownership exit, I construct a parsimonious model in which nonsignificant predictors are systematically removed. Toward that goal, I rerun the nested models in the opposite direction, eliminating explanatory variables as long as significant racial difference does not reappear. Findings are summarized in Table 3.

I begin by dropping the internal socioeconomic variables and locational variables that fail to exhibit significant effects. As expected, doing so does not result in any significant change in the odds ratio on race (Models 6 and 7). The elimination of demographic variables leads to the same result (Model 8), indicating that demographic characteristics, despite their significant impacts on homeownership exit in general, do not affect Black and White families differently. For the remaining six variables that capture the effects of mortgage and external socioeconomic characteristics, I experiment with all possible scenarios by adding and dropping each combination of them.[25] This results in Model 9, which includes liquid wealth and length of ownership status as the only two explanatory variables. Dropping either variable will lead to the reappearance of significant racial effects on homeownership exit.

Model 9 can be seen as a parsimonious model specifically for explaining the Black-White disparity in homeownership exit. Apart from the length of ownership status, which captures the effects of the recent trend of subprime lending, liquid wealth is the

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[25] Detailed results are available upon request.

Table 3 Odds ratios from logistic regressions for homeownership exit (backward selection): Panel Study of Income Dynamics, 2007–2013

	Model 6	Model 7	Model 8	Model 9
Race (1 = Black)	1.27	1.21	1.18	1.22
	(0.19)	(0.17)	(0.15)	(0.15)
Demographics				
Age	0.82***	0.82***		
	(0.02)	(0.01)		
Age, squared	1.01***	1.01***		
	(0.01)	(0.01)		
Female-headed family (1 = yes)	1.53**	1.67**		
	(0.23)	(0.24)		
Number of children	1.10†	1.10†		
	(0.06)	(0.06)		
Socioeconomics				
Years of schooling	0.98			
	(0.03)			
Family income ($1,000 per unit change)	0.99			
	(0.01)			
Total nonliquid assets	0.96†			
	(0.03)			
Employed (1 = yes)	0.96			
	(0.20)			
Retired (1 = yes)	0.75			
	(0.22)			
Not working (1 = yes) (omitted)				
Mortgage and Location				
Loan-to-value ratio	1.37†	1.35†	1.25	
	(0.26)	(0.25)	(0.22)	
Length of homeownership	0.96***	0.95***	0.96***	0.96***
	(0.01)	(0.01)	(0.01)	(0.01)
Previous exit (1 = yes)	2.19***	2.27***	1.69***	
	(0.31)	(0.32)	(0.22)	
Northcentral	1.08			
	(0.23)			
South	1.01			
	(0.21)			
West	1.57†			
	(0.36)			
Northeast (omitted)				
External Factors				

Table 3 (continued)

	Model 6	Model 7	Model 8	Model 9
Health insurance (1 = no)	1.82*	1.93**	1.73*	
	(0.46)	(0.49)	(0.42)	
Family background	0.87	0.86†	0.88	
	(0.08)	(0.07)	(0.07)	
Total liquid assets	0.87**	0.88***	0.85***	0.83***
	(0.03)	(0.02)	(0.02)	(0.02)
Number of Observations	3,173	3,173	3,173	3,173
Likelihood-Ratio Chi-Square	318.26***	304.60***	202.85***	178.32***
Degrees of Freedom	19	11	7	3
Pseudo-R^2	.14	.13	.09	.08
KHB				
Total variance by race	0.90***	0.86***	0.84***	0.83***
	(0.13)	(0.12)	(0.12)	(0.12)
Direct effect by race	0.24	0.19	0.17	0.20
	(0.15)	(0.14)	(0.13)	(0.13)
Indirect effect by race	0.66***	0.67***	0.67***	0.63***
	(0.11)	(0.08)	(0.07)	(0.07)

Note: Standard errors are shown in parentheses.

†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests)

only significant factor in determining differential exit rates between Black and White homeowners. The robustness of this finding is reinforced by the KHB results of the nine nested models. Moving through the first six models (Table 2), it is clear that the direct effect of race decreases and the indirect effect increases whenever a new group of explanatory variables are added. Moving from Model 6 to Model 9, however, the step-by-step elimination of these same explanatory variables does not cause any significant change in either the direct or indirect effect of race. The key factor here is liquid wealth. After it is controlled in the model, the presence or absence of any other variable except homeownership length becomes insignificant, indicating that these variables affect the Black-White difference in exit rates through their associations with liquid wealth.

Discussion and Conclusion

This study investigates the differential rates of homeownership exit between Black and White homeowners during 2007–2013, with the purpose of testing a conceptual framework built on the explanatory power of liquid assets. Consistent with previous findings, a substantial racial gap is found, but the gap is eliminated after liquid wealth is controlled in the model. The inclusion of liquid wealth also renders all mortgage-oriented socioeconomic variables nonsignificant with regard to their explanatory power for Black and White homeowners' differential exit rates. These findings indicate that attention must be switched from mortgage market dynamics to homeowning families'

broad socioeconomic challenges. After all, mortgage-oriented variables cause racially differential outcomes only to the extent that their effects are not rationalized by market mechanisms. Past studies have sought to improve Black homeownership, be it entry or sustainability, by targeting discriminatory processes within the housing market, but these types of efforts are bound to be insufficient when market biases are not the only source of sustainability risks facing Black homeowners. As the new framework suggests, racial differences in broad socioeconomic challenges must be taken into account if homeownership is to be sustained as an effective approach to enhancing African American families' long-term economic well-being. These include, as indicated directly or indirectly by the findings, insurance coverage, saving behavior, access to affordable financial services and public assistance, and other activities that affect the accumulation of liquid assets.

To place the findings in the context of housing inequality theories, homeowners' socioeconomic characteristics not directly involved in mortgage market evaluations can be considered as additions to the microeconomic thesis. The implication for the stratification thesis is straightforward: African Americans' broad challenges in non-housing institutions need to be taken into account to better understand how racial disparities are produced in the dual housing market.

Social policy discussions have included a long-debated proposal calling for the transition from income-oriented programs that focus on consumption aid to asset-oriented policies that encourage saving and investment (Schreiner and Sherraden 2007; Sherraden 1991, 2005, 2014). This proposal is supported by the findings of this study. Widely perceived as a desirable investment, homeownership had rarely been considered as a consumption good until the recent housing crisis exposed the exploitive nature of the mortgage market. If the word *consumption* is used loosely, and *homeownership retaining* is defined as sustained consumption of the mortgage loan, then homeownership sustainability will be determined by a competition for the homeowning family's limited financial resources between mortgage consumption and alternative allocations, such as insurance coverage and education. If mortgage consumption wins, that should satisfy the purpose of the market but apparently not the purpose of public policy. For that reason, the validity and efficiency of income assistance programs have become increasingly questionable in comparison with social insurance and asset-building programs that highlight security and investment (McKernan and Sherraden 2008), especially in the context of a consumption-dominated society like the United States (Cohen 2004; Frank 1985).

Regarding the persistent Black-White homeownership gap, two general directions of policy intervention can be inferred from this study. If homeownership is still considered a preferable type of housing tenure, given its enormous economic and social benefits within the existing socioeconomic system (Dawkins 2006), policy interventions should focus on removing racial barriers to acquiring and retaining liquid assets. This is particularly important given the increasing evidence that minority and immigrant families' lack of accumulated financial resources constitutes a major challenge to sustained progress toward an ownership society (Clark 2019). If racism and market exploitation are considered too institutionalized to go away in the foreseeable future, more radical policies that bypass market mechanisms might be worth a discussion. One example of such initiatives, atop of frequently discussed policy changes, such as single-payer health care and Social Security expansion, is the concept of so-called baby bond

accounts,[26] which operate by providing all newborns seed funding. The account can be accessed when the child reaches adulthood, and the money can be used to finance asset-enhancing events, such as higher education, business investment, and mortgage-related expenses. The advantage of these class-based policies is that they help close the racial gap without making race explicit, which is becoming increasingly relevant in the current U.S. sociopolitical climate (Darity and Hamilton 2012).

To be sure, generating big policy ideas is relatively easy, but putting them in place is a much larger challenge. In this regard, Sherraden (1991) first proposed universal accounts at birth and has led an experimental policy test of child development accounts (CDAs). This research has demonstrated feasibility of a universal and progressive CDA policy, which can also be potentially lifelong (Sherraden et al. 2015). Informed by results of this test, seven U.S. states have now adopted universal child accounts, often with local community engagement (Clancy et al. 2019). Thus, a secure and sustainable CDA policy infrastructure is gradually being put in place that can include all children, provide a mechanism for progressive funding, and redress historical inequalities should policy move in this direction. CDA policy research is making proposals for baby bonds and other CDA variations more politically and practically achievable.

Several caveats must be emphasized to avoid overinterpretation. First, the role of liquid assets in eliminating the Black-White gap in homeownership exit is contingent on controlling for within-market discriminatory practices. That is, asset-building strategies might make African American homeownership as sustainable as that of Whites, only if racial inequality in mortgage evaluation is achieved. This assumption, of course, cannot be further from the truth. Second, the time frame of this study covers only the housing crisis; thus, it is unknown whether the findings are unique to this period of severe economic hardship or indicate an upcoming trend. This question remains to be explored by future studies as more recent data become available. Third, various forms of institutionalized racial biases contribute to Black-White economic inequality, and the subtle and tremendous impacts of these biases are far beyond the scope of this study. If racially segregated residential patterns remain unchanged, for example, the enormous wealth gap will likely continue regardless of whether Black homeowners can sustain their homes or not. Finally, although this study solely focuses on the Black-White homeownership gap, Hispanic/Latino families exhibit very similar patterns of inequality with Whites in terms of both portfolio characteristics and homeownership outcomes. According to recent statistics, Hispanic/Latino Americans, on average, faced a ratio of 1 to 68 in liquid wealth; and the median Hispanic/Latino homeowner lost 56% of home equity during the housing crisis, which is the highest among all racial/ethnic groups (32% for Whites and 36% for African Americans) (Tippett et al. 2014). The rising significance of intergenerational wealth transfers in attaining and sustaining homeownership also adds to the disproportional stress of new immigrant families (Clark 2019). One major direction of future research, therefore, points to the specific financial challenges facing Hispanic/Latino and other immigration-oriented groups, particularly in the context of the United States moving toward a multiethnic society.

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[26] For a detailed discussion of the baby bond proposal, see Hamilton and Darity (2010).

Data Availability   The data sets generated and analyzed in the current study are available from the corresponding author on reasonable request.

Compliance With Ethical Standards

Ethics and Consent   This study involves no human or animal subjects.

Conflict of Interest   The author has no conflicts of interest to disclose.

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