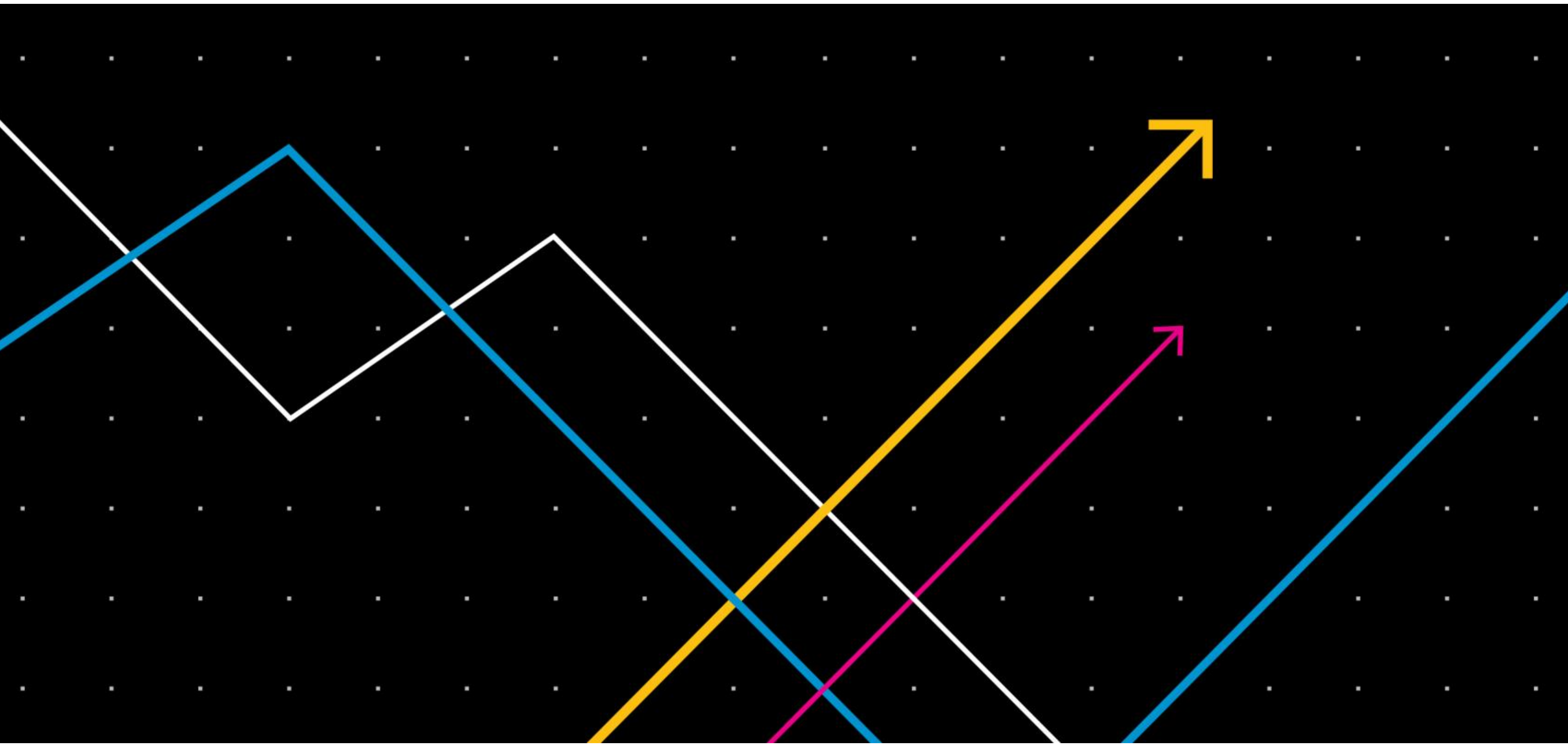

RESEARCH REPORT

Using Mortgage Reserves to Advance Black Homeownership

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Executive Summary

The racial homeownership gap and widening wealth gap in this country are no accident. They were born out of overtly discriminatory policies and practices, and the legacies of these practices persist. As a result, Black households are the least likely of all racial and ethnic groups to be homeowners, are more likely to be declined for a mortgage, and are more likely to lose their home to foreclosure when they attain homeownership.

This report is part of a series, commissioned by the Federal Home Loan Bank of San Francisco, that examines how innovations within the mortgage finance system can help narrow those gaps. We consider ways to support vulnerable homeowners who, if afforded breathing room when they experience temporary financial hardships, could get back on track rather than be derailed into foreclosure. Because the wealth-building effects of homeownership depend largely on how early in life it is achieved and how long it is sustained, home retention innovations can have significant downstream effects on intergenerational wealth.[1]

Borrowers who have more liquid assets to fall back on are better able to sustain homeownership when they face temporary financial setbacks. Helping less affluent borrowers establish mortgage reserve accounts (MRAs)—“sidecar” savings accounts that can be tapped to weather a financial shock—are one promising solution. Many questions must be answered about how this promise can be implemented, achieve scale, and make mortgage outcomes more equitable. Fortunately, variations on the MRA are under early-stage development by retail mortgage lenders and the secondary market actors Fannie Mae and Freddie Mac. We offer a blueprint for a pilot MRA program that lenders could implement to help answer critical outstanding questions.

MRAs, however, are just one approach that can reduce default risk for vulnerable homeowners. Continuous improvement in the foreclosure prevention process is an essential part of the solution. And though they would require significantly more development, insurance-based products offer a highly scalable approach.

Whatever the approach, if the foreclosure rate for Black mortgage borrowers decreased to the average foreclosure rate among white mortgage borrowers, an estimated 300,000 more Black homeowners would keep their homes and have the opportunity to build generational wealth. Additionally, making mortgages less risky for lenders, insurers, and investors, in addition to families, should lead to an expansion of the credit box and allow even more households with modest incomes and resources to access and realize the benefits of homeownership.

1. Introduction

The housing finance industry continues to work to increase access to affordable homeownership for underserved populations, including people of color, households with low and moderate incomes, and people living in rural communities.

But homeownership must be manageable and sustained for owners to realize its benefits. Black and Latino homeowners of color are more likely than white households to experience financial stress, default, and foreclosure, threatening the ability of homeowners of color to experience the benefits of affordable homeownership.

The industry has developed a robust loss mitigation toolkit since the financial crisis and further honed it as a result of the series of natural disasters in 2017 and 2018 and the COVID-19 pandemic, but there are limited solutions that target the triggers of default and help Black homeowners avoid missing their mortgage payments in the first place. Research has shown that having financial reserves can help households avoid default.

This report explores how an intentional cash reserve feature could help households continue to make their mortgage payments when they experience financial stress. The report also looks at other solutions that have been proposed or that could be enhanced to sustain homeownership, particularly in addressing shocks that hit Black homeowners harder than others.

A reserve feature offers promise, but there are trade-offs for homeowners and lenders, and there are operational and policy considerations. We summarize how reserve accounts work and why they are a potential solution. Using data analysis, we consider the impact on loan defaults and loss severity in having a homeowner set aside reserves when setting up their mortgage versus making a larger down payment. We then offer a blueprint for how depository institutions could execute a reserve account product pilot and how the pilot could be evaluated to inform broader implementation of mortgage features to serve liquidity-constrained households.

First, we lay out the current landscape of the racial homeownership gap and the challenges Black households face in sustaining homeownership during times of financial stress.

About the Racial Equity Accelerator for Homeownership

Homeownership is the primary way many US households build wealth. But because of historical racism and its ongoing legacies, the path to homeownership for Black households is rife with structural barriers, and, even once obtained, homeownership's benefits are not equitably distributed. To address some of the persistent racial disparities in homeownership and wealth, the Federal Home Loan Bank of San Francisco has partnered with the Urban Institute to launch a research and product development initiative called the Racial Equity Accelerator for Homeownership. The accelerator hosts several research workstreams investigating methods for facilitating and sustaining Black homeownership:

- incorporating alternative data into mortgage underwriting
- mitigating the impact of student loan debt on Black homeownership
- using artificial intelligence and advancing technologies that can overcome mortgage lending biases
- innovating loss mitigation strategies to help households sustain homeownership during times of stress (the focus of this report)

Although the accelerator focuses on Black homeownership, many of the barriers Black households face apply to other households of color, and the solutions to reduce the Black-white homeownership gap can help other households who struggle to become homeowners and build wealth.

Addressing the Black-white homeownership gap is essential to achieving racial equity and ensuring all households have access to homeownership. Historically, the mortgage finance system purposefully excluded Black households from homeownership through racist practices such as redlining, and the legacies of these practices persist. To undo the effects of explicit historical racism in housing, an equally explicit commitment must be made to address racial homeownership disparities. Without such a commitment, homeownership and wealth gaps will widen.

Rooting out systemic racism is a complicated process that will require sustained collaboration between many actors in the housing finance system, and the policy and practice changes proposed in this report may improve Black homeownership only at the margins. But our research in this area is promising, and if the housing finance system can rally the necessary political will, we may be able to make tangible improvements for hundreds of thousands of Black households.

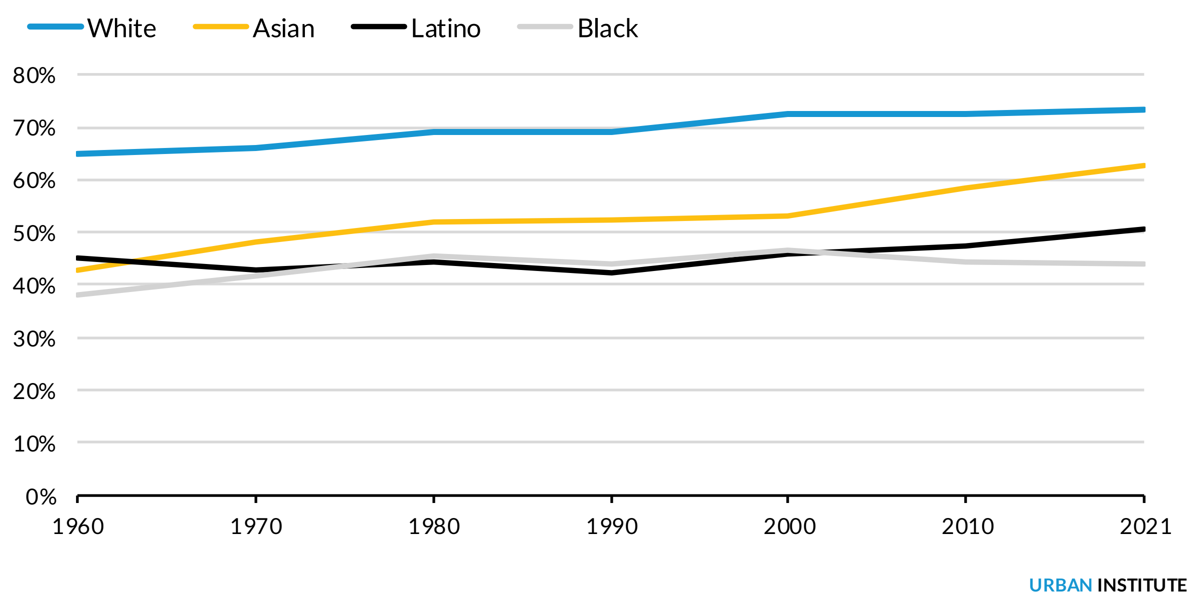
2. The Current Landscape of Black Homeownership and Retention

The State of Black Homeownership

The structural barriers to homeownership for Black households, rooted in historical racial discrimination, have created an enormous disparity in homeownership rates between Black households and white households. Racial homeownership disparities have persisted for decades, with the Black homeownership rate falling below homeownership rates for all racial and ethnic groups since 2010. The homeownership gap between Black households and white households is 30 percentage points, wider than it was in 1960, when the Fair Housing Act had not yet been passed and race-based housing discrimination was still legal (figure 1). Even at a local level, not a single US metropolitan statistical area has closed the Black-white homeownership gap.[2]

FIGURE 1

Homeownership Rates, by Race and Ethnicity



Sources: Decennial Census, the American Community Survey, and Urban Institute calculations.

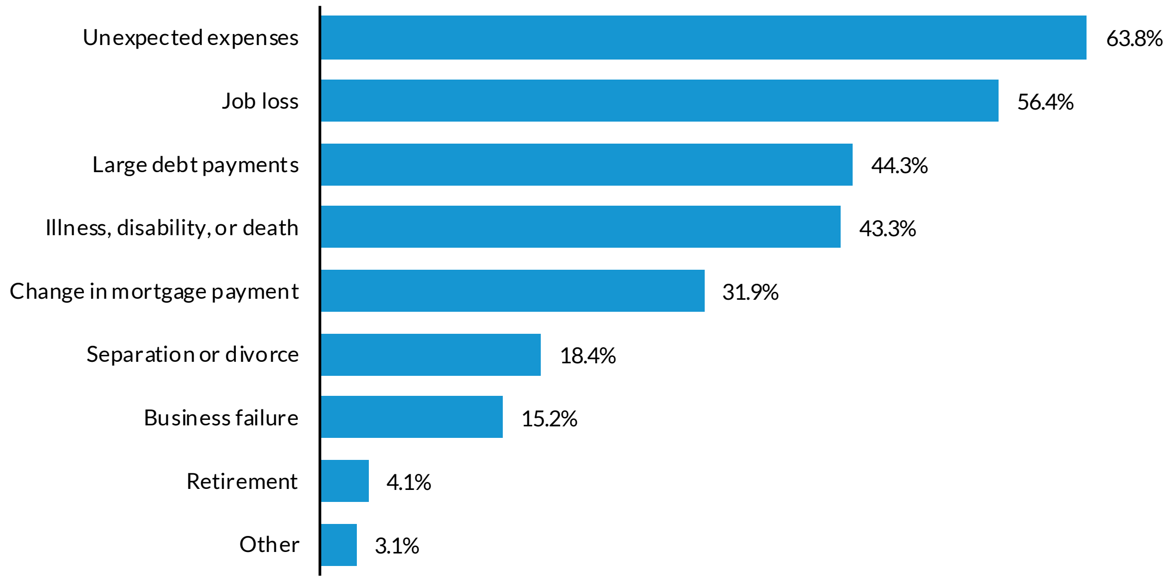
Despite growth in the number and population share of people of color in the next 20 years, racial homeownership gaps will remain at their current levels unless stakeholders design and implement comprehensive and effective solutions (Goodman and Zhu 2021). We project the Black homeownership rate will stay at approximately the current rate and that the 30 percentage-point difference between the Black and white homeownership rates will persist or widen unless substantial efforts are made to increase Black homeownership. Reevaluating the disparate racial impacts of current practices and updating them to better serve households of color is one mechanism for doing so. The first paper in this series (Choi et al. 2022) looked at ways to incorporate alternative data in mortgage underwriting to expand the credit box and increase opportunities for Black households to become homebuyers. The second paper looked at ways to mitigate the impact of student loan debt on mortgage lending, as student loan debt is more apt to affect Black households and other households of color than white households (Blagg et al. 2022). But it is not enough to decrease the barriers to Black homeownership; mechanisms need to be designed and implemented that can be tapped after the mortgage closes to ensure homeowners can continue making their monthly payments even when they experience hard times. If families cannot sustain homeownership, they will be forced to exit their journey toward building wealth, defeating much of the impact of lowering the barriers to homeownership. Promoting racial equity in homebuying will only further racial equity if homebuyers sustain homeownership; homebuyers who are foreclosed on are marginally worse off than if they had never purchased a home (Herbert, McCue, and Sanchez-Moyano 2013).

Why Black and Latino Homeowners Struggle to Retain Homeownership

Recent research has revealed that most defaults and foreclosures are caused by income or expense shocks.[3] When a borrower's circumstances change and they have little cash on hand, they are at the highest risk of missing mortgage payments. A rigorous study by David Low (2022), in a Consumer Financial Protection Bureau working paper, identified unexpected expenses, job loss, large payments on other debts, and illness, disability, or death as the shocks that lead to the greatest number of defaults (figure 2). In this section, we link research on racial inequities to see how these income and expense shocks could lead to higher default and foreclosure rates among households of color than among white households.

FIGURE 2

Common Difficulties Leading to Default



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Source: David Low, *What Triggers Mortgage Default: New Evidence from Linked Administrative and Survey Data* (Washington, DC: Consumer Financial Protection Bureau, 2022).

Unexpected Expenses

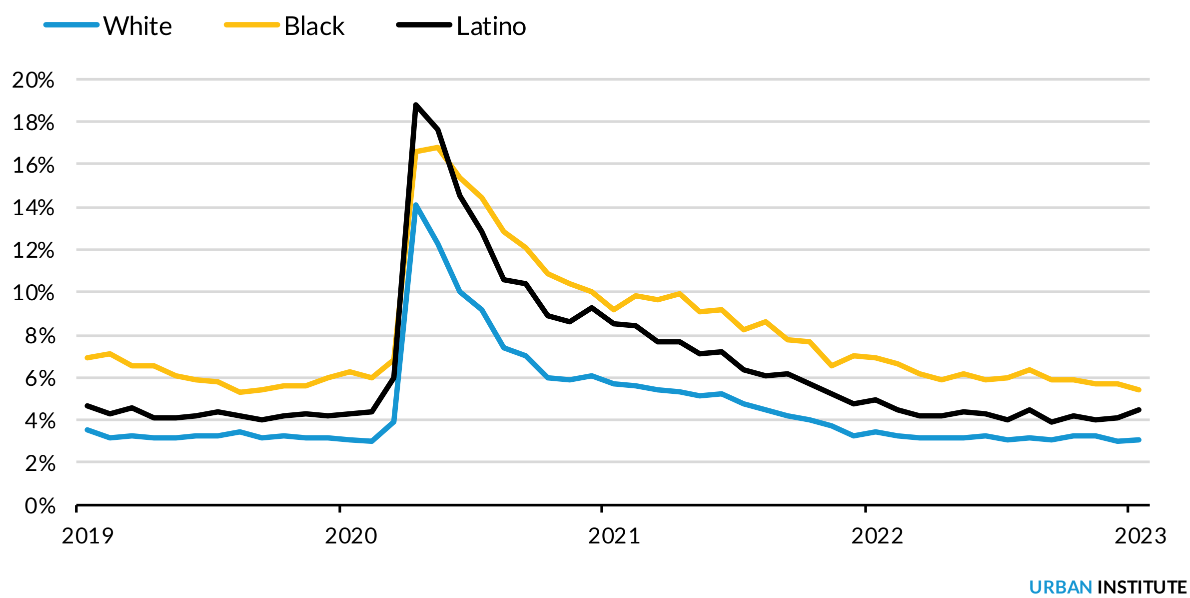
Unexpected expenses affect more than 60 percent of people who default on their mortgage (figure 2). A wide variety of life events could result in unexpected expenses, and evidence shows that Black and Latino adults are more vulnerable than white adults to most expense shocks because of structural racism in the labor market and a long history of unequal access to wealth-building opportunities. Moreover, people of color generally have fewer liquid assets than white people to tap to cover an unexpected expense. In 2021, 75 percent of white adults had the cash or liquidity to cover a $400 expense shock, while only 54 percent of Latino adults and 48 percent of Black adults reported the same.[4] This disparity comes in part from lower incomes among workers of color. In 2021, median weekly earnings for full-time workers was $777 for Latino workers, $801 for Black workers, and $1,018 for white workers.[5]

Job Loss

Black and Latino homeowners are more likely than white homeowners to suffer an income shock attributable to job loss. The unemployment rate for Black and Latino adults is consistently higher than that of white adults (figure 3). These gaps are exacerbated during recessions and natural disasters (Neal and McCargo 2020). Job loss is less common among workers with "good jobs," defined as work with insulation from mass layoffs attributable to offshoring or automation and work that pays salaries plus benefits that can sustain a family. But Black workers (23 percent) and Latino workers (19 percent) are less likely than white workers to be employed in "good jobs" (36 percent) (Langston, Scoggins, and Walsh 2020). Moreover, data from the Bureau of Labor Statistics indicate that when Black borrowers experience job loss, they are unemployed longer (19.0 weeks, on average, in 2021) than either white or Latino borrowers (15.4 to 15.6 weeks).[6]

FIGURE 3

Unemployment Rates, by Race or Ethnicity, 2019–23



Source: Current Population Survey.
Note: Unemployment rates are seasonally adjusted.

The COVID-19 pandemic caused widespread job loss for many households, and, as in past recessions, Black and Latino households were hit at least as hard as white households. From February 2020 to April 2020, the white unemployment rate in the US jumped 11.1 percentage points, from 3.0 percent to 14.1 percent. The Black unemployment rate increased 10.6 percentage points, from 6.0 percent to 16.6 percent, and the Latino unemployment rate rose 14.4 percentage points, from 4.4 percent to 18.8 percent (figure 3). Even amid the current economic recovery, joblessness is greater among Black and Latino workers relative to white workers. As of January 2023, the difference between the white and Latino unemployment rates is 1.4 percentage points, and the Black-white difference is 2.3

percentage points.[7] This partly reflects structural barriers that result in higher unemployment over time, such as segregation in the workforce.[8]

Large Debt Payments

Evidence shows that debt-to-income ratio is a less useful indicator of credit risk than other scoring factors, such as a borrower's FICO score (Kaul, Goodman, and Zhu 2019). Nevertheless, large debt payments can disrupt a household's expenses and make it difficult to keep up with mortgage payments. Black and Latino adults are more likely than white adults to experience debilitating debt payments. For mortgages originated in 2019, debt-to-income ratios were, on average, higher among Black and Latino households (41 percent) than among white households (36 percent) (Liu et al. 2020).

Illness, Disability, or Death

Medical debt indicates a household is experiencing a medical shock and having trouble paying for it. In April 2022, 22.5 percent of Black adults and 19.9 percent of Latino adults had medical debt in collections, compared with 15.5 percent of white adults (Karpman, Martinchek, and Braga 2022). Black and Latino households are also more likely than white households to be uninsured, which explains part of the difficulty paying for medical bills.[9] Evidence also shows that people living in predominantly Black communities are at an increased risk of exposure to harmful environmental hazards that have been the result of racial segregation and disinvestment in minority neighborhoods (Landrine and Corral 2009). And these hazards increase the risk of illness.

Higher Homeownership Costs for People of Color

People of color also may be more prone to default because they generally pay relatively more than white people to be homeowners. Black and Latino borrowers tend to make lower down payments and have lower credit scores, on average, and hence are more apt to use Federal Housing Administration (FHA) loans or need mortgage insurance and pay higher loan-level pricing adjustments on government-sponsored enterprise (GSE) loans. Even beyond these risk-based costs, the user costs of homeownership are typically higher for Black homeowners (Neal, Choi, and Walsh 2020). Black households (5.8 percent) and Latino households (4.3 percent) are more likely than white households (3.1 percent) to live in inadequate housing. And in turn, inadequate housing can increase the user costs of homeownership for families of color by increasing the need for home improvements or accelerating the housing structure's depreciation (Neal, Choi, and Walsh 2020). Black and Latino homeowners pay, on average, 10 to 13 percent more in property taxes than white homeowners for comparable properties and services (Avenancio-Leon and Howard 2019).

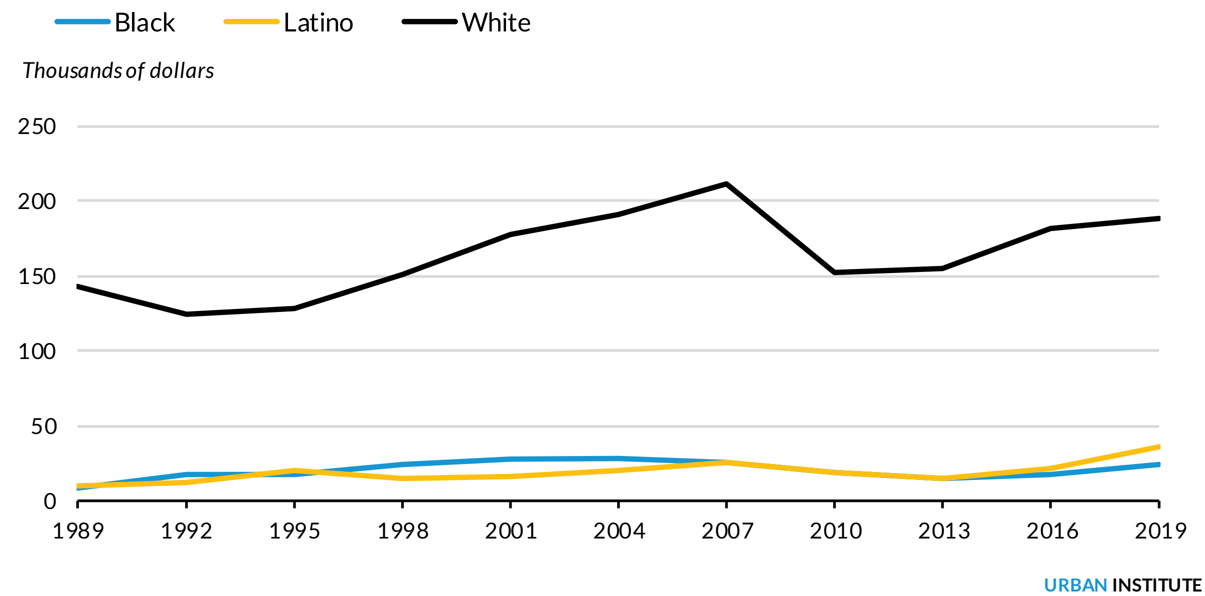
Black homeowners also have higher interest rates than white homeowners because they are less likely to refinance when interest rates fall (Gerardi, Lambie-Hanson, and Willen 2021). When initially taking out a mortgage, low-income first-time homebuyers pay 13 percent more in closing costs (measured as a share of the home's purchase price) than other borrowers. Black and Latino low-income first-time homebuyers pay higher closing costs relative to their home purchase price than white low-income first-time homebuyers; in fact, 21 percent of low-income first-time Black homebuyers had closing costs that exceeded their down payment, compared with 6 percent of white homebuyers (Mota and Palim 2021).

Less Financial Cushion

All these stressors are accentuated for households of color, who have fewer financial resources to fall back on than white households do. Because of generations of disparities and discrimination regarding access to capital and wealth-building opportunities, in addition to outright theft and destruction of Black wealth, the median white household in 2019 had almost eight times the wealth of the median Black household ($188,200 versus $24,100) (figure 4).[10]

FIGURE 4

Median Net Worth, by Race or Ethnicity



Sources: Survey of Consumer Finances and the Urban Institute.
Note: Values are in 2019 dollars.

The foreclosure crisis had further disparate impacts on Black and Latino borrowers. From 2005 to 2009, Black homeowners lost a greater share of net worth at the median than white homeowners; while median household wealth fell 16 percent for white households, it dropped by more than 50 percent for Black and Latino households (Taylor et al. 2011). Properties in Black communities and Latino communities lost an estimated $194 billion and $177 billion, respectively, because of spillover effects from foreclosures depreciating nearby property values from 2009 to 2012. Even before the foreclosure crisis, unscrupulous lenders aggressively targeted Black homeowners through lending products and practices that stripped equity from their homes, such as junk fees and toxic loans with deceptive features that triggered serial refinancing and additional fees (Bocian, Li, and Ernst 2010).

The Potential Equity Impact

The cumulative result is that homeowners of color are more vulnerable than white homeowners to default and foreclosure triggered by financial shocks. We can estimate the difference using CoreLogic's MarketTrends data. Using data from 2015 to 2019, we calculated, by zip code, the share of borrowers that lost their home to foreclosure each year.[11] We then overlaid the zip code's racial and ethnic composition (from American Community Survey data) to construct the homeownership loss rate. We estimate that from 2015 to 2019, 0.94 percent of white borrowers lost their homes each year, versus 2.09 percent of Black borrowers. Assuming that the average borrower holds a home for seven years, this would translate into a lifetime default rate of 6.4 percent for white borrowers and 13.7 percent for Black borrowers, a difference of almost 7 percentage points.[12] Bringing the rate of completed foreclosures for Black borrowers down to that of white borrowers would mean that of the 4.4 million Black households currently with an active mortgage (according to American Housing Survey data), approximately 300,000 fewer households would eventually lose their home to foreclosure and would have the opportunity to build generational wealth. These retained homeowners would add about 2 percentage points to what the Black homeownership rate would otherwise be.

Moreover, innovations that avert foreclosures can enable more households of color to enter homeownership safely, because reducing foreclosures will enable lenders to responsibly expand the credit box and thus include more borrowers with lower or less predictable incomes, less wealth, and less well-established traditional credit.

3. Options to Promote Home Retention for Borrowers Facing Financial Stress

In this section, we describe mechanisms that can protect against financial shocks. Some of these are tried and tested, some are being piloted, others are in development, and others are only ideas. For any solution to be successful and reach scale, it must benefit borrowers and be adopted by mortgage lenders, servicers, agencies, technology vendors, and the capital markets. Many of the approaches have a role to play, each has its own comparative advantages, and some could work together.

The approaches fall into three broad categories: enhanced foreclosure prevention, insurance, and dedicated reserve accounts.

After laying out the various approaches, we take a deep dive on reserve accounts.

Enhanced Foreclosure Prevention

Arguably, the most immediate and straightforward way to give borrowers breathing room when they experience financial stress is by adjusting how servicers work with borrowers when they cannot make their mortgage payments. The rules for how most mortgages are managed are set by the GSEs and federal agencies such as Ginnie Mae, the FHA, the US Department of Veterans Affairs (VA), and the US Department of Agriculture (USDA). These practices are continually evolving. First, we examine existing practices, as new solutions are more likely to be adopted and successful if they build on current frameworks.

The Current Foreclosure Prevention Toolkit

Mortgage market participants—industry, government mortgage agencies, and regulators—have developed a robust foreclosure prevention toolkit to promote home retention. This toolkit includes repayment plans, forbearances, and loan modifications that help struggling homeowners keep their homes by becoming current again. Some of these tools were developed in response to the foreclosure crisis and were then enhanced during the COVID-19 pandemic shutdown.

Before the 2008 financial market crash, there was no standardized toolkit. Short-term assistance programs such as repayment plans and forbearance plans were available on an ad-hoc basis, with each servicer offering its own terms. As a result, borrowers were often unaware of their options or were confused about when and how they were supposed to repay any temporary relief. Adding to the confusion, servicers often added delinquent interest and substantial fees to the balance. Many of these plans were unsuccessful because they were structured in a way that was not financially feasible for the borrower. The financial crisis highlighted the need for a standardized loss mitigation toolkit, which was initially developed by the government and the GSEs. That toolkit has since been improved as these agencies dealt with financial stress from the effects of several natural disasters. In particular, during natural disasters, the agencies moved forbearance to the top of the loss mitigation hierarchy. That playbook was adopted during the pandemic (box 1) and was subsequently modified and made permanent.[13]

BOX 1

COVID-19 Forbearance Policies

On March 18, 2020, the US Department of Housing and Urban Development announced a 60-day moratorium on foreclosures and evictions for borrowers with FHA mortgages; the Federal Housing Finance Agency made a similar announcement for GSE mortgages insured by Fannie Mae and Freddie Mac. Forbearance details were written into the Coronavirus Aid, Relief, and Economic Security (CARES) Act and signed into law on March 27, 2020, which also extended the foreclosure and eviction moratorium to all federal mortgages, including FHA, VA, USDA, and GSE mortgages.[a]

Specifically, borrowers needed to request forbearance by telling their servicer that they experienced a financial hardship directly or indirectly attributable to the pandemic. Servicers were required to suspend credit bureau reporting of delinquencies related to forbearance, repayment, or trial modification plans.

Borrowers could elect forbearance to pause their monthly payments, including principal, interest, taxes, and insurance, for a specified period.[b] The initial forbearance plan typically lasted 3 to 6 months, with a possible extension for up to 12 months. But later, the forbearance period was extended to up to 18 months for GSE loans that went into forbearance by February 28, 2021, or FHA loans that went into forbearance by June 30, 2020.

As a borrower exited forbearance, several options were available, depending on the borrower's economic situation. The servicer first asked the borrower whether they could pay the missed payments back at once or make several payments higher than what they were making before; if so, the missed payments would be paid back when forbearance ended or would be amortized over a short period. Few borrowers could make the higher payment. Under pandemic forbearance policies, if the borrower could make their old payment, the missed payments were added to the end of the mortgage. For GSE mortgages, the term was extended by the number of missed payments. For FHA mortgages, the forborne amount (the sum of the missed payments) was treated like a second mortgage, payable when the loan matured. In both cases, if the borrower prepaid sooner, either because of sale or refinancing, the monies were repaid at that point. Finally, for borrowers who could not make their old payment, there were mortgage modification options that reduced the payment amount. If the borrower could not qualify for a modification, the only other alternative was to exit the home through foreclosure or a foreclosure alternative.

This forbearance program worked well for both borrowers and the industry. As of March 2023, Black Knight data show that 8.5 million loans had been in forbearance at some point during the pandemic.[c] Most loans that elected forbearance have either ended their forbearance early or reached the 12- or 18-month limit. Only about 422,00 loans, or 5 percent of the 8.5 million, remain in forbearance. The largest chunk, 4.4 million loans, or 52 percent, ended their forbearance and are performing, and another 2.9 million, or 35 percent, have paid off. Of the remaining loans, 2 percent (201,000 loans) are in active loss mitigation, 1 percent (70,000 loans) have experienced a distressed liquidation, and the remaining 5 percent (462,000 loans) are either delinquent or are in active foreclosure.

That strong performance is largely because the forbearance plan was streamlined—it was required by law to be offered and had minimal documentation requirements. In addition, there were efforts made to ease the burden on servicers. Unlike standard or disaster forbearance, Fannie Mae and Freddie Mac capped servicers' obligations to advance principal, interest, taxes, and insurance payments at four months of delinquency; added payment deferral as a loss mitigation option to the waterfall; and accelerated the buyout of delinquent loans from the securitized pool. Ginnie Mae established the Pass-Through Assistance Program to alleviate potential financial stress on servicers, while the FHA and the VA (at least temporarily) modified their loss mitigation toolkits to enable deferrals.

The FHA program was initially scheduled to end when the state of emergency ended, or May 11, 2023. But the FHA extended its COVID-19 forbearance program to borrowers to begin forbearance until May 31, 2023. The GSE programs were instituted with no expiration date but are expected to sunset when the new loss mitigation waterfall goes into effect. The VA program expired in October 2022.

[a] For a summary of homeowner and renter protections during the pandemic, see "Help for Homeowners," Consumer Financial Protection Bureau, last updated August 1, 2021, https://www.consumerfinance.gov/coronavirus/mortgage-and-housing-assistance/help-for-homeowners/.

[b] Researchers have studied the impact of payment reduction on mortgage delinquency. See Jun Zhu, Jared Janowiak, Lu Ji, Kadiri Karamon, and Douglas McManus, "The Effect of Mortgage Payment Reducation on Default: Evidence from the Home Affordable Refinance Program," *Real Estate Economics* 43, no. 4 (2015): 1035, https://doi.org/10.1111/1540-6229.12104; and Kadiri Karamon, Douglas McManus, and Jun Zhu, "Refinance and Mortgage Default: A Regression Discontinuity Analysis of HARP's Impact on Default Rates," *Journal of Real Estate Finance and Economics* 55 (2017): 457.

[c] Black Knight, *Mortgage Monitor: March 2023 Report* (Jacksonville, FL: Black Knight, 2023), 8.

Continued Improvement to the Standard Loss Prevention Toolkit: Normalizing Forbearance and Other Actions

Data indicate that the forbearance program initiated through the CARES Act, along with pandemic payment deferral options, likely stopped a large wave of foreclosures that would have resulted from pandemic-related unemployment. The FHA and the GSEs continue to incorporate lessons from the pandemic into permanent policies that move forbearance to the top of the loss mitigation hierarchy. Forbearance with payment deferral is one of the strongest options for when a hardship has not been resolved because it can be used to address various shocks, is already in use at scale, and has demonstrated efficacy. In a recent report, we outlined a detailed proposal to expand forbearance and payment deferral to prevent tens of thousands of foreclosures a year (Alexandrov, Goodman, and Tozer 2022). This plan is simply a limited extension of current policies, which all the servicers have implemented, thus the costs of implementation are near zero. Under this plan, servicers would offer forbearance to borrowers experiencing unemployment, divorce, severe injury or illness, or the death of a coborrower, with the forbearance exit employing the pandemic loss mitigation hierarchy. Borrowers at risk of missing payments would not need to go delinquent before applying for or receiving forbearance, and forbearance could be elected with minimal damage to a borrower's credit score. The missed payments would be deferred, with no interest, until the mortgage is paid off.

In fact, based on the success of the COVID-19 payment deferral program, the GSEs, in March 2023, announced enhancements to their payment deferral policies, making deferral a key part of the standard loss mitigation toolkit. Delinquent borrowers with eligible hardships who cannot afford a repayment plan after a hardship resolution can defer up to six months of mortgage payments.[14] Servicers can begin implementation as early as July 1, 2023, but must have this in place by October 1, 2023.

Aside from forbearance, the standard foreclosure prevention toolkit continues to evolve. As borrowers exit forbearance, they can be considered for a loan modification if they cannot make their old payments. But because government mortgages (from the FHA, the VA, and the USDA) must be removed from the security in which they are pooled to execute the modification and then reset to the current mortgage interest rate, modifications of these loans, in a high-interest-rate environment, will result in a payment that may be much higher than what many borrowers had been paying. As of this writing, the FHA is considering changes in its modification process to allow the borrower to keep their original loan rate.[15] Solving this issue will be particularly beneficial for Black homeowners, who are more likely than white homeowners to have government-backed mortgages and are thus less likely than conventional and portfolio loan borrowers to receive a sustainable modification.

Insurance Products

Insurance is an arrangement by which a company or government agency provides a guarantee of compensation for specified loss, damage, illness, or death in return for payment of a premium. By pooling the relatively small risk that any individual will experience a loss event, each individual can obtain protection against an event that could otherwise pose financial hardship. Although the pooled risk approach is more efficient than having each borrower carry their own dedicated reserve account (a category discussed below), an insurance-based approach would involve an additional sector of the financial services industry (insurance), which brings a thicket of regulatory and structural challenges.

Mortgage Protection Insurance

Many types of insurance can protect borrowers against some of the risks described above. Broadly speaking, life, unemployment, health, and disability insurance can help borrowers weather shocks and thus indirectly help them make their mortgage payments. This section focuses on versions of those insurance products that directly help borrowers maintain their mortgages.

We refer to these as mortgage protection insurance. These are optional policies borrowers purchase from a third-party insurer outside the mortgage transaction. The policy may insure against death, disability, or unemployment, in which case it might cover payments for a certain period or pay off a portion of or all of the mortgage (most common for mortgage life insurance), depending on which type of insurance policy is purchased. Because they cover only the mortgage, and only under specified circumstances, they are less flexible than broader forms of life, disability, and unemployment insurance. They are also frequently more costly than their broader counterparts and generally not recommended for borrowers who can secure those other forms.[16]

To be a consumer-friendly mechanism for sustaining homeownership at scale would require a substantial overhaul of these products and the terms and conditions under which they are offered. If consumer-friendly and affordable forms were developed, lenders might consider purchasing coverage for a wide swath of borrowers. This would also prevent adverse selection and would overcome challenges related to borrower awareness and understanding of the product.

Home Warranty Insurance or Grants

Another form of insurance sometimes offered at closing is a home warranty plan to protect against unexpected repair shocks. This insurance covers service, repair, or replacement of major home appliances and systems, which are often expenses for which new homeowners do not plan. The insurance is offered as an option through a third party, and the homeowner pays a premium each month that is separate from the mortgage payment. The model for home warranties has been well established and is independent from the mortgage. But there are several downsides, including that items covered are only those specifically listed in the contract, and the insurance typically does not include other significant repair needs (e.g., roofs or structural repairs) that homeowners can face. This insurance can cost more than $50 per month with a service fee of $100 or more per call, adding up to $1,000 to $2,000 per year to housing costs for relatively limited coverage. Such policies must also be renewed periodically.[17]

To mitigate this cost, nonprofits or government entities could provide grants to pay home warranty insurance premiums. This could be helpful in the critical first few years of homeownership, when borrowers' incomes are usually stretched and savings are low.

An example of assistance for repairs is the Pennsylvania Whole-Home Repairs Program[18] created by legislation in 2022. This program addresses key expenses to fix aging housing problems, not appliance repairs. Instead of an insurance model, the program offers eligible homeowners—those who earn up to 80 percent of the area median income—a grant of up to $50,000 to make repairs. These can range from relatively minor fixes such as installing weatherization or patching a leaky roof to major renovations that, left undone, would make an aging home uninhabitable. The program helps prevent foreclosure caused by repair expense shocks and contributes to wealth building.

But home warranty insurance and grant programs do not cover the most common reasons for mortgage delinquency: unexpected expenses and job loss. Although the state subsidizes the Pennsylvania program, it is far from certain that the legislature will approve funding every year, and most states do not offer similar programs. Ultimately, despite its usefulness to households who receive this funding, the limited nature of such programs (i.e., restricted to home repairs and subject to state funding) means large-scale expansion to improve homeownership sustainability for households of color is unlikely.

Mortgage Insurance to Protect the Borrower (Rather Than the Lender or Investor)

Mortgage insurance refers to products that protect the lender or the holder of the credit risk against loss (to simplify, we refer to that party—whether a lender, a GSE, or a private investor—as "the lender"). The two main types are private mortgage insurance (PMI) and government mortgage insurance provided by the FHA, the VA, or the USDA. In case of default, the insurance pays the lender in accordance with the terms of the insurance policy, even though the borrower is the one who pays for the insurance.

Mortgage insurance helps promote homeownership by reducing a lender's risk exposure and thus reduces the lender's risk. Although ultimately mortgage insurance itself does not reduce the borrower's risk of loss stemming from default, PMI companies' interests and practices are largely aligned with those of borrowers in wanting to avoid defaults and foreclosures.

PMI could be expanded to benefit the homeowner as well. For example, the insurer could add an involuntary unemployment insurance feature (or a supplemental involuntary unemployment insurance policy) that pays all or a portion of the mortgage payments for a specified period in the event of verified unemployment.

A working example is a product offered by the Massachusetts Housing Finance Agency (MassHousing). MassHousing is also a GSE-approved mortgage insurer. The agency offers the MIPlus Mortgage Payment Protection program at no additional cost on all conventional loans it insures.[19] Payments are covered (partially or in full) up to $2,000 per month for six months if the borrower experiences unemployment events, which are confirmed by documentation from the state's Department of Unemployment Assistance. This assistance helps borrowers stay current for credit reporting purposes. MassHousing services the loans in house, which reduces the complexity that would be involved if a third-party servicer had to coordinate with MassHousing. The program has operated since 2004.

MassHousing has found MIPlus to be economical because it reduces defaults and thus reduces losses on the back end, particularly payments for PMI claims. By the agency's analysis, MIPlus payments to eight borrowers is approximately equal in cost to one PMI claim in the event of a default. Thus, preventing just one of those borrowers from going into default makes the program self-funding. The experience thus far has been similar to the break-even level, making the program self-funding. To date, the state has paid MIPlus to about 1,400 borrowers and had PMI claim payments on 196 loans (though more research and analysis would be useful to determine how many foreclosures were prevented as a direct and causal result of the MIPlus payments).

Although MIPlus benefits the borrower and MassHousing has seen positive financial outcomes, major structural challenges would need to be overcome to reach nationwide scale. One challenge is that insurance laws and regulations vary by state. No other state housing finance agency has stood up a similar program.

Furthermore, MassHousing's in-house mortgage insurance and servicing makes claims and payment processes operationally simple and cost effective. If another entity did the servicing or the insuring, it would require prompt and extensive coordination between the servicer, the insurer, and the borrower (as consumers may not even remember they have this coverage, especially when years have elapsed since closing). The insurer is unlikely to remit the missed payment before verifying hardship documentation and making sure the hardship is a covered event. It can take days or weeks for this process to play out, while the servicer awaits payment. Delay would also mean that the consumer would be treated as delinquent and take a hit to their credit score. In addition, the financial risk of payment delays or denied claims would fall on the servicer. Servicers would have to tweak their servicing operations and systems and train staff members.

Could PMI companies offer this insurance on loans for which they provide PMI? In theory, they may have an incentive to do so because keeping the homeowner from going delinquent could reduce the risk of foreclosure and minimize PMI claims on the back end. But the companies would face the same operational frictions described above. For example, during the financial crisis, Radian Guaranty, a private mortgage insurance company, offered to fund up to 15 percent of what the future claim amount could be to help bring a delinquent borrower current during the spike in delinquencies. The 15 percent did not have to be paid back. But if the loan subsequently defaulted again and went to foreclosure and a claim was made, the amount funded previously would be offset against the claim payment. Despite Radian hiring employees to help the servicers on site, the program was used only to a limited extent because it was not built into the servicers' workflows.

Such costs, risks, and frictions reduce PMI companies' ability and willingness to provide this insurance, even for the loans they already cover. PMI companies that have tried offering involuntary unemployment insurance witnessed low consumer demand, and some consumers who had this coverage were not able to benefit because of frictions. Finally, traditional private mortgage insurers may not be able to replicate the model because of different regulatory, financing, and capital standards than for housing finance agencies.[20]

MIPlus covers only conventional loans, not FHA or VA loans. Improving homeownership retention for Black and Latino borrowers at scale would require coverage to be made available for FHA and VA loans, given the outsize role the two play in lending to households of color. If traditional PMI companies (or other insurers) were to offer similar protection for government-insured loans, they would lose the offsetting benefit of reducing their default losses and would need to charge a market premium rate, further increasing monthly homeownership costs.

A Borrowers Mutual Insurance Fund: Pooled Funds to Help Homeowners Facing Hardship

A pooled insurance fund can also insure homeowners against the inability to pay their mortgage, combining features of insurance and dedicated reserves (discussed below). This concept has been proposed by industry participants but has not yet been tested (Cooperstein, n.d.). This approach would reduce the homeowner's down payment requirement and pay the difference into an insurance fund instead (a diversified escrow account, or, hereafter, "the fund"). The program would invest the fund the same way mortgage escrows are invested and cover principal and interest payments for borrowers experiencing eligible hardships.

As conceived, borrowers would pay in at closing by reducing the amount they put toward their down payment. For example, for GSE mortgages with loan-to-value (LTV) ratios of 97 percent, the typical 3 percent down payment requirement would be reduced to 1 percent or even 0 percent, and the remaining money would be put into the fund to support the insurance. To further strengthen the fund, a GSE or other investor could contribute a specified amount (e.g., 5 to 10 basis points) of each loan in the fund. The borrower would still be underwritten at the terms of the 97 percent LTV loan, as their cash to close would remain the same. In other words, this product would switch a portion of the homebuyer's down payment from building equity to creating a buffer against default. The architects of this plan have found in their analysis that the liquidity value of the diversified escrow is greater than a small down payment on a high-LTV loan and thus that mortgage default risk is reduced.

Use of the fund would be triggered by short-term income interruptions, such as unemployment or major home maintenance. Other financial stresses, such as those from death, divorce, or major medical expenses, would be addressed by the existing foreclosure prevention solutions.

The program would operate similar to mutual funds and be managed consistent with all state and federal insurance laws and regulations. Typical of escrows, the fund would aim to pay a moderate return. The fund's objective is to make three to six months' worth of mortgage payments when borrowers have insurable events. Upon a qualified event (e.g., unemployment verified by a state unemployment insurance application), the fund would advance a limited number of monthly payments (or partial payments). Borrowers can remain in the fund if they execute a rate-term refinance. At payoff, borrowers would receive their unused funds, possibly with some return or pay-back of funds used in excess of their contribution.

Similar to insurance, pooling protects and diversifies the fund, lowering risk and likely increasing the fund's ability to pay for covered events. Unlike PMI, this protection accrues directly to borrowers instead of to the insurers or investors in the mortgage value chain. At the same time, this protection lowers default risk and thus should lower the credit risk premium (or loan-level pricing adjustment) and raise the value of mortgage securities servicing. Because these payments keep borrowers current and help them avoid default, it does not impede prepayments and should enable the participating mortgage loans to continue TBA (to-be-announced) eligibility, a key feature that allows them to remain liquid and low cost.

This fund is envisioned as a self-funded mutual fund where the money comes from the borrowers and returns to them if unused when they leave. If the usage rate, as is likely, is less than 50 percent, borrowers could potentially receive 2.5 percent to 3 percent on exit. Furthermore, because there are no return-on-equity requirements, there is no need for the leverage that PMI companies, banks, or guarantors typically have. The challenges with this approach are primarily operational, such as servicing frictions, complications, and borrower uptake. There is also a question as to whether this type of fund can be classified as an insurance product. If so, it could create a large administrative burden.

This proposal is still in its concept stage, though it has garnered interest from potential stakeholders. A proof of concept would require a pilot of adequate size (the authors estimate $1 billion, or 10,000 loans a quarter), as well as a willing investor and servicer. Significant operational and regulatory issues remain that such a pilot would need to address. That said, the recognition that a pooled fund would be more efficient and potentially more scalable than a solution where each borrower has to fund their own dedicated mortgage savings account merits further development.

Dedicated Mortgage Reserve Accounts

A mortgage reserve account is a savings account tied to an individual mortgage, typically used to cover mortgage payments if the borrower experiences an income shock or an unexpected expense. To fund an MRA, the homeowner can deposit small monthly payments over time; make a larger, one-time deposit at closing; or adopt some combination of the two approaches. In some instances, the homeowner may be given matching funds via participation in a down payment assistance plan or through a lender-initiated program to help ensure homeownership can be maintained.

These accounts can be thought of as sidecar savings accounts on the mortgage. Several models are being tested and developed. These innovations will need to test and resolve a wide array of design decisions before a scalable solution is achieved. These include size and source of the reserve and conditions for drawing on the account. Major challenges exist around how servicers, borrowers, and the reserve account managers will coordinate and how a reserve account will be integrated into the foreclosure prevention hierarchy.

Prosperity Now started an MRA pilot[21] in 2017 to give homeowners with low incomes an incentive to save for emergencies by providing matched savings. According to a 2020 report released by Prosperity Now, administering the pilot was resource-intensive because of the need to assess homeowners' savings habits, track account balances, and understand, through periodic check-ins, how homeowners use the savings.

More recently, the Self-Help credit union network started offering certain mortgage borrowers in eight states the Savings Account for Emergencies (SAFE) program, a matched-savings reserve account.[22] Self-Help contributes an initial $2,000 to this account if the homeowner agrees to make a nominal $25 automatic deposit each month. Funds may be withdrawn for emergencies and home repairs, and the $2,000, or remaining funds, become fully available to borrowers after three years in the program. The program is in a very early stage but has primarily served Black homebuyers. The organization hopes to test and demonstrate the effectiveness of SAFE to encourage more lenders to follow suit and to directly facilitate adoption by offering it via its secondary market home loan purchasing program.

Mortgage innovation adoption and expansion can be accelerated if Freddie Mac and Fannie Mae create secondary market outlets for new programs. Both GSEs are exploring MRA programs as part of their respective Equitable Housing Finance Plans (EHFPs). Freddie Mac stated in its initial 2022 EHFP that it would analyze reserve fund options that include permitting withdrawals for a missed or partial mortgage payment, to fund a home repair, or for a medical emergency that caused a temporary hardship (Freddie Mac 2023). After analyzing whether and how much reserves reduce defaults, Freddie Mac would determine how these features could be used as an underwriting risk offset, to expand access to credit, or to reduce acceptance rate disparities. Subsequently, Freddie Mac's 2023 EHFP cited plans to complete a feasibility assessment with a goal to start implementation in 2024 but provided no other specifics.

In its inaugural 2022 EHFP, Fannie Mae stated that it planned to pilot MRAs as part of a suite of features of proposed special purpose credit programs (SPCPs). In its year-end performance report, Fannie Mae (n.d.) reported progress in developing a Mortgage Reserve Account Pilot, or MRAP, and strong interest from lenders and servicers, despite concerns over operational challenges and required manual processes. Though Fannie Mae does not lay out program details, the pilot aims to test the product with up to 200 borrowers. The 2023 version of the EHFP affirmed plans to pilot features that help sustain homeownership through postpurchase counseling and MRAs, with a specific 2023 goal of "developing a comprehensive plan to offer reserve accounts for participants in [their] SPCPs" (Fannie Mae 2023, 58).

Any pilots will also likely depend upon approval by the Federal Housing Finance Agency per the "new products rule," a process that may require additional time (FHFA, n.d.). The GSEs could further contribute to our understanding of reserves in expanding sustainable homeownership by publicly releasing both the analysis and results of their pilot programs.

We look forward to seeing what shape the Fannie Mae and Freddie Mac programs will take, as they can catalyze lenders to offer these programs and bring them to scale.

In this section, we explored several ways to offer homeowners protection against short-term shocks, all of which have their merits. There is progress under way in mortgage servicing practices, and although insurance is a scalable solution in theory, practical implementation of an insurance-based approach faces major barriers. Given the current emerging focus on MRAs, we focus on the MRA approach for the remainder of this report. First, we review what the evidence and data can tell us about how reserves reduce default risk. In the final section, we propose a blueprint for a learning cluster of financial institutions to pilot a program that can shed further light on the efficacy and design of MRAs.

4. Research and Evidence on Reserve Accounts

Studies that have examined mortgage reserve accounts indicate that such accounts mitigate foreclosures because they provide emergency savings for borrowers to draw on. A JPMorgan Chase study of customers with a savings accounts and mortgages found that the likelihood of default for homeowners with less than one monthly mortgage payment in reserve is 2.45 percent (Farrell, Bhagat, and Zhao 2018). This is seven times the 0.36 percent default rate for borrowers with four mortgage payments in reserve. These trends applied regardless of income or debt-to-income ratio. Larger reserves essentially equalized the default risk between borrowers with different incomes and debt-to-income ratios.

Fannie Mae researchers found that the median borrower reserve amount in a sample of 1.1 million owner-occupied mortgages acquired by the agency in 2020 was 2.33 percent of the home's sale price (Mota and Palim 2021). For first-time homebuyers, the median reserves were 1.44 percent of the sale price, and for low-income first-time homebuyers, median reserves were 1.28 percent. The researchers concluded that borrowers with higher reserves were less likely to default, all else equal. This finding raises the question of whether reducing the down payment requirement for borrowers with lower incomes and using the savings to boost reserves could result in more sustainable homeownership.

Temporary mortgage assistance, which shares many commonalities with a mortgage reserve fund in providing emergency funding, has been demonstrated to be effective at preventing default when homeowners face financial distress. An analysis of the US Treasury Department's Hardest Hit Fund, which directly covered all or part of a homeowner's mortgage for up to two years, found that temporary mortgage assistance resulted in a 24 percentage-point (or 50 percent) reduction in the probability of default over the four years after funding had stopped (Mouton et al. 2021).

These findings together suggest that mortgage loan defaults might be reduced by switching some down payment funds into reserves. That said, a smaller down payment would mean a smaller equity buffer at origination and thus likely a higher loss severity per defaulted loan. Thus, although reserves may reduce defaults and allow more households to sustain homeownership, the loans that do end up defaulting could result in greater losses for the investor compared with loans that have larger down payments. Understanding this interplay between LTV ratios and MRAs, and its implications for home retention and investor risk exposure, is critical to understanding the potential benefits and drawbacks of MRAs.

Below, we examine the role of reserves in supporting home retention. Recognizing that most homeowners have a finite amount of equity to put into a home purchase, we consider the potential benefits and drawbacks to homeowners and investors of funneling a percentage of a home buyer's down payment into an MRA. Specifically, we analyze the default rates and loss severities on a selection of GSE loans to answer two questions critical to understanding the impact of reserves on home retention and investor risk exposure:

1. Does a homeowner with a higher-LTV loan and a couple of months of mortgage reserves perform better than a homeowner with a lower-LTV loan and no reserves?
2. If so, is the improvement in that performance large enough to offset the higher expected loss severity for the loan with the higher LTV ratio and greater reserves?

Reserves Improve Performance, Even on Higher-LTV Loans

The first question when considering the pros and cons of funneling equity away from the down payment to fund an MRA is whether a homeowner with a higher-LTV loan and a couple of months of mortgage reserves performs better than a homeowner with a lower-LTV loan and no reserves? To answer this question, we analyzed default rates (loans default when they go more than 180 days delinquent or experience a short sale, third-party sale, deed in lieu of foreclosure, or go into real estate ownership before that) on a selection of 30-year fixed-rate, full-documentation amortizing loans. Borrowers with loans in forbearance are treated for this purpose as missing their payments. Our analysis shows that the difference in default rates between loans with higher LTV ratios versus those with lower LTV ratios is much smaller than the difference in default rates between loans with higher FICO scores versus those with lower FICO scores, as noted in table 1, which shows default rates for GSE mortgages by origination year, FICO score, and LTV ratio for loans originated since 2011. We have not included earlier origination years, as documentation standards were more lax before 2011. These results are based on Fannie Mae and Freddie Mac loan-level credit data; these datasets include loans originated from the first quarter of 1999 (Q1 1999) to Q1 2022 for Freddie Mac and from Q1 1999 to Q2 2022 for Fannie Mae.[23] For Freddie Mac loans, performance information is through Q4 2021, and for Fannie Mae loans, performance is available through Q2 2022, covering the worst period of the COVID-19 pandemic, when the unemployment rate was nearly 15 percent.

TABLE 1

Government-Sponsored Enterprise Default Rates on 30-Year Fixed-Rate, Full-Documentation Amortizing Loans

Origination year	Origination FICO score	LTV Ratio 90–93%	93–95%	95–97%	Total
2011–14	≤700	5.4%	5.8%	4.9%	5.7%
	700–750	2.4%	2.5%	2.8%	2.5%
	>750	1.0%	1.1%	1.3%	1.1%
	Total	1.8%	2.1%	2.1%	2.0%
2015–17	≤700	8.4%	9.2%	10.2%	9.3%
	700–750	3.9%	4.5%	5.7%	4.6%
	>750	1.5%	2.0%	2.9%	2.0%
	Total	3.1%	3.0%	5.2%	4.0%
2018–22	≤700	4.6%	5.4%	7.9%	5.8%
	700–750	2.2%	2.7%	3.5%	2.9%
	>750	0.9%	1.2%	1.7%	1.2%
	Total	1.7%	2.2%	3.1%	2.4%

Source: Urban Institute calculations from Fannie Mae and Freddie Mac loan-level credit data.
Notes: LTV = loan-to-value. Values for 2022 are through the second quarter. To clarify the overlapping LTV ratios, the first range starts at 90.01 percent, the second range starts at 93.01 percent, and the third starts at 95.01 percent.

There are multiple ways to look at these data. When considering default rates by credit score, the performance is as expected; loans with lower credit scores have much higher default rates than loans with higher credit scores. For loans originated from 2011 to 2014, loans with credit scores of 700 or below have a total default rate of 5.7 percent, roughly five times the 1.1 percent default rate for loans with credit scores above 750. For loans originated from 2015 to 2017 and from 2018 to 2022, default rates for loans with FICO scores of 700 or below are also four to five times as high as the default rates for loans with FICO scores above 750.

Similarly, when examining default rates by LTV ratio, we find that, as expected, higher-LTV loans have higher default rates than lower-LTV loans. But the variability is muted. That is, the differences in default rates are relatively small, regardless of where the LTV ratio falls between 90 and 97 percent. Loans originated between 2011 and 2014 with LTV ratios from 95 percent to 97 percent have a 2.1 percent total default rate, as do those with LTV ratios from 93 percent to 95 percent; default rates are slightly lower (i.e., 1.8 percent) for loans with LTV ratios from 90 percent to 93 percent. Similarly, for loans originated from 2015 to 2017 and from 2018 to 2022, those with LTV ratios from 95 percent to 97 percent have default rates that are only slightly higher than the default rates for loans with LTV ratios from 93 percent to 95 percent. In other words, unlike the situation with FICO scores, defaults do not rise exponentially with rising LTV ratios, even for the highest-LTV loans.

Although we control for credit scores and LTV ratios, our analysis above does not otherwise control for borrower characteristics. Moreover, our analysis does not account for borrowers' reserves. Although no public datasets on mortgage loans include reserve information, we can attempt to observe the impact of reserves indirectly.

Freddie Mac's and Fannie Mae's standard 97 percent LTV ratio lending programs often require borrower reserves at closing, with the amount determined by the GSEs' automated underwriting systems (FDIC 2018, 143–46). But the affordable versions of these programs—that is, Freddie Mac's Home Possible 97 percent LTV ratio program and Fannie Mae's HomeReady program, both of which target low-income households—generally waive the reserve requirement. Thus, these loans provide an opportunity to compare the performance of standard loans with 97 percent LTV ratios (i.e., those that are neither Home Possible nor HomeReady products and require reserves) with the performance of Home Possible and HomeReady loans with the same LTV ratios, as well as with those with higher down payments (loans with LTV ratios of 94 to 95 percent), which do not have a reserve requirement. Our hypothesis is that if reserves indeed reduce the likelihood of default, we would expect loans with 97 percent LTV ratios with reserves to have default rates lower than loans with 97 percent LTV ratios without reserves and to have default rates comparable with or not much higher than loans with 95 percent LTV ratios without reserves. To determine whether this is true, we analyzed default rates for GSE loans originated since 2015. These borrower groups are not necessarily identical in all other respects. Moreover, even if borrowers are not required to hold reserves, they may choose or be able to do so. Nevertheless, these are the best available data to inform the hypothesis. Table 2 shows the results.[24]

TABLE 2

Government-Sponsored Enterprise Default Rates on 30-Year Fixed-Rate, Full-Documentation Amortizing Loans, by LTV Ratio

		Loans without Reserves		Loans with Reserves
Origination year	FICO score	95% LTV ratio standard program	97% LTV ratio HomeReady/Home Possible	97% LTV ratio standard program
2015–17	≤ 720	7.6%	9.4%	8.3%
	> 720	2.5%	4.5%	3.2%
	Total	3.8%	6.0%	4.8%
2018–22	≤ 720	4.3%	6.3%	5.7%
	> 720	1.4%	2.7%	1.9%
	Total	2.1%	3.6%	2.8%
Total (2015–22)	≤ 720	5.4%	7.0%	6.4%
	> 720	1.7%	3.0%	2.1%
	Total	2.6%	4.0%	3.2%

Source: Urban Institute calculations from Fannie Mae and Freddie Mac loan-level credit data.
Notes: LTV = loan-to-value. The 95 percent LTV category includes only the standard product; Home Possible and HomeReady loans are not included. Data for 2022 are through the second quarter. The 95 percent LTV ratio refers to loans with LTV ratios from 94.01 percent to 95.00 percent, and the 97 percent LTV ratio refers to loans with LTV ratios from 95.01 percent to 97.00 percent.

We start by comparing the performance of standard loans that have 97 percent LTV ratios with Home Possible and HomeReady loans. For loans originated from 2015 to Q1 2022, standard GSE loans with 97 percent LTV ratios with reserves have a total default rate of 3.2 percent, lower than the 4.0 percent default rate for the Home Possible and HomeReady loans with LTV ratios from 95 percent to 97 percent without reserves. This could be explained if Home Possible and HomeReady borrowers have lower credit scores, but we actually find these borrowers have marginally higher credit scores than borrowers in the standard program.[25] Even so, we further break the analysis down by FICO score (720 and below versus above 720) and find that borrowers in the standard program outperform borrowers using Home Possible and HomeReady loans with LTV ratios from 95 percent to 97 percent. This relationship holds true for the two individual periods as well—that is, loans originated from 2015 to 2017 and from 2018 to Q1 2022. But there are other differences between the borrowers (e.g., Home Possible and HomeReady borrowers have lower incomes and smaller loan sizes), so it is difficult to say definitely how much reserves can reduce defaults. The results, however, do support the first part of the hypothesis, suggesting reserves reduce defaults at the same LTV level.

The second aspect of the hypothesis is that, all else equal, when comparing borrowers who make smaller down payments and retain liquidity for reserves (proxied by the standard 97 percent LTV ratio bucket) with those who put down slightly more but have no reserves (proxied by the standard 95 percent LTV ratio bucket), the risk of higher LTV ratios would be offset by the presence of reserves. We might even expect the borrowers with reserves to perform better than those with slightly more equity. Note that the 3.2 percent default rate for standard loans with 97 percent LTV ratios originated from 2015 through Q1 2022 with reserves is only slightly higher than the 2.6 percent default rate for loans with LTV ratios from 94 to 95 percent without reserves. As noted, these borrowers are not identical; this small default rate difference could be explained by the fact that the characteristics of borrowers in the standard program with 97 percent LTV ratios are weaker than those for borrowers with 95 percent LTV ratios. Thus, these results do not disprove the hypothesis.

Notably, these loan vintages include the pandemic period when millions of consumers experienced hardships and the GSEs offered the emergency forbearances. Thanks to this recessionary environment, these loans have been battle-tested and thus offer evidence that exchanging a portion of a down payment for reserves does not dramatically increase defaults. And because Black and Latino borrowers are more likely than white borrowers to both depend on high-LTV loans and experience a financial hardship, funding reserves can help reduce the racial homeownership gap by better positioning borrowers of color to retain their homes during times of financial distress.

Reserves Reduce Overall Losses, Even Though Severities Are Higher

Now that we have demonstrated that reserves likely improve performance even on higher-LTV loans, we turn to our second crucial question: Is that improvement large enough to offset the higher expected loss severity—losses as a share of the principal balance—if a borrower with a higher-LTV loan does default? To answer this question, we looked at loss severity and the overall loss rate for the same loans as those used to answer the previous question. We cannot simply look at losses to the GSEs, as Home Possible and HomeReady loans are permitted to have less PMI coverage than standard loans.[26] Given these reduced PMI coverage requirements for Home Possible and HomeReady loans,[27] we must compare loss severity before PMI recovery to allow for a more directly analogous comparison. Looking at loans originated between 2015 and Q1 2022, the standard GSE loans with 97 percent LTV ratios, most of which require reserves, exhibit higher loss severity than the loans with 95 percent LTV ratios that do not require reserves (table 3). The Home Possible and HomeReady loans with LTV ratios from 95 percent to 97 percent without reserves exhibit higher severities than the standard program loans with the same LTV ratios, a reflection of their smaller loan sizes. Smaller loans tend to have higher severities, as the fixed costs of liquidation are substantial and constitute a greater share of the loan amount on smaller loans.

The difference in severities between the loans with LTV ratios from 94 percent to 95 percent and the standard loans with 97 percent LTV ratios is a bit larger than would be suggested solely by the 2 percent LTV ratio difference. This reflects the fact that loans in the standard program with 97 percent LTV ratios are smaller and the probability that the cash-constrained borrowers in the standard program may not have the cash to properly maintain their home.

TABLE 3

Government-Sponsored Enterprise Loss Severity, Excluding Private Mortgage Insurance Recovery

	Loans without Reserves		Standard Loans with Reserves
Origination year	**95% LTV ratio standard program**	**97% LTV ratio Home Possible/HomeReady**	**97% LTV ratio standard program**
2015–17	15.8%	22.3%	18.7%
2018–22	9.8%	16.4%	12.4%
Total (2015–22)	14.6%	19.6%	16.6%

Source: Urban Institute calculations from Fannie Mae and Freddie Mac loan-level credit data.
Notes: LTV = loan-to-value. Data for 2022 are through the second quarter. The 95 percent LTV ratio refers to loans with LTV ratios from 94.01 percent to 95.00 percent, and the 97 percent LTV ratio refers to loans with LTV ratios from 95.01 percent to 97.00 percent.

Table 4 shows the loss rate (i.e., probability of default times loss severity) on these same loans. Standard GSE loans with 97 percent LTV ratios with reserves that were originated from 2015 to Q1 2022 had a loss rate of 0.5 percent, compared with 0.8 percent for the loans without reserves originated during the same period. Again, although these results indicate that reserves can decrease losses, this is not a perfectly analogous comparison because of the different characteristics of the Home Possible and HomeReady loans. But the 0.4 percent loss rate for loans with 95 percent LTV ratios is only slightly lower than the loss rate for standard loans with 97 percent LTV ratios, clearly showing that higher-LTV loans with reserves perform similar to lower-LTV loans. And the small differences can be explained by the lower credit scores among borrowers receiving loans in the standard program, coupled with the higher severity on those loans because they are a smaller size and perhaps lack funds for maintenance.

TABLE 4

Government-Sponsored Enterprise Loss Rate, Excluding Private Mortgage Insurance Recovery

		Loans without Reserves		Standard Loans with Reserves
Origination year	**FICO score**	**95% LTV ratio standard program**	**97% LTV ratio Home Possible/HomeReady**	**97% LTV ratio standard program**
2015–17	≤ 720	1.2%	2.1%	1.6%
	> 720	0.4%	1.0%	0.6%
	Total	0.6%	1.3%	0.9%
2018–22	≤ 720	0.4%	1.0%	0.7%
	> 720	0.1%	0.4%	0.2%
	Total	0.2%	0.6%	0.3%
Total (2015–22)	≤ 720	0.8%	1.4%	1.1%
	> 720	0.2%	0.6%	0.3%
	Total	0.4%	0.8%	0.5%

Source: Urban Institute calculations from Fannie Mae and Freddie Mac loan-level credit data.
Notes: LTV = loan-to-value. Data for 2022 are through the second quarter. The 95 percent LTV ratio refers to loans with LTV ratios from 94.01 percent to 95.00 percent, and the 97 percent LTV ratio refers to loans with LTV ratios from 95.01 percent to 97.00 percent.

Considerations for Developing an MRA Product

Although these findings are encouraging, they come with an important caveat. This dataset does not include any information about the amount of reserves (required or actual), the duration of reserves, or the conditions under which the reserves can be used. Additional and more granular information is needed regarding income, months of required and available reserves, and performance to fully understand the impact of substituting reserves for a portion of the down payment. For instance, what level of reserves, measured as months of mortgage payments, strikes the right balance? Is there a one-size-fits-all reserve requirement for all borrowers, or should reserve requirements vary based on borrower characteristics? And how different are the outcomes for borrowers who have a certain level of postclosing reserves versus those who do not but who have incentives to build reserves postclosing via a lender match or other financial incentive?

There are operational questions for MRAs as well. Should reserves be held in the consumer's primary checking or savings account, in a separate set-aside account, or in servicer escrows? When and under what conditions can reserves be tapped for mortgage payments? Can they be tapped first for expenses? Can the borrower use the funds to make other emergency payments? Should the reserve account be automatically debited by the servicer if payment is not received by the due date, or should the borrower be required to initiate the use of reserves to cover late payments? What counseling and borrower communication requirements should be created to ensure consumers understand the program before they sign up? Where should reserves sit in the loss mitigation waterfall, especially when the borrower is also eligible for forbearance? What adjustments to servicing are needed to accommodate payments drawn from reserve accounts?

Although important questions about reserves remain unanswered, our analysis builds on previous research and provides evidence to support greater use of reserves in mortgage underwriting and servicing. We have shown that high-LTV mortgages with reserves perform well, not too differently than lower-LTV mortgages. We are confident that defaults could be reduced further with a more efficient and structured program that specifies reserve requirements, including dollar amounts, duration of time the funds must remain in the account, and the conditions upon which the funds can be withdrawn, as well as appropriate counseling and servicing adjustments. To that end, we outline a blueprint and propose a pilot program that originates loans to consumers with varying levels of reserves and down payments and tracks performance over time to help us better understand the impact of, and optimal conditions for, reserves. We detail our ideas for such a pilot program in the next section.

5. A Blueprint for Piloting a Mortgage Reserve Account Program

The value of a pilot is to test, with a relatively low investment in new infrastructure, the premise that reserves mitigate lender risk and enhance the value proposition for borrowers. Our pilot describes a prototype that can be effectuated by depositories on mortgages they service. If enough of these follow a common approach and share data on uptake, administrative data, and performance outcomes, a critical mass of evidence will become available to inform further product development. This pilot could be facilitated by the Federal Home Loan Banks (FHLBs) to encourage member participation. Ultimately, for the mechanism to reach scale and be adopted by nondepository mortgage lenders, servicers, Fannie Mae, Freddie Mac, and the FHA, the forms of the mechanism will likely evolve. Our recommendations focus on the prototype design.

The results of our analysis suggest that one way to increase borrowers' reserves would be to decrease their down payments and use the savings to fund a mortgage reserve account. This trade-off can be illustrated using an example. Assume a borrower purchases a $300,000 starter home, exhausting their entire $15,000 savings to meet a 5 percent down payment requirement. This borrower would have no postclosing reserves. Now assume a second borrower with the same $15,000 in savings is required to make a 2.5 percent down payment ($7,500) and sets aside the remaining $7,500 as reserves. Critically, the second borrower should not be charged a higher interest rate, a loan-level pricing adjustment, or higher mortgage insurance premium or coverage levels[28] for the higher LTV ratio. In fact, given the reduced default risk, the interest rate could be lower than those for mortgages otherwise similar but without MRAs.

For this second borrower, the total monthly mortgage payment would be $2,254 ($1,754 principal and interest, assuming a 6 percent interest rate on a 30-year fixed-rate mortgage, and $500 a month for taxes and insurance, assuming 2 percent annual costs). In comparison, reflecting the higher down payment and thus the smaller mortgage, the monthly payment for the first borrower would be $2,209 ($1,709 principal and interest plus $500 taxes and insurance).

If the second borrower experienced a hardship, the $7,500 in reserves could cover just over three months of principal, interest, taxes, and insurance (PITI) payments (or more, if the interest rate were lower). The first borrower would have no such buffer, and the hardship would jeopardize their ability to retain their home.

Compared with some of the other retention products we discussed in the previous section, MRAs funded by down payments have significant advantages. They can be used under a wide array of circumstances, they do not require any sort of subsidy, and they do not increase the costs of homeownership, as they can be financed with money that would otherwise go toward the borrower's down payment.

A notable downside of down payment–funded MRAs is that they require the homeowner to have the financial resources to fund the account or be able to use funds from a down payment assistance (DPA) program for this purpose. Because borrowers with low or moderate incomes are less likely to have extra funds, it is likely that for some borrowers, money for an MRA would have to be rechanneled from DPA programs. Thus, these programs would need to explicitly permit this use of funds. Alternatively, most DPA programs do require some borrower contribution, and the borrower contribution could be used as the reserves.

As the example shows, absent any reduction in the interest rate, the borrower with the MRA has a larger loan than the one who puts all their cash into a down payment.

The MRA borrower pays about $45 more a month (or a little less on net, if the borrower retains the interest on the unused reserves). The borrower may see this as a reasonable cost for the peace of mind the reserve brings, though borrowers' cost-benefit considerations remain untested. As such, we recommend a modest reduction in the mortgage interest rate for loans with MRAs, in recognition of reduced default risk.

Below is the blueprint for the pilot, along with our supporting rationale.

Pilot Program Facilitation

This pilot is easiest to implement for depository institutions who can make and service the mortgages, establish and hold the reserve accounts, and manage them in tandem. Likely participants would include credit unions, community development financial institutions (CDFIs), and banks.

The FHLBs could facilitate institutional participation and data sharing among its members and have multiple mechanisms to do so (Stegman 2023). Under the statutory Community Investment Program, the FHLBs offer their members discounted advances priced below standard advance offerings for qualified community development activities, including affordable mortgage lending. These savings reduce member borrowing costs to facilitate affordable lending to families earning up to 80 percent of the area median income. In the context of reserves, FHLBs could consider offering discounted advances to depository institution members in exchange for originating mortgages with a reserve component. To qualify for discounted advances, mortgages would have to meet borrower eligibility and other program parameters.[29] FHLBs could also offer grants through its Affordable Housing Program to fund a portion of the reserves.

Although such subsidies would be helpful for the pilot, the program would need to be self-sustaining to be implemented on a large scale. Ultimately, Fannie Mae and Freddie Mac can facilitate broader adoption and share further lessons from their forays into MRAs.

Pilot Duration

A minimum three-year duration for the pilot will provide adequate time for the underlying mortgages to season and generate reliable data on annual performance. A three-year period would ensure new first-time homebuyers have adequate protection in the early years of homeownership. A required holding period longer than three years might deter consumers from participating unless matched funds or other incentives are provided, though these are all features to test eventually. A variation might have the borrower slowly fund the reserve over the three-year period, at which time the fund would be fully funded by the borrower, who will have established a savings habit. For the initial pilot, we recommend the reserves be fully funded up front for three years to produce consistent results.

Reserve Fund Use Restrictions

Even though the reserves are borrower-owned funds, they substitute for a down payment, and hence we recommend the borrower not be able to withdraw from the reserve for nonmortgage purposes over the first three years. At the end of the holding period, the servicer will release the funds to the borrower's control and can offer the option to use the funds to pay down the mortgage principal. Although we recognize that money is fungible, we think this approach balances flexibility with stickiness by using mental accounting to cordon off the reserve account during the holding period.[30] But we also think these are key elements to test and adjust in future iterations.

Borrower Eligibility Requirements

Because reserves are particularly promising for improving performance for mortgages made to borrowers with low incomes and less wealth, we recommend participation be open to first-time homebuyers.

For the pilot phase, participation might initially be limited to borrowers earning 80 percent of the area median income. This limitation will test the proof of concept on the most financially constrained households and appeal to lenders seeking Community Reinvestment Act credit. That said, the income threshold should be raised or removed if one of the goals is to advance Black homeownership. Many Black borrowers have the necessary income but face credit difficulties that prevent them accessing mortgages (Choi et al. 2019). Farrell, Bhagat and Zhao (2018) show that, conditional on default, the pattern of income loss followed by mortgage default is the same across income quartiles. Along with higher income limits, more explicit targeting to serve Black homebuyers would be required as the program moves from proof of concept to broader reach to make a significant dent in the racial homeownership gap. To that end, the product could be incorporated into special purpose credit programs, be limited to households currently residing in tracts with high shares of residents of color or formerly redlined tracts, or to first generation homebuyers.[31]

Program participants should be required to attend, at no cost, customized homebuyer education or counseling sessions designed—beyond the essentials of homeownership, to include understanding maintenance needs and responsibilities—to explain the pilot program, including how it works, the utility of reserves, the homeowner's responsibilities, and the reserve requirements (e.g., amount, duration, and restrictions on the use of funds). This specific content would be centrally designed in a way that could be integrated into traditional housing counseling, whether in person or online. We recommend developing supporting reference materials and tools for access online.

These eligibility requirements are broadly consistent with existing affordable lending and DPA programs.

Loan-to-Value Ratio Requirements

Saving for a down payment is a significant barrier to homeownership for households with low incomes. Consequently, we recommend that loans originated under this pilot have high LTV ratios to reduce that potential barrier to participating. To determine how high the LTV ratio should be, we can look back at the data. We have seen that GSE loans with 97 percent LTV ratios with reserves perform only slightly worse than loans with 95 percent LTV ratios (tables 1 and 2). We also know that most of the FHA's purchase loans have LTV ratios over 95 percent and that the GSEs have well-established lending programs for loans with 97 percent LTV ratios. The VA allows LTV ratios as high as 100 percent and has demonstrated strong mortgage performance for decades, including during the foreclosure crisis (Goodman, Seidman, and Zhu 2014). Notably, the VA underwriting model includes a residual income test that requires prospective borrowers to have monthly residual income after all mortgage, housing, other debt payments and living expenses are accounted for, an approach that somewhat resembles reserves and could help explain the loans' historically strong performance despite their 100 percent LTV ratios.

Reserve Requirements and Funding

The pilot program should focus on loans with LTV ratios of 95 percent and above with a three-month PITI minimum reserve. This focus will facilitate a better understanding of how high-LTV loans perform with reserves. We envision the borrower being able to divide their original 5 percent down payment (whatever the source) between the reserve account and the down payment (subject to the three-month PITI minimum on the reserve account). Clearly, the greater the reserves, the lower the down payment and the more money that must be borrowed.

Pricing (and, where applicable, the mortgage insurance coverage level) would be held equivalent to the lower LTV level (i.e., the LTV ratio of the loan with all funds going to a down payment and not to a reserve account). Increasing the interest rate on higher-LTV loans would also make it difficult to isolate the effect of the reserves.

In outlining the pilot LTV ratios, we use a 95 percent LTV ratio as the base case; that is, the amount of cash brought to the table is always 5 percent of the home's value, and that amount either goes toward the down payment only or is split between a down payment and a reserve account. Eventually, if reserves prove to provide resilience, a lower overall down payment requirement would enable the product to serve even more borrowers, particularly FHA and VA borrowers who generally have fewer resources to put down.

We recommend a minimum reserve of three PITI payments. We believe three months is a reasonable period for households to resolve temporary disruptions caused by income loss or an unexpected spike in expenses or to be evaluated for another loss mitigation solution. Reserves for less than three months may be inadequate to test the program's efficacy, while reserves for more than three months may be too burdensome financially—in effect requiring more than a total 5 percent combination of down payment and reserves. In the earlier example, the monthly PITI payment on a $300,000 starter home with a 2.5 percent down payment and a 6 percent interest rate totals $2,254. A three-month reserve requirement would be $6,762, or 2.3 percent of the purchase price. Thus, the borrower would need to put 2.7 percent down and take out a mortgage for 97.3 percent. Borrowers could elect to hold more reserves or put down a larger down payment, but the sum of the reserves and the down payment should total at least 5 percent.[32]

Sources of Reserve Funds

We recognize that until there is proof of concept, borrowers may balk at paying slightly more per month while having the lender hold their money. Funding part of the pilot from sources outside borrowers' resources will encourage participation and produce lessons that will be worth the investment.

Borrower contributions could be supplemented by the lending institution; a traditional DPA source, such as FHLBs; housing finance agencies and state and local governments; mission-oriented funders; or philanthropic grants. The requisite funds would go to the reserve, decreasing the amount allocated from the down payment. We strongly recommend that pilot sponsors initially partner with the FHLBs, a housing finance agency, or another organization that could fund part of the MRA. The rationale and framing behind a pilot in the first place are to inform and learn before a scaled solution is implemented. The source of the reserves is considerably less important than other factors in evaluating the program's efficacy in retaining homeownership in times of financial stress.

The appendix outlines the terms and conditions of our recommended blueprint for a pilot to ensure consistency of results; below, we summarize key borrower eligibility requirements:

- The borrower's income should not exceed 80 percent of the area median income.
- The borrower should be a first-time homebuyer and the owner-occupant of a primary residence.
- The LTV ratio should be 95 percent or above.
- The borrowers should have at least three PITI payments in reserves at closing, regardless of the LTV ratio.
- Preclosing homebuyer education is mandatory, including specific education on the reserve program.

- In addition to or instead of the borrower's own funds, MRA funds should use lenders' funds, DPA funds, or funds from mission or philanthropic sources.

Account Management

The borrower would need to open a new account to house the reserve account, which would have restrictions. For simplicity in testing MRAs before broad market rollout, we envision that depository institutions originate and service these mortgages and hold the reserve accounts and the servicing in house. At closing, the borrower would deposit reserve funds into a checking or savings account with the depository institution. This setup would likely increase participation by simplifying participation for the borrower and by legitimizing the pilot program. (The Prosperity Now MRA pilot, in which nondepository CDFIs originated and serviced the loans and the reserve accounts were held elsewhere, reported that homeowners were hesitant to join the program, in some cases believing it was a scam even though it was promoted via a trusted source with whom the borrowers had previously interacted.) Requiring the originator to service the mortgage and hold the reserve account in house would also facilitate better tracking of the reserve balance and streamline the release of reserve funds if the borrower missed their payment. Having a single institution undertaking mortgage origination and servicing in addition to the reserve account would ease data collection and reduce operational complexity and time taken to complete the pilot.

Informing pilot program participants about the purpose and availability of the reserve account will be central to the pilot program's success. The homebuyer counseling should fully inform borrowers about the details of the reserve account program. Appropriate disclosures must be provided to the homebuyer at closing to inform them of when and how the reserve account is to be used to cover missed mortgage payments in the event of a hardship. Servicers should include reserve account balance information after closing on the loan, upon any withdrawal, and on an ongoing basis and should remind participants of the purpose of the reserves in the monthly mortgage statement the servicer sends the homeowner. Doing so will provide transparency to pilot program participants, remind participants that the funds are available should they experience a hardship, and help maintain borrowers' understanding of the program. But there may be operational difficulties in adding this information to the monthly statement. Other approaches would be to include the information in the annual escrow statement if that is allowed or to send a separate statement either annually or semiannually.

Additionally, the borrower should be required to provide standing Automated Clearing House (ACH) instructions authorizing the servicer to debit the PITI from the account for missed mortgage payments to ensure a swift and seamless process for withdrawing and using the reserves. Closing disclosures should specify that ACH debit authorization would expire when the borrower refinances or sells their home, or 36 months after origination, whichever comes first. This is to ensure the continuity of payments so the borrower does not go delinquent.

Finally, participating lenders should have a well-trained team of servicing and customer support staff members to support program participants.

Handling Missed Payments and Loss Mitigation

If the borrower experienced a financial hardship during the three-year period and missed a mortgage payment, the servicer would have permission, subject to all banking laws and regulations, to withdraw funds equal to the monthly PITI payment if the lender did not receive it by the end of the month in which it was due. Or, in anticipation of not being able to make their mortgage payment, the borrower could notify and authorize the servicer at any time during the month to use the reserve account. The reserve account would be automatically debited pursuant to the ACH instructions, and the funds would be automatically applied to the mortgage and escrow accounts for taxes and insurance. No late fees or other charges would accrue, and the borrower would be reported current for credit reporting purposes. The automatic debit would be easy, automated, and cost effective. Most importantly, it would ensure that the reserves are deployed promptly to pay the mortgage.

Before withdrawing funds from the reserve account, the servicer would be required to contact the borrower once the mortgage payment is considered late. The servicer should identify the reason for the missed payment and send notice that if the payment is not received by the end of the current month, or the borrower does not pursue other loss mitigation options, the servicer will withdraw the payment from the reserve account and notify the borrower of the remaining balance. If the borrower did subsequently send a payment, it would be used to restore the reserve account balance. If the borrower was facing a hardship, the servicer would explain that the remaining reserve funds (in this case, two months of PITI) are still available and could be tapped in the coming months should the homeowner need them. Ideally, where feasible, the borrower could be referred to the counseling agency that worked with them initially.

The interplay between the reserve account and the current loss mitigation hierarchy is an important element of the pilot. The servicer must follow all applicable procedures and laws for borrower contact and evaluation of loss mitigation options, including Consumer Financial Protection

Bureau servicing requirements. Borrowers who maintain a reserve account must be able to qualify for loss mitigation options in the same way as borrowers who do not have a reserve account. For example, borrowers who qualify for forbearance before they tap the reserve account may be able to opt for forbearance. Further, those who qualify for forbearance and payment deferral after tapping reserves may be able to switch to forbearance and the standard forbearance exit strategies to preserve reserve funds for the future.[33] If the borrower continues to face hardship after the reserve account is depleted and forbearance has ended, they must be considered for payment deferral, a loan modification, or other foreclosure prevention options, as applicable.

Any additional flexibility with forbearance and the expansion of the GSEs' payment deferral option might make it easy for borrowers to skip mortgage payments during times of financial stress, but they still owe the money. In contrast, the behavioral pattern established with a savings account is paramount. Homeowners have funds they own to address contractual payments instead of pushing off an obligation or assuming someone else will take care of it. And the behavior of mortgage borrowers during recent natural and financial crises suggests that, given the opportunity, borrowers will opt for meeting their obligations themselves.

Here is a summary of postclosing or life-of-loan requirements:

- Reserves should be maintained for three years after closing.
- The reserve account should be maintained at the same depository institution that originates and services the mortgage.
- For borrower communication, monthly mortgage statements should include reserve account balance information, and borrowers should be notified of account balances after any withdrawal.
- Payments not received by the end of the calendar month should trigger an automatic debit from the reserve account with option to replenish it.
- The borrower remains eligible for evaluation for all loss mitigation options. As applicable, forbearance, or payment deferral, may be a solution before tapping reserves. ACH authorization should be canceled at the end of three years or upon exit from the program, whichever comes first.

Capturing and Disseminating Findings from the Pilot

The pilot is designed to generate lessons to test the value of MRAs. Success metrics will assess institution and borrower take-up and use, as well as borrower and lender outcomes. The pilot will also require tracking benchmark groups without reserves—one with similar loans and another with a slightly lower LTV ratios—to determine how much the MRA reduces losses. The test should have a sufficiently sized treatment group and comparison group (i.e., borrowers with no reserves). Lenders who participate in the program would need to agree to share their origination and performance data anonymously to facilitate the metric analysis.

We expect that if the pilot is successful, it will foster broader adoption and iteration in other forms. A plan should be in place to capture, analyze, and report on the results. Such a plan is key to achieving scale and success. Most importantly, there should be some consideration after the pilot phase to determine whether pricing could be lower for loans, with respect to interest rates and mortgage insurance, if the reduced default percentages in fact play out as expected. Below, we outline an evaluation approach that includes both quantitative and qualitative components:

- **Analysis of loan performance.** Participating FHLB member institutions would be required to report administrative data on reserve account use and mortgage performance annually for at least the three years the accounts are held with restrictions. Nonmember financial institutions would report on a voluntary basis. These data would be anonymized and could be delivered to the sponsoring FHLB, whether or not the participating lender is a member, or some other third party. Loan-level origination data to be reported would include borrower and loan characteristics, such as credit scores, income, debt-to-income ratio, LTV ratio, purchase price, loan amount, mortgage rate, loan term, and reserve balance at origination, as well as demographic information, such as age, race or ethnicity, gender, and geography. Lenders would then report, at the loan level, any delinquencies greater than 30 days, reserve balances over time, whether reserves were tapped, the amounts used if tapped, the hardship reason, and the eventual resolution (e.g., cured using the reserve account, forbearance, loan modification, short sale, deed in lieu of foreclosure, or foreclosure). This first look at the data would allow for comparisons of the performance of loans with MRAs relative to similar loans without MRAs, which could be pulled from broad mortgage datasets or analyzed from a comparison group in an experiment or quasi-experiment. This analysis would shed new light on how much reserves reduce the likelihood of default and would yield important lessons for the future.

- **Implementation and take-up study.** Alongside the data analysis, it will be important to measure take-up and to understand borrower and lender perspectives. For example, what is the best time and technique to offer the option? What are typical borrower concerns and barriers? What do borrowers find appealing? How well do borrowers understand the account function (both borrowers who turn it down and those who take it up)? Are certain groups of borrowers more likely than others to sign up for the program? When facing financial challenges, how do borrowers interact with the MRA? Questions like these can be answered through surveys, interviews, and focus groups with borrowers, lenders (origination and servicing personnel), and housing counselors. The study should also collect feedback from participating depositories on program implementation, costs, risks, and suggestions for further expansion.
- **Follow-up report.** A final report from the pilot after three years, and possibly again after five years, would examine outcomes concerning homeownership sustainability and the effects of reserves on intermediate and long-term mortgage performance. These efforts could be further bolstered by conducting a survey of homeowners at mortgage termination, whether through refinance, home sale, or default. This would help us understand how well the program promoted sustainable homeownership, reasons for exiting (e.g., a trade-up, a downsize, or a transition to renting), borrower views on the utility of reserves, and general program feedback.

6. Conclusion

Continuous improvement of the loss mitigation toolkit is important for preventing foreclosures, but there is an important role for additional safety nets. We have looked at several alternatives and believe mortgage reserves could meaningfully preserve homeownership for vulnerable homeowners because of their unusual combination of product features and flexibility. Mortgage reserves do not necessarily require a subsidy, nor do they increase the costs of homeownership because they can be financed with money that would otherwise go toward the borrower's down payment. Additionally, mortgage reserves can add substantial flexibility to a borrower's finances, as the borrower's residual income can cover a nonmortgage expense at the time it is incurred, while the reserve fund covers the mortgage.

The value of the pilot will be to test critical aspects of the MRA product before going to scale. This includes understanding the program's efficacy in reducing defaults and losses. It also includes testing for borrower interest and understanding and calibrating terms around reserve amounts, sources, and account access. Capturing early lessons from the pilot and establishing proof of concept will form the basis for expansion and exploring models that can facilitate standardization and greater liquidity.

In this report, we have proposed a pilot reserve program whose outcomes would be measured and results disseminated. We believe this is an important first step in expanding the universe of home retention options, which will disproportionately benefit Black and Latino families.

Appendix

TABLE A.1

Draft Blueprint and Term Sheet for Borrower Reserve Pilot

Term or element	Description
Test	Having sufficient reserves reduces mortgage defaults and allows homeowner households to maintain homeownership when they hit a temporary hardship.
Facilitation	Federal Home Loan Banks can encourage member institutions to participate in the pilot.
Protocols	The test should have a sufficiently sized treatment group and comparison group (i.e., borrowers with no reserves).
Source of funds	Funds should come primarily from the borrower to keep the program self-sustaining (in lieu of a smaller down payment), but we also recommend the following funding sources, with or without borrower contribution: ▪ grants ▪ the lender or other party ▪ down payment assistance proceeds
Borrower eligibility	Borrowers should ▪ have income up to 80 percent of the area median income (for the pilot phase; increase income for targeted segments in later phases); ▪ be first-time homebuyers who will be owner-occupants of a primary residence; ▪ have loan-to-value ratios of 95 percent and above; ▪ have in reserve at least three principal, interest, taxes, and insurance payments at closing; and ▪ receive homebuyer counseling on reserves.
Fund account	The account should be maintained at the same depository institution that originates and services the mortgage in a separate account.
Holding period and return of reserves	There should be a 36-month holding period. Reserves are released to the borrower at the end of holding period, or the borrower can use the funds to pay down the principal.
Eligible use of funds and documentation	Funds can be used only to cover missed mortgage payments (principal, interest, taxes, and insurance) when the borrower experiences financial hardship. A missed monthly payment triggers an Automated Clearing House withdrawal if the lender does not receive the mortgage payment by the end of the calendar month. The reserve account is replenished if the borrower sends the payment. Verbal documentation of hardship should be accepted, and there should be prompt communication by the servicer.
Additional loss mitigation	Borrowers with reserves continue to remain eligible for evaluation of all standard loss mitigation options, including once the reserves are depleted. If, for example, the borrower qualifies for forbearance, they may be able to use it before tapping the reserve account.
Servicing	Servicing is retained without sale or transfer.
Servicer communication	Monthly mortgage statements could include reserve account balance information and permitted uses. The account balance must also be communicated upon any disbursement.

<table>
<tr><th>Term or element</th><th>Description</th></tr>
<tr><td>Data reporting</td><td>Participating member institutions should report
- detailed reserve account use and mortgage performance data to the Federal Home Loan Bank or a third party;
- information on borrower or loan characteristics, such as credit score, income, debt-to-income ratio, loan-to-value ratio, purchase price, loan amount, mortgage rate, loan term, and reserve balance at closing;
- demographic information, such as age, race or ethnicity, gender, and geography;
- all delinquencies greater than 30 days;
- reserve balances over time;
- whether reserves were tapped and for what amounts;
- the hardship reason; and
- the eventual resolution (i.e., cured because of the reserve account, forbearance, loan modification, short sale, or foreclosure).
Release a final public report with findings.</td></tr>
<tr><td>Pilot duration</td><td>Reserves should be set aside for at least three years; performance will be assessed at three years and potentially at five years after origination.</td></tr>
</table>

Notes

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9 Samantha Artiga, Latoya Hill, and Anthony Damico, "Health Coverage by Race and Ethnicity, 2010-2021," Kaiser Family Foundation, December 20, 2022, https://www.kff.org/racial-equity-and-health-policy/issue-brief/health-coverage-by-race-and-ethnicity/.

10 Neil Bhutta, Andrew C. Chang, Lisa J. Dettling, and Joanne W. Hsu, "Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances," *FEDS Notes* (blog), Board of Governors of the Federal Reserve System, September 28, 2020, https://www.federalreserve.gov/econres/notes/feds-notes/disparities-in-wealth-by-race-and-ethnicity-in-the-2019-survey-of-consumer-finances-20200928.html.

11 We weighted MarketTrends data on annual completed foreclosures by zip code with the racial composition of homeowners in each zip code from the ACS to estimate national foreclosure rates from 2015 to 2019. We estimate that the average annual Black foreclosure rate from 2015 to 2018 was 2.09 percent, which is 2 times our estimated white foreclosure rate of 0.94 percent. The national foreclosure rate of all loans was between these (1.01 percent). We then compounded the annual rates to estimate the share of loans by race that would be foreclosed on within seven years. Around 13.7 percent of Black borrowers, 6.4 percent of white borrowers, and 6.9 percent of all borrowers were foreclosed on over the life of their loans. Bocian, Li, and Reid (2011) estimated foreclosures by race from 2007 to 2009 during the financial crisis and found that 9.8 percent of Black borrowers and 5.1 percent of white borrowers were foreclosed on. Black borrowers in this estimate were 1.9 times more likely to be foreclosed on than white borrowers. Both our estimate and the one from Bocian, Li, and Reid put the Black foreclosure rate at roughly double the white foreclosure rate. Reid and coauthors (2017) proxy the lifetime foreclosure rates by race for loans originated during the subprime lending boom from 2004 to 2007. By 2013, 8.6 percent of loans to white borrowers and 18.5 percent of loans to Black borrowers had been foreclosed on. As expected, these are higher than our postrecession estimates. All estimates so far agree that less than 10 percent of all borrowers are ever foreclosed on and that Black borrowers are foreclosed on at a substantially higher rate than white borrowers.

[12] This calculation reflects that a borrower can lose their home only once. Thus, if 0.94 percent of white borrowers lose their home each year, the calculation is (1–((1–0.0094)^7)), or 6.64 percent. Similarly, if 2.09 percent of Black borrowers lose their house each year, the calculation is (1–((1–0.0209)^7)), or 13.74 percent.

[13] Compare Freddie Mac's standard forbearance policy with disaster and COVID-19 forbearance policies. See "Forbearance," Freddie Mac Single-Family, accessed May 5, 2023, https://sf.freddiemac.com/working-with-us/servicing/products-programs/forbearance.

[14] See Federal Housing Finance Agency, "FHFA Announces Enhanced Payment Deferral Policies for Borrowers Facing Financial Hardship," news release, March 29, 2023, https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Announces-Enhanced-Payment-Deferral-Policies-for-Borrowers-Facing-Financial-Hardship.aspx. For a chart of the payment deferral types, see "Payment Deferral Solutions," Freddie Mac Single-Family, accessed May 5, 2023, https://sf.freddiemac.com/working-with-us/servicing/products-programs/payment-deferral.

[15] For a detailed discussion of the changes under consideration, see Federal Reserve Bank of Philadelphia (2023).

[16] For more discussion of these products, see Andrew Marder, "What Is Mortgage Protection Insurance?" NerdWallet, last updated April 3, 2023, https://www.nerdwallet.com/article/insurance/mortgage-life-insurance; Andrew Bloomenthal, "Why You Don't Need Mortgage Life Insurance," Investopedia, last updated June 14, 2022, https://www.investopedia.com/mortgage/insurance/why-you-dont-need-mpli/; Rae Hartley Beck, "Mortgage Protection Insurance: When You Might Need It," Bankrate, September 26, 2022, https://www.bankrate.com/mortgages/do-you-need-mortgage-protection-insurance/; and Louis DeNicola, "What Is Credit Insurance on a Personal Loan?" Experian, October 9, 2021, https://www.experian.com/blogs/ask-experian/what-is-credit-insurance-for-personal-loan/.

[17] Andrew Dehan, "What Is a Home Warranty and How Much Does It Cost?" Rocket Mortgage, February 20, 2023, https://www.rocketmortgage.com/learn/home-warranty-cost.

[18] "COVID-19 ARPA Whole-Home Repairs Program," Pennsylvania Department of Community and Economic Development, accessed May 5, 2023, https://dced.pa.gov/programs/covid-19-arpa-whole-home-repairs-program/.

[19] "Are You Eligible for MI Plus Benefits?" MassHousing, accessed May 5, 2023, https://www.masshousing.com/home-ownership/homeowners/mi-plus-eligibility.

[20] For portfolio loans, no such frictions exist. Lenders can buy insurance on portfolio loans. This concept could be expanded to extend coverage to the borrowers themselves to help cover mortgage payments under eligible financial stresses such as job loss, disability, death of a spouse, or disaster. For example, the insurance company Applied Assurance offers an insurance product to lenders and housing finance agencies that also covers mortgage payments for borrowers under certain circumstances. It is legally structured as a contract warranty instead of borrower insurance. Borrowers can receive up to six months of benefits; the benefit is 50 percent of the mortgage payment. The cost of coverage is based on the monthly payment and home price, and the borrower pays the contract fees. Borrowers are required to attend housing counseling.

[21] Pamela Agava, "Introducing HomeReserve: A Prosperity Now Mortgage-Match Savings Initiative," Prosperity Now blog, March 4, 2020, https://prosperitynow.org/blog/introducing-homereserve-prosperity-now-mortgage-match-savings-initiative.

[22] "SAFE Home Account," Self-Help Credit Union, accessed May 5, 2023, https://www.self-help.org/personal/accounts/savings-money-market-accounts/safe-home.

[23] For this analysis, we used the data for loans originated in 2011 and beyond. Furthermore, our analysis includes only full-documentation, fixed-rate, fully amortizing GSE mortgages with original terms of 241 to 420 months.

[24] Although the GSEs had lending programs for loans with 97 percent LTV ratios before 2008, these programs were suspended during the Great Recession and were reintroduced in late 2014 and early 2015.

[25] The median FICO score for HomeReady borrowers was 722, versus 718 for the borrowers using the Fannie Mae standard program for loans with 97 percent LTV ratios. The median FICO score for Home Possible borrowers was 723, versus 717 for the Freddie Mac standard program.

[26] The GSEs, by charter, require all loans with LTV ratios over 80 percent to have credit enhancement to cover these loans. PMI is the most common form of credit enhancement.

[27] Mortgage insurance coverage for standard GSE loans with 97 percent LTV ratios is 35 percent. This coverage is reduced to 25 percent for Home Possible and HomeReady loans.

[28] Where applicable, the lower coverage levels and loan-level pricing adjustments that apply to HomeReady and Home Possible loans should apply as well.

[29] Also, we recognize many CDFIs do not have requirements for the same qualified community development activities and so may not have an incentive to give the same types of discounted funding.

[30] For more insight into the role of mental accounting in household budgeting and saving, see Thaler (1985) and Lowenstein and coauthors (2011).

[31] Jung Hyun Choi and Janneke Ratcliffe, "Down Payment Assistance Focused on First-Generation Buyers Could Help Millions Access the Benefits of Homeownership," *Urban Wire* (blog), Urban Institute, April 7, 2021, https://www.urban.org/urban-wire/down-payment-assistance-focused-first-generation-buyers-could-help-millions-access-benefits-homeownership.

[32] Another way to structure the pilot is to build up the reserves over time (e.g., through a regular additional payment or through allocating excess payments from a biweekly mortgage), particularly for households who cannot afford the reserves at closing. But the funds would not be available as early in the life of the loan. Self-Help and Prosperity Now have these types of plans, but they also provide matches to boost the reserve. A matched savings approach, however, adds complexity and manual intervention to the pilot and could increase implementation costs. Many options could be implemented eventually, but to get a meaningful pilot off the ground, we recommend the initial pilot be limited to homebuyers and DPA providers who can fund the reserves at closing.

[33] Although we initially envision this for portfolio loans, many lenders have adapted the GSE loss mitigation framework for their portfolio loans.

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