

RESEARCH REPORT

Streamlining Refinances to Expand Availability

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Streamlining Refinances

Refinances have long been an integral part of the US mortgage market and provide relief to borrowers who take advantage of opportunities to refinance their mortgages at lower interest rates. In the most recent refinance wave, "the typical refinance reduced the borrower's monthly payment by \$279 [over \$3,000 a year]," with about 18 million borrowers refinancing between the fourth quarter of 2019 and the first quarter of 2022. Borrowers will save tens of billions of dollars each year until they pay off their mortgages, quietly rivaling the effects of many pandemic aid packages.³

But under the current refinance system, millions of borrowers do not or cannot take advantage of these opportunities. Borrowers left behind are disproportionately those who could use this relief the most (the borrowers who are most likely to experience foreclosure): borrowers who lost their jobs or have reduced income, whose homes might be underwater (i.e., their home equity is less than what they owe), who have low incomes, and who are Black and Hispanic.

In this report, we propose a streamline refinancing program. Streamline refinances have clear benefits and work in practice, as the Home Affordable Refinance Program (HARP) illustrated. Streamline refinances reduce the number of defaults and foreclosures because borrowers make lower payments, benefiting both borrowers and the credit risk holders. Because the loans are already on the books of the government-sponsored enterprises (GSEs), the Federal Housing Administration (FHA), or the US Department of Veterans Affairs (VA), lowering monthly payments makes the loans safer for these investors and guarantors.

Moreover, the system fails to provide relief when borrowers need relief the most, as the Federal Reserve typically lowers interest rates to combat recessions, slow economic growth, or high unemployment. As a result, we do not recommend any macroeconomic or national emergency declaration triggers for streamline refinances, but we view our proposal as being particularly effective during such national downturns. Streamline refinances are likely to increase the effectiveness of the Federal Reserve Board's policy interventions when fighting downturns by increasing the impact of interest rate decreases, as borrowers will be able to access the savings more quickly, stimulating the economy during recessionary periods.⁴

Our Proposal

Our streamline refinancing proposal has three prongs: require servicers to call borrowers to offer refinancing when a payment reduction trigger is achieved, streamline the refinance process, and add consumer protections. Our back-of-the-envelope analysis suggests that our proposal could decrease foreclosures by about 8 percent if fully implemented. We recommend this change for all mortgages, including existing loans, for simplicity of implementation and for maximum impact. But we also discuss how the impact on investors of existing loans can be limited, by carving out some of the existing mortgages.

We have tried to balance the interests of borrowers, investors, and servicers. We are requiring both one year of seasoning before a mortgage can be refinanced and a substantial reduction in the interest rate (a 10 percent payment decrease, which translates into an interest rate decline on the order of 100 basis points). We recognize that for new mortgages, this might modestly increase mortgage interest rates, as mortgage-backed securities (MBS) investors would price in somewhat faster prepayments (or, equivalently, slightly more valuable prepayment options or higher negative convexity). For existing mortgages, this would lead to modest MBS value losses, as future buyers price in the higher negative convexity.

We believe investors would require a 20-to-25-basis-point rate increase that might be mostly counteracted by cost savings to creditors from fewer foreclosures being initiated, potentially producing no net interest rate increase (in particular, we believe that might be the case for FHA borrowers).⁵ To the extent interest rates increase nonetheless, we argue this increase is indicative of the current cross-subsidization of the borrowers who do refinance by the borrowers who do not or cannot refinance.

- Prong 1. We propose that the GSEs, the FHA, and the VA require servicers to call each borrower to inform them of this opportunity to refinance within a specified time after a rate reduction (we propose a 10 percent reduction in the monthly payment, as measured by keeping the same loan term and rolling all fees into the principal amount; we discuss other options below), with thresholds ensuring the borrower unambiguously benefits from a refinance.
- Prong 2. We propose making refinances as streamlined as possible, reducing both the eligibility thresholds that currently prevent borrowers from reducing their monthly payments and reducing operational burdens on servicers and lenders.

 Prong 3. We propose adding consumer protections to ensure lenders do not take advantage of borrowers by charging high markups. Our proposed protections focus on interest rates, fees, and term lengths.

We believe our proposal's main benefit is that defaults and foreclosures are reduced because borrowers make lower payments. The loans are already on the books of the GSEs, the FHA, or the VA, so lowering borrowers' monthly payments only makes the loans safer. Another large benefit is the positive income shock during downturns for borrowers who are more likely to have low incomes (these borrowers would also likely have a higher marginal propensity to consume than the MBS investors, suggesting macroeconomic benefits as well).

Our proposal could be implemented in various forms by Fannie Mae, Freddie Mac (or jointly by the Federal Housing Finance Agency, or FHFA), the FHA, or the VA, with any party not having to implement the entire proposal for it to be effective. Neither congressional action nor rulemakings would be required for those entities. Accommodation from the Consumer Financial Protection Bureau (CFPB), which could adjust its ability-to-repay rule for such streamline refinances, would make our proposal's second prong more effective for the GSEs, as they would not need to require income verification.

Now is the time to complete such a system restructuring. Refinances have plummeted since the first quarter of 2022⁷ and are unlikely to pick back up until interest rates are lower, leaving the industry and investors sufficient time to adjust without having to do so on the fly, as the immediate impacts will be minor and the implications will be priced in by the time interest rates fall again.

Research

Four points are clear from the existing research:

- Millions of borrowers cumulatively leave tens of billions of dollars on the table each year by not refinancing when interest rates are low, and more borrowers are simply not eligible to refinance.
- These ineligible borrowers are disproportionately low-income borrowers and underserved
 Black and Hispanic borrowers.
- Lower monthly payments would dramatically lower the probability of default or foreclosure.
- These borrowers fail to refinance exactly when they might need it the most, as the Federal Reserve decreases interest rates to fight economic slowdowns.

Millions of Borrowers Cumulatively Leave Tens of Billions of Dollars on the Table Each Year by Not Refinancing When Interest Rates Are Low

As of December 2021, 11 million borrowers still had not refinanced during the 2020–21 refinance boom, despite being able to lower their interest rates by at least 0.75 percent (Black Knight 2022a, 2022b). This number does not include borrowers with FICO scores below 720 (as of December 2021) or borrowers with loan-to-value (LTV) ratios more than 80 percent. These 11 million borrowers could have saved about \$50 billion a year each year until they paid off their mortgages (Bhagat 2021a).

Borrowers Who Do Not Refinance Are Disproportionately Low-Income and Underserved Borrowers

There are clear patterns regarding which borrowers refinance. In 2020, the difference in refinancing rates between homeowners in the top and bottom income quintiles was 14 times higher than in several previous years (Agarwal et al. 2021; Freddie Mac 2021). This is a familiar pattern, as the US Department of Housing and Urban Development has noted report that "low-income households have historically refinanced at a slower rate than higher income households" (PD&R 2004).

Black homeowners accounted for less than 4 percent of the savings from the recent refinance wave (Gerardi, Lambie-Hanson, and Willen 2021). Again, this pattern is not new and is not simply caused by Black homeowners potentially having lower-balance loans: "In 2009 and 2010...non-Hispanic white borrowers were almost twice as likely to refinance as Black borrowers" (Gerardi, Willen, and Zhang 2020). Analyzing all mortgage borrowers across time, Gerardi, Willen, and Zhang (2020) found that Black borrowers paid interest rates that were almost 50 basis points higher than white borrowers. The researchers found that "the main reason is that non-Hispanic white borrowers are much more likely to exploit periods of falling interest rates by refinancing their mortgages or moving." That is, differences in rates at the point of origination were small, and differences in refinancing behavior accounted for most of the 50 basis-point differential. This is not surprising, as "Black and Hispanic borrowers have much lower credit scores, higher combined loan-to-value ratios and higher debt-to-income ratios than their non-Hispanic white counterparts. For example, the median credit score for a non-Hispanic white borrower for a 2019 origination was 752, versus 714 for a Hispanic white borrower and 694 for a black borrower...making homeowners of color less likely to be able to refinance in the current environment" (Golding et al. 2020, 3). In fact, the only time the pattern reversed was in the run-up to the financial crisis, with subprime lender-driven refinances playing a significant role (PD&R 2004).

Low-balance loans are affected more than high-balance loans. According to the Center for Responsible Lending, "borrowers with low-balance loans start with a higher mortgage rate and subsequently refinance at significantly slower rates because the associated fixed costs pose a significant impediment. Furthermore, because lenders have limited capacity, they tend to focus their efforts on refinancing higher-balance loans, which have higher returns, often at the expense of the LMI [low- and moderate-income] households with lower-balance loans" (Stein and Bhagat 2021, 4). Brevoort (2022) reaches a similar conclusion using the National Mortgage Database (a nationally representative database of mortgage borrowers, maintained jointly by the CFPB and the FHFA).

Research has shown that these patterns hold in part because documentation requirements such as income verification and closing costs constrain refinancing. DeFusco and Mondragon (2020) find that "these constraints [documenting sufficient income and closing costs] may be especially binding during recessions, when unemployment is high, income risk is elevated, and cash-on-hand is low. They [these constraints] are also likely to have significant distributional implications. The households who are most affected—the unemployed and the liquidity-constrained—are precisely those who would benefit most from refinancing into a lower interest rate." These requirements affect millions of borrowers. The same researchers found that "allowing unemployed borrowers to refinance at the rates implied by our [researchers'] estimates would have generated approximately 2.4 million additional refinances in 2009. Together, these refinances would have saved unemployed borrowers roughly \$7.2 billion that year. This represents almost 10% of the entire amount paid out to unemployed people through the unemployment insurance system in 2009. These implied payment savings are also of roughly the same order of magnitude as what was achieved by the Home Affordable Modification Program (HAMP) and Home Affordable Refinancing Program (HARP), both of which notably excluded unemployed borrowers from participating" (DeFusco and Mondragon 2020).

Constraints on not being current on the mortgage, or having missed too many recent payments, also contributed to borrowers not refinancing during the pandemic refinance wave. Federal Reserve researchers find that "most borrowers experiencing pandemic-related financial distress were likely unable to refinance. A first-order impediment was forbearance itself, as borrowers enrolled in a forbearance plan were required to exit the plan and make three consecutive mortgage payments in order to qualify for refinancing. Combined with the high fees associated with refinancing, this requirement meant that many borrowers facing pandemic-related financial distress and liquidity constraints were unable to exploit rate declines to lower their debt burdens. This factor likely played a role in the large racial disparities in refinancing described above" (Gerardi, Lambie-Hanson, and Willen 2022, 7; Visalli, Dean, and Moulton 2022).

Lower Monthly Payments Significantly Lower the Probability of Default and Foreclosure

These differences in refinance rates ultimately contribute to a higher likelihood of default and foreclosure. Refinancing can lower the chances of foreclosure by as much as 40 percent (based on a 15 to 20 percent payment reduction) (Ehrlich and Perry 2015; Zhu 2014). Most of these numbers were derived by looking at results from HARP, which was implemented in the wake of the financial crisis. And these numbers may even be conservative, as they required borrowers to have a clean payment history (no delinquencies in the past six months and no more than one delinquency in the past year) to be eligible for the program.

This finding is consistent with other recent evidence, highlighting that foreclosures tend to be caused by income and expense shocks (as opposed to whether the home is underwater) and thus that reductions in monthly payments can reduce defaults. Researchers from the JPMorgan Chase Institute find that a "10 percent mortgage payment reduction reduced default rates by 22 percent" (Farrell et al. 2017, 3; Low 2021). A 0.75 percent interest rate decrease on a 5 percent interest rate could decrease the monthly payment by 8 percent.⁸

Not surprisingly, underserved Black and Hispanic borrowers are considerably more likely to go through foreclosures, adding to the racial inequity and wealth gap, and would thus benefit even more from reduced monthly payments: "Overall, African American and Latino households have experienced serious delinquencies and foreclosures at over twice the rate of White households...undermining minority homeownership gains and leading to a widening of the wealth gap" (Bocian, Smith, and Li 2012; Reid et al. 2017, 469). Also, "Black households are less likely to remain homeowners after owning their first home. The number of black homeowners who transition to rental housing before turning 60 or 61 is substantially higher than white homeowners. For example, of the households who purchased their first home after age 44, 34 percent of black homeowner households switched to rental housing, while only 9 percent of white households did so. This suggests that black households are less likely to sustain their homeownership after first buying, which aggravates their future wealth-building potential." 9

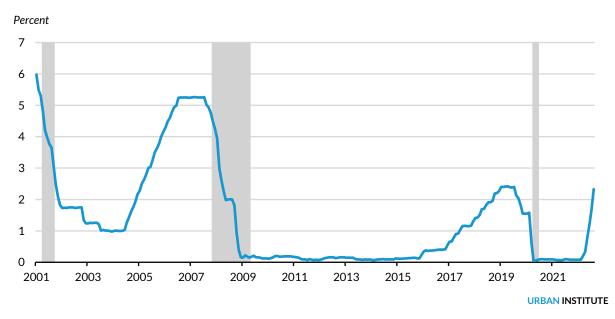
Refinances Help Borrowers When They Need Help the Most, Enhancing the Federal Reserve's Ability to Fight Macroeconomic Downturns

From the macroeconomic perspective, Cloyne, Ferreira, and Surico (2020) argue that the "mortgage refinance channel [is] the most important mechanism for effective monetary policy." Thus, more refinances would make the Federal Reserve's interest rate cuts more effective in stimulating the

economy. That is, less affluent borrowers have higher marginal propensities to consume. Less affluent borrowers are more apt to spend more of the money saved through a lower mortgage payment than are more affluent borrowers, helping to stimulate the economy. Alternatively, these lower mortgage payments might not contribute to additional spending but still save the borrower (and the creditor) from a foreclosure.

And it is clear this economic stimulus would go to the borrowers who need it the most, if only they could and would refinance. Brookings Institution research notes, "One reason to promote refinancing is that the families that would be helped would tend to be among those less-advantaged and harder hit by the economic slump." And Farrell, Bhagat, and Narasiman (2017) note, "Mortgage rates are most likely to fall and create a financial incentive to refinance during an economic slowdown. However, economic downturns are usually accompanied by an increase in unemployment and underemployment, which typically result in an adverse impact on credit scores, income, house prices, and liquidity. As a result, at exactly the time when mortgage refinancing becomes most attractive, fewer borrowers are able to meet the eligibility requirements to refinance their mortgage, thus limiting the number of mortgage refinances. The financial preconditions also make the distributional effects of mortgage refinancing uneven." Figure 1 illustrates that the Federal Reserve's interest rate cuts of sufficient magnitude (75 to 100 basis points) happen during deep downturns and the pandemic.

FIGURE 1
Federal Funds Effective Rate, 2001–22



Source: Board of Governors of the Federal Reserve System.

Note: Gray shading indicates recessions.

Gerardi, Willen, and Zhang (2020) point out that the Federal Reserve echoes the sentiment: "expansionary monetary policy by definition leads to lower interest rates and so...disproportionately benefits non-Hispanic white borrowers and exacerbates mortgage rate inequality," consistent with their finding that "the refinance gap is due to non-Hispanic white borrowers responding much more strongly to macroeconomic shocks compared with minority borrowers."

Implementation Details

Our proposal has three prongs: (1) require that servicers attempt to contact via telephone (or web conferencing) borrowers who could save on refinances under prespecified trigger conditions within three months of the triggers being satisfied, (2) remove all friction and eligibility constraints from the refinance process (e.g., by not requiring income verification or an appraisal and streamlining the title insurance requirement), and (3) ensure necessary consumer protections (e.g., nondiscriminatory rates and fees), especially in light of the second prong.

Prong 1. Require Servicers to Attempt to Live-Contact Borrowers after a Payment (or Interest Rate Reduction) Trigger Has Been Satisfied

Servicers are already required to attempt to establish live contact with borrowers when borrowers become delinquent on their loans, within a certain number of days. ¹¹ We propose a similar requirement, except that the trigger is the availability of a materially lower monthly payments caused by declining interest rates.

The best trigger is not obvious. Bhagat (2021a) proposes a trigger of "0.50% interest rate differential and 7.5% payment reduction minimum," based on analyzing potential payback periods under various scenarios. The FHA (and the VA, for many loans) also has a 50 basis-point note rate differential as its standard of tangible benefit to the borrower. The CFPB views a payment reduction of 10 percent as automatically qualifying for its "materially lower" monthly payment standard. The 10 percent payment reduction would likely require an interest rate reduction somewhat higher than 75 basis points and relatively low closing costs rolled into the mortgage.

We believe either threshold could be viable, but we propose using the CFPB's materially lower standard. Fach secondary market player could adopt its own standard, though, and the 50 basis-point note rate reduction is consistent with the current FHA and VA standards. The benefit of a monthly payment reduction will likely be more tangible to borrowers. The 50 basis-point threshold would

produce more refinances than the 10 percent payment reduction. MBS investors would have to absorb increased negative convexity and, hence, higher rates to new borrowers. Additionally, the payment reduction threshold percentage allows newer mortgages to be eligible before more mature mortgages; for mortgages in their 20th year out of 30, a higher interest rate drop is needed to satisfy a given monthly payment decrease percentage. The benefit of a 50 basis-point threshold relative to the 10 percent payment reduction is that borrowers could take advantage of smaller interest rate drops, and the triggers would be satisfied sooner.

Regardless of the exact threshold, we propose to calculate payment or interest rate reductions by applying the new potential interest rates and adding any estimated closing costs to the current loan's unpaid principal balance, keeping the term the same for ease of comparison. For a new 30-year mortgage, a 10 percent payment reduction is consistent with an interest rate drop of 75 to 100 basis points, depending on the starting interest rate (table 1). The borrower might choose to extend or shorten the term after ensuring the payments are materially lower when keeping the term the same, as long as the new payment is not higher than the old payment (from the borrower shortening the term too much).

TABLE 1
How Much Payment Reduction Does a Borrower Receive?

_		Note Rate Reduction	
	50 basis points	75 basis points	100 basis points
3% initial interest rate	6.32%	9.33%	12.33%
4% initial interest rate	5.94%	8.80%	11.66%
5% initial interest rate	5.59%	8.32%	11.06%
6% initial interest rate	5.34%	7.89%	10.51%
7% initial interest rate	5.01%	7.46%	9.87%

Source: Authors' calculations.

Note: This table assumes a 30-year mortgage and no closing costs.

We believe servicers should be able to attempt live contact with all borrowers subject to the trigger within three months. This time frame seems feasible, as differences in quarterly refinance numbers indicate the industry has shown it can quickly ramp up refinance volumes when needed (Freddie Mac 2022a). Moreover, given our streamlining proposals below, we believe the industry would be able to process substantially more refinances with the same number of employees. Before calling a borrower, the servicer should ensure the savings still meet the threshold, using the rate sheets of either the servicer's lending arm, the original lender, or a lender of the servicer's choosing (likely grateful for such a referral).

During the live contact, the servicer (or its lending arm or the original mortgage lender) is required to mention the potential savings the interest rates produce and to propose a particular refinance term. If the servicer is not an originator, it could transfer the borrower to the original lender or another lender of the servicer's choosing if the borrower wants to proceed. Because less expensive lenders will be able to lower the borrower's payment beyond the trigger faster, the servicers have an incentive to find the least expensive lenders on the borrower's behalf, as long as these lenders allow the servicer to continue servicing the newly refinanced loan.

This automatic outreach would limit inequities based on borrowers' lack of information and would alleviate the issue that servicers' and lenders' incentives are to refinance larger loans first. We do not require the borrower to refinance with their original lender or the current servicer; we only want to ensure every borrower receives a phone call, not just the borrowers most likely to be profitable.

We propose allowing other lenders to call borrowers and take advantage of these streamlining terms when the lenders can offer borrowers streamline refinances that satisfy all the conditions we describe. With our second prong streamlining the refinance process, we believe many lenders will vie for this opportunity, and thus, the servicer contact requirement might not be necessary.

We believe the borrower should be offered several choices, including a rate-only refinance (keeping the term) when available (in particular, for Fannie Mae and Freddie Mac mortgages). The borrower can also change the term length, as long as the new monthly payment is lower than the old monthly payment (borrowers should not be able to shorten the term so much that they eliminate the lower probability of foreclosure and default, at least in a streamline refinance).

A key part of the live contact might be the servicer's exact message. We hope there is experimentation on various potential templates for the servicer communication, where the CFPB could add value from having a long-developed research process into various consumer disclosures. In particular, it is possible that part of an effective message might be that the servicer is mandated to reach out by the various federal government agencies (e.g., the FHFA or the FHA), as opposed to a message that could imply that this contact is a sales call that might or might not benefit the borrower. The message also has to include that the borrower is encouraged to call other lenders to shop around. Borrower participation is crucial, especially because we are designing an intervention for borrowers who fail to refinance, and some of the reasons might be lack of knowledge about the mortgage market or lack of trust in financial institutions.

Some borrowers will not want to refinance despite being contacted. Some might refinance at an even lower rate elsewhere or sell the house in the near future. But other borrowers will simply not trust

financial institutions or be too occupied with other issues. Therefore, we propose requiring servicers to reach out to borrowers again within 90 or 120 days of the previous contact, as long as the payment reduction remains material and borrower protections are satisfied.

We believe the various market participants (the GSEs, the FHFA, the FHA, and the VA) could decide on the exact trigger and the exact length of time the servicers have to contact borrowers. We believe our proposal is conservative on both dimensions and should not cause any notable disruptions to servicer operations while ensuring most of the gains from falling interest rates are passed through to the borrowers. ¹⁴ We also propose that these secondary participants send the borrower a letter when interest rates are dropping, outlining that the borrower will receive refinance calls and encourage the borrower to shop among lenders. Such a letter could considerably increase borrowers' trust and participation.

Importantly, we propose keeping the credit risk with the original credit risk holder for this streamline refinance proposal. In other words, an FHA mortgage can be refinanced only with the FHA, a Fannie Mae mortgage with Fannie Mae, and so on. The perception of additional risk created by such refinances has been a problem for decades, but keeping the credit risk with the original risk holder eliminates this concern.

Logistically, rates can change between a trigger being satisfied and the borrower being contacted. We believe our streamline refinance proposal will allow borrowers to be contacted very soon after a rate drop, and thus, for most cases, we do not believe rate changes should be a concern. In cases when rates drop even further while the servicer has been contacting the borrower, the borrower will receive an even lower rate. The more difficult case is if interest rates increase. The servicer should no longer contact the borrower if rates increase so much that the payment reduction is no longer satisfied. If rates dropped and then rose, the lender might be willing to discount the mortgage by several basis points if that will take the borrower over the trigger.

Prong 2. Streamline Refinances by Removing All Barriers

The second prong of our proposal is streamlining refinances to make them easier to process for servicers, less costly, and more attractive to borrowers. In addition, current requirements keep some borrowers from refinancing, and these are typically the borrowers who would benefit from refinancing the most (in terms of preventing future defaults and foreclosures).

Since the government streamline refinance programs following the Great Recession (e.g., with HARP), there have been several proposals to streamline refinances. ¹⁵ We heavily borrow from these proposals, and we believe the proposal from the Center of Responsible Lending has valuable implementation details. In terms of streamlining, as long as the borrower protection conditions we discuss below are satisfied, we believe the application process should be as streamlined and the eligibility criteria liberalized as much as possible, ideally with the borrower's signature sufficing. These refinances reduce the risk to credit holders, benefit borrowers, and should be inexpensive when streamlined—the more barriers we can remove, the better.

We discuss several such barriers here to emphasize that we support removing all of them. For each requirement, the borrowers who would be left out by not satisfying the requirement are the borrowers who would be helped the most by reducing monthly payments by refinancing. And the credit risk is diminished for the risk holder. If the borrowers do not pass, say, an income requirement for the refinance (with materially lower monthly payments), it is clear the borrower had suffered a significant income drop since getting the mortgage. For these borrowers, a lower monthly payment would be particularly helpful to prevent foreclosure. In addition, the monthly payment might be further lowered by the borrower extending the mortgage term.

We suggest keeping only two barriers. First, we propose allowing such a streamline refinance only after at least a year since the last full underwriting process. Such a seasoning requirement decreases the likelihood of any issues with representations and warranties (reps and warrants) and ability-to-repay risk. As a result, we relieve the refinancing lender of the responsibility of the original lender's mistakes. Second, we propose that borrowers already at least 60 days delinquent obtain a modification instead of refinancing. From the borrowers' perspective, modification might offer a similarly reduced interest rate (when interest rates are low), potentially more time to pay down the loan (by delaying principal or extending to a 40-year term), and no friction (given that it is a modification, not a new loan). From the lenders' perspective, this carve-out preserves the incentives to maintain origination standards and the threat of facing reps and warrants or ability-to-repay challenges for poor full underwriting (not streamline).

A partial list of the barriers and various restrictions on eligibility that should be removed is below. It is not crucial for these to be eliminated for our proposal to be effective, but we believe the more that can be removed, the better.

 Remove income verification and income-related conditions (including debt-to-income requirements and continuity of income).

- Remove credit score requirements.
- Remove requirements that the borrower is current on their payments or that the borrower has not missed more than one payment in the past 12 months.¹⁶
- Remove restrictions on refinancing while in forbearance.
- Remove any appraisal—or even automated valuation model (AVM)—requirements.
- Remove new title insurance requirements by allowing an update to the original policy to ensure the new loan is in the first-lien position.
- Remove new mortgage insurance requirements by either modifying the existing mortgage insurance, making it applicable to the new loan, or by canceling it when an AVM shows an LTV ratio under 80 percent.
- Remove up-front fees by the risk holder.
- Remove restrictions on rolling closing costs into the new loan's principal balance.¹⁷
- Allow the borrower to keep a forbearance balloon (or a balloon resulting from a partial principal forbearance during an earlier loan modification) as a balloon in the new loan as well.¹⁸
- Release the refinancing lender from any reps and warrants obligations, as the lender does not perform any checks (potentially aside from the checks for this proposal's requirements: that the loan is seasoned for at least a year, that the borrower is not at least 60 days delinquent, and that the monthly payment trigger is satisfied).
- Remove any penalties (by the GSEs and Ginnie Mae) on lenders and servicers with faster prepayment speeds (as long as the payment trigger reduction and other consumer protections are satisfied).¹⁹
- Remove any requirements on verifying property eligibility, as it was verified with the original underwriting and should be grandfathered (including condominium project-level eligibility and property-level checks, such as VA pest control).

A few of these barriers merit further discussion. Freddie Mac's Equitable Housing Finance Plan contains a proposal to use less expensive and faster alternatives to full title insurance search, such as an attorney opinion letter. ²⁰ The impetus behind this proposal is that the title insurance work performed for the original loan is likely to suffice for this streamline transaction: "Complete failure of title is extremely rare and usually leads to Seller/Servicer remedy. Refinances, in particular, present less risk, as major title problems should have been cured at purchase and the incremental risk of title defects

arising between purchase and refinance is small" (Freddie Mac 2022b, 23). Fannie Mae (2022, 27) echoes this idea. An even better alternative could be to "simply allow the prior title insurance policy to remain in force for refinances.... The logic is straightforward: If the property is not changing ownership hands, and there are attestations by the borrower that no new liens have been put in place, then there is little additional risk involved" (Goodman and Klein 2020). Any secondary liens the borrower might have placed on their home since originating the mortgage would have been there regardless of this streamline refinance and thus do not present an additional risk. A title update could be a part of allowing the prior title insurance policy to remain in force.

Both for Fannie Mae's and Freddie Mac's loan-level pricing adjustments and the FHA's up-front fees, the loan is already on the risk holder's book, and lowering monthly payments only makes the loan and the risk holder's book safer. Accordingly, where the entity already holds the risk (and received any up-front fees from the loan's original transaction), the purpose of charging the fees again on a refinance (aside from more profit) is unclear. Research shows that despite not charging an up-front fee, the FHA nonetheless improved its fund balance when implementing a program aimed at generating more refinances after the financial crisis.

Mortgage insurance might present an additional complication for borrowers who still have under 20 percent equity. We propose adopting HARP rules, where the mortgage insurer modified the existing policy, allowing the policy to transfer from the old mortgage to the new mortgage (FDIC, n.d.-a). Mortgage insurance providers' risk becomes lower, as the borrower is less likely to default (because of the reduced monthly payment). Under HARP 2.0, mortgage insurers were asked to treat the streamline refinance as a modification. For new loans, the insurers can price for the refinance. For existing loans, they cannot. But the risk is considerably reduced because of the borrower's lower monthly payment.

Freddie Mac and Fannie Mae can write future credit risk transfer (CRT) documents to include a provision that such a streamline refinance produces a modification-like treatment of the mortgage for future deals. For existing loans, CRT investors and mortgage insurers might receive a small windfall, as more than expected will get refinanced the next time interest rates decline.

It would be valuable if the CFPB adjusted its ability-to-repay rule to accommodate streamline refinances (in particular, not requiring income documentation). The CFPB has indicated it would like to tackle this issue in the year ahead. Without an adjustment by the CFPB, the borrower's ability to repay would still need to be verified before loan origination in GSE refinances, making refinances considerably less streamlined and excluding millions of borrowers whose income and ability to repay is

now hard or impossible to verify (e.g., because of a recent job loss, the home being underwater, or recent credit history issues). In a sense, the crux of the issue is not documentation; borrowers who lost their job cannot document income because they have no income to document. An exemption could be modeled on the nonstandard-to-standard refinances that also require a materially lower monthly payment.²³

When the CFPB finalized its ability-to-repay/qualified mortgage rule to be effective in January 2014, streamline government programs produced in the wake of the housing crisis were coming to a close, there was great uncertainty about Fannie Mae's and Freddie Mac's future, and the research showing these programs could cut foreclosure risk by 40 percent was not complete. If a GSE streamline program were implemented, we expect the CFPB would adjust its regulations to accommodate the policy adjustment, given that this is already a CFPB focus.

Another way to look at such a streamline refinance is that even for a borrower who cannot repay by current standards, a streamline refinance would lower monthly payments and leave the borrower with a higher residual income and a lower potential for default and foreclosure. Refinancing makes default less likely and reduces the possibility that the borrower will file an ability-to-repay lawsuit against the lender (the possibility is arguably vanishingly small already, as the loan would likely qualify for safe harbor based on the interest rate) or that the GSEs will seek recourse if the original loan had been improperly originated.

One friction we cannot remove is that borrowers with a second lien will need to get the second lien holder to resubordinate, just as they do now. Thus, borrowers with a second lien (e.g., a home equity line of credit or a contractor's lien) would still need to renegotiate subordination or repay the second lien (while potentially taking a replacement second lien immediately after refinancing). A related issue is Property Assessed Clean Energy (PACE) loans that effectively take a super-priority-lien position in states such as California and Florida. Once a consumer already has such a loan, we hope that despite the FHFA's opposition, consumers could still refinance. Similar to the arguments above, the risk is already there, and thus, a refinance with the same credit risk holder only makes the loan less likely to default. ²⁴ We agree that PACE loans involve considerable consumer financial protection and prudential issues, but we argue that once a borrower already has such a loan, it is too late to fix these issues.

Prong 3. Implement Borrower Protections

Especially after removing barriers to refinancing, it is imperative to ensure the borrower is protected from opportunistic behavior by lenders. A material reduction in the monthly payment (counted with the

same remaining years on the mortgage and with any closing costs rolled in) would tremendously benefit borrowers, especially those who had experienced income or credit score declines.²⁵ But two potential issues remain.

First, the servicer's lending arm (or the original lender) might use the opportunity to increase the markup on interest rates that streamline refinance borrowers are charged. Despite our requirements of a materially lower monthly payment, the interest rates might fall sufficiently to allow for a high origination markup while satisfying the monthly payment trigger. Accordingly, we propose requiring that the streamline refinance borrower rate sheets (rate and points choices) should be at least as advantageous as those for a new purchase mortgage origination.

Second, we propose requiring reasonable fees (e.g., origination fees) related to the cost of loan processing. In particular, if the loan can be as streamlined as what we outline above, we believe the cash fees charged to the borrower should be minimal, potentially below \$1,000. We believe a reasonable safe harbor could be cash fees charged below \$1,500, adjusted for inflation going forward (to avoid any issues with decades-old cost estimates becoming future impediments). The fees should be low, especially if the lenders and servicers do not attempt to allocate various fixed costs to this program (e.g., overhead and marketing expenses unrelated to this program), account for the increased value and decreased churn in mortgage servicing rights, and have a specialized call center and loan officers for such programs, who would not need to get paid the same percentage of the loan as compensation.

The risks of high interest rates and high fees is also ameliorated by allowing other lenders to contact borrowers. Lenders who charge lower rates will satisfy our monthly payment reduction trigger and might take the first chance to call the borrower, enhancing price competition.

Finally, one of the main benefits of a streamline refinance program is lower probability of default and foreclosures through lower monthly payments. Thus, we require that even if the borrower shortens their mortgage term, their new payment becomes lower than the old payment. The borrower could, of course, do a full underwriting refinance to a shorter term that would increase the monthly payment, but we believe it would require full underwriting and, in particular, a check of ability to repay.

Economics of Our Proposal

In the short term, adopting a version of our proposal would result in more borrowers refinancing when interest rates are low or declining. This makes existing MBS less valuable, as investors would not enjoy as many payments from borrowers with high-rate mortgages during these periods. Borrowers who do

not refinance are disproportionately those who have recently lost their jobs, have lower incomes, and are Black and Hispanic. Also, streamline refinance does not increase the risk in the financial system or of the credit risk holder, as the mortgage is already on that entity's books.²⁷

Another potential concern is the effect that negative convexity or price compression would have on new purchase mortgages. The concern is that faster prepayment speeds might destroy lenders' ability to charge slightly higher interest rates in combination with lower up-front points. That is, when lenders charge zero points (and a slightly higher rate), they recoup their costs by selling mortgages at a premium because of their higher rates. The worry is that our proposal could generate higher prepayment speeds and, hence, significant price compression. That is, a coupon that is 50 basis points higher might sell for only slightly more than a market-rate coupon. We believe the 10 percent payment reduction threshold and the one year of seasoning lower this risk.

Importantly, refinance is not a zero-sum game between borrowers who do not refinance and mortgage market participants. The most important effect is that default and foreclosure probability decreases by up to 40 percent for borrowers who refinanced (and reduced their monthly payments). Saving borrowers from these foreclosures is a benefit for the refinancing borrowers (in addition to simply reducing monthly payments), as well as a major cost saving to the credit risk holders (e.g., the GSEs, the FHA, the VA, and their CRT investors), who avoid foreclosure-related losses.²⁸

As a back-of-the-envelope calculation, at least 10 million borrowers failed to refinance during the most recent wave, even though they would have benefited from doing so. The share of borrowers in foreclosure hovered between 0.5 percent and 1 percent between 2016 and 2020 (prepandemic) (Black Knight 2022b). Taking the midpoint (0.75 percent), a 40 percent reduction would result in 30,000 fewer foreclosures in progress at any given time, or about 8 percent fewer foreclosures. Another way to arrive at our calculation is that there are about 50 million outstanding mortgages, and we are reducing the chance of foreclosure by 40 percent on 20 percent of those mortgages, or an 8 percent reduction. ²⁹ This calculation is, in a sense, an understatement, as these borrowers are the borrowers who would be more likely to end up in foreclosure and thus would benefit even more from refinances. In another sense, this calculation assumes that all 10 million borrowers would have refinanced under our proposal, an optimistic assumption. Without quantifying many potential benefits of avoiding a foreclosure, we previously valued each foreclosure avoided at a \$65,000 benefit to the society (combining borrower and creditor values) (Alexandrov, Goodman, and Tozer 2022). Quarterly foreclosure starts were $100,000 \text{ from } 2015 \text{ until the pandemic.}^{30}$ Even that would suggest an annual benefit of \$65,000 x $100,000 \times 4 \times 0.08$, or \$2 billion per year. But we argue that the real benefit is during downturns. During

the Great Recession, for example, there were four quarters in a row with more than 500,000 foreclosure starts and several years' worth of quarters with more than 400,000 starts.

Long-term effects are more nuanced. We believe the MBS investor market is relatively competitive and efficient. As such, any decrease in the value of the MBS will be passed through to the borrowers (assuming no further government subsidies to this program) through higher rates. Thus, streamlining refinances ultimately transfers money back from more sophisticated borrowers who know when to refinance to borrowers who cannot refinance or do not know they should, as right now, the former borrowers are cross-subsidized by the latter borrowers. This is similar to other financial products, such as credit cards, where borrowers who pay on time get cross-subsidized via credit card rewards and lower annual fees by borrowers who do not pay on time and incur various fees. A similar dynamic is likely at play for checking accounts with fees for overdrafts and insufficient funds.

Nonetheless, we believe the interest rate increase (or how much less MBS investors will be willing to pay for an MBS with higher prepayment risk) is modest. Crude modeling efforts suggest investors might pay as much as 20 to 25 basis points less for similar MBS with higher prepayment speeds. The estimate is crude and highly depends on the exact method of modeling the prepayment speed change and on historical conversions between note rate differences and MBS pricing. In particular, the 20-to-25-basis-point estimate assumes a large increase in speeds once the borrowers cross the trigger and assumes high borrower participation.

These theoretical models are likely overstated. Federal Reserve researchers estimate that increasing refinances and prepayment speeds could increase interest rates by 5 to 15 basis points, estimated by comparing the MBS price differences between low-balance mortgages (with lower prepayment speeds) and more generic pools, with more recent numbers suggesting the lower end of the range.³²

Other researchers come to a similar conclusion using a different argument. Golding and coauthors (2020) argue that the effects of higher prepayment speeds induced by more streamline refinancing might already be partially priced in by the MBS investors (potentially as much as 50 percent). "Because TBA market prices [are] cheapest to deliver, that 'par compression' is quite common and the market anticipates and has built in some likelihood of a new HARP program, the capital loss [from a faster rate of refinancing] is likely to be much less than the gain to the borrowers." That is, the market prices to the fastest borrowers, not to the median borrower.

Refinances are not a zero-sum game. To the extent credit risk holders suffer fewer foreclosure losses, these savings should be passed on to borrowers and will at least alleviate part of any interest

rate increase MBS price changes cause. Notably, a Congressional Budget Office study found that when the FHA implemented a related change with post-financial crisis streamline refinances, the FHA came out considerably ahead (Ehrlich and Perry 2015).

To the extent the lower values MBS investors placed on the securities do not get canceled out by positive effects (e.g., lower foreclosure rates and, hence, lower insurance premiums), we believe the increase in note rates is a small price to pay for this equitable distribution across borrowers and a lower chance of foreclosure. Even in the worst case of the entire 20-to-25-basis-point increase being passed through into a 20-to-25-basis-point higher note rate to borrowers (all else equal) with no offsetting reduction in borrowers' insurance costs, this increase effectively serves as an option premium to take advantage of interest rate reductions in the future, with enhancements from lower costs and hassles of refinances, fewer barriers, and more servicer and lender outreach. For concreteness, on a \$300,000 30-year loan with a 5 percent interest rate, an additional 20 basis points changes the monthly payment (principal and interest only) from \$1,610 to \$1,647.

The logic above applies to new originations. But for existing mortgages, MBS investors will not be compensated for increased prepayment speeds. Nevertheless, we believe the issue is minor, even for existing mortgages, for several reasons. First, a large share of existing mortgages was originated over the past few years, and they have low note rates. It is unlikely that our trigger of a 10 percent payment reduction will ever be satisfied for these mortgages. Second, many changes we are proposing will take time to occur. In particular, having a GSE streamline refinance without the requirement to document income would likely require a CFPB rulemaking. Thus, the effective date of faster prepayment is likely postponed, and investors can start pricing in likely effects earlier. This current state of the market, where transitioning legacy mortgages is relatively pain-free, is yet another reason now is the time to implement our proposal.

Effects on Mortgage Market Participants

In this section, we address the benefits and costs to each major player in the financial system, focusing on long-term implications. There will be minor short-term implications, but effecting our proposal as soon as possible allows for short-term pricing implications to get resolved before the next refinance wave, as few borrowers are likely to take advantage of this program in the next couple of years. We also discuss our proposal's effects on the FHA, as a particular feature of the current mortgage market makes this proposal even more advantageous for the FHA. Finally, we discuss how our proposal interacts with current streamline programs.

TABLE 2
Summary of Our Proposal's Effects on the Mortgage Market Participants

Mortgage market participant	Benefits of having more borrowers go through streamline refinances	Costs of having more borrowers go through streamline refinances
Borrowers	Borrowers who cannot refinance or do not know they should (at least 10 million borrowers in the last refinance wave) get the benefits of potentially \$300 a month until the end of their mortgage and at least a 40 percent lower chance of foreclosure. Other borrowers do not have to monitor rates as carefully.	If interest rates rise by 20 to 25 basis points because MBS investors are unwilling to pay as much, borrowers who were already refinancing optimally might be marginally worse off. But even if rates rise, that might be compensated by lower refinancing costs and by lower fees from the risk holders because of lower foreclosure likelihood.
GSEs/FHA/VA	Potentially 8 percent fewer foreclosures and less churn of borrowers to other credit risk holders (e.g., FHA to GSE).	The GSEs have mortgages in their retained portfolios that will experience faster speeds.
Servicers	Lower churn (currently, only a third of borrowers are with the same servicer after a refinance), ^a a more predictable servicing portfolio, more valuable servicing strips (effectively lasting longer).	Costs of contacting borrowers during periods with low interest rates.
Lenders	Fewer full-underwriting refinance non-cash- out originations during periods with low interest rates. Less capacity constraints during peak periods because of streamline refinances.	Many lenders also service.
CRT investors	No long-term profit implications with a reasonably competitive market. Current CRT investors could experience a windfall, as some of the loans will be shorter than anticipated.	CRT investors will insure shorter and safer loans, and the overall risk in the system will decrease.
Mortgage insurers	No long-term profit implications with a reasonably competitive market. Current mortgage insurers could experience an extension, albeit with less risk on existing policies, as these policies will be modified.	Mortgage insurers will insure shorter and safer loans, and the overall risk in the system will decrease.
MBS investors (for new securities)	No long-term profit implications for new mortgages with a reasonably competitive market.	Less willing to pay a premium for MBS, as prepayment speeds will increase.
MBS investors (for existing securities) and existing borrowers	A small windfall to existing borrowers who had not refinanced during the pandemic, as they will get the benefit of servicer calls and streamline refinances when rates drop.	A small loss to MBS investors because their existing securities were priced to the current paradigm, while prepayment speeds will increase because of the streamline refinance program. The loss is likely small because of a large share of existing mortgages originated at historically low rates during the pandemic (and are thus unlikely to ever satisfy the monthly payment reduction trigger).

Source: Authors' summary.

Note: CRT = credit risk transfer; FHA = Federal Housing Administration; GSE = government-sponsored enterprise; MBS = mortgage-backed securities; VA = US Department of Veterans Affairs.

^aBlack Knight, "Mortgage Monitor: January 2022 Report" (Jacksonville, FL: Black Knight, 2022), 16.

Effects on the FHA (Particularly through Decreasing FHA-to-GSE Refinances)

We discuss the FHA in more detail because of its role for borrowers who would especially benefit from lower monthly payments. Five to 10 percent of borrowers in each of the past few years start with FHA mortgages but refinance into Fannie Mae or Freddie Mac mortgages (Stein and Bhagat 2021). Given the FHA's relative lack of risk-based pricing, this dynamic results in the safest borrowers leaving the FHA (they have good enough credit history to get a GSE loan and have lower LTV ratios by the time of refinancing; borrowers who have LTV ratios below 80 percent could drop the FHA's mortgage insurance premium). In a sense, the GSEs cream the top FHA borrowers (through the least-risky FHA borrowers refinancing with the GSEs), leaving the FHA with a riskier portfolio overall and a lower budget to expand the credit box.

Adopting our proposal would facilitate keeping these safer mortgages in the FHA's portfolio, particularly during periods of less robust home price appreciation, where borrowers do not have sufficient home price appreciation to bring their LTV ratios below 80 percent to avoid mortgage insurance; the streamlined nature of the refinance might make it easier for the borrower to stay with the FHA. The Center for Responsible Lending estimates that "if the recommended [streamline refinance] adjustments induce just 235,000 FHA borrowers (about 3% of the current FHA portfolio and well below the 600,000 lower-bound estimate of FHA borrowers who completed an FHA-to-Conventional refinance during the current refinancing wave) to choose an FHA Streamline Refinance instead of an FHA-to-Conventional refinance, the credit subsidy from these loans will bring the overall impact of the recommended program adjustments on the MMIF [Mutual Mortgage Insurance Fund] to zero" (Stein and Bhagat 2021, 15).³³

The VA suffers from similar refinancing issues, though not as pronounced as the FHA, given that many veteran borrowers do not pay nearly as high up-front or annual mortgage insurance premiums as FHA borrowers do. But the VA has its own fast prepayment problem, with increased churn caused by potential abuse of the system (Goodman, Golding, and Neal 2019). Synchronizing consumer protections and ensuring VA borrowers also take advantage of lower interest rates (while not being taken advantage of) could benefit all parties.

Relationship to Existing Streamline Refinance Programs

There are several current or recent streamline refinance programs by the GSEs, the FHA, and the VA. Virtually all of them have or have had at least some of the suggestions from our second prong (removing barriers to and increasing eligibility for refinancing). But none of the programs have anything like our

first prong of mandating that servicers reach out to borrowers. There are also some consumer protection requirements like our third prong but nothing as comprehensive. Moreover, the GSEs' streamline refinance programs have such extensive restrictions on who can participate that they have had limited take-up.

In terms of practical implementation, we propose that the GSEs, the FHA, and the VA adopt our first prong so all market participants can start preparing; each agency can decide on how much they need to change their implementation of the second and third prongs.

The FHFA announced a refinance program aimed at low-income borrowers at both GSEs in April 2021.³⁴ Requirements included income of less than 80 percent of the area median income, debt-to-income ratios below 65 percent, minimum credit scores of 620, and maximum LTV ratios of 97 percent (in other words, requiring income and credit score verification and likely an automated valuation model or appraisal). The benefit for the borrower was that the GSEs waived their adverse refinance fee of 50 basis points up front (initiated in response to the pandemic). Some consumer protections were in place: the GSEs required that the borrower would receive an interest rate decrease of at least 50 basis points and at least a \$50 monthly payment reduction. The requirements were relaxed over time—for example, the GSEs required incomes of less than 100 percent of the area median income in October 2021, a few months before interest rates increased, and the credit score requirement was waived in April 2022.³⁵

At the time of the FHFA announcement, the GSEs had another refinance program that was about to expire, and it was more in line with HARP and more streamlined, aimed at borrowers with high LTV ratios. But there was a minimum LTV ratio requirement of 97 percent, limiting borrower participation; the loan must have been seasoned for 15 months or more; and the borrower had to be current ("The mortgage has not been 30-days delinquent in the most recent six months; and [h]as not been 30-days delinquent more than once in the most recent 12 months"). The program removed many of the barriers we advocated removing in our second prong—for example, there was no DTI ratio requirement; there were "simplified documentation requirements for employment, income, and assets"; and there was transferable mortgage insurance. ³⁷

The high-LTV refinance programs were discontinued in May 2021 "due to extremely low volume and the impact of the [CFPB's] Revised General QM Rule." The low volume is hardly surprising, as the program was limited to borrowers with very high LTV ratios during a period of historically high home price appreciation, and servicers were not required to contact borrowers. The limited use of the GSEs' HARP-replacement program illustrates at least some of the components that are necessary for success: proactive requirements on servicers (without the need to rely on borrowers to know about a program

with an extremely low volume) and removing barriers (including the CFPB's ability-to-repay rule and dramatically expanding borrower eligibility). If either of these two components, corresponding to our first and second prongs, is missing, any future program is likely to fail. And without our consumer protection requirements, any success might be illusory.

The FHA and the VA had advanced further on the second prong and did not need to remove their programs because of the CFPB's ability-to-repay/qualified mortgage patch update, yet opportunities remain. Moreover, nothing resembling prongs 1 and 3 can be considerably enhanced either.

For example, the FHA's streamline program (non-credit-qualifying) features "limited borrower credit documentation and underwriting" and a net tangible benefit test (often a 50 basis-point interest rate reduction), with a requirement of no cash out.³⁹ The FDIC (n.d.-b, 27) noted, "The ability to refinance existing FHA loans without regard to the loan-to-value (LTV) ratio, credit score, or other factors originally used to qualify the borrower lowers FHA's risk because borrowers are less likely to default on their mortgages if their payments are more affordable."

But the FHA program can still be enhanced, as evidenced by the fact that FHA refinances were substantially lower than GSE refinances during the pandemic-induced refinance wave. First, there is no requirement for servicer contact, resulting in all the disproportionate impact issues we discussed above. Second, there is still a requirement for borrowers to be current and have missed at most one payment in the past 12 months, a prohibition on rolling closing costs into the loan, as well as the payment of an additional up-front FHA mortgage insurance premium (especially if the original loan had been originated more than three years ago). Third, the consumer protections can be even more stringent, such as requiring no price discrimination between streamline refinances and other products, fee caps, and an enhanced net tangible benefit test.

The VA Interest Rate Reduction Refinance Loan program shares many of the features of the FHA streamline program. In particular, there is no income verification, no credit check, and similar net tangible benefit requirements (London 2019). Similarly, the program has many of the same potential enhancements as the FHA program. There are also some VA-specific issues. For example, when a previous appraisal raised a potential pest issue, another pest inspection might be required. There is also a considerable issue with refinances by lenders who charge high interest rates, only to refinance at a somewhat lower rate soon after.

TABLE 3
Features of Various Streamline Programs

Streamline program	Prong 1. Contact the borrower	Prong 2. Remove barriers	Prong 3. Create consumer protections	Active as of September 2022?
HARP	No	Mostly	Some	No
GSEs' low-income programs (RefiNow and Refi Possible)	No	Removes some barriers (still has DTI and LTV ratio requirements and income verification only for lowincome borrowers)	Some (a 50 basis- point note rate reduction but no fee caps)	Yes
GSEs' HARP replacement	No	Mostly (but only for borrowers with LTV ratios of at least 97 percent)	Some (a 50 basis- point note rate reduction but no fee caps)	No
FHA streamline	No	Mostly (still requirements on not missing more than one payment, rolling closing costs into the loan amount, and the requirement to pay the up- front FHA fee)	Some (a 50 basis- point note rate reduction but no fee caps)	Yes
VA IRRRL	No	Mostly	Some (a 50 basis- point note rate reduction for many cases but no fee caps)	Yes

Source: Authors' summary.

Note: DTI = debt-to-income; FHA = Federal Housing Administration; GSE = government-sponsored enterprise; HARP = Home Affordable Refinance Program; LTV = loan-to-value; VA IRRRL = US Department of Veterans Affairs Interest Rate Reduction Refinance Loan program.

The Future

Various government organizations (the FHA, the VA, and the FHFA) and the GSEs could adopt versions of our proposal without needing to be entirely consistent and without the need for all parties to adopt the proposal simultaneously (and some parties could benefit more and move faster, such as the FHA). The CFPB could also make streamline refinances without income verification possible for the GSEs by amending the ability-to-repay rules.

Our proposal will not capture all refinances, and complete streamlining is impossible. We have constructed our proposal to capture as many refinances as possible, leaving the current MBS structure in effect. In particular, many borrowers (likely millions for each refinance wave) will still fall through the cracks, as our proposal requires servicers to reach out to borrowers, but ultimately, the borrower must be contacted and agree to the refinance, which requires trust. In addition, our proposal has parts that

might not end up streamlined easily; title insurance may be particularly problematic. Moreover, it is difficult to do a streamline refinance for borrowers with second liens.

Several recent proposals would make refinancing even more automatic than in our proposal, but each has drawbacks. The first potential solution is Auto-Refi, proposed by Bhagat (2021a). This solution extends our first prong to an opt-out regime: when a payment or interest rate reduction trigger is satisfied, the borrower is sent a package detailing the new mortgage, and the borrower has 30 days to opt out. This solution also advocates for a streamline refinance along the lines of our second prong. Especially given the opt-out nature, we believe such a solution would benefit from enhanced consumer protections (along the lines of our third prong) and would require the CFPB to amend its ability-to-pay/qualified mortgage rule to be executed without much friction. Overall, the economics of this solution is similar to ours. The biggest upshot is that with an opt-out regime, most borrowers will end up refinancing when interest rates are low. But opt-out loan origination might face hurdles without stringent consumer protections (particularly around price gouging) and would require regulators to experiment. Moreover, it would likely raise interest rates by more than our proposal would.

The second potential solution is a ratchet mortgage, which "combines the benefits of both fixed-rate loans and adjustable-rate mortgages. The ratchet mortgage allows downward adjustments in the mortgage rate but does not allow increases. This type of product provides lower costs to borrowers over the life of the loan and eliminates the subsidization of those who refinance more frequently by those who refinance less frequently, in exchange for a potentially higher initial rate" (Edelberg, Sheiner, and Wessel, n.d., 190). ⁴¹ In a sense, ratchet mortgages behave as a rational borrower who can do rate-only refinances at no cost.

Ratchet mortgages would solve the problems we are trying to address by our three prongs. The rates would adjust instantaneously without requiring any servicer or borrower action; there would be no need to streamline refinances, as the loan would be the same loan; and no new consumer protections would be necessary, as no new loans are originated (the CFPB would need to take no action). Much of the economics we discuss above would be similar as well.⁴² The drawback is that this proposal is inconsistent with the fixed-rate to-be-announced market we have today.⁴³

We view our proposal as being positioned between today's housing finance system and the totally automatic programs of either auto-refinance or ratchet mortgages. Our proposal is easy to adopt in the current environment and goes a long way toward alleviating the issue that borrowers more likely to benefit from refinancing are least likely to refinance. Meanwhile, we believe secondary market participants should experiment with automatic programs and gauge investor appetite and pricing for

those. The Federal Reserve also has an incentive to support such programs by purchasing any eventual MBS issuance, based on our arguments that such programs will make monetary policy considerably more effective during downturns.

Additionally, ideas such as auto-refinance and ratchet mortgages have not been implemented at a massive scale (or at all), but the well-documented success of HARP refinances is one reason we believe our proposal is ready to be adopted. Many of our proposal's streamlining prongs were pioneered in HARP, and adding servicer and lender contact and consumer protections will only increase adoption and ensure consumer benefits.

This proposal is a part of a package of actions the administration could take to decrease defaults and foreclosures. We recently proposed requiring servicers to give borrowers four-month forbearances when they lose their job, experience a health issue, or become divorced or separated or when a coborrower dies, without waiting for the borrower to start missing payments (Alexandrov, Goodman, and Tozer 2022). A similar rationale is behind proposals to modify loss mitigation waterfalls to focus on achieving lower monthly payments, across Fannie Mae, Freddie Mac, the FHA, and the VA (Bhagat 2021b; Farrell et al. 2017).⁴⁴

Decreasing the risk of defaults and foreclosures (making lending more sustainable) benefits all mortgage industry participants. It also allows for a further expansion of the underwriting credit box, without increasing default risk. Finally, it alleviates racial inequities in homeownership and mortgage lending, as Black borrowers accumulate less home equity largely because of higher default and foreclosure rates, and Black borrowers pay higher interest rates (partially resulting in those higher default and foreclosure rates) because of failure to take advantage of refinance opportunities or being unable to (Gerardi, Willen, and Zhang 2020).

Notes

- ¹ See Gerardi, Lambie-Hanson, and Willen (2021) for data for the first 10 months of 2020.
- Andrew Haughwout, Donghoon Lee, Daniel Mangrum, Joelle Scally, and Wilber van der Klaauw, "Refinance Boom Winds Down," *Liberty Street Economics* (blog), Federal Reserve Bank of New York, May 10, 2022, https://libertystreeteconomics.newyorkfed.org/2022/05/refinance-boom-winds-down/.
- Stein and Bhagat (2021, 4) note, "As a point of comparison, the American Rescue Plan (ARP) offered \$1,400 perperson stimulus checks to households under a certain income. The average qualifying household, composed of 2.5 people, would have received \$3,500. By refinancing, the average refinance-eligible FHA borrower could save \$2,750 (nearly 80% of the per-household ARP stimulus) every year."
- ⁴ This is different from adjustable-rate mortgages (ARMs). With ARMs, when the Federal Reserve increases interest rates, borrowers' rates increase, and when the Federal Reserve decreases interest rates, borrowers' rates decrease. Instead, with fully streamline refinances, borrowers would benefit from interest rate decreases but not suffer during interest rate increases. An ARM-like full pass-through of both higher and lower interest rates would make monetary policy more effective when fighting inflation, but a pass-through might be more difficult for borrowers to handle safely. The Federal Reserve does not directly control the mortgage interest rates lenders charge, but its actions and beliefs in future actions do affect mortgage interest rates. Thus, although this pass-through is unlikely to be a straightforward one-to-one, we believe the Federal Reserve's actions would translate to borrowers paying lower mortgage payments because of lower interest rates considerably more than they do now.
- ⁵ MBS investors do not bear the credit risk, so they could pass through the entire 20 to 25 basis points. But the secondary market players (and mortgage insurers) would bear considerably less risk and thus could afford to price lower.
- ⁶ We limit our proposal to loans outside of private MBS, as private securitization's incentives are different.
- Haughwout et al. "Refinance Boom Winds Down."
- Principal and interest only on a 30-year mortgage.
- ⁹ Jung Hyun Choi, Alanna McCargo, and Laurie Goodman, "Three Differences between Black and White Homeownership That Add to the Housing Wealth Gap," *Urban Wire* (blog), Urban Institute, February 28, 2019, https://www.urban.org/urban-wire/three-differences-between-black-and-white-homeownership-add-housing-wealth-gap.
- ¹⁰ Karen Dynan, "Want a Stronger Economic Recovery? Encourage More Home Refinancing," Brookings Institution, February 20, 2013, https://www.brookings.edu/opinions/want-a-stronger-economic-recovery-encourage-more-home-refinancing/.
- See "§1024.39 Early Intervention Requirements for Certain Borrowers," Consumer Financial Protection Bureau, accessed September 7, 2022, https://www.consumerfinance.gov/rules-policy/regulations/1024/39/. We propose the same interpretation of "live contact" and "good faith effort" as in the CFPB's regulation. In particular see the official interpretation of live contact in §1024.39(a), in particular paragraphs (2) "Establishing live contact" and (3) "Good faith efforts."
- "§1024.39 Early Intervention Requirements," Consumer Financial Protection Bureau: "Whether the new loan payment is 'materially lower' than the non-standard mortgage payment depends on the facts and circumstances. In all cases, a payment reduction of 10 percent or more meets the 'materially lower' standard."
- A more nuanced way of establishing a trigger would be to use a formula for optimal refinancing, accounting for much lower refinancing costs based on what we propose above. But borrowers and the industry might perceive

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- the formula as considerably more complex. See Agarwal, Driscoll, and Laibson (2013), using, for example, values used by Gerardi, Willen, and Zhang (2020, appendix A6).
- An important consideration is servicers who do not also lend. We believe this is a small problem, as most servicers also originate loans. To the extent this problem exists, we believe it should place the responsibility for contact on the originating lender, with the servicer needing to inform the lender that the servicer does not originate loans, that the borrower's trigger is active, and that the original lender needs to contact the borrower by a specified date.
- ¹⁵ For example, see Golding and coauthors (2020); Stein and Bhagat (2021), which is aimed at the FHA but could be applied to other parts of the mortgage market; and Gerardi, Loewenstein, and Willen (2021).
- ¹⁶ Delinquent borrowers may find that a loan modification will provide a lower payment than a streamline refinance, as the term can be stretched to as long as 40 years, and principal can be forborne under certain circumstances.
- Recent research suggests that borrowers who use higher interest rates (lender points) to finance closing costs also suffer from not refinancing, as the conversion from interest rates (lender points) to closing costs is also based on the current average prepayment speed. Thus, borrowers who do not refinance suffer even more if they could not add closing costs to the loan amount (Zhang 2021).
- Closing fees should be minimal with removing all (or many) of the barriers we suggested, but nonetheless, the fees present an impediment to many borrowers (Mota and Palim 2021). DeFusco and Mondragon (2020) find that "the inability of low-equity borrowers to roll the closing costs into the loan had very large negative effects. Our preferred estimate suggests that this friction reduced monthly refinancing rates among FHA borrowers by at least 0.5 percentage points." Stein and Bhagat (2021, 6) argue to "permit closing costs to be rolled into the unpaid principal balance (UPB) of the new loan. This step will allow borrowers to refinance without enduring a considerable out-of-pocket expense to pay for the closing costs or paying a higher interest rate, which lenders charge to create a premium for themselves to pay for the costs. This change would also align the FHA program with government-sponsored enterprises Fannie Mae and Freddie Mac (the GSEs) and Veterans Administration (VA) refinance programs." Depending on the borrower's standing and the savings the borrower receives, second liens resulting from forbearances might need to stay as second liens (as opposed to being rolled into the loan amount) to satisfy the monthly payment reduction trigger.
- ¹⁹ Currently, the GSEs and Ginnie Mae monitor servicers and lenders for higher prepayment speeds to ensure MBS investors do not suffer from prepayment that is too fast. Such an approach is reasonable in cases when faster prepayment is an indicator of potential consumer abuse, such as with the VA refinance churn (Goodman, Golding, and Neal 2019). But in periods of low interest rates, penalizing for faster prepayments (and borrowers moving to lower rates, with other consumer protections we suggest satisfied) is inefficiently putting MBS investors' interests ahead of borrowers' interests and ahead of credit risk holders' interests.
- ²⁰ An attorney opinion letter might not be a viable solution in all states.
- ²¹ An additional concern is the sliver of the mortgage insurance market that has mortgage insurance policies with a single premium. In these policies, the lender pays for the coverage up front, and the borrower does not make monthly payments. We believe insurance should transfer too, as the policy is fully paid for. In a sense, a way to view such a streamline refinance is closer to a modification on the continuum between a modification and a new origination, and to act accordingly. (For new policies, this is not an issue, as the insurer would set the premium to cover the longer life of the policies. For existing policies, the insurer would cover the costs.)
- ²² CFPB director Rohit Chopra has written, "We are also reviewing a host of rules that the agency inherited from other agencies, including the Federal Reserve Board of Governors and the Federal Trade Commission, as well as other rulemakings the CFPB pursued in its first decade of existence. Many of these rules have now been tested in the marketplace for many years and are in need of a fresh look. These reviews include: [...] The CFPB's Qualified Mortgage Rules to explore ways to spur streamline modification and refinancing in the mortgage

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- market, as well as assessing aspects of the 'seasoning' provisions." See Rohit Chopra, "Rethinking the Approach to Regulations," Consumer Financial Protection Bureau blog, June 17, 2022, https://www.consumerfinance.gov/about-us/blog/rethinking-the-approach-to-regulations/.
- ²³ "§1026.43 Minimum Standards for Transactions Secured by a Dwelling," Consumer Financial Protection Bureau, accessed September 7, 2022, https://www.consumerfinance.gov/rules-policy/regulations/1026/43/.
- ²⁴ G. Joseph Pigg, letter to Mark Calabria, director of the Federal Housing Finance Agency, March 16, 2020, https://www.aba.com/-/media/documents/comment-letter/fhfa-pace-031620.pdf?rev=492cb3c6f7e042c08dadfc80223250c8; and Property Assessed Clean Energy (PACE) Program, 85 Fed. Reg. 2736 (Jan. 16, 2020).
- The requirement of a lower monthly payment would also help for consumer protection. Stein and Bhagat (2021) note, "The requirement that the rate on the new loan be at least 50 basis points less than the current note rate is an important protection against lenders artificially churning existing FHA loans to obtain more fee revenue."
- ²⁶ Another potential consumer protection is to introduce a recoupment period. Stein and Bhagat (2021) propose to "require a recoupment period of 36 months or less for a streamline refinance that results in a lower monthly P&I plus MIP payment. If the loan was originated within 12 months of FHA case number assignment, the recoupment period should be 18 months or less." Moreover, a "36-month recoupment period would be consistent with the recoupment period required by the VA Interest Rate Reduction Refinance Loan (IRRRL) program, so it should be easy for lenders to implement." We believe this might not be necessary with the other protections we propose.
- ²⁷ Gerardi, Loewenstein, and Willen (2021) note, "It is easy to see why a lender would be reluctant to make a loan to a new borrower who is furloughed or unemployed. But doing so for an existing borrower, with a mortgage that is already on the books, is a different story. In fact, one can reasonably argue that as long as the new monthly payment drops, the new mortgage is at lower risk of default compared with the previous loan. Empirical evidence shows that indeed, a decline in monthly mortgage payments, all else being equal, significantly reduces the risk of mortgage default."
- For other beneficial effects, see Joseph Tracy and Joshua Wright, "Why Mortgage Refinancing Is Not a Zero-Sum Game," *Liberty Street Economics* (blog), Federal Reserve Bank of New York, January 11, 2012, https://libertystreeteconomics.newyorkfed.org/2012/01/why-mortgage-refinancing-is-not-a-zero-sum-game/.
- ²⁹ Keys and Pope (2016) also estimate that 20 percent of borrowers failed to refinance when it would have been optimal to do so from 2010 to 2012. Keys and Pope's estimate is lower than what we cover with our proposal for example, they excluded borrowers with recent missed payments and high LTV ratios.
- 30 ATTOM, "U.S. Foreclosure Activity Sets Post Pandemic Highs in the First Quarter of 2022," ATTOM, April 21, 2022, https://www.attomdata.com/news/market-trends/foreclosures/attom-q1-2022-u-s-foreclosure-market-report/.
- ³¹ For the general argument, see Gabaix and Laibson (2006). See also Campbell (2006) and Bhagat (2021a).
- Gerardi, Willen, and Zhang (2020) note, "To get some sense of how rates paid by minority borrowers would change if lenders took into account lower prepayment speeds, we can look at the low-balance mortgages. Assuming that a lender wants to maintain a constant gain-on-sale across all loans, we can then ask what the rate reduction on loans to Black borrowers would need to be to ensure that outcome. If MBS price differences were fully passed through to Black borrowers, they would typically pay 5 to 15 basis points less than they currently do."
- ³³ Ehrlich and Perry (2015) found that a program easing refinances at the FHA in 2012 and 2013 (which included up-front and annual mortgage insurance premium reductions) helped prevent an estimated 40,000 defaults and saved the FHA close to \$1 billion.

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- ³⁴ See Federal Housing Finance Agency, "FHFA Announces New Refinance Option for Low-Income Families with Enterprise-Backed Mortgages," news release, April 28, 2021, https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Announces-New-Refinance-Option-for-Low-Income-Families-with-Enterprise-Backed-Mortgages.aspx; Fannie Mae, "Fannie Mae's New Refinance Option Available Beginning June 5," press release, May 5, 2021, https://www.fanniemae.com/newsroom/fannie-mae-news/fannie-maes-new-refinance-option-available-beginning-june-5; and "Introducing Freddie Mac Refi Possible," Freddie Mac, accessed September 7, 2022, https://guide.freddiemac.com/app/guide/bulletin/2021-17
- Fannie Mae, Lender Letter LL-2021-10 to all Fannie Mae single-family sellers expanding refinance eligibility with RefiNow, last updated April 6, 2022, https://singlefamily.fanniemae.com/media/25696/display.
- 36 "Enhanced Relief Refinance Mortgage," Freddie Mac, accessed September 7, 2022, https://sf.freddiemac.com/working-with-us/origination-underwriting/mortgage-products/enhanced-relief-refinance-mortgage; and "High LTV Refinance Option," Fannie Mae, accessed September 7, 2022, https://singlefamily.fanniemae.com/originating-underwriting/mortgage-products/high-ltv-refinance-option.
- ³⁷ "High LTV Refinance Option," Fannie Mae.
- ³⁸ "Additional Updates in Response to the PSPA and the Revised General QM Rule," Freddie Mac, accessed September 7, 2022, https://guide.freddiemac.com/app/guide/bulletin/2021-19.
- ³⁹ "Streamline Your FHA Mortgage," US Department of Housing and Urban Development, accessed September 7, 2022, https://www.hud.gov/program_offices/housing/sfh/ins/streamline; for details, see Office of Single-Family Housing (2022, II.A.8.d.vi.C).
- 40 Stein and Bhagat (2021) make many similar suggestions for eliminating barriers and requirements in FHA streamline refinances.
- ⁴¹ See also Visalli, Dean, and Moulton (2021); Gerardi, Willen, and Zhang (2020); and Gerardi, Lambie-Hanson, and Willen (2022).
- ⁴² A notable behavioral economics quirk would keep such a product from competing with current fixed-rate mortgages, if a lender introduced it as a competing product. Borrowers might not be willing to pay any interest rate difference (as they already know how to refinance well), while other borrowers might not realize what value the small interest rate difference would bring, resulting in no adoption of such a product (Gabaix and Laibson 2006). But with enough volume, the interest rate differential would decrease, as the only borrowers choosing the standard fixed-rate mortgage would be borrowers who understand refinancing, resulting also in higher prepayment speeds and thus a similar impact on MBS investors as the new product.
- ⁴³ From the MBS investor perspective, ratchet mortgages replace a fixed-interest note rate that investors have now with a fixed spread over an index rate (e.g., the Secured Overnight Financing Rate or the 10-year Treasury note rate) if interest rates decrease, limiting investors' payoffs per not-prepaid loan in these cases. But ratchet mortgages would also have a considerably lower prepayment risk (arguably growing even lower as interest rates fall), as the main reasons to prepay would be selling the house or initiating a cash-out refinance (which could also become less popular if streamline refinances and rachet mortgages become common). If interest rates increase, both ratchet mortgages and fixed-rate mortgages are similar from the investors' perspective. There could be significant interest from investors for such a financial instrument, but it would likely involve launching a few specified pools with ratchet mortgages, which should be straightforward for loans that are not eligible for the tobe-announced market today.
- ⁴⁴ See also Americans for Financial Reform and others, "Suggested Enhancements to COVID-19 Recovery Loss Mitigation Options," letter to Lops Kolluri and others, May 6, 2022, https://www.housingpolicycouncil.org/_files/ugd/d315af_073a60f6b6dd43c09990ced16559b2c2.pdf; Ted Tozer, "The Mortgage Interest Rate Increase Requires a Reevaluation of Loss Mitigation Techniques," *Urban*

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