Executive Summary: Avoiding COVID-19 Related Foreclosures by Implementing Cost-Effective Mortgage Modifications for Federally-backed Loans*

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Introduction

Millions of homeowners are having difficulty affording their monthly mortgage payments because of the COVID-19 emergency. As of the end of 2020, about 3.25 million homeowners were at least one month behind on their mortgage and 2.15 million were seriously delinquent (at least three payments past due).[1] Delinquency data suggest that over the remainder of 2021 up to 2.4 million homeowners may be unable to resume making their regular monthly mortgage payment due to a sustained loss of income and/or increased expenses and will need a permanent mortgage modification to remain in their home.[2] Of the 2.4 million homeowners that may need a modification, about 750,000 have a GSE-backed mortgage, 965,000 have a mortgage backed by FHA or VA, and the remaining 685,000 have mortgages held in portfolios or in private label securities.[3]

In March 2020, Congress took the important step of including a provision for mortgage forbearance in the CARES Act. Under this provision, homeowners with a federally-backed mortgage who were facing financial difficulty due to COVID-19 could pause their monthly payments for up to 12 months.[4] Since then, the federal housing agencies have extended the forbearance enrollment window until the end of June 2021 and increased the allowance to 18 months.[5] As of the end of 2020, nearly 2.8 million homeowners were in forbearance as provided by the CARES Act.[6] However, forbearance is inherently a temporary relief measure. While some homeowners will be able to exit forbearance and resume making their original monthly payments, many will be facing a sustained period of financial distress due to the COVID-19 pandemic and will need permanent relief once the forbearance period ends.

Homeowners who are facing a severe and continuing loss of income or an increase in expenses due to the pandemic will require a mortgage modification that changes the terms of their mortgage to reduce their monthly payment to an affordable level in order to remain in their home. The Government-Sponsored Enterprises (GSEs) Fannie Mae and Freddie Mac, the Federal Housing Administration (FHA), and the Department of Veterans Affairs (VA) have established mortgage modification options aimed at offering post-forbearance assistance to those homeowners who cannot afford their original monthly payments due to ongoing financial distress.

While the current modification programs will be helpful to homeowners who cannot resume making their monthly payments, this paper outlines several improvements that the GSEs, FHA, and VA should consider that would both increase the availability of modifications to homeowners in need of financial assistance and provide them with deeper payment reductions. Specifically, by increasing the amount of available maturity extension and principal forbearance and loosening the requirements to qualify for a

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modification, the GSEs, FHA, and VA will be able to provide more homeowners in need with substantial payment reduction in a cost-effective manner, helping to avoid the significant negative after-effects suffered by foreclosed-upon homeowners and their neighbors and the high societal costs of foreclosures.[7]

Mortgage Modifications

Mortgage modifications that reduce the homeowner's monthly payment have proven to be the most cost-effective foreclosure reduction mechanism. An analysis of mortgage modifications performed during the post-Great Recession period provides conclusive evidence: *a 25 percent reduction in monthly principal and interest payments led to a 36 percent reduction in default rates over the next 5 years.*[8]

In general, mortgage modifications work as follows: a target monthly payment or minimum amount of payment reduction is calculated. Then, the steps of a "waterfall" are traversed in order and the terms of the mortgage are adjusted until the target monthly payment or target payment reduction is reached. However, adjusting the terms of a mortgage to reduce the borrower's monthly payment can be costly to the lender. To provide lenders with the financial incentive to offer modifications to homeowners who can no longer afford their monthly payment due to the pandemic, modifications should be designed to offer substantial payment reduction while simultaneously minimizing the costs imposed upon the lender. To do so, modification waterfalls should be ordered as follows: maturity extension, followed by principal forbearance, then interest rate reduction, and finally principal forgiveness. The proposed "optimized waterfall" and the current GSE, FHA, and VA waterfalls are summarized in Table 1.[9]

Table 1. The Optimized Waterfall and the modification waterfalls offered by the GSEs, FHA, and VA.

	Optimized Waterfall	**GSE Flex Mod (LTV < 80%)**	**GSE Flex Mod (LTV >= 80%)**	**FHA-HAMP**	**VA Affordable Modification**
Target	Minimum 25% reduction in principal + interest payment	20% reduction in principal + interest payment	20% reduction in principal + interest payment	Total monthly payment = lesser of 31% of income and (the greater of 80% of the current total payment and 25% of income)	Total monthly payment = 31% of income
Step 1	Capitalize arrearages	Capitalize arrearages	Capitalize arrearages	Capitalize arrearages	Capitalize arrearages
Step 2	Maturity extension to 480 months	Maturity extension to 480 months	Set interest rate to current market rate	Set interest rate to current market rate and extend term to 360 months	Set interest rate to current market rate
Step 3	Forbear principal		Maturity extension to 480 months	Forbear principal using the Partial Claim*	Extend term where extension is <= 10 years and the new term <= 30 years
Step 4	Set interest rate to current market rate		Forbear principal until LTV = 100%		Forbear principal (mortgage servicer not reimbursed)
Step 5	Forgive principal		Forbear principal until LTV = 80%		
Step 6			Forbear principal until housing expense-to-income ratio = 40%		

*The Partial Claim is capped at 30 percent of the UPB of the mortgage as of the date of default.

The GSEs, FHA, and VA can increase the amount of payment reduction provided to homeowners in need and make their modifications less costly to lenders and mortgage servicers by adopting the optimized waterfall and implementing the recommendations described below. By doing so, lenders and servicers will have a persuasive incentive to ensure that more families suffering from sustained financial hardship due to the COVID-19 pandemic are able to keep their homes and avoid foreclosure.

Recommendations to Optimize GSE Mortgage Modifications

The GSEs should consider three enhancements to their modification program (the Flex Mod):

- Removing the 80 percent LTV threshold from the waterfall, thereby offering the same waterfall to all borrowers regardless of LTV;
- Re-ordering the Flex Mod waterfall to match the optimized waterfall; and
- Increasing the payment reduction target to 25 percent of principal and interest (P&I).

As currently structured, the Flex Mod waterfall only provides term extension to homeowners with an LTV below 80 percent, thereby limiting the amount of payment reduction that can be delivered. As a result, roughly 75 percent of the homeowners in forbearance with a GSE-backed mortgage may not receive enough payment reduction from the Flex Mod to stay in their home.[10]

The LTV-driven difference in payment reduction offered by the GSE Flex Mod for the average GSE-backed mortgage in forbearance is shown in Table 2.[11] If the LTV is below 80 percent, the Flex Mod reduces the monthly P&I payment by 16 percent, which would lead to a 23 percent reduction in default rates (column 1).[12] However, if the same mortgage has an LTV above 80 percent, the Flex Mod reduces monthly P&I by 32 percent and default rates by 46 percent (column 2). As structured today, the Flex Mod unfairly penalizes homeowners who cannot afford their monthly payments due to the COVID-19 pandemic and have LTVs below 80 percent either because they happen to live in areas that have experienced higher levels of home price appreciation or have paid down their mortgage. Homeowners in this situation who face foreclosure would lose the equity and wealth they have built at precisely the time when that equity and wealth is appreciating the most.

Table 2. The GSE Flex Mod offers limited payment reduction for homeowners with an LTV below 80 percent and is more costly to the lender than the optimized waterfall.

Post-Modification:	GSE Flex Mod (LTV < 80%)	GSE Flex Mod (LTV >= 80%)	Optimized Waterfall
Term (months)	480	480	480
Principal Forbearance	0	0	41,018
Final Unpaid Principal Balance	215,499	215,499	174,481
Interest Rate	4.24%	2.88%	4.24%
Monthly Payment (Principal & Interest)	934	756	756
Payment Reduction	-16%	-32%	-32%
Expected 5-Year Default Reduction	23%	46%	46%
Risk-Adjusted Lender Impact	21,807	734	10,220

Source: Author's calculations.

Moreover, the GSEs can reduce the cost of each modification by reordering the steps in the Flex Mod to match the optimized waterfall: maturity extension first, followed by principal forbearance and then interest rate reduction. The results of optimizing the Flex Mod waterfall are shown in the last column of Table 2: the GSEs could offer the same 32 percent payment reduction to the average homeowner with a GSE-backed mortgage in forbearance at a $9,500 cost improvement to the lender.[13] Alternatively, the GSEs could use the efficiency created by the optimized waterfall to offer homeowners in need deeper payment reductions at the same $734 cost to the lender.

Forbearance and delinquency statistics suggest that 750,000 homeowners with a GSE-backed mortgage will need modifications, of which about 75 percent have an LTV below 80 percent. Based on Table 2, the weighted average lender impact of a Flex Mod for the 750,000 homeowners would be a gain of $16,500. If the Flex Mod were optimized and adjusted to offer the same amount of payment reduction regardless of LTV, the average impact on the lender would be a gain of $10,220, a reduction of $6,300 per modification. While providing consistent payment reductions to homeowners with a GSE-backed mortgage with any LTV may lead to smaller projected gain to the lender, the savings to society from the reduction in foreclosures would partially offset the $6,300 difference. Avoiding the negative after-effects suffered by foreclosed-upon homeowners and their neighbors are also an important consideration.

Finally, the GSEs should consider increasing their P&I reduction target to 25 percent. The total monthly outlay for most borrowers includes not only P&I but also taxes and insurance (T&I). For the average GSE-backed mortgage in forbearance the T&I amount to $440 per month, which means a 20 percent P&I reduction equates to just a 14 percent reduction in total monthly payment.[14] Increasing the P&I reduction target to 25 percent would make the GSE Flex Mod target closer to the FHA target, which is described below.

Recommendations to Optimize FHA Mortgage Modifications

The FHA should consider three adjustments to their COVID-19 Home Retention Options:

- Increasing the maximum final maturity permitted from 360 to 480 months;
- Re-ordering the waterfalls to match the optimized waterfall; and
- Widening the acceptable post-modification payment-to-income (PTI) ratio for FHA-HAMP to be between 10 percent and 55 percent.

To increase the payment reduction offered to borrowers and align their modifications with the GSE Flex Mod, the FHA should offer maturity extensions to 40 years. Maturity extension is the most cost-effective method of reducing a homeowner's monthly payments. When facing financial distress, the first-time homebuyers, minorities, and low-to-moderate income households served by the FHA should have access to the same affordability tools made available to borrowers guaranteed by the GSEs. The FHA can also reduce the cost of their modifications by reordering their waterfalls to match the optimized waterfall: maturity extension, followed by principal forbearance, and then interest rate reduction.

The FHA should also consider increasing the availability of FHA-HAMP to lower income homeowners and homeowners who have experienced deeper income losses. Many borrowers at the lower end of the income spectrum or who sustained deep income losses will fail to qualify for a modification because

FHA-HAMP requires their post-modification PTI be less than or equal to 40 percent. Paradoxically, the 40 percent PTI threshold will prevent the borrowers closest to financial fragility from receiving an FHA-HAMP modification. Instead, they will likely lose their home. By raising the PTI threshold to 55 percent, FHA could expand the availability of FHA-HAMP to those homeowners most in need.

The FHA-HAMP modification combines an affordability target (31 percent of gross monthly income) with a total payment (which includes P&I, T&I, and the FHA Mortgage Insurance Premium) reduction target of 20 percent. However, the post-modification PTI cannot be taken below 25 percent. Borrowers with an FHA-backed mortgage who are experiencing a large increase in expenses and have a pre-modification total monthly payment just above the 25 percent PTI limit will receive a modest payment reduction that may not make their mortgage affordable. To avoid this situation, FHA could remove or reduce the 25 percent PTI limit to 10 percent. The impact of the suggested FHA modification program adjustments on homeowners and lenders is shown in the next section.

Recommendations to Optimize VA Mortgage Modifications

The VA should consider four enhancements to their modification waterfalls:

- Removing the ten year limit on term extension and increasing the maximum final maturity permissible from 360 to 480 months;
- Reordering the waterfalls to match the optimized waterfall;
- Reimbursing mortgage servicers for forborne principal amounts; and
- Combining the existing affordability target (modified total monthly payment equal to 31 percent of monthly gross income) with a total monthly payment reduction target of 20 percent.

As is the case with FHA, the VA could increase the payment reduction offered to borrowers and align their modifications with the GSE Flex Mod by offering maturity extensions to 40 years. Veteran borrowers facing financial difficulty due to the COVID-19 pandemic should have access to the same affordability tools made available to borrowers guaranteed by the GSEs. The VA can also reduce the cost of their modifications by optimizing their waterfall order: maturity extension, followed by principal forbearance, and then interest rate reduction.

Mortgage servicer's use of principal forbearance would increase with VA reimbursement. As it stands today, the restriction on forbearance reimbursement limits both the amount of payment reduction delivered and the number of veterans that can be assisted by VA modifications, and puts veteran borrowers facing hardship at a distinct disadvantage relative to GSE and FHA borrowers.[15]

VA borrowers with a total monthly payment already close to 31 percent of their income will receive a relatively modest payment reduction from a VA modification. VA can avoid this outcome by adjusting their target to be a total monthly payment that is 31 percent of monthly gross income or 80 percent of the pre-modification total monthly payment, whichever is smaller.

For the average FHA- and VA-backed mortgage in forbearance, the impact of making the suggested adjustments is shown in Table 3.[16] The FHA and VA can match the payment reduction offered by their current modification programs —23 percent of total monthly outlays and 40 percent of P&I respectively,

assuming the VA reimbursed mortgage servicers for principal forbearance—at a roughly $15,000 cost improvement to the lender.[17]

Table 3. The FHA-HAMP and VA waterfalls are more costly to the lender than the optimized waterfall.

Post-Modification:	FHA-HAMP	Optimized Waterfall	VAAM	Optimized Waterfall
Partial Claim (Arrearages)	0	N/A	N/A	N/A
Unpaid Principal Balance (including Arrearages)	190,748	190,748	177,884	177,884
Interest Rate	3.00%	4.26%	2.84%	3.93%
Term (months)	360	480	360	480
Partial Claim / Principal Forbearance	51,865	55,844	45,689	45,780
Final Unpaid Principal Balanace	138,883	134,904	132,196	132,104
Monthly Payment*	1,089	1,089	546	546
Payment Reduction*	-23%	-23%	-40%	-40%
Expected Default Reduction	50%	50%	55%	55%
Risk-Adjusted Lender Impact	-10,747	5,014	-15,376	-1,442

*Payment and payment reduction for the FHA example is in terms of total monthly payment; the VA example is in terms of monthly P&I.
Source: Author's calculations.

Based on forbearance and delinquency statistics, about 965,000 FHA and VA borrowers will need a mortgage modification. Accordingly, the aggregate cost savings to lenders from the proposed optimization of the FHA and VA modification waterfalls could be nearly $14.5 billion. These savings could be used to deepen the payment reduction and broaden the availability of mortgage modifications for homeowners with an FHA- or VA-backed mortgage, allowing more homeowners facing COVID-19-related financial difficulty to remain in their home.

Conclusion

Acting to implement the proposed changes to the GSE, FHA, and VA modification programs may require overcoming implementation challenges. However, doing so would help ensure that homeowners facing a sustained period of financial distress due to the COVID-19 emergency can be offered modifications that provide substantial and immediate payment reduction while minimizing creditor losses. Minimizing the lender cost for these programs, while simultaneously expanding the amount and availability of relief to consumers, will achieve the intended goal of keeping more COVID-19-impacted consumers in their homes while avoiding the high societal cost and substantial negative after-effects of foreclosures.

Endnotes

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[1] Source: Black Knight, Inc.
[2] This estimate is composed of the 2.15 million seriously delinquent homeowners as of the end of 2020, combined with 20 percent of the 1.1 million 30 or 60 days delinquent homeowners at the end of 2020, and assumes these 2.4 million homeowners will continue to face financial hardship and will be unable to afford their original monthly mortgage payment going forward.
[3] The break down by loan type assumes the distribution of delinquent mortgages outside of forbearance follows the distribution of mortgages in forbearance as sourced from Black Knight, Inc.
[4] Section 4022 of the Coronavirus Aid, Relief, and Economic Security Act, Pub.L. 116–136 (March 27, 2020), mandates that lenders allow homeowners with a federally backed mortgage to pause their payments for up to twelve months without penalty, sourced from https://www.congress.gov/116/bills/hr748/BILLS-116hr748enr.pdf.
[5] Sources: FHFA Extends COVID-19 Forbearance Period and Foreclosure and REO Eviction Moratoriums | Federal Housing Finance Agency and HUD Announces Extensions and Expansions of COVID-19 Homeowner Relief and Home Retention Measures | HUD.gov / U.S. Department of Housing and Urban Development (HUD) and VA Extends Relief for Borrowers Affected by COVID-19 - VFW.
[6] Source: Black Knight, Inc. Note that there is not perfect overlap between borrowers in forbearance and delinquent borrowers. For example, borrowers who request forbearance can continue to make on-time monthly payments. According to Black Knight, Inc., at the end of 2020, about 12 percent of borrowers in forbearance were still current on their mortgage. Similarly, not every borrower who is delinquent on their mortgage has requested forbearance.
[7] The cost to society from the average foreclosure is estimated to be between \$51,000 and \$70,000 and is borne by the lender, the homeowner, the surrounding neighbors, and the local government. Sources: United States Department of Housing and Urban Development. 2010. “Economic Impact Analysis of the FHA Refinance Program for Borrowers in Negative Equity Positions.” *United States Department of Housing and Urban Development* and U.S. Congress Joint Economic Committee. 2007. “Report of the Joint Economic Committee Congress of the United States on the 2007 Economic Report of the Present Together With Minority Views.” *U.S. Government Printing Office*. Foreclosed-upon homeowners suffer from negative financial, physical, and mental health consequences such as increased occurrence of delinquency on other debts, divorce, heart attacks, strokes, depression, anxiety, alcohol use, and suicide. Sources: Diamond, Rebecca, Adam Guren, and Rose Tan. 2020. “The Effects of Foreclosures on Homeowners, Tenants, and Landlords.” *Working Paper*, Currie, Janet, and Erdal Tekin. 2015. "Is There a Link between Foreclosure and Health?" *American Economic Journal: Economic Policy*, 7 (1): 63-94, and Tsai, Alexander C. 2015. “Home Foreclosure, Health, and Mental Health: A Systematic Review of Individual, Aggregate, and Contextual Associations.” *PLoS ONE* 10(4): e0123182. https://doi.org/10.1371/journal.pone.0123182. One foreclosure leads to an additional 0.5 foreclosures in the neighboring area and reduces the value of neighboring properties by about \$14,500. Sources: Gupta, Arpit. 2019. “Foreclosure Contagion and the Neighborhood Spillover Effects of Mortgage Defaults.” *Journal of Finance 74*, 2249–2301 and United States Department of Housing and Urban Development. 2010. “Economic Impact Analysis of the FHA Refinance Program for Borrowers in Negative Equity Positions.” *United States Department of Housing and Urban Development*.
[8] Source: Ganong, Peter, and Pascal Noel. 2020. "Liquidity versus Wealth in Household Debt Obligations: Evidence from Housing Policy in the Great Recession." *American Economic Review*, 110 (10): 3100-3138. Throughout this paper, default is defined as missing 3 mortgage payments.
[9] For a complete description of the GSEs, FHA, and VA modification programs see F-1-28: Processing a Fannie Mae Flex Modification (05/15/2019), https://guide.freddiemac.com/app/guide/section/9206.10, https://www.hud.gov/sites/dfiles/OCHCO/documents/20-22hsgml.pdf, https://www.hud.gov/sites/dfiles/OCHCO/documents/4000.1hsgh_Update9.pdf, https://www.benefits.va.gov/HOMELOANS/documents/circulars/26_20_12.pdf, https://www.benefits.va.gov/WARMS/M26_4.asp, and https://www.govinfo.gov/content/pkg/CFR-2011-title38-vol2/pdf/CFR-2011-title38-vol2-sec36-4315.pdf.
[10] Source: Black Knight, Inc.

[11] The average GSE-backed mortgage in forbearance has a fixed rate of 4.24%, an unpaid principal balance of $210,101, a monthly principal and interest payment of $1,115, and 311 months remaining to maturity. The interest rate and remaining months to maturity are imputed from the terms of the mortgages in forbearance published by Black Knight Inc.

[12] This analysis assumes the homeowner has forborne 12 payments under the CARES Act, chose the payment deferral option (i.e. balloon payment at payoff or maturity), and then missed another 3 mortgage payments after forbearance ended to become 90 days delinquent.

[13] In this case, the GSEs are the "lender", because for GSE-backed mortgages, the GSEs purchase delinquent loans out of mortgage-backed securities and modify them. Therefore the GSEs absorb the financial impact of mortgage modifications. Net present value (NPV) models can produce different results depending on what assumptions are made and what inputs are used. However, the change in NPV created by each modification step is less likely to be different across NPV models, regardless of the assumptions or inputs.

[14] Source: Black Knight, Inc.

[15] Alternatively, the VA could increase the use of the Loan Refund option, whereby the VA purchases and services the loan directly, to provide borrowers with deeper payment reduction through principal forbearance.

[16] The average Government-backed mortgage in forbearance has a fixed rate of 4.26%, an unpaid principal balance of $172,884, a monthly principal and interest payment of $903, and 321 months remaining to maturity. The interest rate and remaining months to maturity are imputed from the terms of the mortgages in forbearance published by Black Knight Inc.

[17] In this case, the mortgage servicer is the "lender" for FHA-insured and VA-guaranteed mortgages, as mortgage servicers purchase delinquent FHA and VA loans out of Ginnie Mae mortgage-backed securities and modifies them. Therefore mortgage servicers would absorb the financial impact of mortgage modifications. This analysis assumes the homeowner has forborne 12 payments under the CARES Act, chose the payment deferral option, and then missed another 3 mortgage payments after forbearance ended to become 90 days delinquent.