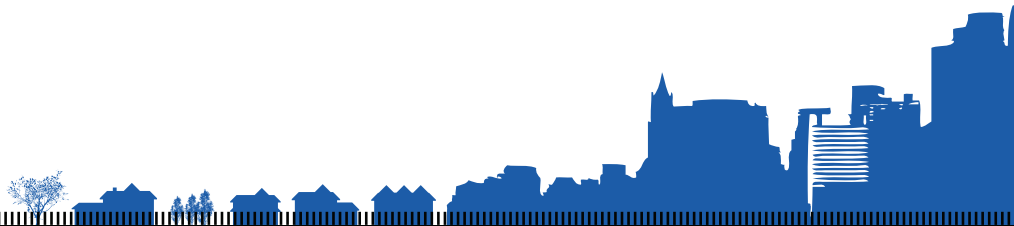


Analysis and Evaluation of Loss Mitigation Efforts



PD&R



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Analysis and Evaluation of Loss Mitigation Efforts

Prepared for
U.S. Department of Housing and Urban Development

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Executive Summary

The Federal Housing Administration's (FHA) Loss Mitigation Program was originally established in 1996 as a replacement to the U.S. Department of Housing and Urban Development's (HUD) assignment program. The objectives were to ensure that distressed FHA borrowers were afforded opportunities to retain their homes and to assist in minimizing loss to the Mutual Mortgage Insurance (MMI) Fund. In 2000, Congress authorized additional loss mitigation tools and enabled FHA to adopt a comprehensive loss mitigation program to help borrowers either retain their homes or dispose of their property in ways that mitigated the costs of foreclosure for both the borrower and the MMI Fund. FHA offered servicers incentive payments for completing each of these loss mitigation options and imposed financial penalties on those that failed to adhere to FHA's loss mitigation guidelines.

FHA classifies its loss mitigation options into two categories: "home retention options" and "home disposition options." Home retention options are designed to offer effective ways to keep struggling borrowers in their homes through forbearance plans and loan modifications. This report evaluates the following home retention options: FHA Forbearance, FHA Loan Modification, FHA Partial Claim, and the FHA Home Affordable Modification Plan.

The general takeaway from this study is that the FHA Loss Mitigation program is a strong and valuable program that has successfully helped thousands of borrowers avoid foreclosure and stay in their homes. However, the authors also found that the FHA Loss Mitigation program can be improved, and this study makes the following recommendations:

- The FHA loan modification programs have been very successful in helping borrowers avoid foreclosure. The performance of borrowers who received modifications is dramatically better than those who did not. To increase takeup, the FHA may want to consider implementing a streamlined modification program in which borrowers do not submit documentation.
- FHA's loss mitigation procedures contribute to lender credit overlays. Many servicers find the FHA foreclosure processes to be cumbersome. This report recommends allowing for flexible timelines by having one timeline for the entire process instead of separate timelines for each step.

Evaluation of FHA's Retention Programs

Introduction

When a Federal Housing Administration (FHA)-insured mortgage goes into default, FHA requires its mortgage servicers to assess borrowers in accordance with FHA's loss mitigation options in an effort to keep borrowers in their homes to minimize adverse financial impact on FHA's Mutual Mortgage Insurance (MMI) Fund. Stated differently, the goal of FHA's retention loss mitigation options is to avoid foreclosure by finding an economically efficient way of keeping borrowers in their homes.

This section uses FHA loan level data to analyze the following retention plans.

Forbearance Plans

Mortgage forbearance is an agreement between a lender and borrower that allows the borrower to make reduced or no mortgage payments for a temporary period of time in exchange for modified terms for repayment later. This option is typically used to assist borrowers who might be experiencing temporary financial troubles by giving them time to sort things out. FHA's forbearance plans offer wide flexibility in terms of their duration; for example, some plans last up to 3 months, whereas others can last up to 6 months or even longer depending on borrower circumstances. In addition to offering general purpose forbearance programs, FHA also uses special forbearances to meet the unique needs of service members or those facing financial hardship because of unemployment.

FHA Loan Modification

A loan modification is a permanent change to the terms and conditions of a mortgage, designed to incentivize struggling borrowers to resume monthly payments on delinquent mortgages. Under the FHA Loan Modification Program, servicers of FHA mortgages have several options at their disposal. These options can include one or more items, such as changing the mortgage interest rate, term extension, capitalization of delinquent principal, and reduction of interest or escrow expenses. A key aspect of FHA's loan modification is that servicers must ensure that borrowers have the financial capacity to pay the post-modification monthly payments and can avoid redefault.

FHA Partial Claims

FHA servicers often can increase the likelihood of a successful modification by offering a Partial Claim to defaulted borrowers. A Partial Claim is a type of loan modification under which FHA servicers are able to reinstate a mortgage by paying delinquent property taxes, legal expenses, and other arrearages on behalf of the borrower and then file a claim with FHA to recover those funds. A Partial Claim also requires the borrower to execute an interest-free subordinate mortgage, payable to HUD, in the amount of the advance, generally due at the time of the first mortgage payoff or upon sale of the house.

FHA-Home Affordable Modification Program (FHA-HAMP) and Partial Claims

In addition to the FHA Loan Modification Program, FHA offers a modification program through the U.S. Department of Treasury's FHA-HAMP. The FHA-HAMP modification was introduced in 2009 through Mortgagee Letter 2009-23. The key feature of FHA-HAMP is that it allows borrowers who are not presently in default—but are in real danger of defaulting—to also apply

for a loan modification. FHA servicers have the flexibility to offer a standalone loan modification, a standalone Partial Claim, or a combination of the two, depending on borrower circumstances.

A loan modification is a permanent change to one or more terms of the promissory note that will cure the arrears and result in a reduced monthly payment for the borrower. FHA's loss mitigation waterfall offers two types of loan modification options: FHA Loan Modification and FHA-HAMP Modification.

Overall, the FHA Loss Mitigation program is a highly valuable program that successfully assists hundreds of thousands of borrowers to avoid foreclosure and stay in their homes. The array of loss mitigation tools and options addressing different borrower circumstances also has substantially lowered costs to the MMI Fund.

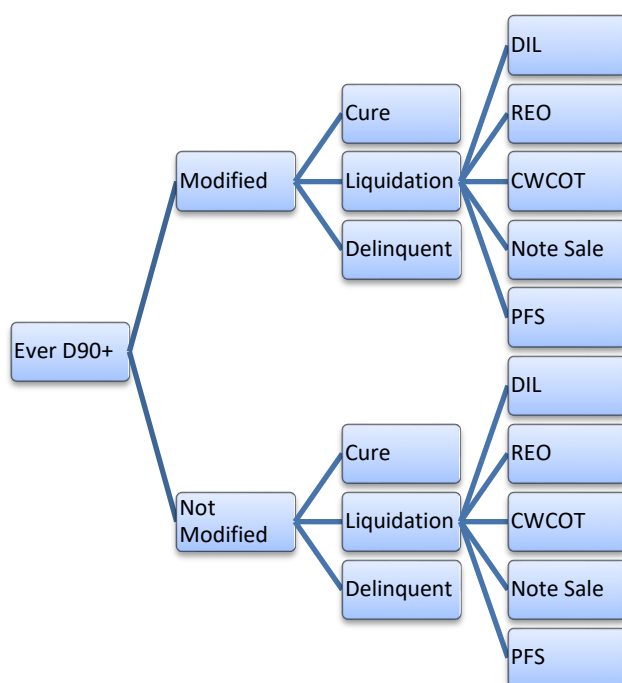
Data and Methodology

The Single Family Housing Enterprise Data Warehouse from FHA is a large collection of database tables organized to support different quantitative analyses. This study's sample period is from 1997 to 2016. We identified all the loans that were 3 months or more delinquent for the first time (ever D90+) by using the `sfdw_default_history` table and "dflt_mm_cyc_dt" data field. We also identified modified loans from the `loss_mitigation` table.

The variables `idb_1` and `sfdw_default_current_detail` reveal the origination information and identify the most recent loan status. This process identified 3,506,095 loans 90 or more days delinquent for the first time, of which 1,093,001 loans were modified at least once, and 2,413,904 loans were not modified.

Exhibit 1 shows a loan status transition framework. First, for all loans that were in 90-day delinquency status during the sample period, a modification flag was assigned to a loan if it had been modified at least once. Then, we analyzed the terminal state of these loans: cure, liquidation, or remain delinquent.

Exhibit 1. Loan Status Transitions



CWCOT = Claim Without Conveyance of Title. Ever D90+ = 3 months delinquent for first time. DIL = deed-in-lieu. PFS = preforeclosure sales. REO = real estate owned.

Loans can transition from 90 or more days delinquent to cure status with or without a modification. Loans that cure without a modification were self-cures. This analysis considers a loan to be in a cure status in three terminal states: current, D30, or prepayment. *Current* indicates that the loan is current with no late payment as the most recent status. *D30* indicates that the borrower missed a payment, and *prepayment* indicates that the borrower fully prepaid the loan.

Defaulted loans can also transition to termination status, with or without a modification. We considered five different paths associated with termination status: preforeclosure sales (PFS), deed-in-lieu (DIU), note sale, real estate owned (REO) sale, and claim without conveyance of title (CWCOT). The appendix has a detailed description of each termination outcome.

All loans that were 90 or more days delinquent but were not cured or terminated have a “delinquent” status. By definition, these loans were 60 or more days delinquent.

FHA Loss Mitigation Landscape

We first looked at the overall landscape to determine how many seriously delinquent loans were cured, how they were cured, and how many of these loans were liquidated.

Exhibit 2, panels A and B, show the results for FHA loans that were delinquent for 90 or more days. Panel A shows the levels, and panel B shows the same numbers in percentage terms. Looking at loans that originated in 1997 and after, approximately 3.5 million FHA loans were 90 or more days delinquent. The biggest blocks of loans 90 or more days delinquent were concentrated in the 2008 and 2009 origination years, and each of these two vintages contains more than 400,000 loans that were more than 90 days delinquent.

Exhibit 2 Panel A. Loan Counts by Current Status and Vintage Year

Origination Year	Current or 30 Days Delinquent	Prepaid	Delinquent	PFS	DIL	REO	CWCOT	Note Sale	All
1997	41,334	21,803	8,645	2,727	7	58,299	3,517	1,275	137,607
1998	55,047	34,506	13,068	3,144	12	63,772	5,790	2,107	177,446
1999	71,387	41,046	17,094	4,403	22	77,009	6,334	2,893	220,188
2000	46,021	26,891	11,665	4,231	21	64,861	3,466	2,264	159,420
2001	61,346	29,825	15,211	5,950	22	74,344	4,596	3,323	194,617
2002	64,370	24,021	18,447	7,325	37	75,011	4,984	4,126	198,321
2003	94,885	22,745	27,906	12,377	67	94,387	7,868	9,573	269,808
2004	71,511	12,295	24,065	10,486	82	80,306	5,972	5,730	210,447
2005	54,806	6,209	20,645	10,321	122	68,507	5,072	4,214	169,896
2006	46,994	3,565	20,496	12,424	145	67,761	4,324	5,488	161,197
2007	56,744	3,361	28,482	16,248	263	75,980	6,013	11,193	198,284
2008	143,153	8,642	68,416	44,907	260	130,070	16,064	30,887	442,399
2009	162,389	13,863	75,413	41,255	276	79,982	15,639	26,230	415,047
2010	97,821	10,692	50,959	16,987	130	28,298	8,533	11,515	224,935
2011	51,709	7,433	31,451	5,403	57	9,223	3,515	3,623	112,414
2012	41,903	5,877	31,203	3,768	50	5,412	2,383	1,625	92,221
2013	28,568	3,206	28,552	2,044	67	2,427	1,197	848	66,909
2014	13,426	1,004	20,276	499	22	401	312	119	36,059
2015	8,319	200	9,602	88	4	14	9	0	18,236
2016	562	0	81	0	1	0	0	0	644
All	1,212,295	277,184	521,677	204,587	1,667	1,056,064	105,588	127,033	3,506,095

Exhibit 2 Panel B. Percentage of Loan Counts by Current Status and Vintage Year

Year	Current or 30 Days Delinquent	Prepaid	Delinquent	PFS	DIL	REO	CWCOT	Note Sale	All
1997	30%	16%	6%	2%	0%	42%	3%	1%	100%
1998	31%	19%	7%	2%	0%	36%	3%	1%	100%
1999	32%	19%	8%	2%	0%	35%	3%	1%	100%
2000	29%	17%	7%	3%	0%	41%	2%	1%	100%
2001	32%	15%	8%	3%	0%	38%	2%	2%	100%
2002	32%	12%	9%	4%	0%	38%	3%	2%	100%
2003	35%	8%	10%	5%	0%	35%	3%	4%	100%
2004	34%	6%	11%	5%	0%	38%	3%	3%	100%
2005	32%	4%	12%	6%	0%	40%	3%	2%	100%
2006	29%	2%	13%	8%	0%	42%	3%	3%	100%
2007	29%	2%	14%	8%	0%	38%	3%	6%	100%
2008	32%	2%	15%	10%	0%	29%	4%	7%	100%
2009	39%	3%	18%	10%	0%	19%	4%	6%	100%
2010	43%	5%	23%	8%	0%	13%	4%	5%	100%
2011	46%	7%	28%	5%	0%	8%	3%	3%	100%
2012	45%	6%	34%	4%	0%	6%	3%	2%	100%
2013	43%	5%	43%	3%	0%	4%	2%	1%	100%
2014	37%	3%	56%	1%	0%	1%	1%	0%	100%
2015	46%	1%	53%	0%	0%	0%	0%	0%	100%
2016	87%	0%	13%	0%	0%	0%	0%	0%	100%
All	35%	8%	15%	6%	0%	30%	3%	4%	100%

Approximately 35 percent of the loans were current or 30 days delinquent, and 8 percent had been prepaid. Another 15 percent of the loans remained delinquent. Approximately 42 percent of the loans had been liquidated. The largest chunk, 30 percent, of these loans had transitioned to REO status, another 6 percent had gone through PFS, 4 percent had experienced a note sale, and approximately 3 percent had a CWCOT or deed in lieu (DIL).

Panel A of exhibit 2 also shows that these numbers vary over time. For production between 2006 and 2007, surprisingly not the worst performing vintages, 29 percent of the loans were current or had a missed payment, only approximately 2 percent of the loans had been prepaid, and 13 to 15 percent were delinquent. The balance, approximately 53 percent, had been liquidated, with more than 35 percent in REO status.

Of these 3.5 million loans, 1.09 million had been modified or received forbearance. The outcomes of these “treated” loans were clearly significantly better than those that did not receive any sort of modification or forbearance. Of the 1.09 million loans that were treated, either through modifications or forbearance, the results are much better than the nontreated group of 2.4 million loans. Exhibit 3 summarizes the results during the entire period of 1997 to 2016.

Exhibit 3. FHA Landscape: Current Status of Loans 90 or More Days Delinquent (in Percent)

Loans	Current or Missed Payment	Prepaid	Delinquent	Liquidated
All	34.6	7.9	14.9	42.6
Treated	56.4	3.5	17.1	23.0
Not Treated	24.7	10.0	13.9	51.4

Exhibit 4 panel A shows the number of loans by outcomes and origination year for borrowers who did not receive loan modifications or forbearance plans, and exhibit 4 panel B shows the outcomes in percentage terms. Exhibit 5 panel A shows the number of loans by outcomes and origination year for borrowers who received loan modifications or forbearance plans, and exhibit 5 panel B shows the same results in percentage terms.

Exhibit 4 Panel A. Loan Counts by Current Status and Vintage Year (for Loans Without Modification)

Origination Year	Current or 30 Days Delinquent	Prepaid	Delinquent	PFS	DIL	REO	CWCOT	Note Sale	All
1997	30,233	19,898	6,225	2,504	4	53,850	3,076	991	116,781
1998	38,664	31,086	8,864	2,782	9	56,790	4,939	1,618	144,752
1999	48,844	36,411	11,027	3,726	16	65,791	5,300	2,350	173,465
2000	29,772	23,075	7,025	3,353	13	53,192	2,715	1,759	120,904
2001	36,142	24,980	8,539	4,547	15	59,385	3,390	2,739	139,737
2002	33,962	19,554	10,040	5,745	27	58,733	3,504	3,493	135,058
2003	45,414	18,671	15,319	9,883	49	73,579	5,590	8,094	176,599
2004	31,528	10,157	12,522	8,272	61	61,350	3,905	4,337	132,132
2005	22,692	5,153	10,738	8,259	94	52,883	3,316	2,750	105,885
2006	17,737	2,886	10,222	10,116	106	53,697	2,804	3,698	101,266
2007	20,070	2,753	14,337	13,050	185	62,322	3,936	7,765	124,418
2008	49,037	7,106	36,985	37,667	197	112,748	11,830	23,496	279,066
2009	65,391	11,762	48,593	37,472	229	73,564	13,442	22,585	273,038
2010	42,045	9,348	35,372	16,096	118	26,796	7,757	10,565	148,097
2011	24,598	6,616	22,810	5,170	52	8,906	3,282	3,392	74,826
2012	22,674	5,441	24,467	3,666	49	5,318	2,282	1,574	65,471
2013	17,495	3,096	24,350	2,004	66	2,409	1,186	836	51,442
2014	10,926	994	18,337	496	22	397	309	118	31,599
2015	8,279	200	9,321	88	4	14	9	0	17,915
2016	561	0	81	0	1	0	0	0	643
All	596,064	239,187	335,174	174,896	1,317	881,724	82,572	102,160	2,413,094

Exhibit 4 Panel B. Percentage of Loan Counts by Current Status and Vintage Year (for Loans Without Modification)

Year	Current or 30 Days Delinquent	Prepaid	Delinquent	PFS	DIL	REO	CWCOT	Note Sale	All
1997	26%	17%	5%	2%	0%	46%	3%	1%	100%
1998	27%	21%	6%	2%	0%	39%	3%	1%	100%
1999	28%	21%	6%	2%	0%	38%	3%	1%	100%
2000	25%	19%	6%	3%	0%	44%	2%	1%	100%
2001	26%	18%	6%	3%	0%	42%	2%	2%	100%
2002	25%	14%	7%	4%	0%	43%	3%	3%	100%
2003	26%	11%	9%	6%	0%	42%	3%	5%	100%
2004	24%	8%	9%	6%	0%	46%	3%	3%	100%
2005	21%	5%	10%	8%	0%	50%	3%	3%	100%
2006	18%	3%	10%	10%	0%	53%	3%	4%	100%
2007	16%	2%	12%	10%	0%	50%	3%	6%	100%
2008	18%	3%	13%	13%	0%	40%	4%	8%	100%
2009	24%	4%	18%	14%	0%	27%	5%	8%	100%
2010	28%	6%	24%	11%	0%	18%	5%	7%	100%
2011	33%	9%	30%	7%	0%	12%	4%	5%	100%
2012	35%	8%	37%	6%	0%	8%	3%	2%	100%
2013	34%	6%	47%	4%	0%	5%	2%	2%	100%
2014	35%	3%	58%	2%	0%	1%	1%	0%	100%
2015	46%	1%	52%	0%	0%	0%	0%	0%	100%
2016	87%	0%	13%	0%	0%	0%	0%	0%	100%
All	25%	10%	14%	7%	0%	37%	3%	4%	100%

Exhibit 5 Panel A. Loan Counts by Current Status and Vintage Year (for Loans With Modification)

Origination Year	Current or 30 Days Delinquent	Prepaid	Delinquent	PFS	DIL	REO	CWCOT	Note Sale	All
1997	11,101	1,905	2,420	223	3	4,449	441	284	20,826
1998	16,383	3,420	4,204	362	3	6,982	851	489	32,694
1999	22,543	4,635	6,067	677	6	11,218	1,034	543	46,723
2000	16,249	3,816	4,640	878	8	11,669	751	505	38,516
2001	25,204	4,845	6,672	1403	7	14,959	1,206	584	54,880
2002	30,408	4,467	8,407	1580	10	16,278	1,480	633	63,263
2003	49,471	4,074	12,587	2494	18	20,808	2,278	1,479	93,209
2004	39,983	2,138	11,543	2214	21	18,956	2,067	1,393	78,315
2005	32,114	1,056	9,907	2062	28	15,624	1,756	1,464	64,011
2006	29,257	679	10,274	2,308	39	14,064	1,520	1,790	59,931
2007	36,674	608	14,145	3,198	78	13,658	2,077	3,428	73,866
2008	94,116	1,536	31,431	7,240	63	17,322	4,234	7,391	163,333
2009	96,998	2,101	26,820	3,783	47	6,418	2,197	3,645	142,009
2010	55,776	1,344	15,587	891	12	1,502	776	950	76,838
2011	27,111	817	8,641	233	5	317	233	231	37,588
2012	19,229	436	6,736	102	1	94	101	51	26,750
2013	11,073	110	4,202	40	1	18	11	12	15,467
2014	2,500	10	1,939	3	0	4	3	1	4,460
2015	40	0	281	0	0	0	0	0	321
2016	1	0	0	0	0	0	0	0	1
All	616,231	37,997	186,503	29,691	350	174,340	23,016	24,873	1,093,001

Exhibit 5 Panel B. Percent of Loan Counts by Current Status and Vintage Year (for Loans With Modification)

Year	Current or 30 Days Delinquent	Prepaid	Delinquent	PFS	DIL	REO	CWCOT	Note Sale	All
1997	53.3%	9.1%	11.6%	1.1%	0.0%	21.4%	2.1%	1.4%	100%
1998	50.1%	10.5%	12.9%	1.1%	0.0%	21.4%	2.6%	1.5%	100%
1999	48.2%	9.9%	13.0%	1.4%	0.0%	24.0%	2.2%	1.2%	100%
2000	42.2%	9.9%	12.0%	2.3%	0.0%	30.3%	1.9%	1.3%	100%
2001	45.9%	8.8%	12.2%	2.6%	0.0%	27.3%	2.2%	1.1%	100%
2002	48.1%	7.1%	13.3%	2.5%	0.0%	25.7%	2.3%	1.0%	100%
2003	53.1%	4.4%	13.5%	2.7%	0.0%	22.3%	2.4%	1.6%	100%
2004	51.1%	2.7%	14.7%	2.8%	0.0%	24.2%	2.6%	1.8%	100%
2005	50.2%	1.6%	15.5%	3.2%	0.0%	24.4%	2.7%	2.3%	100%
2006	48.8%	1.1%	17.1%	3.9%	0.1%	23.5%	2.5%	3.0%	100%
2007	49.6%	0.8%	19.1%	4.3%	0.1%	18.5%	2.8%	4.6%	100%
2008	57.6%	0.9%	19.2%	4.4%	0.0%	10.6%	2.6%	4.5%	100%
2009	68.3%	1.5%	18.9%	2.7%	0.0%	4.5%	1.5%	2.6%	100%
2010	72.6%	1.7%	20.3%	1.2%	0.0%	2.0%	1.0%	1.2%	100%
2011	72.1%	2.2%	23.0%	0.6%	0.0%	0.8%	0.6%	0.6%	100%
2012	71.9%	1.6%	25.2%	0.4%	0.0%	0.4%	0.4%	0.2%	100%
2013	71.6%	0.7%	27.2%	0.3%	0.0%	0.1%	0.1%	0.1%	100%
2014	56.1%	0.2%	43.5%	0.1%	0.0%	0.1%	0.1%	0.0%	100%
2015	12.5%	0.0%	87.5%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
2016	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100%
All	56.4%	3.5%	17.1%	2.7%	0.0%	16.0%	2.1%	2.3%	100%

When comparing the results in exhibits 4 and 5, it is clear that loss mitigation sharply increases the number of current or D30 loans and reduces the number of liquidations. Of the loans that received loss mitigation treatment (that is, the treated loans), 54.6 percent were current or 30 days delinquent compared with 24.7 percent of the group that had not been treated. The percentage of liquidated loans was 23 percent for the treated group versus 51.4 percent for the group without treatment. The percentage of persistently delinquent loans was very similar between the two groups. Although the number of prepaid loans was higher for nontreated loans, these loans were highly concentrated in the early vintages before the loss mitigation plans became commonplace. In a world of rising home prices, such as the conditions that prevailed in the late 1990s and early 2000s, if a borrower became delinquent, they were often able to sell their home and repay the mortgage at no loss to FHA.

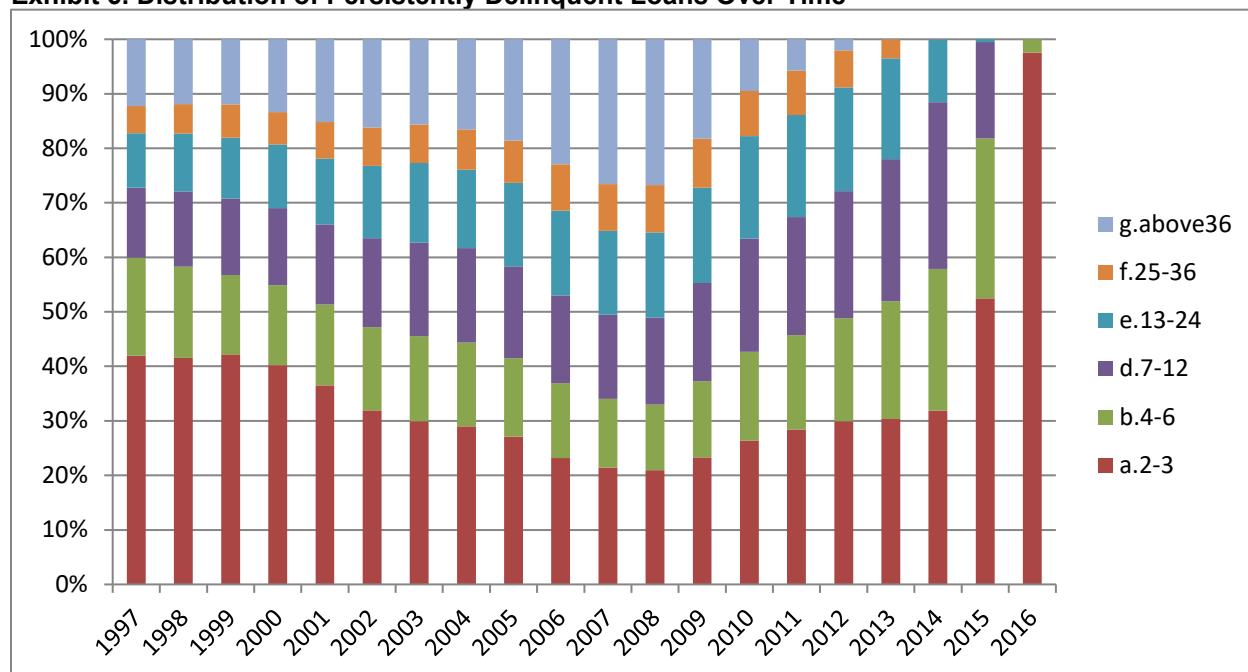
The outcome differentials between the treated and nontreated loans are especially large in the 2006 through 2008 vintages. Only 16 to 17.5 percent of the untreated loans are current or 30 days delinquent versus 49 to 58 percent for the treated loans. For these vintages, the liquidated percentage of the untreated loans is 67 to 70 percent versus 22 to 32 percent for the treated borrowers.

The disposition channel distribution for the treated and untreated loans is very similar, with 70 to 71 percent of the terminated loans liquidated through REO status and another 12 to 14 percent going through a preforeclosure sale.

What About the Persistently Delinquent Loans

Exhibit 6 shows the current status of loans that were 90 or more days delinquent for the first time and now in a state of persistent delinquency. These loans were not current, 30 days delinquent, prepaid or liquidated. Overall, 521,677 loans were identified as persistently delinquent. Of these loans, 28.4 percent were 2 to 3 months delinquent, 15.9 percent were 4 to 6 months delinquent, 18.6 percent were 7 to 12 months delinquent, 15.5 percent were 12 to 24 months delinquent, 7.2 percent were 25 to 36 months delinquent, and 14.4 percent were more than 36 months delinquent.

Exhibit 6. Distribution of Persistently Delinquent Loans Over Time

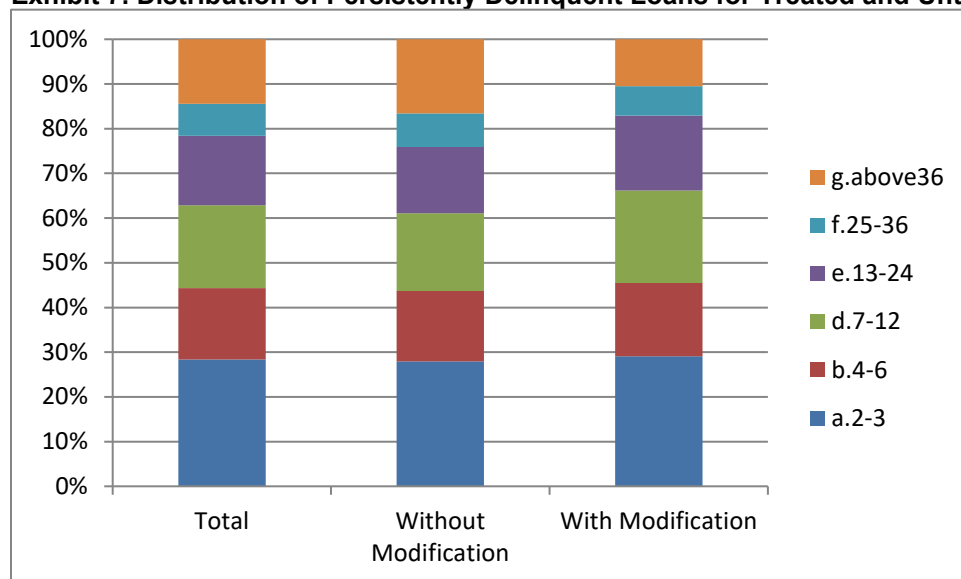


a.2-3 = 2 to 3 months delinquent. b.4-6 = 4 to 6 months delinquent. d.7-12 = 7 to 12 months delinquent. e.13-24 = 13 to 24 months delinquent. f.25-36 = 25 to 36 months delinquent. g.above36 = more than 36 months delinquent.

Loans in this persistently delinquent state that originated during 2007 through 2008 were more delinquent on average compared with loans that originated in other vintage years. Only 21 percent of the loans originated during 2007 through 2008 were delinquent for 2 to 3 months, whereas 40 percent of the loans originated in early 2000 were delinquent for 2 to 3 months.

Exhibit 7 compares the number of months of delinquency for loans that a borrower received a modification or forbearance action with loans that did not receive any modification. It is clear from the figure that fewer loans were delinquent for more than 36 months if they received a modification or forbearance. Of treated loans, 16.6 percent were more than 36 months delinquent, whereas 14.4 percent of untreated loans were more than 36 months delinquent.

Exhibit 7. Distribution of Persistently Delinquent Loans for Treated and Untreated Loans



a.2-3 = 2 to 3 months delinquent. b.4-6 = 4 to 6 months delinquent. d.7-12 = 7 to 12 months delinquent. e.13-24 = 13 to 24 months delinquent. f.25-36 = 25 to 36 months delinquent. g.above36 = more than 36 months delinquent.

Type and Frequency of HUD Modifications

We identified four different HUD loss mitigation actions—Home Affordable Modification Program modifications (virtually all have Partial Claims), Federal Housing Administration modifications, FHA Partial Claim, and FHA forbearance. These numbers vary substantially over time as exhibit 8 shows.

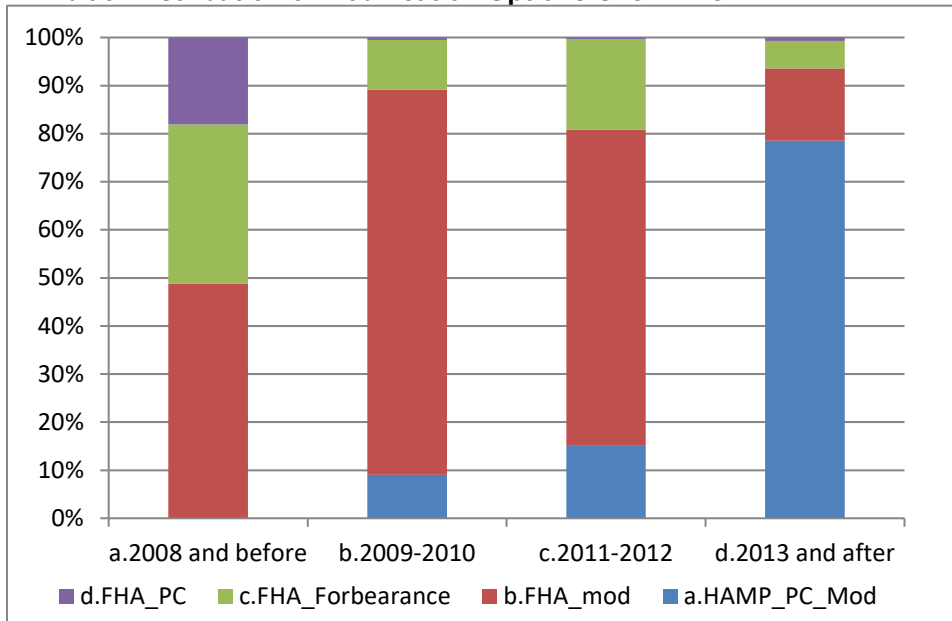
Exhibit 8. Modification Counts by Loss Mitigation Options and Modification Year

Modification Year	FHA-HAMP Modification	FHA Standard Modification	FHA Forbearance	FHA Partial Claims	All
a. 2008 and before	.	167,405	113,426	62,012	342,843
b. 2009–2010	19,794	175,709	22,617	1,181	219,301
c. 2011–2012	27,442	118,096	33,908	511	179,957
d. 2013 and after	275,626	52,698	19,989	2,587	350,900
All	322,862	513,908	189,940	66,291	1,093,001

Of the 1,093,001 modified loans, 189,940 went through the FHA forbearance option, 513,908 had FHA standard modifications, 66,291 had FHA Partial Claims, and 322,862 had FHA-HAMP modifications. HAMP modifications came about prior to 2010 and constituted 78 percent of FHA modifications in 2013 and later.

Exhibit 9 shows the distribution of modifications option. As reliance on HAMP modifications has grown, reliance on other forms of modification has fallen. FHA Partial Claims were somewhat active prior to 2008, accounting for 18 percent of the total but falling to 3 to 7 percent thereafter. FHA modifications were used in about 80 percent of all modifications during 2009 through 2010, falling to 15 percent in the later period. FHA forbearance was most active prior to 2008 but is still frequently used.

Exhibit 9. Distribution of Modification Options Over Time



a.HAMP_PC_Mod = FHA-HAMP modification. b.FHA_mod = FHA standard modification.
 c.FHA_Forbearance = FHA forbearance. d.FHA_PC = FHA partial claims.

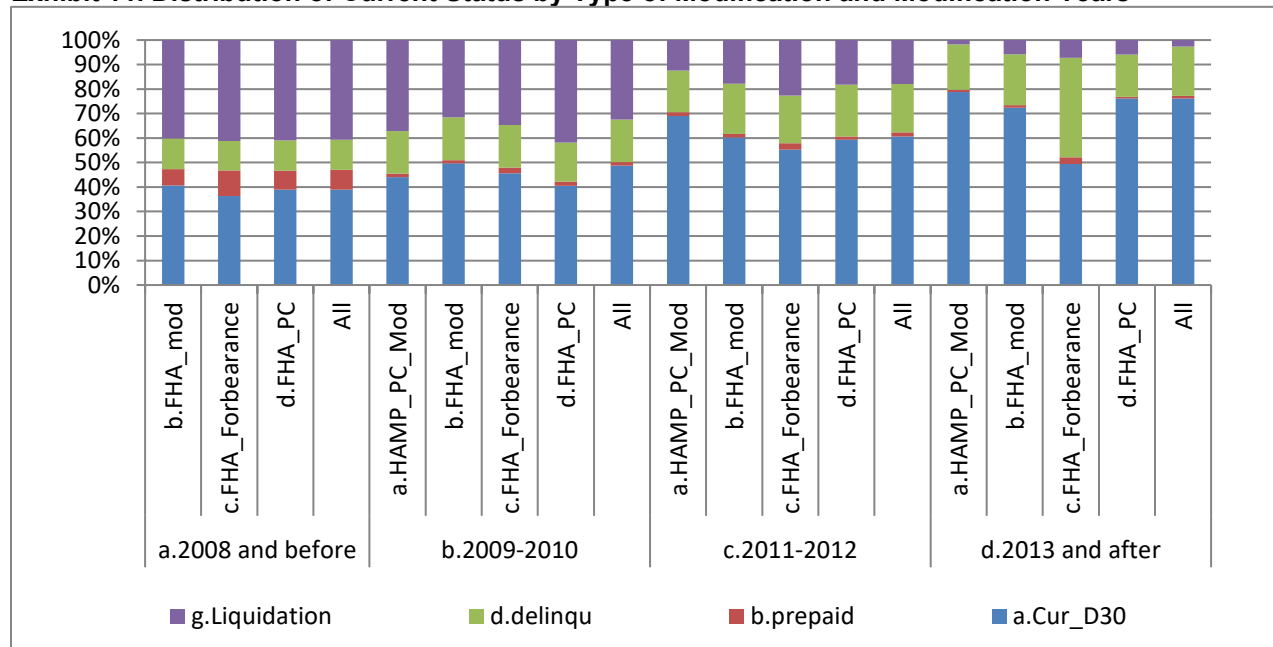
Exhibit 10 shows the type of modification by year group and the current status of that modification (current or 30 days delinquent, prepaid, delinquent, or liquidated). Note that of the 1.09 million HUD modifications, 343,000 thousand were in 2008 and earlier, 219 thousand between 2009 and 2010, 180 thousand during 2011 and 2012, and 351 thousand in 2013 and later.

Exhibit 10. Loan Counts by Type of Modification, Modification Years, and Current Status

Modification Year	Type of Modification	Current or 30 Days Delinquent	Prepaid	Delinquent	Liquidated	All
a. 2008 and before	FHA Standard Modification	67,939	11,194	21,006	67,266	167,405
	FHA Forbearance	41,191	11,933	13,633	46,669	113,426
	FHA Partial Claims	24,187	4,753	7,707	25,365	62,012
	All	133,317	27,880	42,346	139,300	342,843
b. 2009–2010	FHA-HAMP Modification	8,719	280	3,438	7,357	19,794
	FHA Standard Modification	87,271	2,351	30,601	55,486	175,709
	FHA Forbearance	10,313	534	3,931	7,839	22,617
	FHA Partial Claims	479	19	188	495	1,181
	All	10,6782	3,184	38,158	71,177	219,301
c. 2011–2012	FHA-HAMP Modification	18,940	423	4,657	3,422	27,442
	FHA Standard Modification	71,083	1,763	24,142	21,108	118,096
	FHA Forbearance	18,719	908	6,592	7,689	33,908
	FHA Partial Claims	303	7	108	93	511
	All	109,045	3,101	35,499	32,312	179,957
d. 2013 and after	FHA-HAMP Modification	217,123	2,670	51,015	4,818	275,626
	FHA Standard Modification	38,125	603	10,916	3,054	52,698
	FHA Forbearance	9,868	542	8,125	1,454	19,989
	FHA Partial Claims	1,971	17	444	155	2,587
	All	267,087	3,832	70,500	9,481	350,900
All	FHA-HAMP Modification	244,782	3,373	59,110	15,597	322,862
	FHA Standard Modification	264,418	15,911	86,665	146,914	513,908
	FHA Forbearance	80,091	13,917	32,281	63,651	189,940
	FHA Partial Claims	26,940	4,796	8,447	26,108	66,291
	All	616,231	37,997	186,503	252,270	109,3001

Exhibit 11 shows that even though HAMP modifications were not in use in 2008 and earlier, it has been the most successful modification program. However, the margin of victory has been relatively narrow. For example, for 2011 through 2012, 69 percent of all borrowers who received HAMP modifications were current or 30 days delinquent. This percentage compares with 59.3 percent for an FHA Partial Claim, 60.2 percent for an FHA modification, and 55 percent with forbearance only. More recently (2013 and later), all modifications performed better. However, the ranking was similar—78.8 percent of HAMP modifications were current or 30 days delinquent versus 72.3 percent of FHA modifications, 76.2 percent of FHA Partial Claims, and 49.4 percent of FHA forbearances were current or 30 days delinquent.

Exhibit 11. Distribution of Current Status by Type of Modification and Modification Years



a.HAMP_PC_Mod = FHA-HAMP modification. b.FHA_mod = FHA standard modification. c.FHA_Forbearance = FHA forbearance. d.FHA_PC = FHA partial claims. a.Cur_D30 = current or 30 days delinquent. b.prepaid = prepaid. d.delinqu = delinquent. g.Liquidation = liquidated.

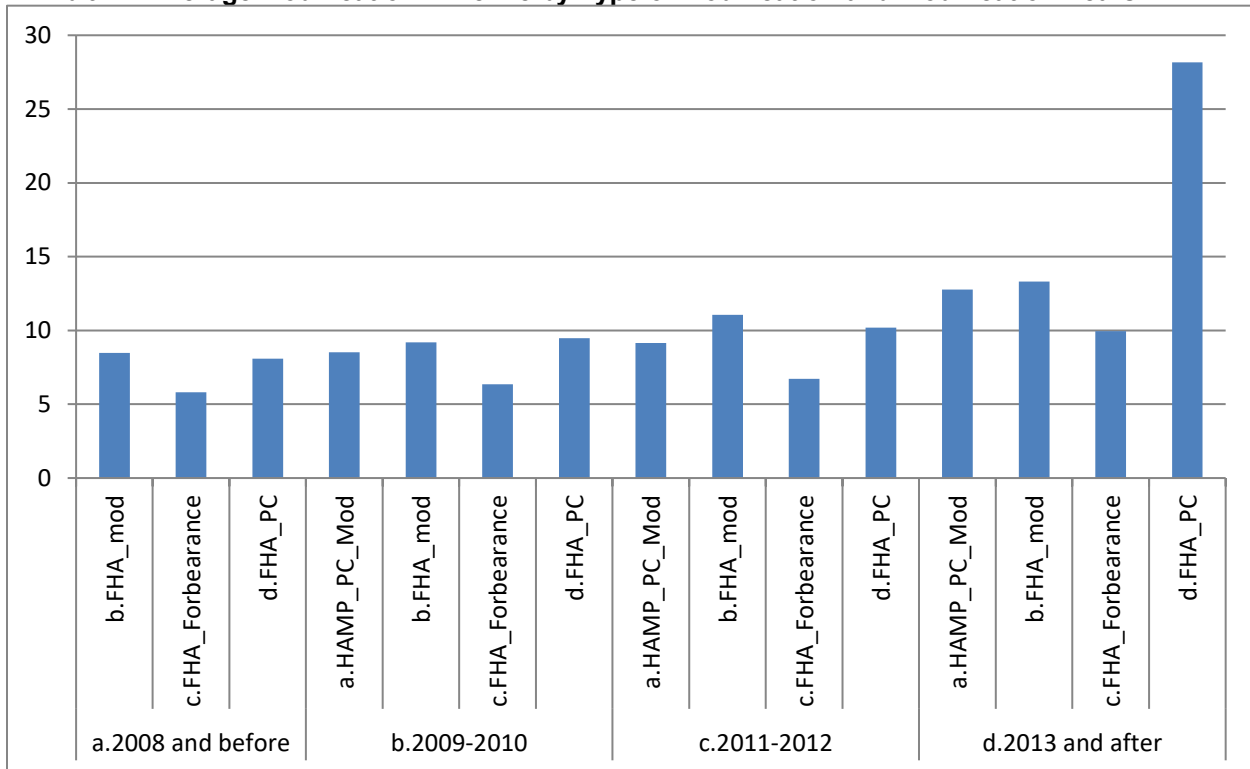
Forbearance is consistently less effective than a more permanent modification. Standalone Partial Claims have been relatively few. Although HAMP modifications perform slightly better than FHA modifications, the differences have been relatively small.

Impact of Payment Reduction and Modification Timeline

Although the effect of the type of modification is relatively small, two other variables—the impact of the amount of pay reduction and the effect of the amount of time from the most recent payment to modification—are much more valuable predictors of modification success.

We calculated the average modification timeline by using the months from the most recent payment date to modification date. Exhibit 12 shows that, over time, timelines extended considerably for all types of modifications, especially for the most recent years. The timeline from the most recent payment to modification was marginally shorter with a HAMP modification than with a FHA modification. For example, it took 12.77 months to perform a HAMP modification but 13.30 months to perform a FHA modification.

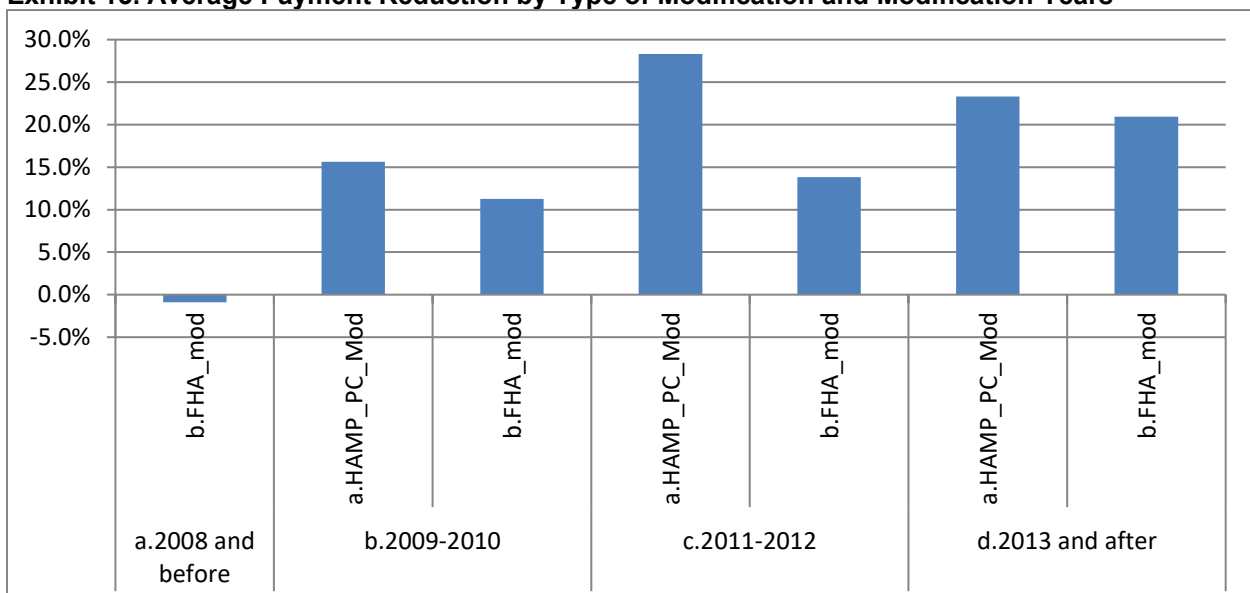
Exhibit 12. Average Modification Timeline by Type of Modification and Modification Years



a.HAMP_PC_Mod = FHA-HAMP modification. b.FHA_mod = FHA standard modification.
 c.FHA_Forbearance = FHA forbearance. d.FHA_PC = FHA partial claims.

We used the post modification interest rate to calculate payments after modification. Because the interest rate field is not well populated, the average payment reduction is calculated for those modification categories with available information. Exhibit 13 shows the results.

Exhibit 13. Average Payment Reduction by Type of Modification and Modification Years



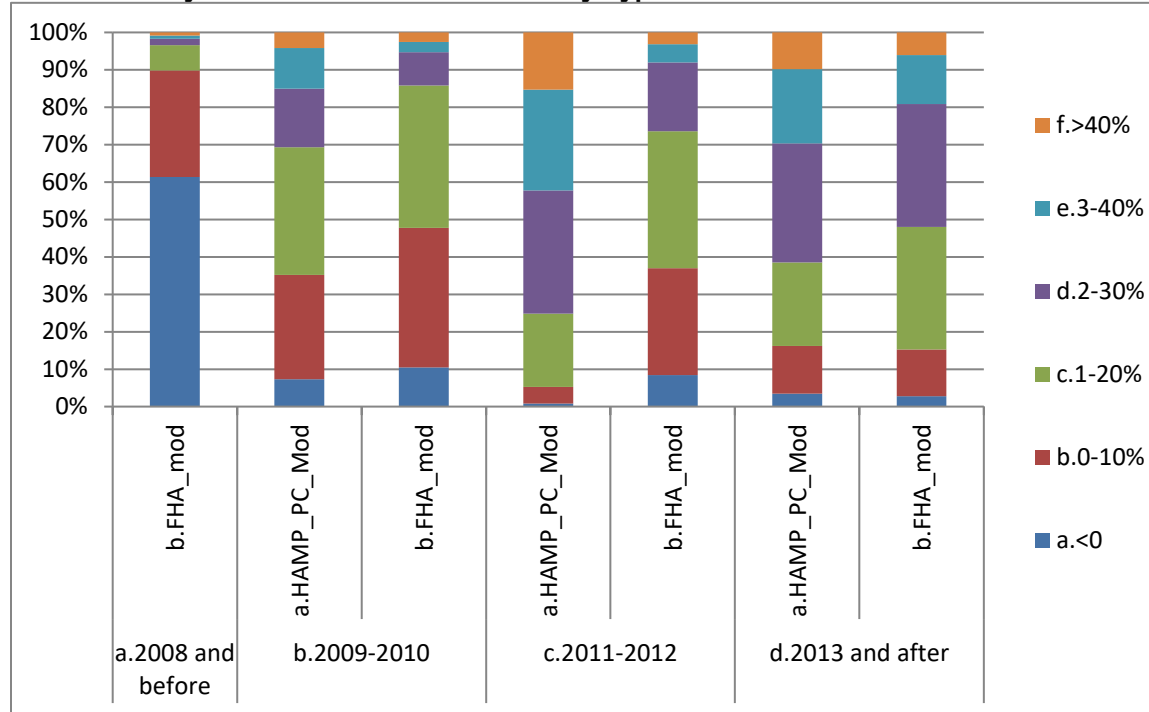
a.HAMP_PC_Mod = FHA-HAMP modification. b.FHA_mod = FHA standard modification.
 c.FHA_Forbearance = FHA forbearance. d.FHA_PC = FHA partial claims.

Note that because HAMP provided a blueprint for modification activity, payment reduction has become far more significant. Prior to 2009, payments on modified mortgage actually rose.

Looking at payment reduction by type of modification, also in Exhibit 13, it is clear that HAMP modifications have slightly larger payment reductions than FHA modifications. For example, during 2011 through 2012, the average pay reduction on a HAMP mod was 23.3 percent, although the average pay reduction on an FHA modification was 20.9 percent.

Exhibit 14 looks at the distribution of payment reductions. Since 2011, most of the modifications have had a payment reduction of 10 to 20 or 20 to 30 percent. For example, in the period from 2013 to 2016, about 32 percent FHA modifications had a 10- to 20-percent payment reduction, with another 32 percent FHA modifications having a 20- to 30-percent payment reduction. Compared with FHA modifications, HAMP modifications had slightly higher payment reduction in the sample period from 2013 through 2016. For this period, 22 percent of HAMP modifications had a 10- to 20-percent payment reduction, 32 percent have a 20- to 30-percent payment reduction, and 20 percent have a 30- to 40-percent payment reduction.

Exhibit 14. Payment Reduction Distribution by Type of Modification and Modification Years



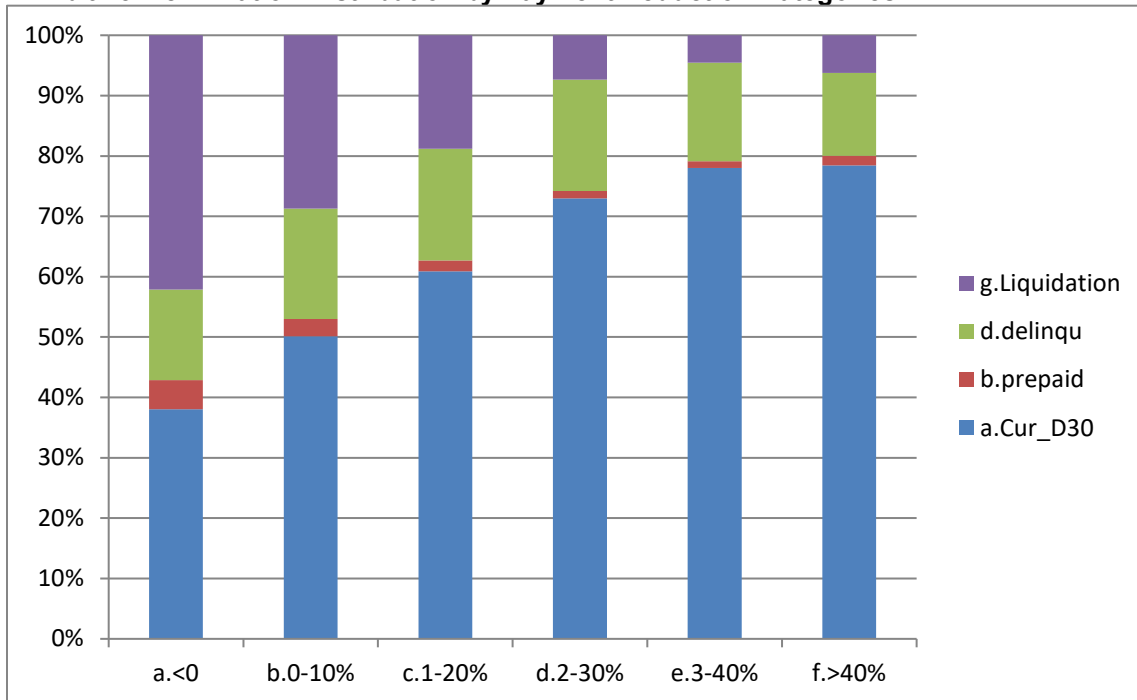
a.HAMP_PC_Mod = FHA-HAMP modification. b.FHA_mod = FHA standard modification.

c.FHA_Forbearance = FHA forbearance. d.FHA_PC = FHA partial claims.

Note: The exhibit legend should read a. < 0%, b. 0–10%, c. 10–20%, d. 20–30%, e. 30–40%, f. > 40%.

Exhibit 15 shows the modification performance based on payment reduction categories. The results show clearly that the larger the payment reduction, the higher the success ratio. The percentage of current or loans that are 30 day delinquent is 38 percent if the borrower received a payment increase, 50 percent for a 0- to 10-percent payment decline, 61 percent for a 10- to 20-percent payment decline, 73 percent for a 20- to 30-percent payment decline, 78 percent for a 30- to 40-percent payment decline, and 78 percent for a payment decline more than 40 percent. The bottom line is that the larger the payment reduction, the higher the success rate.

Exhibit 15. Termination Distribution by Payment Reduction Categories

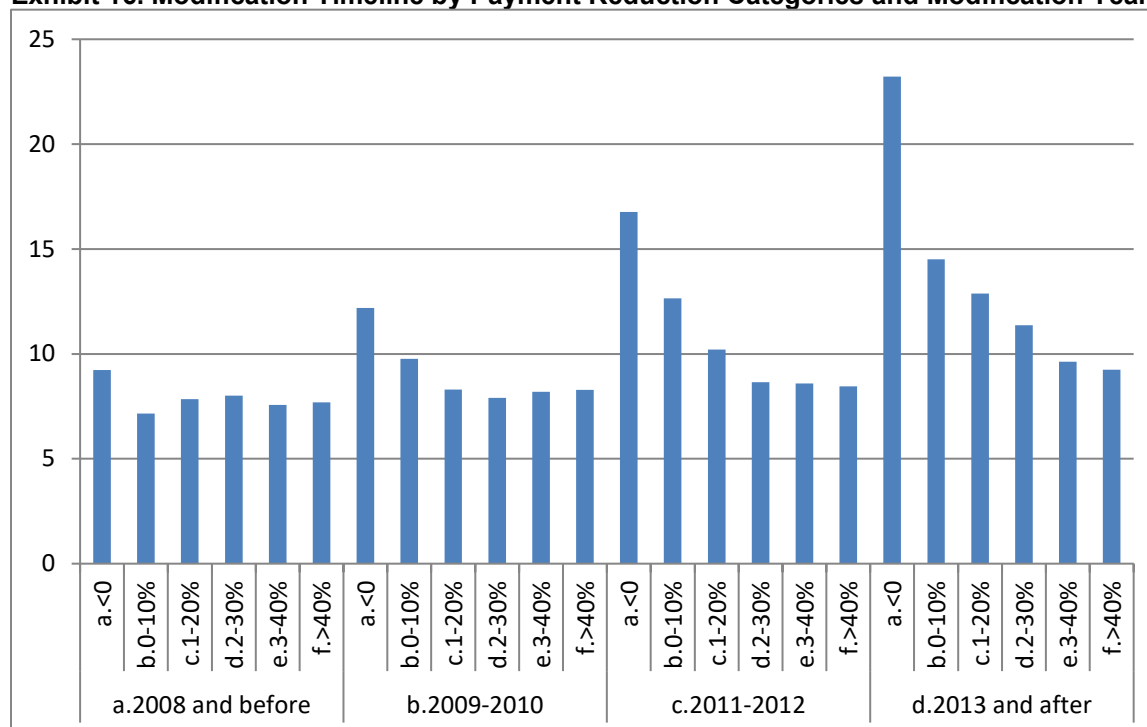


a.Cur_D30 = current or 30 days delinquent. b.prepaid = prepaid. d.delinq = delinquent. g.Liquidation = liquidated.

Note: The horizontal axis should read a. < 0%, b. 0–10%, c. 10–20%, d. 20–30%, e. 30–40%, f. > 40%.

We also show the timeline in months from the most recent payment date to modification. Exhibit 16 shows the modification timeline by payment reduction categories and modification years. Timelines became longer in recent years. For example, for loans with 0- to 10-percent payment reduction, it would take about 7 months to get a modification in or before 2008, 10 months during 2009 through 2010, 12 months during 2011 through 2012, and 15 months after 2012.

Exhibit 16. Modification Timeline by Payment Reduction Categories and Modification Year

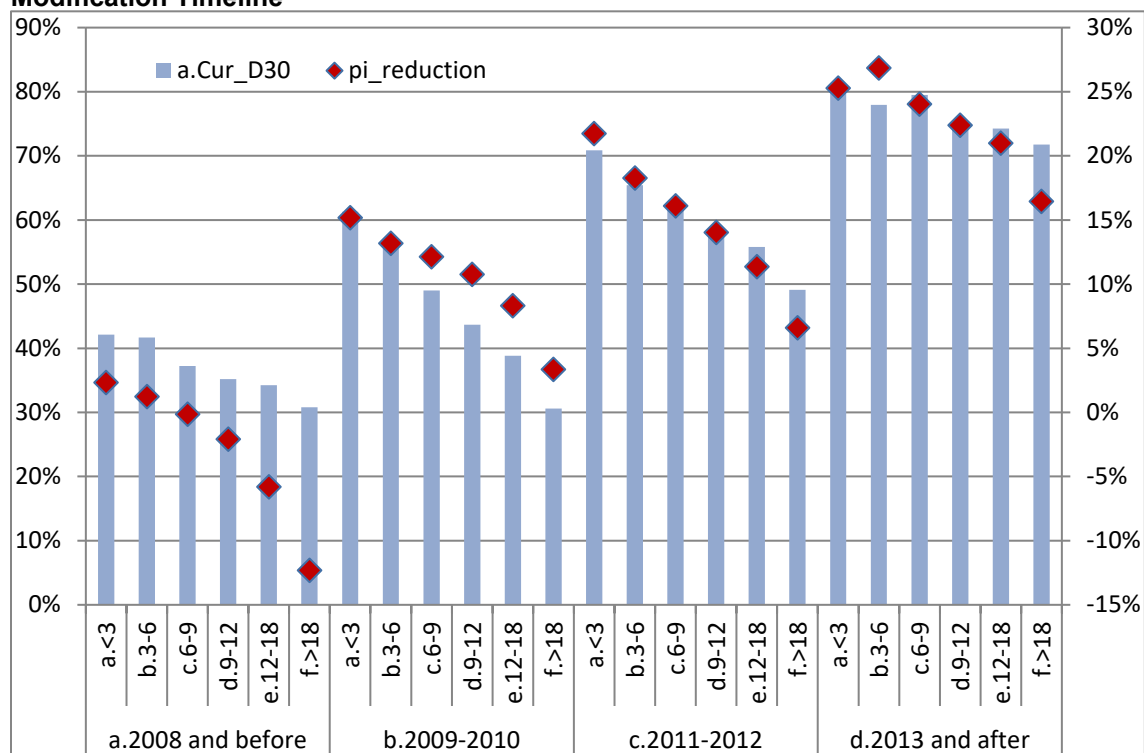


Note: The payment reduction categories (vertical labels on the horizontal axis) should read a. < 0%, b. 0–10%, c. 10–20%, d. 20–30%, e. 30–40%, f. > 40%.

A correlation exists between the payment reduction and the time to modification. In particular, the less significant the modification, the longer it takes to complete. For example, for modifications during 2011 through 2012, borrowers whose payments increased took 16.8 months to get the modification, although those with a 10- to 20-percent payment reduction took 10.2 months to get a modification, and those with more than a 40-percent pay reduction took just 8.5 months to get a modification.

The modification timeline affects modification performance. Exhibit 17 shows modification performance based on modification date and months from the most recent payment date to modification. We also show the payment reduction associated with each bucket. Again, a very clear correlation is seen between the time to modification and the payment reduction, with those with a shorter time to modification also receiving a larger pay reduction. These borrowers may be more eager to complete their modifications when they get more considerable payment reductions.

Exhibit 17. Percentage of Current or 30-Day Delinquent Loans and Payment Reduction by Modification Timeline



a.Cur_D30 = current or 30 days delinquent. pi_reduction = principal/interest reduction.

Note: The modification timeline categories (vertical labels on the horizontal axis) are in months (e.g., a.< 3 months).

Exhibit 17 also shows that the more quickly borrowers receive modifications, the more likely it is that they will sustain the modification. For example, for modifications between 2011 and 2012, of the borrowers who modified their loans in less than 3 months, 71 percent of those loans were current or 30 days delinquent. For the borrowers who modified their loans in 3 to 6 months, 65 percent were current or 30 days delinquent. For borrowers who modified their loans in 6 to 9 months, the success rate dropped to 62 percent. For those more than 18 months from the most recent payment to modification, only 49 percent were current or 30 days delinquent. It makes sense, because if a borrower receives a modification within 3 months, which cuts payments by 20 percent, it would seem like a good deal. However, if it takes a year to get the same offer, the borrower is paying a lot more than the \$0 he or she has gotten used to paying.

Savings to Mutual Mortgage Insurance Fund: Discussion and Recommendations

This section very clearly showed that the FHA loss mitigation program has been a success. The number of borrowers who are current or 30 days delinquent on their loans is much higher for treated loans than for untreated loans. If these programs did not exist, approximately 32 percent of borrowers that were current or 30 days delinquent would not have had this status. That is, the “success rate” for treated loans is 56.4 percent, and it is 24.7 percent for untreated loans. Note that the prepayment category is not included when calculating the success rate for two reasons. First, the prepayment rate is very similar between the modification and nonmodification groups. Second, the number of loans in the prepayment group is low compared with the current or 30 days delinquent group. The savings to the MMI Fund can be calculated as:

*Savings to the MMI Fund = number of loans saved * unpaid balance * severity.*

Exhibit 4 panel A shows the number of modified loans that are current or 30 days delinquent, or nearly 600,000 loans. If these loans had an average balance of \$200,000 and the loss severity were 50 percent, the cumulative loss would be 600,000 * 200,000 * 50 percent, or \$60 billion. If assuming the cost of the modifications is about \$1,500 a piece, including servicer incentive costs, then the costs that must be paid on all modifications would be:

*Costs to the fund = total number of modified loans * \$1,500.*

Exhibit 5 panel A shows that 1.09 million modifications existed for loans originated between 1997 and 2016 at a cost of approximately \$1,500 each (\$750 incentive to the servicer and \$750 in administrative fees), suggesting a cost of \$1.635 billion to be measured against the \$60 billion benefit.

To put it in perspective, the capital of the MMI Fund is \$24 billion, and the \$60 billion “savings” is 2.5 times as large as the fund was in 2015. This analysis does not consider the positive externalities to communities, neighborhoods, and state and local governments from preventing defaults. The final section of this report discusses these externalities.

This analysis suggests that given the superior performance of the modified loans, the FHA may want to consider a streamlined modification program that does not require the borrower to submit documentation. It would likely raise the number of borrowers who opt for a modification but may well lower the modification success rate. Overall, it seems that it would make sense to do a trial streamlined modification program.

Loss Mitigation Externalities

This section considers three different aspects of externalities associated with the loss mitigation programs.

Positive Externalities on Neighborhoods and Communities

Social costs associated with foreclosure may arise from both direct municipal expenses, such as vacant properties attracting criminal activity, and any reduction in the value of nearby properties, such as worse physical conditions, which depress property values (Frame, 2010). Lee (2008) also indicates three potential channels by which a negative foreclosure spillover effect will occur: (1) Poor property maintenance or negligence leading to blight; (2) weak property appraisals based on comparable properties; and (3) an increased supply of available properties for sale. A decline in home sale prices mostly reflect such externalities on neighborhoods and communities.

Several papers have documented a negative relationship between foreclosures and the sale prices of homes near foreclosures. Immergluck and Smith (2006) studied 9,600 single-family properties in Chicago that sold in 1999 to foreclosures during the 2 prior years. They found that each foreclosure associated with a conventional loan within $\frac{1}{8}$ of a mile is associated with a 0.9- to 1.1-percent property value decline. For those foreclosures $\frac{1}{8}$ to $\frac{1}{4}$ of a mile away from a sale, properties are estimated to have a 0.1- to 0.2-percent negative spillover effect. Similarly, Schuetz, Been, and Ellen (2008) studied New York City residential property sales during 2000 through 2005 and also found strong foreclosure spillover effects on nearby nondistressed sales. Other studies that document negative price pressure associated with foreclosure include Mikelbank (2008), Leonard and Murdoch (2009), and Harding, Rosenblatt, and Yao (2009).

Besides the negative externality on sales price, some studies also document other social costs. Using a unique dataset of point-specific, longitudinal crime and foreclosure data from New York City, Ellen, Lacoé, and Sharygin (2013) found that foreclosure has a huge effect on neighborhood crime. Furthermore, the paper found that marginal foreclosures on a block lead to a small number of additional violent crimes and public order crimes, such as harassment, vandalism, drug crimes, prostitution, loitering, and simple assault.

All the loss mitigation options that prevent foreclosure establish a positive relationship between loss mitigation programs and externalities on neighborhoods and communities. Moreover, recent literature also directly compared the externality costs of foreclosure with foreclosure alternatives, such as short sales and deeds-in-lieu of foreclosure. Daneshvary and Clauretie (2012) estimated that homes not in default that sold up to 6 months after the sales of their foreclosed neighbors suffered a cumulative spillover effect of about 10 percent. On the other hand, the study finds no spillover effect from foreclosure alternatives.

Positive Externalities for Local Governments

The most recent housing market collapse and the subsequent flood of foreclosures have shown that foreclosure activity can have an adverse effect on local property prices that, in turn, affects property tax revenues for local governments. In addition to the powerfulness of the indirect effect of foreclosures on home prices and hence on tax receipts, the foreclosure crisis has resulted in tax revenues simply not getting paid, because the home was abandoned. The previous subsection showed considerable evidence that foreclosure has a huge negative effect on house prices. The literature also establishes a clear relationship between house prices and the revenue of the local government. For example, Doerner and Ihlanfeldt (2011) focused on Florida home prices during

the 2000s and found that housing price decreases tended to dampen revenues. Thus, foreclosures affect house prices, and hence the government revenues. Apgar, Duda, and Gorey (2005) used the foreclosure process in Chicago as an example to show that foreclosure has a huge effect on local government—the municipal costs can reach tens of thousands of dollars. Alm, Buschman, and Sjoquist (2014) examined the effect of foreclosures on the property tax base, its levy, and its revenues. The paper found that a rise in foreclosures was associated with a reduction in the levy, and foreclosures had a negative effect on revenues after controlling for changes in the base and other factors.

Successful loss mitigation outcomes can create a positive externality for local governments by mitigating house price declines and the resulting falling property tax revenues.

Negative Externalities Regarding Lender Overlays at Origination

To better understand whether the Federal Housing Administration's (FHA) loss mitigation procedures contribute to lender credit overlays, we interviewed three lenders that originate substantial volumes of FHA mortgages as a share of their overall business. These lenders include a large nonbank, a small nonbank institution, and a small depository institution. In these conversations, we asked lenders four general questions.

- Are FHA's loss mitigation procedures contributing to credit overlays at your institution?
- If so, what forms of credit overlays have you used?
- Specifically, which aspects of FHA loss mitigation are contributing to overlays the most?
- What changes, if any, to the FHA Loss mitigation toolkit would incentivize you to reduce these overlays?

Although all three lenders reported the use of credit overlays, the pattern varied some. One of the three lenders reported using primarily a minimum credit score requirement to reduce the incidence of defaults in its portfolios. The other two were more sophisticated and reported reliance on financial metrics such as minimum credit scores and maximum debt-to-income ratios, as well as nonfinancial overlays that include extra supporting documentation, employment verification, and so on. Credit overlays can also be tiered, that is less creditworthy borrowers can be subject to additional overlays than more creditworthy borrowers. Finally, borrowers with special circumstances, such as those whose income is mostly commission based or those working in family business, are subject to additional verification and scrutiny.

Lenders were also divided when asked which aspects of FHA loss mitigation drove them to impose credit overlays. For one lender, the single most important reason for adding overlays was to reduce the probability of default. Although the other two lenders were also concerned about defaults, they were equally, if not more, dissatisfied with the inflexibility of FHA's loss mitigation. According to one lender, in many instances, borrowers with substantial deficit incomes, who were interested in getting short sale, can only be offered the Home Affordable Modification Program (HAMP) under FHA guidelines, even though the borrower has no financial means to make payments. In other words, the borrower gets an unwanted loan modification that the servicer and the borrower both know is unsustainable, which not only delays the eventual resolution but also increases costs for all stakeholders—the borrower, servicer, and FHA—in the long run. Another lender expressed dissatisfaction with FHA's decision to eliminate the FHA Loan Modification (Mortgagee Letter 2016-14). According to this lender, many of its borrowers do not qualify for FHA-HAMP and have one less loss mitigation option available. This lender

also expressed dissatisfaction with the long timeline associated with HUD's conveyance procedures but did acknowledge the February 2016 letter provided substantial clarification.

When asked what FHA could do to incentivize lenders to ease overlays, the smaller lenders stressed the need to either increase incentive payments or permit the capitalization of late fees to help offset some of the increased costs of default servicing. Although the larger lender supported increased incentive payments, it also stressed the importance of modifying the loss mitigation program in a way that puts borrowers in more sustainable loss mitigation programs. The potential benefits and cost savings from such program improvements would far eclipse the additional revenue generated from incentive fees, according to this lender. More importantly, it would reduce the negative effect to the FHA and the Mutual Mortgage Insurance Fund. Lenders also highlighted internal FHA operational challenges that impair lender ability to offer borrowers better customer service. These challenges include outdated information technology infrastructure and understaffing at National Servicing Centers.

These areas of improvement notwithstanding, lenders were unanimous in their views that the FHA loss mitigation policy was very well intentioned. The main takeaway from these conversations is that although FHA loss mitigation is a valuable asset that helps keep borrowers in their homes, more work is needed.

Appendix

Preforeclosure Sale (PFS), also known as a short sale, is the sale of a property that generates proceeds that are less than the amount the borrower owes. In a PFS, the lien holder agrees to release the lien and forgive the deficiency balance. According to Federal Housing Administration (FHA) rules, servicers must not cancel a foreclosure process to initiate a PFS marketing period and may only cancel a scheduled foreclosure sale after the servicer receives an acceptable contract of sale.

Note Sale is another disposition strategy for delinquent FHA loans known as the Accelerated Claims Disposition demonstration. Under a note sale, FHA transfers delinquent mortgage notes to a public or private joint venture (JV) for disposition. A competitive bid determines the selling price. The JV manages the restructuring of notes for securitization and sale or the foreclosure and property sale of nonperforming loans.

Claim Without Conveyance of Title (CWCOT), also known as a Third Party Sale, allows foreclosed properties to be sold to third-party purchasers without being conveyed to FHA. As with the PFS option, CWCOT allows FHA to avoid the holding and disposition costs that arise after conveyance, thereby reducing the cost to the Mutual Mortgage Insurance Fund. However, CWCOT is more expensive than PFS for servicers, because they are responsible for conducting the sale, opposed to the borrower.

Deed-in-Lieu of Foreclosure (DIL). Under a DIL, a borrower voluntarily offers the deed to FHA in exchange for a release from all outstanding obligations under the mortgage. The borrower or servicer must be able to convey a clear and marketable title to FHA. In addition, the borrower must be in default when the DIL is recorded and the property is conveyed to FHA. Relative to PFS, DIL is a less cost-effective option for FHA, because the property is conveyed. Therefore, HUD has to incur the real estate owned (REO) expenses associated with maintaining, marketing, and selling the property.

Besides those disposition options, FHA can also terminate a property through the REO process. Under an REO status, the property is conveyed to FHA, and FHA pays the lender to settle the claim. Following acquisition, FHA holds the property until selling the property (probably at a discount).

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