



**Addressing the Weak Housing Market:
Is Principal Reduction the Answer?**

Remarks as Prepared for Delivery

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I. Introduction

Good morning. It is an honor to be here today.

Over the past six years many efforts have been launched by the federal government to stem the losses arising from the housing crisis and to keep people in their homes. Some programs have worked better than others, but almost all of them required trial and error, and were more difficult to actually implement than many had expected.

As conservator of Fannie Mae and Freddie Mac, the Federal Housing Finance Agency has been deeply involved in many of these efforts, and we have seen our share of successes and missteps. Today we find ourselves in the midst of a national debate regarding mortgage principal forgiveness: Would homeowners, the housing market, and the taxpayer be best served by providing outright forgiveness of mortgage debt for certain homeowners who currently owe more on their mortgage than their house is worth today?

I am grateful to the Brookings Institution for this opportunity to offer some perspectives on this debate and to provide some preliminary findings from FHFA's most recent analysis of this issue. I will not be announcing any conclusions today – our work is not yet complete – but in view of the state of the public policy debate on this subject, I am pleased to have this venue to enhance the public understanding of this difficult question and to explain how FHFA has approached the matter. The Brookings Institution's reputation as a home for thoughtful policy analysis and debate of challenging public policy questions makes this a most appropriate setting for this endeavor.

Typically when I begin a speech about Fannie Mae and Freddie Mac, or the Enterprises as I will refer to them, I set the context by reviewing FHFA's legal responsibilities as conservator. I do so because I believe it is essential for people to understand that Congress considered the objectives it wanted FHFA to pursue as conservator. These objectives may not be easy to meet but they are clear – FHFA's job is to preserve and conserve the assets of the Enterprises and, in their current state that translates directly into minimizing taxpayer losses. We are also charged with ensuring stability and liquidity in housing financing and maximizing assistance to homeowners.

Today however, I want to set the context for my remarks in a different way – I would like to begin with a few words on the human element of this housing crisis.

Throughout this crisis each of us know of, or have heard about, many individual stories of homes lost through foreclosure. One cannot help but have sympathy for those who have suffered such misfortune. And surely no one can look at the dislocations in the housing market and not feel

frustration at how so many people and institutions failed us, whether through incompetence, indifference, or outright greed or fraud. Yet we are also blessed in this country with people and institutions who care, who are strongly motivated to provide assistance and find solutions.

The staff at FHFA has worked tirelessly since the Enterprises were placed into conservatorships to seek meaningful, effective responses to the housing crises. With the staffs at Fannie Mae and Freddie Mac, Department of the Treasury and Department of Housing and Urban Development (HUD), and numerous financial services companies, FHFA staff has sought to develop and improve on loan modification and loan refinance programs that bring meaningful options to struggling borrowers who want to stay in their homes. In a moment, I will describe these efforts and their progress to date. We know we have much more to do and the strategic plan for conservatorship that we submitted to Congress in February identifies that work as one of our three strategic goals.

There is another human element in this story that does not seem to receive much attention. Clearly, many households got over-extended financially. Some accumulated debts they couldn't afford when hours or wages were cut or jobs were lost. Others withdrew equity from their homes as house prices soared. Others bought houses at the peak of the market, often with little money down, perhaps in the belief house prices would continue to climb. Yet there are other Americans who did not do these things. There are families that did not move up to that larger house because they weren't comfortable taking the risk. Perhaps they had to save for college or retirement, and did not want to invest that much in housing. And there are people working multiple jobs, or cutting back on the family budget in many ways, to continue making their mortgage payments through these tough times. Many of these families are themselves underwater on their mortgage, even though they may have made a sizeable down payment.

Whichever of these categories any particular homeowner falls into, the decline in house prices over the last few years has reduced the housing wealth of all homeowners. The Federal Reserve has estimated that from the end of 2005 through 2011, the decline in housing wealth to be \$7.0 trillion.

Six years into this housing downturn, the losses persist. The debate continues about how we as a society are going to allocate the losses that remain. Asking hard questions in this debate does not make one unfeeling about the personal plight this situation has created for so many. Indeed, the majority of those most hurt by this housing crisis did nothing wrong – they were playing by the rules but they have been the victims of timing or circumstance or poor judgment.

In short, the human element in this unfortunate episode in our country's economic history stands out and commands our attention. Virtually every homeowner in the country has suffered a loss. But that doesn't make the answers any easier. And it poses a deep responsibility on policymakers to weigh all these factors in seeking solutions, including the long-term impact on mortgage rates and credit availability of the actions we take today.

With that as backdrop, my goal today is to answer two questions:

1. What do the Enterprises do to assist borrowers through these troubled times in housing?
and

2. How has FHFA assessed principal forgiveness as an option for assisting troubled borrowers?

II. The Enterprises' Borrower Assistance and Foreclosure Prevention Efforts

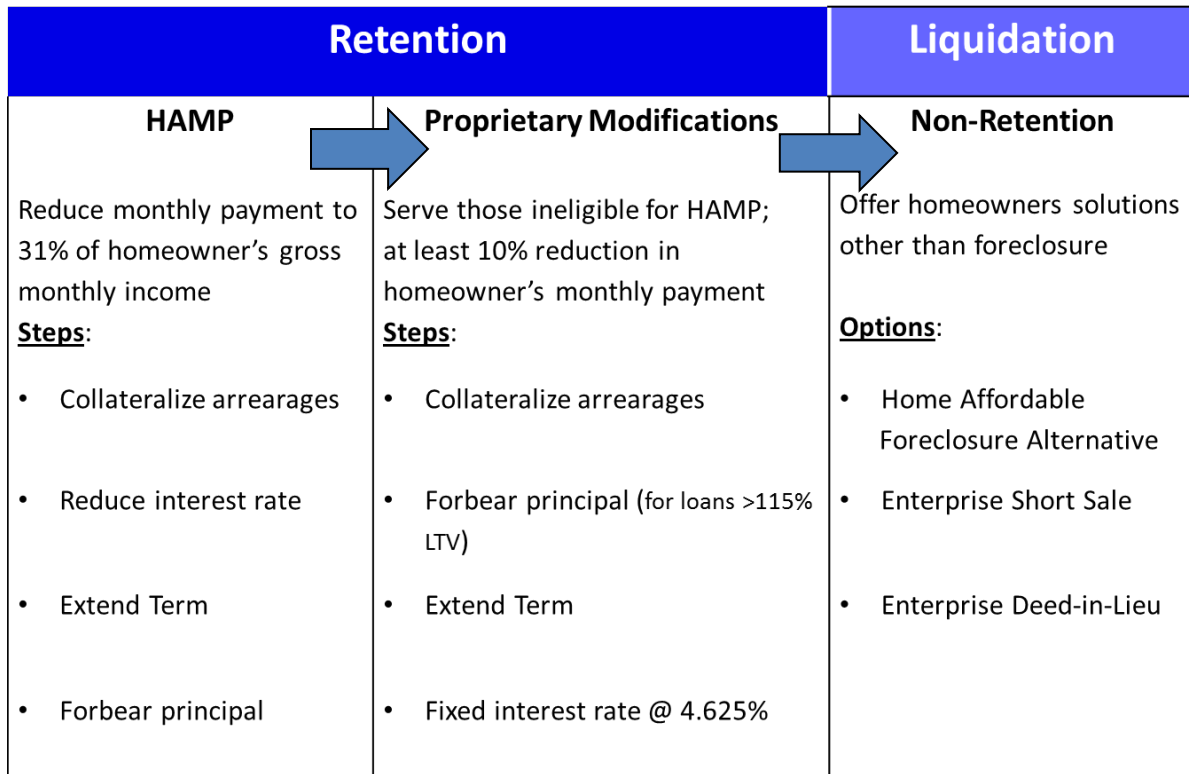
Some critics have concluded that FHFA's refusal to allow principal forgiveness raises questions as to the agency's and the Enterprises' commitment to helping borrowers stay in their home. To put the principal forgiveness discussion in context, I think it is useful to start by reviewing the Enterprises' current borrower assistance programs. The Enterprises have an array of foreclosure prevention programs for borrowers that are delinquent or in imminent default, most of which allow the troubled borrower to stay in their home. For those who are current on their mortgage, refinance opportunities allow borrowers to lower their monthly payment or shorten the term of their mortgage. The primary focus of the Enterprises' foreclosure prevention programs is on providing borrowers the opportunity to obtain an affordable mortgage payment for borrowers who have the ability and willingness to make a monthly mortgage payment.

a. Foreclosure Prevention Efforts – Home Retention Options

i. Loan Modifications

The Enterprises' current loan modification programs are designed to help homeowners who are in default, and those who are at imminent risk of default.

Figure 1.



The first modification program the Enterprises use to evaluate a borrower is the Administration's Home Affordable Modification Program, or HAMP. Under HAMP, an affordable payment is achieved by taking specified sequential steps (or waterfall), as needed, in order to bring a troubled borrower's monthly payment down to 31 percent of their gross monthly income. Specifically, servicers:

- Capitalize the arrearages, including accrued interest and escrow advances.
- Reduce the interest rate in increments of 1/8th to get as close as possible to 31 percent of the homeowner's gross monthly income with the lowest possible interest rate set at 2 percent.

If reducing the interest rate does not achieve an affordable monthly payment, servicers then:

- Extend the term and re-amortize the mortgage by up to 480 months (40 years).

If reducing the interest rate *and* extending the term does not achieve an affordable monthly payment, servicers then:

- Provide principal forbearance down to 100 percent of the property's current market value or as much as 30 percent of the unpaid principal, whichever is greater.

With a principal forbearance modification, a portion of the loan is set aside. The homeowner does not pay interest on that portion of the loan. Principal forbearance should not be confused with payment forbearance. Under a payment forbearance plan, a homeowner receives a temporary reduction or suspension of payments on the mortgage. This approach is often used to address unemployment or other temporary problems that a borrower may be experiencing.

Principal forbearance has become an important part of loan modifications for underwater borrowers, increasing from 11 percent of total modifications in 2010 to 26 percent in 2011. It means the lender allows the homeowner to defer payment of a portion of the principal of their loan until they sell their home or refinance their loan, and pay no interest on the deferred principal. This approach allows the Enterprises to reduce borrowers' monthly payments while avoiding principal write-offs. Interestingly, this is the same approach used in many other government-guaranteed loan programs, including the FHA program.

Principal forbearance operates in a manner very similar to shared appreciation, except that with forbearance the investor's share of any appreciation from the current home value is paid first and is capped at the time of loan modification to the amount of forborne principal. If house prices rise above the forborne amount the borrower captures all the appreciation. Furthermore, principal forbearance does not require any infrastructure changes for lenders and investors to account for future assets and liabilities, as does shared appreciation.

If a borrower does not qualify for a HAMP modification, the Enterprises then look to employ a proprietary modification (sometimes referred to as a "standard modification"). The features of a proprietary modification are also applied sequentially for loans above 115 percent LTV and include:

- Capitalizing the arrearage, including accrued interest and escrow advances.
- Providing principal forbearance down to 115 percent of the property's current value or as much as 30 percent of the unpaid principal balance, whichever is less.
- Setting the interest rate to a fixed rate mortgage, currently at 4.625 percent.
- Extending the term to 480 months (40 years)

After calculating the modified payment terms, the mortgage loan must result in at least a 10 percent reduction in the homeowner's principal and interest payment.

Acknowledging the benefit of this approach, the Treasury Department recently announced a Tier 2 program under HAMP that mirrors the Enterprises' proprietary modification program.

ii. Temporary Assistance

A loan modification is not the best solution for every troubled borrower. For someone who loses their job, has had a medical emergency, or faces some other short-term issue, a loan modification

may not be the best solution. In such cases, Fannie Mae and Freddie Mac offer payment forbearance plans that allow a borrower to make no or partial payments for a period of time. The Enterprises also offer repayment plans for borrowers who fall temporarily behind on their mortgage and just need to be given an opportunity to get caught up and back on track. Since the start of the conservatorships, the two companies have entered into more than 660,000 such plans with borrowers.

b. Foreclosure Prevention Efforts – Non-Retention Options

Most troubled borrowers should qualify for a home retention option if they have the ability and desire to stay in their home. If the borrower does not want to remain in their home, or has experienced a permanent and significant loss of income that makes continued home ownership infeasible, the servicer is obligated to consider the borrower for the Administration's Home Affordable Foreclosure Alternative Program (HAFA), which includes short sale, deed-in-lieu, or deed-for-lease options. For borrowers ineligible for HAFA, the Enterprises employ a proprietary short sale, deed-in-lieu, or deed-for-lease options. Of these, short sales are the most common. In a short sale under HAFA or its own program, an Enterprise agrees to allow the borrower to sell their home in an arm's-length market transaction and accept the proceeds as payment of the debt. Importantly, the unpaid balance becomes forgiven principal to the borrower. Fannie Mae and Freddie Mac have completed more than 300,000 such home forfeiture actions since conservatorship.

Fannie Mae and Freddie Mac's instructions to mortgage servicers are clear: only after all these home retention and home forfeiture options have been exhausted should a servicer pursue foreclosure.

c. Foreclosure Prevention Programs – Results

While mortgages owned by other financial institutions or held in private label mortgage-backed securities have a much higher delinquency rate than those owned or guaranteed by the Enterprises, the Enterprises have been leading national foreclosure prevention efforts. Fannie Mae and Freddie Mac own or guarantee 60 percent of mortgages outstanding but they account for only 29 percent of seriously delinquent loans (loans where the homeowner has missed at least 3 or more payments or is in foreclosure).

Table 1

Fannie Mae and Freddie Mac loans, delinquencies, and HAMP active permanent modifications versus US total

(Counts in thousands)

	US	Fannie Mae & Freddie Mac	GSE share
Loans serviced	48,742	29,045	60%
Serious delinquent rate	7.7%	3.8%	
Serious delinquent loans	3,768	1,105	29%
HAMP active permanent modifications	763	400	52%

Sources:

Loans Serviced:

US: MBA Delinquency Survey; 4Q11. US loans serviced represents the reported number in the survey (42,892,629) grossed up for (i.e. divided by) the reported level of coverage of the survey (88%).

GSE: FHFA Fourth Quarter Foreclosure Prevention Report

Serious Delinquency Rates:

US: MBA Delinquency Survey; GSE: FHFA Fourth Quarter Foreclosure Prevention Report

Serious Delinquent Loans:

US: FHFA estimate based on the reported serious delinquency rate in the survey times the adjusted number of loans serviced. GSE: Fannie Mae and Freddie Mac; Dec 2011

HAMP Active Permanent Modifications:

US: MHA Program Performance Report, Dec 2011. GSE: MHA Program Administrator, Dec 2011.

Even though other market participants hold 71 percent of seriously delinquent loans, the Enterprises account for more than half of all HAMP permanent modifications. Between HAMP and their own proprietary loan modifications, the Enterprises have completed 1.1 million loan modifications since the fourth quarter of 2008.

Not only are the Enterprises leading efforts in completing loan modifications, as shown in Table 2, the performance of their loan modifications has been better than most other market participants.

Table 2

**Re-Default Rates for Portfolio Loans and Loans Serviced for Other
(60 or More Days Delinquent)***

Investor Loan Type	3 Months After Modification	6 Months After Modification	9 Months After Modification	12 Months After Modification
Fannie Mae	11.7%	18.8%	24.1%	27.5%
Freddie Mac	11.3%	18.1%	23.2%	26.8%
Government-Guaranteed	17.2%	34.6%	44.2%	49.2%
Private	23.5%	34.5%	42.0%	46.7%
Portfolio Loans	7.9%	15.2%	20.6%	24.6%
Overall	15.7%	26.0%	32.7%	37.0%

*Data as of December 31, 2011 and include all modifications made since January 1, 2008, that have aged the indicated number of months.

Source: OCC Mortgage Metrics Report, Fourth Quarter 2011;
<http://www.occ.treas.gov/publications/publications-by-type/other-publications-reports/mortgage-metrics-2011/mortgage-metrics-q4-2011.pdf>

While there are many issues involved in the decision on whether the Enterprises should employ principal reduction that I will discuss later, data on modifications from Enterprise loans shows that performance is not strongly related to current LTV. While not a definitive analysis, if current LTV had a strong effect, we would expect that the more underwater the borrower, the higher the re-default rate. However, Fannie Mae data presented in Table 3 show that performance on modified loans does not vary much across current LTV.

Table 3

Fannie Mae Modification Performance: Loan Count and % Loans current or paid off 12 months after modification

MTMLTV at time of Modification	HAMP Loan Count ¹	HAMP % current	2010 and later FNM proprietary modifications with Trials ⁽²⁾⁽³⁾	% current of 2010 and later FNM proprietary modifications with Trials ³
Current LTV <=80%	35,516	76%	14,385	72%
LTV>80 and <=90	24,005	75%	9,207	72%
LTV>90 and <=100	27,755	73%	10,396	71%
LTV>100 and <=125	48,707	74%	16,554	72%
LTV>125 and <=150	23,743	76%	7,283	74%
LTV>150 and <=175	12,312	75%	3,747	74%
LTV>175 and <=190	4,536	74%	1,251	74%
LTV>190	8,121	72%	2,345	70%

1) 441 loans with Missing MTMLTV

2) 214 loans with Missing MTMLTV

3) Proprietary modifications include: Alt Mod 2010, FNM Mod and Mod24

It is important to note that the performance of modified loans is a function of the payment change, as Table 4 shows.

Table 4

Fannie Mae Modification Performance: Loan Count and % Loans current or paid off 12 months after modification

Payment Change	HAMP Loan Count	HAMP % current	Count on 2010 and later FNM modifications with Trials ³	% current of 2010 and later FNM proprietary modifications with Trials ³
Payment Increase	332	59%	842	44%
Payment Decrease 0 <-10%	13,908	60%	4,640	57%
Payment Decrease 10 <-20%	22,807	65%	7,741	62%
Payment Decrease 20 <-30%	29,490	69%	10,085	69%
Payment Decrease > 30%	118,598	79%	42,073	79%

3) Proprietary modification include: Alt Mod 2010, FNM Mod and Mod24

Other studies¹ also demonstrate that the size of the payment reduction is the leading predictor for continued performance, not the current loan-to-value ratio of the home. More complex analysis, which considers the impact of current LTV while holding constant the effect of other variables, tends to show some effect of LTV on performance, but it is not as strong as the effect of payment reductions.

Collectively, these efforts have made a meaningful impact on reducing foreclosures. Since conservatorship, the Enterprises have completed more loan modifications than foreclosures and, adding all other foreclosure prevention actions to the 1.1 million loan modifications totals to some 2.1 million foreclosure prevention actions, more than twice the number of foreclosures the Enterprises have completed during this same period.

¹ ResCap, July 2010, recently updated, and Credit Suisse Outlook for Securitized Products, January 2012.

Table 5

Year-end	Single-Family Book Profile <i>(at period end)</i>			Foreclosure Prevention Actions			Number of Foreclosures
	Number of Single-Family Mortgages	Serious Delinquency Rate	Number of Serious Delinquent Loans	Number of Modifications	Number of all other Foreclosure Prevention Actions	Total Foreclosure Prevention Actions	
4Q08	30,536,416	2.1%	652,766	23,777	48,218	71,995	34,804
2009	30,509,106	4.8%	1,470,243	163,647	267,451	431,098	245,760
2010	29,717,270	4.2%	1,255,914	575,022	371,283	946,305	424,986
2011	29,044,654	3.8%	1,104,911	322,108	343,712	665,820	341,738
Total ¹				1,084,554	1,030,664	2,115,218	1,047,288

¹Since the first full quarter in conservatorship (4Q08).

FHFA and the Enterprises recognized that for borrower assistance to be successful it must be efficiently executed by servicers. This led FHFA and the Enterprises last year to develop and implement the Servicing Alignment Initiative (SAI) to focus on more aggressive delivery of foreclosure prevention options. Through SAI, the Enterprises:

- Established new borrower communication requirements that ensure borrowers are contacted at the earliest stage of delinquency, when alternatives to foreclosure are most successful,
- Required that servicers simultaneously consider borrowers for the full range of loss mitigation options (as opposed to treating the consideration of each option as a separate process), and
- Required that servicers refer a loan to foreclosure only after an independent review of the case to ensure that the borrower was, in fact, considered for an alternative.

Under SAI, FHFA and the Enterprises have taken a highly targeted approach, the goal of which is to refocus the servicers' resources and attention on quickly identifying and implementing alternatives to foreclosure for all troubled borrowers. To accomplish this the Enterprises aligned their requirements for servicing troubled loans and removed a significant barrier for homeowners seeking a loan modification - inconsistencies that caused servicers confusion and delay.

d. Borrower Assistance – Refinance Options

Foreclosure prevention efforts are not the only form of assistance to borrowers. For borrowers who are current on their loan and not in imminent default, FHFA worked with Treasury and the Enterprises to develop the Home Affordable Refinance Program (HARP). Exclusive to Enterprise-owned mortgages, HARP allows underwater and near-underwater borrowers a path to refinance their mortgage without obtaining new or increased mortgage insurance or some other credit enhancement, as would normally be required. Since April 1, 2009, the Enterprises have acquired 10.4 million refinanced mortgages, of which more than 1.1 million were HARP loans.

Still, these results for HARP fell short of what we believed we should achieve. Consequently, FHFA engaged with the Enterprises, Treasury, and a wide array of market participants to identify and resolve impediments to the program. The set of policy changes we made were:

- Extend the program sunset date to December 31, 2013
- Provide lenders with more certainty regarding their repurchase risk
- Limit the need for appraisals by using the Enterprises' respective automated valuation tools;
- Reduce costs for all borrowers, especially those who choose mortgage terms of 20 years or less, an option that reduces risk to the Enterprises and helps homeowners re-build equity faster; and
- Remove the loan-to-value cap, previously set at 125 percent.

These program modifications took effect on December 1, 2011, and already many of the largest lenders are seeing tremendous homeowner interest. FHFA and the Enterprises expect the volume of HARP loans to increase in the very near future.

III. Principal Forgiveness as a Foreclosure Prevention/Loss Mitigation Tool in HAMP

In the original HAMP, principal forgiveness has always been permitted, but was rarely used. In 2010, to encourage greater use of principal forgiveness for loans with loan-to-value ratios above 115 percent, Treasury supplemented the original HAMP modification with the HAMP Principal Reduction Alternative (PRA). HAMP PRA is an investor option, not a borrower option, and the HAMP program does not require the lender to offer HAMP PRA even if the servicer determines it to be Net Present Value (NPV) superior to a standard HAMP modification.

The take-up rate on HAMP PRA has been low, and earlier this year Treasury announced its intention to triple its current payment incentives to investors who use this approach in HAMP.

While both original HAMP and HAMP PRA focus on a borrower's "ability" to pay, by reducing the monthly mortgage payment to 31 percent of a borrower's monthly income, HAMP PRA also addresses a borrower's "willingness" to pay, by reducing the loan balance. The rationale for the reduction in the loan balance is that a borrower whose mortgage exceeds the home's value may not be willing to continue to make monthly mortgage payments. In other words, even though the borrower may achieve an affordable monthly payment (the "ability" to pay) through a basic HAMP modification, the borrower may not have the "willingness" to pay because they are underwater. By forgiving principal as part of the HAMP modification, the lower loan-to-value ratio should improve a borrower's "willingness" to pay.

In fact, historical data has shown that the probability of default correlates with the borrower's current LTV ratio; the higher the ratio, the greater the likelihood of default. So, in theory, by forgiving principal and reducing a borrower's current LTV ratio, the probability of default is

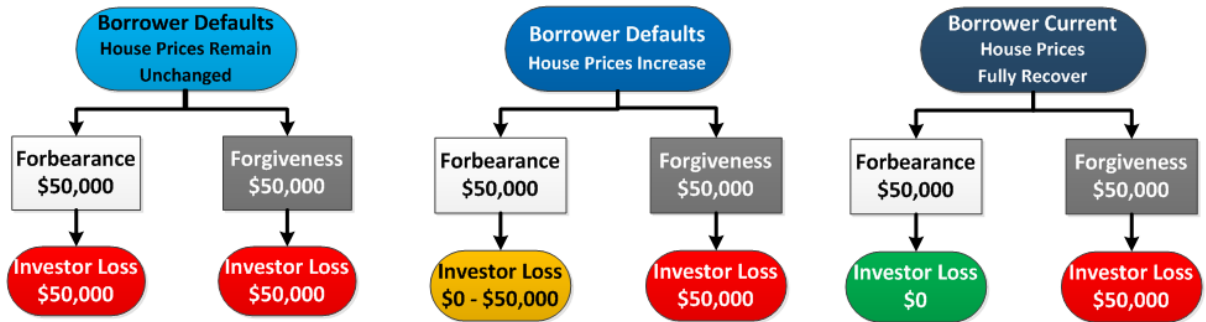
reduced and losses are reduced. This type of relationship between default and current LTV, supported by previous analytic work, is embedded in the HAMP NPV model, and thus has been explicitly factored into FHFA's repeated analyses of principal forgiveness.

Some proponents of principal forgiveness would limit eligibility in various ways such as precluding it for cash-out refinance loans or loans with mortgage insurance. There is no consensus on what such limits should be nor does the HAMP PRA option impose any beyond the basic HAMP eligibility requirements. However Fannie Mae and Freddie Mac might apply principal forgiveness, it would have to be clear and transparent, having a basis in the conservatorship mandate and a general acceptance of reasonableness if not fairness. And it would have to be clearly and publicly described so that more than a thousand mortgage servicers could apply the rules the same way.

IV. FHFA's Previous Analyses of Principal Forgiveness

At the most basic level, the comparison between the loss mitigation strategies of principal forbearance and principal forgiveness is related to who gets the upside. For both principal forbearance and principal forgiveness, if a borrower defaults the Enterprises lose the same amount. However if a borrower performs successfully on the modification, in a principal forbearance modification, the Enterprises retain an upside up to the forborne amount, but in a principal forgiveness modification, the borrower retains the upside.

Figure 2



This basic relationship between principal forbearance and principal forgiveness largely explains the results in the analyses that FHFA provided to Representative Cummings on January 20, 2012. Before more fully describing the earlier analyses, one key point is worth reiterating. Any analysis of employing principal forgiveness involves more than looking at the NPV results. At a minimum, FHFA would have to consider the operational costs of implementing the program, and borrower incentive effects given that three quarters of the Enterprises’ deeply underwater borrowers are current. In the January analysis, FHFA did not need to go beyond the NPV analysis as the results did not indicate that principal forgiveness would produce superior results to principal forbearance.*

The results summarized in the January analysis focused on whether principal forgiveness compared to principal forbearance was a cost-effective, foreclosure prevention strategy for Enterprise loans. To achieve a clean comparison of forbearance vs. forgiveness in this analysis, FHFA did not consider the other modification tools such as rate reduction and term extension. To undertake its analysis, FHFA used the Treasury’s Net Present Value (NPV) model, the same model used to determine whether a modification has economic benefit to the investor. Under HAMP, servicers are only required to grant modifications when they have positive economics (i.e., the modifications are “NPV positive”) for the investor.

Table 6 shows the result of FHFA’s analysis for the modification of all Enterprise loans with current LTV greater than 115 percent outstanding at June 30, 2011, whether they were current or not. This is clearly an unrealistic assumption in terms of how many borrowers would be eligible for the HAMP program as it assumed that all current borrowers would receive a HAMP modification. But the analysis does provide for a comparison between principal forgiveness and principal forbearance as a loss mitigation tool across the entire book of underwater Enterprise loans.

*See errata statement at end of document.

Two modifications were analyzed for each loan. In one, principal was forbore, in the other forgiven, down to 115 percent LTV. FHFA processed loans individually through the HAMP NPV model. Whether or not loans had mortgage insurance made no difference in the results, since the NPV model presumes that, in the event of default, the mortgage insurer pays a full claim, including the forgiven amount.

As a baseline comparison, Table 6 shows that:

- If borrowers are offered no modifications, Enterprise losses would be \$101.8 billion;
- With forbearance-only modifications, losses would be \$24.3 billion less, or \$77.5 billion; and
- With forgiveness-only modifications losses would be \$21.0 billion less, or \$80.8 billion.

These results reflect the basic concepts described above. Borrowers receiving principal forgiveness default less often than those who receive principal forbearance. However, the NPV model demonstrates the losses associated with the principal forgiveness write-offs more than offset the savings from lower re-default rates. That is, the present value of the cash flows to an investor is higher for forbearance modifications than for principal forgiveness, as the upside return of the forbore amount is preserved.

Table 6

Enterprise Results		
Forbearance v. Forgiveness		
Data as of 6/30/2011		
All Loans > 115 MTMLTV		
\$ in Billions	Forbearance	Forgiveness
Number of Loans	1,406,353	1,406,353
Outstanding Balance	\$303.4	\$303.4
Loss if No Modification (1)	\$101.8	\$101.8
Principal Forgiveness/Forbearance Amount	\$42.0	\$42.0
Loss if only borrowers who are NPV Positive get a Modification (2)	\$77.5	\$80.8
Decrease in Loss from Providing Modification (1) - (2)	\$24.3	\$21.0

Before moving on, a few words about credit enhancements are appropriate. While FHFA did not analyze the impact of credit enhancements, it should be clear that principal forgiveness confers benefits on parties in a first loss position, such as mortgage insurers and subordinate lien holders. In fact, *any* modification of a first lien that reduces the probability of the homeowner suffering foreclosure makes these third parties better off since they are in the first loss position in the event of foreclosure. In the case of principal forgiveness the Enterprises bear all the losses of the write down and share the benefit of the lower probability of default with the third party. In the event of a subsequent foreclosure, the Enterprises bear all the losses of the write down and the third party realizes all the benefits of it before incurring losses, if any.

The Enterprises have substantial numbers of loans with such third party involvement. Only one Enterprise tracks information on subordinate liens and uses multiple external sources to do so. The information it has been able to collect suggests that almost 50 percent of its underwater, seriously delinquent loans have at least one subordinate lien on the property. About 43 percent of underwater, seriously delinquent loans are covered by mortgage insurance. Because there are other forms of credit enhancement, such as recourse agreements, the number of these loans covered by some form of credit enhancement is likely to be higher. As it is possible for a loan to have both a credit enhancement and a subordinate lien, one cannot simply add them together to determine the universe of loans affected. However, we believe that well over half of the Enterprises' seriously delinquent, underwater mortgages have a third party that shares the credit risk, in the form of a subordinate lien, a credit enhancement, or both.

For second liens, HAMP has a program called the Second Lien Modification Program (2MP). All servicers participating in HAMP are required to participate in 2MP without regard to whether the servicer services the first lien. Under 2MP the same sequential steps are taken as under HAMP in order achieve the new modified payment. Servicers must:

- Capitalize accrued interest and advances;
- Reduce the interest rate to 1.0 percent;
- Extend the term to the lesser of the HAMP modified first lien or 480 months; and
- Forbear principal in the same proportion as the HAMP modified first lien.

While HAMP and 2MP provide for similar treatment of first and second liens, these modifications are more favorable for second lien holders because first lien holders share in the second lien holders overall losses, which is inconsistent with lien priority. Without modifications, second lien holders would absorb all of their own losses, instead of sharing them with the first lien holder.

About a quarter of Enterprise loans modified under HAMP in 2011 were associated with subordinate liens modified under 2MP. There are no good statistics on the total number of modified Enterprise loans with subordinate liens. However, for Enterprise loans that are underwater and seriously delinquent, the population from which HAMP primarily draws, about half of the loans have subordinate liens. Therefore we believe that well over a quarter of this population, perhaps nearly half, have an associated subordinate lien. Subordinate liens are only modified if they are held by a servicer who has agreed to participate in the 2MP program.

V. Considering Principal Forgiveness with Tripled HAMP Payment Incentives

FHFA is still in the process of analyzing whether the Enterprises will offer principal forgiveness as part of HAMP with the triple incentives provided by Treasury. This morning, I will provide our *preliminary* findings from refreshing our earlier analyses, incorporating the new triple incentives and altering our modeling work based on critiques of our previous approach. As I noted earlier in considering principal forgiveness as a loss mitigation tool, in addition to the NPV impact, we also need to consider operational costs and borrower incentive effects.

Questions have been raised about the methodology FHFA employed in its earlier analyses. The previous analyses used FICO score and housing payment debt-to-income (DTI) ratio from the time of loan origination, since it was not readily available as of June 30, 2011 the date of the other data used in the analysis. This probably overstated the credit quality of the borrowers and their ability to pay after the economy turned down. The analyses also used a state-level rather than zip-code-level data to update house prices from origination, and thus didn't pick up the worst concentrations of house price deflation, which would have been better captured by a zip-code-level house price index (HPI). Furthermore, in order to directly address the relative effects of forbearance vs. forgiveness, the analyses assumed simple modifications using only forbearance or only forgiveness, rather than modifications affecting multiple loan terms based on the original HAMP.

In general, FHFA did not believe that these issues would change the directional nature of the results as the analysis was designed to test the effectiveness of two loss mitigation strategies, not to provide absolute measures of the costs. FHFA will provide additional details on various sensitivity tests after we complete our analysis.

To address these concerns, FHFA made the following adjustments from the previous analysis:

- Lowering delinquent borrowers' FICO scores by 100 points (to better reflect a current rather than an origination situation),
- Raising delinquent borrowers' housing payment debt-to-income ratio (DTI). Those below 45 percent were set to 45 percent. Those above 45 percent were not adjusted (to better reflect a current rather than an origination situation),
- Applying zip-code-level rather than state-level HPI to update the current LTV from origination to June 30, 2011,
- Rather than forbearance- and forgiveness-only, modifications were designed using the original HAMP versus the HAMP PRA "waterfalls," and for PRA, with principal forgiveness incentives triple those originally paid (to non-Enterprise) investors. (Note that previously under HAMP, Treasury paid no incentives to the Enterprises for their HAMP loan modifications).

In addition, as opposed to the original analysis that considered all current Enterprise loans with a current LTV greater than 115, to provide an estimate of the potential HAMP borrower pool the analysis that follows reduced the borrower pool to delinquent borrowers and a portion of the current borrowers that could be eligible for HAMP. To estimate the latter, a pro rata 5 percent of current (not delinquent) loans in the June 30, 2011 Enterprise portfolios were considered as eligible for HAMP. This should roughly approximate a random sample. The figure of 5 percent was selected based upon the fact that, of all of the loans outstanding as of June 30, 2011 that were current on December 31, 2010, just 5 percent became 60 plus days delinquent over that six-month period. That 5 percent was then considered to be the “baseline” fraction of current borrowers that might be eligible for HAMP. As with the original analysis, if the loans carried mortgage insurance, the mortgage insurer was assumed to pay the claim on the forgiven amount.

Table 7 shows that Enterprise losses on these loans are expected to be \$63.7 billion if they are not modified. For this grouping of loans, losses are expected to be \$55.5 billion with principal forbearance and \$53.7 billion with principal forgiveness. Because the Enterprises would receive the tripled incentive payments for principal forgiveness, PRA is better for the Enterprises (reduces Enterprise losses by \$1.7 billion).

Table 7

Enterprise Results		
HAMP v. HAMP PRA, 5% Current Imminent Default		
Data as of 6/30/2011		
ALL LOANS > 115 MTMLTV		
\$ in Billions	HAMP	HAMP PRA
Number of Loans	691,008	691,008
Outstanding Balance	\$137.6	\$137.6
Loss if No Modification (1)	\$63.7	\$63.7
Principal Forgiveness/Forbearance Amount	\$15.2	\$35.4
Average Forgiveness/Forbearance Per Loan (in \$)	\$22,000	\$51,000
Loss if only borrowers who are NPV Positive get a Modification (2)	\$55.5	\$53.7
Decrease in Loss from Providing Modification (1) - (2)	\$8.2	\$9.9

The total potential PRA incentive payments are \$9.5 billion, and the expected PRA payments, considering future defaults, are \$3.8 billion. This reflects a default probability of 43.5 percent on modified loans. So in summary, on just an NPV basis, this updated analysis would show a

positive benefit to the Enterprises of \$1.7 billion and Treasury incentive payments of \$3.8 billion, which would imply a net cost to the taxpayer overall of \$2.1 billion. This does not account for any offsetting benefits in terms of greater housing market stability if HAMP PRA reduces total foreclosures relative to standard HAMP but that benefit is difficult to quantify.

Table 8

HAMP v. HAMP PRA with Triple PRA Incentive Payments Subsidy Analysis by MTMLTV 5% of Current Loans are assumed to be in Imminent Default					
Data as of 6/30/2011 All NPV Positive Loans > 115% MTMLTV at 6/30/2011					
\$ in Billions*	Sum of Expected Loss, HAMP Modification	Sum of Expected Loss, HAMP PRA Modification	Sum of Difference in Expected Losses Between the Modification Scenarios	Total Gross Potential PRA Incentive Payments	Sum of Expected Incentive Payments Value Based on Default Rate
115% < MTMLTV <=125%	\$10.1	\$10.1	\$0.0	\$1.1	\$0.5
125% < MTMLTV <=140%	\$12.4	\$12.4	\$0.0	\$1.9	\$0.8
MTMLTV > 140%	\$33.0	\$31.2	\$1.8	\$6.5	\$2.4
Grand Total	\$55.5	\$53.7	\$1.7	\$9.5	\$3.8

*Columns may not sum due to rounding

As I have noted the NPV results alone are not the sole basis for the decision on whether the Enterprises should pursue principal forgiveness. One factor that needs to be considered is the borrower incentive effects. That means, will some percentage of borrowers who are current on their loans, be encouraged to either claim a hardship or actually go delinquent to capture the benefits of principal forgiveness?

This is a particular concern for the Enterprises because unlike other mortgage market participants that can pick and choose where principal forgiveness makes sense, the Enterprises must develop the program to be implemented by more than one thousand seller/servicers. In addition, the Enterprises will have to publicly announce this program and borrower awareness of the possibility of receiving a principal reduction modification will be heightened among Enterprise borrowers. So as opposed to more targeted individual efforts, or the current opacity of the HAMP process, there is a greater possibility that borrower incentive effects would take place on an Enterprise-wide principal forgiveness program.

It is difficult to model these borrower incentive effects with any precision. What we can do is give a sense of how many current borrowers would have to become “strategic modifiers” for the NPV economic benefit provided by the HAMP triple PRA incentives to be eliminated. In this context, a “strategic modifier” would be a borrower that either claims a financial hardship or misses two consecutive mortgage payments in order to attempt to qualify for HAMP and a principal forgiveness modification.

As a simple example, Table 9 starts by using the 691,000 borrower pool identified in Table 7, which includes the Enterprises' delinquent population and 5 percent of the current population that might naturally transition into delinquency. The average amount of principal forgiveness for this group is approximately \$51,000. Using that average amount of principal forgiveness, and incorporating Treasury's maximum 63 cents on the dollar incentives for principal forgiveness (which implies that the Enterprises lose 37 cents on the dollar for current borrowers that would not otherwise default), implies that the average Enterprise loss due to principal forgiveness would be \$18,870 per loan. This leads to the result that if about 90,000 borrowers decided to strategically modify the NPV benefits of \$1.7 billion to the Enterprises would be eliminated.

Clearly 691,000 borrowers is not realistic for program participation of the delinquent or newly delinquent borrower population. That would imply a 100 percent pull through of this population to HAMP PRA. If the program participation is cut in half to 345,500 borrowers, the number of strategic modifiers necessary to eliminate the NPV benefits would be 50,000. If it is cut in half again to 172,750 borrowers, the number of strategic modifiers necessary to eliminate the NPV benefits would be 20,000. For reference, there are approximately 2 million deeply underwater but current borrowers with a mortgage that could be eligible for a principal forgiveness modification from an Enterprise, if offered.

Table 9

	Number of Participants	Decrease in Enterprise Losses Using HAMP PRA over Standard HAMP (in \$B)	Number of Strategic Modifiers Needed to Offset Benefit of HAMP PRA Incentives
Full Participation	691,000	\$1.70	90,000
Half Participation	345,500	\$0.90	50,000
Quarter Participation	172,750	\$0.40	20,000

This is only a simple example illustrating the potential impact of strategic modifiers. It assumes that the 95 percent current borrower population would have remained current, and if they strategically modify they will remain current on their modified loan after receiving principal forgiveness. This example also includes maximum Treasury incentive payments, which overestimates the benefit to the Enterprises. And of course if the transition rate is higher than 5 percent, the NPV benefits would change, but after considering the range of pull through to HAMP, the results would still be likely within the ranges presented in Table 9.

Finally, in considering whether the Enterprises should adopt principal forgiveness under HAMP, FHFA must also consider the operational costs. The direct operational costs would focus primarily on technology modifications and improvements, since implementing a principal

forgiveness program will impact multiple technology components in the Enterprises' respective current and planned loss mitigation and loan accounting infrastructures, including major applications, supporting models, databases, and servicer interfaces. We are still evaluating the direct operational costs, but they are not trivial.

There would be other more indirect costs. These include the costs for launching a new program, including the development of guidance to and training for servicers, which is critical for consistent, quick, and efficient program delivery. The indirect costs also include the opportunity costs of diverting existing resources from other Enterprise loss mitigation activities, or some of the goals recently announced in FHFA's Strategic Plan. All these cost factors would have to be carefully considered in coming to a decision to employ principal forgiveness or not.

VI. Conclusion

In closing, let me try to summarize all of this into a handful of conclusions and observations:

The issue before us is not about whether Fannie Mae and Freddie Mac provide support to families having trouble making their mortgage payment. Clearly they already do, and it remains FHFA's and the Enterprises' collective objective to do so.

As FHFA makes its decision on whether the Enterprises should offer principal forgiveness with the HAMP triple incentives, we will look to the issues I have described: the NPV impact; borrower incentive effects; and operational costs. Those are the issues that are within our responsibilities as conservator of the Enterprises.

Whether Fannie Mae or Freddie Mac forgive principal or not, the universe of Enterprise borrowers potentially eligible for a HAMP PRA is well less than one million households, a fraction of the estimated 11 million underwater borrowers in the country today. This is not about some huge difference-making program that will rescue the housing market. It is a debate about which tools, at the margin, better balance two goals: maximizing assistance to several hundred thousand homeowners while minimizing further cost to all other homeowners and taxpayers. The anticipated benefit of principal forgiveness is that, by reducing foreclosures relative to other modification types, Enterprise losses would be lowered and house prices would stabilize faster, thereby producing broader benefits to all market participants.

The far larger group of underwater borrowers who today have remained faithful to paying their mortgage obligations are the much greater contingent risk to housing markets and to taxpayers. Encouraging their continued success could have a greater impact on the ultimate recovery of housing markets and cost to the taxpayers than the debate over which modification approach offered to troubled borrowers is preferable. A key risk in principal forgiveness targeted at delinquent borrowers is the incentive created for some portion of these current borrowers to cease paying in search of a principal forgiveness modification.

In closing, the population of underwater borrowers – current and delinquent – remains a key risk for the Enterprises, taxpayers, and the housing market. There may still be improvements to current efforts that can mitigate this risk in a cost-effective way. FHFA remains committed to working with the Administration and Congress on these difficult questions, recognizing our shared objective of preventing avoidable foreclosures, minimizing taxpayer losses, and bringing a greater measure of stability to housing markets across the country.

Thank you for inviting me here today.

[For your convenience, a PPT version of tables and figures in this presentation is also [provided here](#).]

Errata Statement:

This document was posted at www.fhfa.gov upon delivery at Brookings Institution on April 10, 2012. On April 12, 2012, a correction was made to page 14 – the last sentence of the first full paragraph after the Figure 2 diagram stated that “In the January analysis, FHFA did not need to go beyond the NPV analysis as the results did not indicate that principal forgiveness would produce superior results to principal forgiveness.” The second instance of principal forgiveness was changed to “principal forbearance.”