

Obama's Housing Policy

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The Obama administration's recently unveiled Homeowner Affordability and Stability plan will, along with other policy steps, provide meaningful support to the distressed housing and mortgage markets. Foreclosures will continue to increase and house prices will decline further, but quick implementation of the Obama plan should ensure that foreclosures peak and house prices find a bottom by this time next year. However, there is substantial uncertainty about how well the plan will work, and in light of the many other uncertainties plaguing the economy right now, policymakers may well have to do more to end the housing crisis.

Broadly, the administration's housing policy aims to support single-family housing demand by lowering the cost and increasing the availability of mortgage credit. At the same time, the initiative tries to control housing supply by discouraging foreclosures, offering refinancing and mortgage loan modifications as alternatives. There are three key components:

- 1) Making mortgage credit cheaper and more widely available via Fannie Mae and Freddie Mac. With extra financial muscle and broader authority, Fannie and Freddie will be able to refinance many loans even without the traditional 20% buyer down payment. The Federal Reserve and Treasury are also working to lower mortgage rates by purchasing Fannie and Freddie's debt and the mortgage securities that they insure. A tax credit included in the fiscal stimulus package will further lower the cost of mortgages for first-time homebuyers.

- 2) Increasing the number of mortgage modifications, with incentives to homeowners, mortgage

servicers, and owners of subprime and Alt-A mortgages. Incentives include lowering homeowners' mortgage payments; subsidies for homeowners who stay current on modified loans; payments to servicers who successfully modify loans; and, in some circumstances, payments to mortgage owners who agree to the modifications.

- 3) Allowing bankruptcy judges to lower principal amounts on first mortgage loans. So-called "cram downs" would allow a judge in a Chapter 13 bankruptcy case to reset the mortgage to match the current appraised value of the home. The intent is to give hard-pressed homeowners another source of relief and induce mortgage owners to modify loans before a bankruptcy, when the creditor has a greater degree of control.

Based on a preliminary analysis, the administration's plan should accomplish the following:

- 1) It will cause fixed mortgage rates for conforming loans (those eligible for financing via Fannie and Freddie rules) to drop near 4.5% by this summer from the current 5.25%. Combined with the tax credit for first-time homebuyers, lower rates are expected to stabilize nondistressed home sales late this year. Given Fannie and Freddie's expanded capacity, close to \$1.75 trillion worth of refinancing is expected this year. Consistent with the administration's goal of refinancing 4 to 5 million such loans, this will significantly lower aggregate U.S. mortgage payments by almost \$30 billion.

- 2) It will lead to between 1.5 and 2 million subprime and Alt-A mortgage

modifications during the next three years—well short of the administration's goal of modifying 3 to 4 million loans, but meaningful nonetheless. Lower mortgage payments and financial incentives for homeowners to stay current will mean most modified loans will avoid foreclosure.

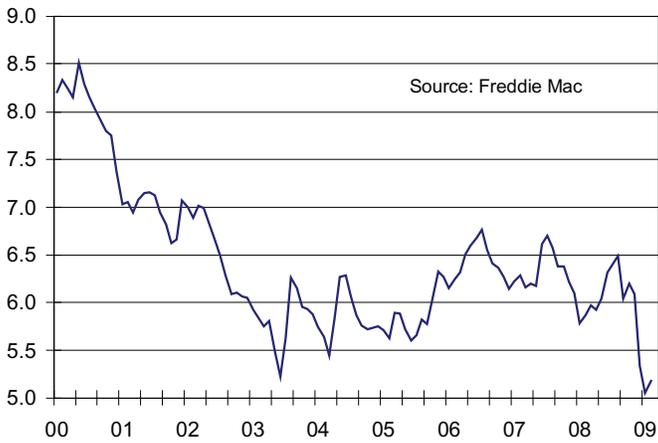
- 3) It will prompt between 750,000 and 1.25 million additional Chapter 13 bankruptcy filings over the next three years. Most mortgages involved in these bankruptcies will not go into foreclosure during this period. Exactly how the bankruptcy law is changed will be key here, since the law's details determine the incentives of homeowners and mortgage owners. Some mortgage owners may prefer to have a loan reduced (or crammed down) in bankruptcy rather than modify it themselves and risk a redefault in the future.

If these results hold, the housing and mortgage markets will receive significant support late this year from more stable home sales, a refinancing boom, and significantly fewer foreclosures.

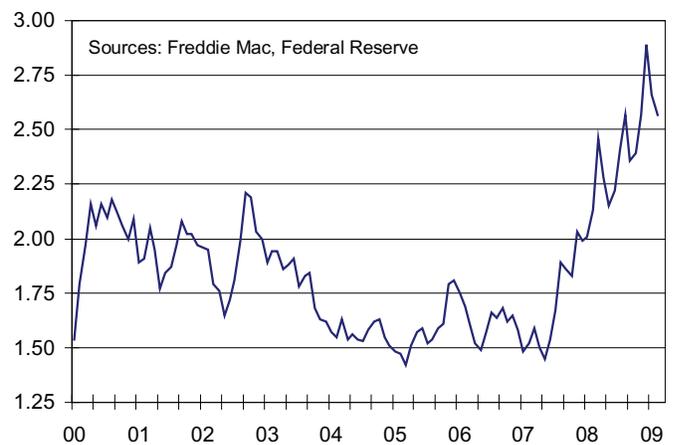
The administration's housing plan has come under fire from various critics, with the most vitriolic arguing that it rewards bad behavior by homeowners and mortgage owners, that bankruptcy reform abrogates contracts, and that it will negatively affect the financial system. Others argue the plan's cost to taxpayers, estimated at \$275 billion, is too high.

All these criticisms have some merit, but without such a plan, everyone's cost will be higher—in soaring foreclosures, lower house prices and household wealth, a measurably weaker financial system and economy, and even greater costs to taxpayers. Indeed,

**Chart 1: Fixed Rates Should Fall Further...
Freddie Mac fixed mortgage rate**



**Chart 2: ...As Mortgage Spreads Normalize
Difference between fixed rate and 10-year Treasury yield**



the administration's housing policy is in certain respects not aggressive enough, and it is likely that an even larger policy response will ultimately be needed.

The remainder of this article describes the administration's initiative and considers its impact on the housing and mortgage markets. The results are sensitive to a range of underlying assumptions and thus are likely to change as policy details are finalized.¹

Cost and availability of mortgage credit. An important aim of the administration's efforts to stabilize the housing and mortgage markets is to bring down borrowing costs and increase the availability of mortgage credit. The Federal Reserve is instrumental to this effort; it has recently begun purchasing debt issued by Fannie Mae and Freddie Mac as well as mortgage securities they insure. The Fed has purchased some \$100 billion of these securities and has pledged to purchase up to \$600 billion in total. The Fed's actions appear to have made a difference: The rate on a 30-year fixed rate conforming mortgage loan is currently 5.25%. As recently as last Thanksgiving, the rate was firmly above 6%.

Conforming mortgage rates are expected to move to near 4.5% by this summer as Fed purchases of Fannie and Freddie securities increase. This is based on the expectation that 10-year Treasury yields will average less than 3% this year, and that the difference between mortgage rates and Treasury yields, which has been extraordinarily wide, will approach its

historical average (see Charts 1 and 2). Continued low long-term Treasury yields are likely, given promises by the Fed to intervene if they move decidedly higher for any reason other than an improving economy. A narrower mortgage-Treasury spread is also likely given that Fed buying of Fannie and Freddie securities will soon move into higher gear.

Mortgage rates near 4.5% will ignite a refinancing boom. Approximately \$3 trillion in Fannie and Freddie loans carry coupons of 5% or more and would be good candidates for refinancing at a 4.5% rate (see Chart 3). Facilitating this is the administration's plan to allow Fannie and Freddie to refinance mortgages with loan-to-value ratios of up to 105% at no extra cost to homeowners.² Under current rules, Fannie and Freddie are not permitted to own or insure loans with LTVs of more than 80%.³ Nearly 10 million Fannie and Freddie loans are estimated to have LTVs between 80% and 105%.

A refinancing boom among Fannie and Freddie borrowers will not do much to prevent foreclosures—subprime, alt-A and jumbo borrowers are the ones having the most trouble making payments—but it will reduce mortgage payments and provide borrowers with some much-needed financial relief. Annual saving on these mortgage payments could approach

\$30 billion, providing a boost to the economy similar to a permanent tax cut.

To give Fannie and Freddie the ability to carry out this refinancing plan and extend mortgage credit more broadly, the Treasury will invest another \$200 billion in preferred stock in each institution. This is on top of the \$100 billion invested when the two institutions were put into conservatorship last fall.⁴ The Treasury also increased by \$50 billion, to \$900 billion, the mortgages the agencies can own. This is a shift; the Bush administration directed the agencies to reduce their mortgage holdings.

Lower mortgage rates and more credit are vital to stemming the current slide in home sales. Unless housing demand stabilizes, house prices will decline further, pushing more homeowners underwater and fueling more foreclosures. If policymakers can bring fixed rates near 4.5% and also induce Fannie, Freddie and the FHA to extend more credit, the housing market will receive a meaningful boost.

One possible impediment to lowering mortgage rates is nervousness among global investors that Fannie and Freddie's debt and mortgage securities are not completely backed by the Treasury. Since the government offered to explicitly guarantee the debt of depository institutions last year, global investors have treated bank debt as a good alternative to agency debt. The Fed should still be able to get mortgage rates down as purchases of agency debt ramp

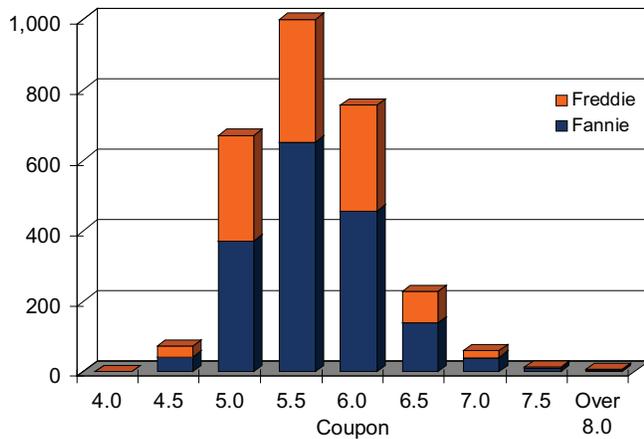
² Borrowers must be current to qualify for refinancing under this plan.

³ More precisely, Fannie and Freddie are not permitted under their current charters to own or insure mortgage loans with LTVs of above 80% unless the loan has mortgage insurance. Most mortgage insurers, facing their own dire financial conditions, have tightened underwriting standards for such insurance, significantly reducing the ability of homeowners with Fannie and Freddie loans to refinance.

⁴ When Fannie and Freddie repurchase mortgage loans from their guarantee portfolios to refinance eligible borrowers, these mortgage loans are marked to market, resulting in substantial losses. For example, in the third quarter of 2008, Fannie wrote down repurchased loans by 51% of their carrying value and Freddie wrote down repurchased loans by 31%.

¹ Moody's Economy.com is also working with Equifax to develop a loan level database to more accurately analyze various housing and mortgage policies.

Chart 3: Fannie and Freddie MBS Outstanding \$ bil, year-end 2008



up, but unless they are successful soon, policymakers should consider providing agency debt with an explicit guarantee.⁵

Another possible impediment to the Fannie and Freddie refinancings is their charter, which restricts them to loans with LTVs below 80%. It is possible that the refinancings under the plan could be considered modifications and thus fall within current law. If not, legislation would be needed, delaying the program. A lack of wholesale funding for mortgage brokers and lenders to actually perform the agency refinancings could also be a problem. Lenders need financing for a brief time between when they make a loan and when they sell it to Fannie and Freddie. In the current credit crunch, the large financial institutions that have historically provided this funding are not able to do

⁵ Policymakers have all but given such a guarantee, but investors do not believe agency debt has the same standing as Treasury debt. Policymakers are likely reluctant to provide an explicit guarantee because this would require legislation to raise the national debt limit.

cases, the second lien was originated at the same time as the first mortgage to qualify for a Fannie and Freddie loan while avoiding the higher cost of mortgage insurance.⁶ In a refinancing of the first lien, the second lien holder has to subordinate, meaning they have to agree their interest in the home remains junior to the first lien. However, second lien holders may not go along for free. While the administration's plan does not explicitly address this potential problem, it suggests there will be some mechanism for doing so.

Mortgage loan modification plan.

The administration's plan to stem surging foreclosures also rests on a national mortgage loan modification plan. The plan is targeted at owner-occupied homes with subprime and alt-A loans that are either underwater

⁶ Historically, homeowners could get a Fannie/Freddie loan without the requisite 20% down payment if they also bought mortgage insurance. During the housing bubble, some homeowners avoided mortgage insurance by taking on a second mortgage. Interest on these so-called simultaneous seconds was sometimes lower than the cost of insurance.

so. The Fed and/or Treasury may have to help backstop this wholesale lending to avoid impeding the refinancings.

There could also be a problem with second mortgage lenders. Many homeowners who potentially could be refinanced by Fannie and Freddie also have second liens on their homes. In some

or have a current debt-to-income ratio of more than 38%.⁷ The loan modification plan is voluntary, but mortgage owners who participate must reduce homeowners' DTI to 31% for at least five years.⁸ It is assumed the lower monthly payments will make homeowners less likely to default.

The plan is focused on the most troubled subprime and alt-A loans, which represent 16% of mortgage loans but 60% of seriously delinquent loans (see Table 1). The administration estimates that some 3 to 4 million of these homeowners—about half the approximately 6.25 million qualifying subprime and alt-A borrowers—will have their loans modified.⁹ This is optimistic; Moody's Economy.com estimates between 1.5 and 2 million loans will be modified. While not what the administration is hoping for, it will meaningfully reduce foreclosures.

The plan does provide significant incentives to homeowners to remain current on their modified loans. Given that the average subprime borrower during the housing boom had a debt-to-income ratio of 42%, a 31% current DTI is very attractive. Moreover, a homeowner who remains current on the modified loan will receive \$1,000 a year for five years to reduce the mortgage balance.

All this can add up to significant money. Consider a typical subprime homeowner making \$3,650 a month with a \$220,000 mortgage originated in early 2006 with a 7.5% mortgage rate (see Table 2). This homeowner put 10% down on a \$242,000 home that has subsequently declined 25% in value and thus is now worth \$182,000. The monthly mortgage payment is \$1,538, and at the homeowner's current income, his DTI is 42%. With the loan modification, the rate is reduced to 4.4% so that the DTI ratio equals the required 31%. The monthly payment drops to \$1,132, saving over \$400 per month. The homeowner's total cash benefit from the modification is nearly \$30,000, assuming he remains current for five years.

⁷ This is the front-end debt-to-income ratio, or DTI, which is the ratio of mortgage payments to gross income. The back-end DTI is the debt-to-income ratio including mortgage and all other debt payments.

⁸ In most cases, this will be done by lowering the mortgage rate and extending the term on the loan. The loan's principal amount could also be reduced to get to the 31% DTI, but it is unclear how that would work, and the administration is certainly not emphasizing this form of modification.

⁹ Qualifying subprime and alt-A mortgage loans represent an estimated \$1.5 trillion in mortgage debt outstanding.

Table 1: First Residential Mortgages Outstanding

January 2009

	\$ bil	# of loans	Seriously delinquent	
			#	%
Total	10,346	51,350,774	2,596,075	5.1
Private label	2,130	8,567,390	1,571,900	18.3
Subprime	745	3,772,152	1,043,000	27.7
Alt-A	990	3,666,667	451,367	12.3
Jumbo	395	1,128,571	77,533	6.9
Fannie Mae/Freddie Mac	5,193	28,071,371	482,828	1.7
Ginnie Mae	1,170	6,091,230	375,829	6.2
Banks	1,853	8,620,783	165,519	1.9

Source: Moody's Economy.com

Note that since the homeowner is paying a much lower interest rate, a greater proportion of the mortgage payment is going to principal. After five years of consistent payments, the principal owed on the mortgage in this example will drop to about \$192,000. The homeowner may still be under water in five years, but odds are house prices will have begun to rise by then, possibly ending that situation.

There are also substantial incentives for mortgage servicers to modify loans, including a \$1,000 payment to defray servicers' costs and \$1,000 each year for three years as long as the homeowner remains current. Mortgage servicers have been reluctant to modify loans, which is often more costly to them than allowing the loan to go into foreclosure.¹⁰ Servicers also have been unwilling to make investments necessary to modify a large number of loans quickly. The administration believes the incentives in its plan will be sufficient to turn servicers more aggressive about modifying loans. Servicers' costs could also be reduced through the creation of a standard national loan modification

process, which could make it more difficult for mortgage owners to sue, arguing servicers were not acting in their interests.

Despite the strong incentives in the administration's plan for homeowners and mortgage servicers, the number of loans ultimately modified is up to mortgage owners. The owners of subprime and alt-A mortgage loans are mainly global financial institutions that invested in mortgage securities backed by the loans. These owners only benefit from a modification if it significantly reduces both the probability of default and the ultimate loss if default occurs. In the example above, the modification is large enough to significantly lower the probability of a loan default. If that probability is cut from 40% to 25%, the expected value of the modification to the mortgage owner would exceed \$17,000.¹¹

This calculation is sensitive to the borrowers' probability of default before

and after the modification. In the current example, if the modification reduced the homeowner's expected probability of default to only 35%, then the mortgage owner would lose money by modifying the loan.¹² The probability of default is in turn dependent on the equity position of the homeowner. A deeply underwater homeowner will still be liable to default, even with a lower monthly mortgage payment; add one financial setback, such as a roof leak that costs \$5,000 to repair, and default may be a rational choice. Indeed, most loan modifications to date have involved lowering the monthly payment, and these have not worked out particularly well.¹³ According to an OCC study late last year, more than half the loans modified in this way in early 2008 had defaulted again six months later.¹⁴

Complicating matters further, investors in the highly rated tranches of these mortgage securities have different

¹¹ This assumes that the loss on the loan if it ever does default—the so-called loss given default—is 50% of the mortgage balance, and this does not change as a result of the modification. To reduce some of the uncertainty surrounding mortgage owners' expectations of the probability of default and the loss given default, the modification plan also provides for an insurance payment to mortgage owners if house prices decline in the area where the home is located. Declining house prices increase the risk that a mortgage borrower will default and that the loss to the mortgage owner of the default will be larger.

¹² The calculation is also sensitive to the homeowner's income. If in the current example the homeowner's monthly income is much below \$3,000, then the mortgage owner does not have much of an incentive to modify the loan.

¹³ The bulk of loan modifications to date have occurred as part of Home Now, a consortium of mortgage servicers and lenders brought together in early 2008 to facilitate modifications.

¹⁴ See the OCC and OTS Mortgage Metric Report for the third quarter of 2008, <http://www.occ.treas.gov/ftp/release/2008-150a.pdf>.

¹⁰ For a thorough description of the reasons why mortgage servicers have been slow to modify mortgage loans see "The Incentive of Mortgage Servicers: Myths and Realities," Cordell et al., Federal Reserve Board Finance and Economics Discussion Series, 2008-46 <http://www.federalreserve.gov/pubs/feds/2008/200846/200846pap.pdf>

Table 2: Calculating the Costs and Benefits of the Obama Modification Plan

	Existing mortgage	Modification to 38% debt-to-income	Modification to 31% debt-to-income
Mortgage balance	\$213,431	\$213,431	\$213,431
Interest rate	7.50%	6.41%	4.44%
Mortgage term	324	324	324
Monthly payment	\$1,538	\$1,387	\$1,132
Monthly income	\$3,650	\$3,650	\$3,650
Debt-to-income ratio	42%	38%	31%
Taxpayer cost	\$17,664		
Homeowner benefit	\$29,415		
Mortgage servicer benefit	\$4,000		
Mortgage owner benefit	\$17,288		
Net benefit of modification	\$33,040		

Assumptions:

Probability of default drops after modification from 30% to 15%.

The loss given default remains unchanged at 50%.

Homeowner does not actually default over the five-year period of the modification.

Source: Moody's Economy.com

interests than do investors in the lower-rated tranches. Those that own the highest-rated Aaa tranches have an incentive not to modify troubled loans but rather make them go through the foreclosure process. The lower-rated tranches suffer the losses incurred in such a foreclosure, and not until their holdings are exhausted are the Aaa tranches adversely affected. In most subprime securitizations, over half the mortgage loans backing the security have to go through foreclosure, and more than half the amount must be lost in the foreclosure, before Aaa investors suffer an actual loss.

In fact, the financial protection afforded to investors in many Aaa mortgage securities is significantly reduced if mortgage servicers engage in too many loan modifications. Under current rules guiding most subprime and about half of alt-A mortgage securities, a loan modification puts a delinquent loan back into current status.¹⁵ If enough delinquent loans are made current through modifications, then some of the credit enhancement in the security—money set aside to protect Aaa investors if too many loans default—is distributed pro rata across all tranches of the security, including lower-rated tranches that would surely suffer without the modifications. Unless policymakers change these rules through legislation, this could be an impediment to the success of any loan modification plan targeted at subprime and alt-A homeowners.

The bottom line is that, given the complexity of the calculation for mortgage owners and their conflicting interests, there will be fewer modifications than the administration hopes, and it will take longer for the modifications to get going in earnest. Still, the administration's plan will substantially increase loan modifications and significantly reduce foreclosures. In the example cited above, modification costs taxpayers almost \$18,000 but saves homeowners, mortgage servicers and mortgage owners \$33,000. This does not consider the substantial benefits to all taxpayers that result from more stable house prices. The cost of the administration's plan is high, but not

implementing such a plan will almost surely cost much more.

Bankruptcy reform. The administration's housing initiative also includes legislation to change bankruptcy law, allowing homeowners in a Chapter 13 filing to have the principal on their first mortgage reduced—crammed down—to the home's current market value. Under current law, bankruptcy judges may reduce most consumer debts, but not a first mortgage. The logic is that by not allowing first mortgage cram downs in bankruptcy, mortgage rates are lower and credit is more available.

Policymakers likely hope the proposed change will not increase bankruptcy filings but rather encourage mortgage owners to modify more loans. Bankruptcy judges have significant latitude to rearrange a household's finances and could impose greater losses on mortgage owners than they would face by agreeing to participate in the modification plan. The bankruptcy law would be the stick, convincing mortgage owners to take the financial carrots in the plan.

Despite this, a change in law could lead to between 750,000 and 1.25 million more Chapter 13 filings this year and next. Some homeowners will find this alternative more attractive than a loan modification, particularly those significantly underwater or with high total debt loads. Bankruptcy may be a better option than a loan modification that only temporarily cuts their mortgage payment.

Mortgage owners may also view bankruptcy as a better option for some homeowners than a loan modification, which may not lower the chance of default enough to make it worthwhile. Indeed, a bankruptcy may put the homeowner on firmer financial ground and thus lower the chance of future default more than a modification.

There had been concern among investors in highly rated tranches of certain mortgage securities that they would get hurt in a Chapter 13 filing. For a number of alt-A securitizations, totaling some \$200 billion, losses in bankruptcy would be distributed pro rata across all tranches, including Aaa. However, language has been included in the legislation to provide relief to these Aaa tranches, which seems appropriate but ironically removes an incentive for these mortgage owners to prefer modifications over bankruptcy.

There are many other concerns about the bankruptcy legislation, some of them misplaced. The legislation will not significantly raise the cost of mortgage credit as has been argued. The legislation only applies to loans already originated and thus should have no impact on future mortgage rates unless mortgage owners grow convinced that the law will be changed again in the future. This seems unlikely given the current unusual circumstances.

It is unlikely that abuses by distressed homeowners will increase as a result of this legislation, given that a workout in Chapter 13 is financially painful. Indeed, the number of bankruptcy filings has remained surprisingly low since the late 2005 bankruptcy reform, reflecting the much higher costs to households of filing Chapter 13. Short-term housing investors who borrowed heavily to make quick profits in the boom would certainly not consider Chapter 13 a solution to their financial problems.

It is reasonable to worry that the change to bankruptcy law and resulting increase in bankruptcies will hit other consumer lenders hard. Unsecured credit card lenders in particular could lose substantially in bankruptcy, as judges significantly reduce or eliminate credit card debts. If 1 million more households file for bankruptcy due to the cram down legislation and the average household has \$50,000 in credit card debt, the potential loss to credit card lenders is \$50 billion. Complicating matters further, most credit card debt has been securitized; these securitizations could fall apart if the losses are large enough.¹⁶ Rules guiding these securitizations force the big banks that originated the credit card debt—the same institutions that the government is working hard to keep solvent—to dissolve the securities and put the credit card debt back on their balance sheets. With 1 million more households in bankruptcy, it is conceivable that banks would end up assuming tens or hundreds of billions in credit card debt. This will require the banks to come up with more capital—seeking it from the government if private markets remain locked up—and to cut lending further, exacerbating the credit crunch.

¹⁵ These rules are known as PSAs, or pooling and servicing agreements, that exist between mortgage servicers and the mortgage owners of securities backed by the loans managed by the servicers.

¹⁶ In many credit card securitizations, if the excess spread—the difference between interest and other income collected and borrowing costs and credit losses—turns negative for more than three months, then the securitization is dissolved.

Changing bankruptcy law to allow for first-mortgage cram downs will forestall more foreclosures and thus help alleviate the current housing crisis. But there will be costs, some known and some still unknown.

Conclusions. The administration's policy response to the housing and mortgage crisis is creative, even elegant, and will mitigate the severity and length of the problem. The initiative should soon lead to lower mortgage rates and more mortgage credit, prompting a major refinancing boom and shoring up home sales. It could also lead to as many as 2 million loan modifications and 1 million more Chapter 13 filings during the next three years. If another 750,000 modifications occur via other lender

and government efforts, then some 3.75 million potential foreclosures would be prevented, at least for awhile. These are meaningful results, and while mortgage loan defaults are still expected to rise this year, they are also expected to peak by this time next year (see Table 3).

The macroeconomic benefit of avoiding so many foreclosures is substantial. In another econometric analysis that examines the relationship between foreclosures and house prices, Moody's Economy.com expects the administration's housing policies to reduce the peak-to-trough decline in national house prices by nearly 9

percentage points.¹⁷ This translates into a saving to U.S. households of approximately \$2 trillion in housing wealth. While small compared with the nearly \$20 trillion in total household wealth lost since mid-2007, the results are significant for consumer spending and employment. Fewer foreclosures and less severe house price declines also mean smaller losses for the nation's struggling financial system. Anything that helps the system will ultimately improve the flow of credit and support the broader economy.

¹⁷ The econometric analysis is described in "Housing in Crisis: When Will Metro Areas Recover," February 2009, Zandi et al., and is based on the Fiserv Case-Shiller national house price index.

Table 3: First-Mortgage Defaults and Lost Homes

	Number of first-mortgage loan defaults	Number of foreclosure sales	Number of short sales, deeds in lieu	Number of lost homes
2000	699,541	429,008	13,359	442,367
2001	806,264	433,994	25,599	459,594
2002	974,196	426,524	45,608	472,132
2003	973,126	375,994	46,044	422,039
2004	956,255	332,707	25,004	357,711
2005	807,218	385,865	16,161	402,027
2006	869,800	477,596	41,474	519,070
2007	1,437,828	757,298	112,260	869,557
2008	2,704,785	1,437,106	279,080	1,716,186
2009	3,142,750	1,547,176	407,660	1,954,836
2010	2,882,000	1,332,349	365,189	1,697,538
2011	2,637,000	1,149,732	253,943	1,403,675
Sum 2006-2008	5,012,413	2,672,000	432,813	3,104,813
Sum 2009-2011	8,661,750	4,029,256	1,026,793	5,056,049
Sum 2006-2011	13,674,163	6,701,256	1,459,606	8,160,862

Notes:

A first-mortgage loan default is the first step in the foreclosure process. Lost homes include short sales, deeds in lieu, and foreclosure sales.

Assumptions:

The last historical data point is 2008Q4.

Peak-to-trough house price decline of 37% based on Case-Shiller national house price index; trough in 2009Q4.

Peak unemployment rate of 9.8% in 2010Q2.

Federal funds rate 0% at year-end 2009, 1.25% year-end 2010, and 4.25% year-end 2011.

Ten-year Treasury yield of less than 5% through 2011.

Loan modification rate of 35% in 2009-2011; 35% redefault rate in three years.

Sources: FDIC, Equifax, Moody's Economy.com

But for all its virtues, the administration's housing policy may not be enough. The analysis presented here is highly uncertain given the unknowns of how the policies will work and how effective they will be. This only adds to the uncertainty created by the recent turmoil in the financial system. It is not difficult to

imagine the administration's housing policy becoming overwhelmed by events, as has nearly every other initiative so far in the crisis. It is thus very possible policymakers will soon reconsider some ideas not included in the current plan to stem foreclosures and shore up the housing and mortgage markets. Not being bolder today almost certainly

means this crisis will cost the economy and taxpayers even more in the future.¹⁸

¹⁸ One example of this is a mortgage loan modification plan that involves principal write-downs for qualifying distressed homeowners. See "Homeownership Vesting Plan," *Regional Financial Review*, December 2008, Zandi.

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