

# Home Appreciation Mortgage Plan

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# Executive Summary

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The U.S. economy is contracting and it appears likely to suffer a recession. Private sector employment has been declining since December, vehicle sales have fallen sharply since the beginning of the year, industrial production is declining, and consumer spending is at best flat. Arizona, California, Florida, Michigan, Nevada, Ohio, Rhode Island, Tennessee and Wisconsin are already suffering substantial recessions—states that together account for over one-third of the nation's GDP.

At the center of the economy's problems is the very severe housing downturn. Since housing activity peaked nearly three years ago, home sales have fallen by more than one-third, housing starts by nearly two-thirds, and house prices by over 10%. In hard-hit places such as California and Florida, house prices have declined by some 20% from their peak. Home sales and housing starts are at levels last seen in the early 1990s and house prices are back to where they were in early 2005.

Declining house prices and homeowners' equity, a rapidly weakening job market, and higher payments on adjustable rate mortgages are resulting in an unprecedented increase in mortgage loan defaults. Defaults—the first step in the foreclosure process—are running a 2.2 million annualized pace so far this year. Delinquency rates, 30, 60, 90, and 120 days late, continue to increase sharply, suggesting a large number of defaults are likely in coming months.

Surging foreclosure sales are adding to the mountain of unsold housing inventory, further exacerbating house-price declines, and igniting a self-reinforcing negative cycle. Homes sold in foreclosure are sold at very large discounts to prevailing market prices, depressing all prices. There are an estimated nearly 9 million homeowners with zero or negative homeowners' equity; these homeowners are at significant risk of defaulting on their mortgage.

The mortgage defaults have undermined the value of mortgage

securities and precipitated a global financial crisis. Recognized losses on mortgage security holdings to date total approximately \$200 billion. More write-downs are coming as losses are ultimately expected to top \$400 billion. Credit problems are also developing for consumer loans, commercial real estate loans, and corporate loans and bonds. Given the mounting losses and the difficulty of discerning which financial institutions will bear these losses, credit markets and the banking system are under intense pressure. The availability of credit has been severely impaired and the cost of capital has risen for all borrowers, creating even more difficulties for the economy.

Policymakers are responding aggressively to the recessionary economy and financial crisis. The Federal Reserve Board has slashed interest rates, with the federal funds rate target falling from 5.25% last summer to 2.25% today. Futures markets are anticipating more rate cuts when policymakers meet again next month. The Fed has also established several new mechanisms for providing liquidity to the banking system and credit markets. These efforts have stabilized money markets, reduced interest rates for agency-backed mortgage loans, and, at least for the time being, forestalled more financial failures.

Congress and the Bush administration have passed a fiscal stimulus plan, which includes a tax rebate that will be mailed to households beginning in May. The plan also allows for a temporary increase in the mortgage loan caps on the FHA, Fannie Mae and Freddie Mac.<sup>1</sup> Fannie and Freddie's capital requirements have been relaxed and they are permitted to expand their mortgage holdings more rapidly. The

<sup>1</sup> Fannie Mae and Freddie Mac are privately held institutions with a public charter. They are government-sponsored enterprises or GSEs. While the federal government does not provide any explicit financial backing to these institutions, there is an implicit one, which has been strongly ratified by recent federal government interventions.

Treasury Department has facilitated voluntary loan modification efforts via the initiatives Hope Now and Project Lifeline. The tax liability on mortgage forgiveness has been eliminated. FHA lending has been expanded by allowing the FHA to extend credit to more hard-pressed homeowners.

Despite these laudable and creative policy efforts, they appear to be insufficient to stem the crisis. A much larger, more aggressive and targeted policy response is necessary. A number of proposals for such a response have been put forth. Most notable includes a proposal by Congressman Barney Frank and Senator Christopher Dodd that allows the FHA to refinance loans that mortgage owners agree to reduce the principal owed by homeowners to 90% of the current market value of their home. The plan would also attempt to establish an auction process to accelerate the refinancing process and provide some monies to local government in order to purchase foreclosed property. Similar plans, at least in spirit, have been put forth by other groups including the Office of Thrift Supervision, the National Community Reinvestment Coalition, and various investment banks and academic economists.

The Frank/Dodd plan is a very good effort, but has several potential limitations. First, the federal government is taking on a substantial amount of credit risk. While homeowners with smaller fixed rate FHA loans are more likely to remain current on their loans, the potential for default is not inconsequential. Second, it is not clear that mortgage owners will take the FHA up on its offer. There is a seeming economic incentive for them to do so, but the plan does not directly address the substantial institutional impediments that have limited the effectiveness of voluntary efforts such as Hope Now. Third, the FHA may not be able to increase the scale of its operations quickly enough to work

through the refinancing of a large number of distressed mortgage loans.

Any policy effort to address the housing and mortgage crisis should satisfy a number of criteria. First, policy must help those homeowners facing foreclosure remain in their homes. This is necessary to forestall a continued downdraft in house prices. Second, policy must not bail out mortgage investors or homeowners. This would not be equitable to those homeowners that are prudent in their financial affairs and it may create moral hazard that would result in excessive risk-taking in the future. Third, policy should be designed to limit the costs to the government. Taxpayer funds should be used only if it reasonable to expect that the policy will be paid for by the tax revenues generated by a stronger economy. Finally, the policy must be designed so that it can be implemented quickly. This likely requires contributions from both government and the private sector; policy that requires the development of new government agencies will be difficult to get up and running in time to make a substantive difference.

The plan presented in this proposal satisfies these criteria. In broad terms, the plan provides mortgage owners with the opportunity to modify troubled first and second mortgage loans into a new first mortgage loan and a second home appreciation mortgage (HAM).<sup>2</sup> The amount of the HAM loan refinancing is determined by the amount of the write-down of the original first and second mortgage principal. The owner of the original 1st mortgage is the owner of the new 1st mortgage and the HAM 2nd mortgage. The original 2nd mortgage would be the beneficiary of house price appreciation with an opportunity to receive a distribution at the termination of the new mortgage. The principal of the HAM loan would be guaranteed by

the federal government and structured so that the homeowner would pay a nominal interest rate and share any future price appreciation of their home with the mortgage owner.

Hard-pressed homeowners would certainly be better off financially under this plan. They would hold on to their home, have measurably lower total mortgage debt, and pay less in mortgage interest and principal. Mortgage owners would be better off as they would avoid the costs of foreclosure, have a new first mortgage loan that is much more likely to remain current, and have a HAM loan that is guaranteed by the federal government. The government assumes mortgage credit risk under this plan as it guarantees the HAM loan, but measurably less risk than it is currently taking on as it aggressively expands FHA and GSE lending.

The private sector is expected to develop a secondary market for the new first mortgage and HAM loans. This will allow mortgage owners to sell their first mortgage and HAM loans to a broad array of potential investors attracted by the guaranteed principal, nominal interest rate, and the potential to share in future house-price appreciation. A novel asset class will be developed, offering investors a return linked to residential real estate and portfolio diversification benefits, and facilitating the flow of capital into the mortgage market.

The HAM plan is designed to be revenue neutral to the federal government. The government is guaranteeing via the FHA only the HAM 2nd mortgage. This limits the government's future credit risk while better aligning the interests of mortgage owners. To make the HAM plan as affordable to as many homeowners as possible, the insurance premiums paid to the FHA are paid at the sale or refinancing of the home as the first priority payment from the distribution of proceeds.

This plan does not bail out mortgage investors or homeowners. Mortgage owners would lose at least the amount of the original first mortgage loan they write down; the HAM loan would also be worth less than its par value if sold into the

secondary market. Homeowners would still be responsible for paying on the new first mortgage loan and the HAM loan. Financial losses suffered by mortgage owners and homeowners would be measurably less than if loans go through foreclosure, but both suffer substantial losses under this plan. However, with this plan, mortgage owners also have the potential to earn back the principal that has been written down, should home prices appreciate in the future.

There are concerns that policy proposals like the one presented here are only delaying an inevitable adjustment in house prices. Prices should be permitted to decline quickly, it is argued, as this will restore housing affordability and ultimately lay the foundation for a recovery in the housing market. The HAM plan will not forestall price declines; the amount of unsold housing inventory already on the market will ensure that. The plan will hopefully stem a further collapse in house prices that threatens to further undermine the financial system and economy and go well beyond that needed to restore a high level of housing affordability. Indeed, the current house-price declines are so severe in many markets they are seemingly doing more to weaken housing demand as potential buyers are scared about buying now only to take a big loss than support them via increased affordability.

Another concern is that such policy proposals only help those mortgage owners and homeowners that are least deserving of it. What about those lenders and homeowners who practiced good underwriting and are working hard to make their mortgage payment? Unfortunately, the mistakes made by those currently in deep financial trouble are so serious they have undermined the global financial system and the U.S. economy. Unless policymakers soon become more creative and aggressive, the risks are rising that the current recession will be more severe and the ultimate recovery more disappointing than anyone currently anticipates. The cost in lost jobs, wealth and tax revenue will be measurably greater than the cost of this policy proposal. And while there is no guarantee even this will work adequately, it is worth the effort.

<sup>2</sup> Mortgage owners include both depository institutions and mortgage pools ultimately owned by a wide variety of global mortgage investors.

# The Economic Case for a More Aggressive Policy Response

The economy is contracting and appears to be in the midst of a recession. Conditions began to erode substantially soon after last summer's subprime financial shock and turned measurably worse by year's end. Real GDP growth, which came to a standstill in the fourth quarter of 2007, is set to decline in the first half of 2008. Employment is falling, vehicle sales have plunged, manufacturing is contracting, and retailing is at best flat.

A number of state economies are already in recession, including Arizona, California, Florida, Michigan, Nevada, Ohio, Rhode Island, Tennessee and Wisconsin (see Chart 1). These states account for over one-third of national GDP. Another twenty states in all parts of the country are very near recession. These states account for an additional close to one-third of national GDP. The large metro area economies of the Northeast, extending from Boston to Washington, D.C. are still expanding, but growth is sharply slowing, particularly around New York City, which is being hurt by Wall Street's travails.

The most fundamental source of the economy's problems is the unprecedented housing downturn and resulting surge in mortgage loan defaults and foreclosures. Housing activity peaked nearly three years ago, and since then, home sales have fallen by approximately

35%, housing starts by nearly 60%, and house prices by 10%. Some two-thirds of the nation's housing markets are currently experiencing substantial price declines, with double-digit price declines occurring throughout Arizona, California, Florida, Nevada, the Northeast Corridor and the industrial Midwest.

Further significant declines in housing construction and prices are likely through the end of the decade as a record amount of unsold housing inventory continues to mount. Exacerbating the inventory problems is the ongoing turmoil in global financial markets and its impact on the mortgage securities market, and thus mortgage lenders, and the recent weakening in the broader economy and job market. National house prices are expected to ultimately decline by over 20% from their peak to their eventual trough (see Chart 2). Even this disconcerting outlook assumes that the Federal Reserve Board will continue easing monetary policy and that the private mortgage securities market revives to some degree this summer.

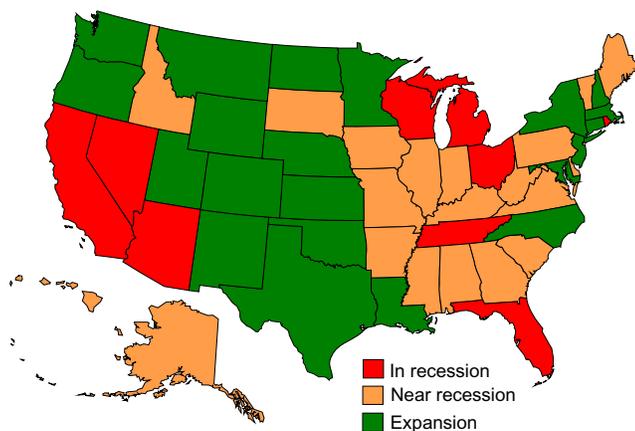
Residential mortgage loan defaults and foreclosures are surging. According to data based on consumer credit files, there were nearly 500,000 first mortgage loans in default—the first step in the foreclosure process—as of the end of

February 2008. This equates to some 2 million defaults at an annualized pace. Delinquency rates, 30, 60, 90, and 120 days past due, are rising strongly. This suggests that mortgage defaults will continue to surge in coming months.

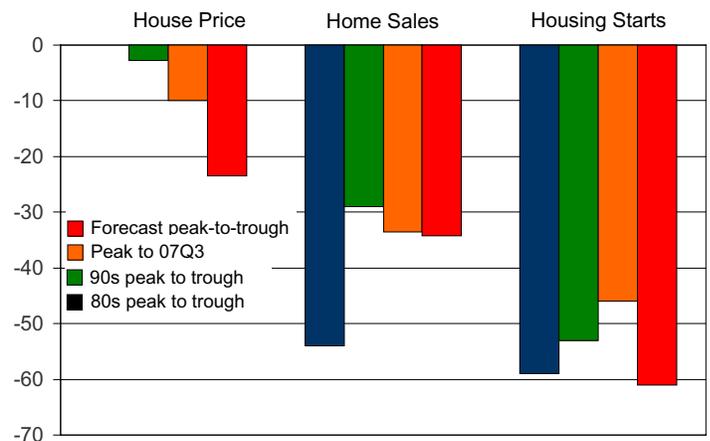
Conspiring to create the current unprecedented mortgage credit problems are resetting adjustable mortgages for recent subprime and Alt-A borrowers, the weakening job market, plunging housing values, and the lack of new mortgage credit. While resetting subprime ARM loans are a serious problem—most subprime ARM loans originated in 2006, when underwriting was its most egregious, face a reset this year—the sharp decline in short-term interest rates in recent months will mitigate the worst of the resetting. If the Federal Reserve had not eased policy, some \$250 billion in subprime ARMs would reset higher this year, with close to \$100 billion resetting by at least two percentage points. At the current 2.25% federal funds rate, just over \$100 billion will reset higher and almost no loans will experience an increase of more than two points.

Despite the better news on resets, prospects for unemployment and house prices have eroded substantially in recent weeks. Private sector employment has been falling since December, and both initial and continuing claims for

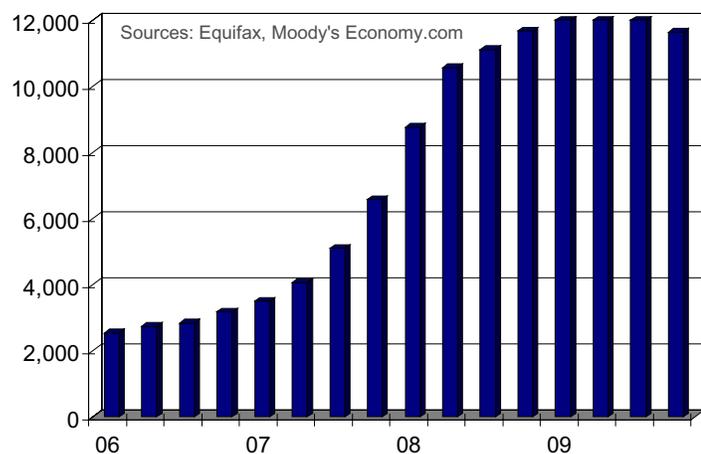
**Chart 1: Recession Already Plagues Parts of the Country**



**Chart 2: An Unprecedented Housing Downturn  
% change from peak**



**Chart 3: Homeowners With Zero or Negative Equity**  
*Ths of homeowners*



unemployment insurance continue to rise, signaling further job losses are coming. The job market is weakening most quickly where mortgage credit problems are the most severe. In California and Florida, for example, the unemployment rate has jumped over a percentage point during the past year. This largely reflects layoffs in housing-related industries that had become so important to these economies during the housing boom. Nationwide, housing-related jobs account for no more than one-tenth of all jobs, but on the west coast of Florida, for example, they accounted for close to one-fifth of jobs not too long ago.

Plunging housing values are also adding significantly to surging defaults and foreclosures. With national house prices down by some 10% from their peak nearly two years ago, a rapidly growing number of households are underwater on their homes. That is they have negative homeowners' equity: The amount they owe in mortgage debt is greater than the value of their home. By the end of March, an estimated nearly 9 million homeowners, equal to 10.3% of the single-family housing stock, are expected to have effectively no or negative equity.<sup>3</sup> The

<sup>3</sup> This calculation is based on estimates of homeowners' equity across the nation's over 40,000 zip codes. The amount of first and second mortgage debt outstanding, including both home equity lines of credit and closed-end second loans, is derived from the credit file data discussed earlier. The estimates of housing values are based on repeat-sales house prices indices available from Fiserv Lending Solutions that are benchmarked to house prices available from the 2000 Census. In those zips where repeat-sales price data are not available, Moody's Economy.com estimates of county house prices are used.

to stay current on their mortgage and in their home even if they have negative equity. If they are also struggling with a disruption to their income and/or a substantial increase in their mortgage payment, however, then the negative equity makes it all but impossible to stay in the house. This is especially true if lenders are unwilling or unable to modify or refinance their existing loan into something more financially manageable. Homeowners may also walk away from their mortgage and home if they are so far underwater—or expect to be, given plunging house prices—and they lose hope of ever getting back to even.

Given all this, even if mortgage loan modification efforts increase measurably in coming months, well over 3 million mortgage loans are expected to default this year and next. Of these, 2 million homeowners will go through the entire foreclosure process and ultimately lose their homes. The impact on these households, their communities, and the broader economy will be substantial.

The unraveling of the housing and mortgage

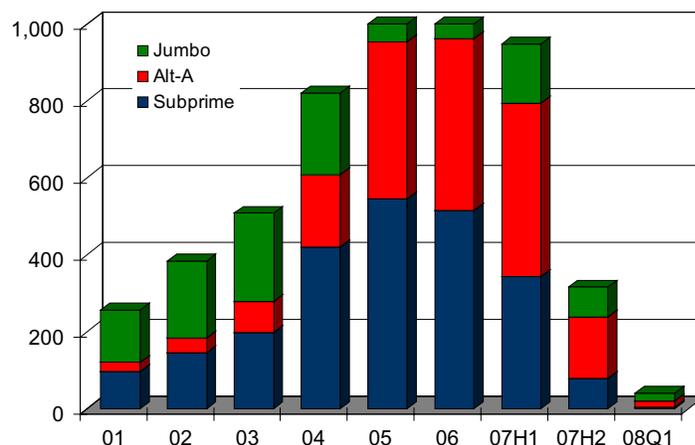
current distribution of homeowners' equity also highlights the risks posed by further house-price declines. If prices fall by 20% from their peak to their expected trough next spring, then some 12 million households will be underwater by then (see Chart 3).

Most homeowners will work hard

markets has undermined the fragile global financial system. Estimates of the mortgage losses global investors will eventually have to bear range as high as \$500 billion. The losses publicly recognized by financial institutions to date amount to no more than \$200 billion. Such massive actual and expected losses have effectively shutdown the private-label mortgage securities market. Issuance of subprime, Alt-A, and jumbo mortgage-backed bonds has collapsed from an annualized close to \$1 trillion in the first half of 2007 to essentially nothing in January (see Chart 4).

Other related stresses are also weighing increasingly heavily on the financial system. Losses on construction and land development loans made by bank lenders to homebuilders are sure to increase measurably in coming quarters and the credit problems on other consumer loans are rising rapidly, particularly in those parts of the country in recession due to the housing downturn. These stresses are also exposing other weak spots in the financial system, including the monoline insurance industry and the credit default swap market. Given the opacity of the global financial system, it is unclear who is at most risk, and as such, players in credit and equity markets remain on edge, unwilling to extend credit to each other. The availability of credit has been impaired and the cost of credit has risen for nearly everyone, good credits and bad, and the negative economic repercussions are mounting.

**Chart 4: The Private Mortgage Securities Market Is Broken**  
*Bond issuance, \$ bil, annualized*



# The Policy Response to the Housing and Mortgage Crisis

While a recession appears likely, it will take deft and aggressive monetary and fiscal policymaking to ensure that the downturn will be short and modest.

Indeed, the last two recessions in 2001 and 1990-1991 were short and mild by post World War II standards, but only because of the aggressive monetary and fiscal stimulus provided to shore up the economy. In the early-1990s downturn, the real federal funds rate fell from 5% to 0% and the federal budget deficit increased from 3% to 5% of GDP. Early in this decade, the real funds rate fell from 4% to -1% and a federal budget surplus equal to 2% of GDP turned into a deficit of 4% of GDP.

Policymakers' initial response to last summer's subprime financial shock was very tentative, as they misjudged its severity and the extent of its economic fallout. Financial markets and the economy subsequently eroded. The Federal Reserve finally reacted in dramatic fashion beginning in late January, substantially changing the conduct of monetary policy and slashing the federal funds rate target in an unprecedented way. The real federal funds rate has subsequently declined from 3% to near zero currently.

Monetary authorities have also established several new mechanisms for providing liquidity to the banking system and credit markets more broadly.<sup>4</sup> These efforts have seemingly stabilized the financial system, but conditions remain fragile as is clear

<sup>4</sup> These include the Term Auction Facility established late last year, which is a facility for depository institutions to borrow up to 28 days; the Term Securities Lending Facility established in mid-March, which is a facility for broker dealers to trade various securities for Treasury securities for up to 28 days; and the Primary Dealer Credit Facility established in mid-March, which is a facility for broker dealers to borrow overnight using various securities as collateral.

from continued very wide credit spreads and depressed bond and equity issuance.

Equally as dramatic was the quick passage in February of a sizable and reasonably well-designed fiscal stimulus package.<sup>5</sup> The stimulus includes a tax rebate for households, with checks being mailed beginning this May, and investment incentives for businesses through the end of the year. These tax cuts total approximately \$150 billion, equal to 1% of GDP. While this stimulus will help boost the economy, it does not directly address the ongoing problems in the housing and mortgage markets, and thus its benefits may very well prove temporary.

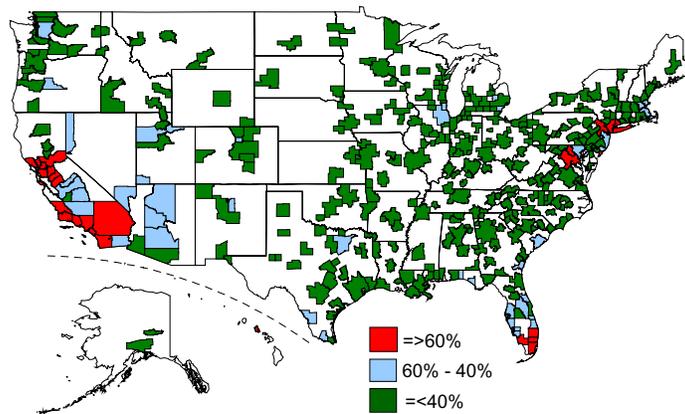
mortgage credit to those borrowers able to get credit. While the federal funds rate has declined 300 basis points since the Fed began easing policy, and the 10-year Treasury yield by some 150 basis points, fixed and adjustable mortgage rates for conforming loans backed by Fannie Mae and Freddie Mac have declined by no more than 50 basis points. This reflects the high degree of angst among global investors over even the financial condition of the GSEs. Indeed, the Fed established the new lending mechanisms in part to support the GSEs as financial institutions are able to put up GSE-related securities as collateral when borrowing from the

Fed. Given the collapse of the private mortgage securities market, the only substantive mortgage credit is coming from the FHA and the GSEs.

To further facilitate FHA and GSE lending, a number of steps have been taken to expand their credit providing ability. As part of the fiscal stimulus package, the mortgage loan caps on the FHA, Fannie Mae and Freddie Mac have been substantially increased.<sup>6</sup> Although temporary, this should result in increased mortgage lending in particularly hard-hit housing markets such California, southern Florida, and around

D.C. and New York City (see Chart 5). The GSEs' regulator, OFHEO, has also relaxed their capital requirements and the growth caps on their mortgage portfolios. The FHA's loan caps have also been increased and it has been given authority through the new FHA Secure program to provide refinancings for adjustable rate

**Chart 5: FHA, GSE Lending Will Benefit These Areas Most**  
**Nonconforming share of 2006 originations, U.S. = 50%**



Sources: 2006 HMDA, Moody's Economy.com

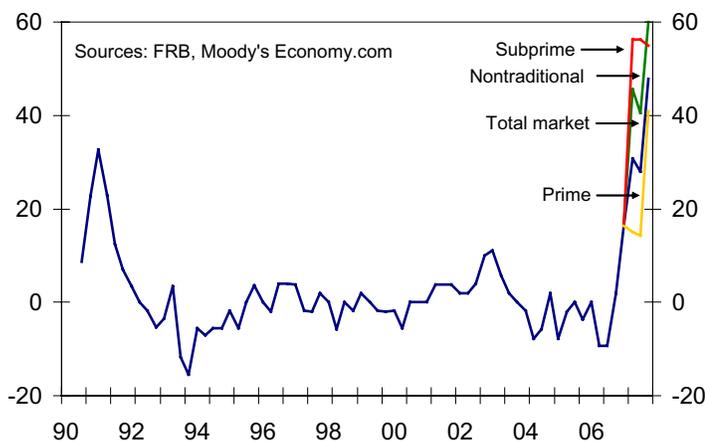
There are numerous other policy efforts underway to support the housing and mortgage markets more directly. Broadly, these policies are designed to: 1) lower the cost and increase the availability of mortgage credit; and 2) facilitate mortgage loan modification efforts, either voluntarily or legislatively.

The Federal Reserve's aggressive actions have modestly reduced the cost of

<sup>5</sup> See "Assessing the Macroeconomic Impact of the Fiscal Stimulus 2008," Mark Zandi, January 2008.

<sup>6</sup> Fannie and Freddie's previous mortgage loan cap was \$417,000. The cap was recently increased to the maximum of either 125% of the median priced home in the highest priced county in a metro area or \$729,000. The FHA loan cap maximum is also \$729,000.

**Chart 6: A Residential Mortgage Credit Crunch**  
**Net % of banks tightening mortgage loan standards**



borrowers who are delinquent on their mortgages due to a mortgage payment reset.

FHA and GSE lending is already expanding very rapidly and will increase further in coming months as the changes to their lending authority become more fully implemented. The Federal Home Loan Bank system has also substantially expanded its lending to member institutions with the purpose of facilitating increased mortgage lending. Other mortgage credit is also being made available by various states who are issuing tax-exempt bonds to fund the refinancing of the mortgages of troubled homeowners. The fiscal stimulus package authorized more of this bond issuance.

Despite these efforts, they will not be able to fully fill the mortgage credit void left by private lenders. Many lenders have failed or closed their mortgage operations, while others have substantially tightened their lending standards (see Chart 6). During the first half of 2007, prior to the crisis, private lenders accounted for nearly two-thirds of the mortgage loans originated. While clearly inflated by the egregious lending of the period, it highlights that until private mortgage lending resumes in earnest, the housing market, and thus broader economy, will continue to struggle.

Forestalling a substantive rebound in private mortgage lending is the mounting number of delinquent and defaulting mortgage loans. Until it is clear that these problem loans are being worked through, private mortgage credit will not revive. An important policy step to facilitate the resolution of troubled loans was the

elimination of the tax liability on mortgage debt that is forgiven in a short sale—when a homeowner sells their home at a price less than the amount of debt they owe on the home. Under previous tax law, the debt forgiven in a short sell was taxable, a cost that many strapped homeowners could not afford, thus limiting the

number of such sells that were taking place.

Policymakers are also working to facilitate mortgage loan modification efforts to make loans more manageable for stressed homeowners. Hope Now and Project Lifeline are initiatives endorsed by the Treasury Department in which mortgage servicers are encouraged to freeze mortgage rates on adjustable rate mortgage loans before they hit their payment reset. When the Treasury put this together late last year and earlier this year, the overriding concern was that these resets would be so large homeowners would be forced to default on their mortgages. While this is happening to some extent, most of the resetting has been postponed by the Fed's aggressive monetary easing. These loans will reset once monetary policy is normalized, but the hope is that some of the other problems homeowners are now struggling with, including falling house prices and a weaker job market, will abate when the resets do occur.

Unfortunately, Home Now and Project Lifeline have not had a measurable impact on mitigating the mortgage credit problems.<sup>7</sup> Not only are defaults now being driven principally

<sup>7</sup> According to Hope Now, as of February, approximately 750,000 troubled mortgage loans were put on repayment plans and another 250,000 were modified. Repayment plans are of very little help to borrowers, however, as they simply allow the borrower to resume paying on their existing mortgage and make good on any past-due payments and resulting penalties over the next few months. It is not clear how large and thus helpful the loan modifications have been.

by falling house prices and the soft job market, but mortgage servicers have been very slow to substantively modify loans. A substantial impediment is that second mortgage owners are unwilling to subordinate their claims to the home in a loan modification. Over one-half of subprime ARM loans originated in 2006 had so-called simultaneous second loans. They were very popular during the period of frenzied lending as a way of avoiding paying mortgage insurance.<sup>8</sup> Given the decline in house prices these second lien holders would likely get nothing in a foreclosure, but are betting that first mortgage holders will pay them something to drop their claim in order to get a loan modification done. They figure that first lien holders will eventually buckle, giving them a few pennies on the dollar to avoid the substantial costs involved in going through foreclosure. This financial game of chicken is short-circuiting the ability to quickly accomplish a significant number of loan modifications.

Another substantial impediment to greater loan modifications is concern mortgage servicers have over being sued by mortgage owners. The owners of many mortgage loans are investors who purchased the mortgage securities that are backed by these loans. The investors hired the mortgage servicers to collect interest and principal payments from homeowners and manage any credit problems in the best interest of the investors as defined in their contracts with each other. Investors encompass a wide range of interests, including those institutions that were willing to trade a lower return for taking very little risk and thus purchased highly-rated, such as Aaa, securities, and those institutions that were looking for very high returns and thus willing to take lots of risk and thus purchased very low-rated or non-rated securities. Aaa investors are much more willing to have loans go through foreclosure as this will hurt investors in the riskier securities. Indeed, Aaa investors do not find loan modifications particularly attractive as this will allow the investors in the riskier securities to continue to get payments on their securities even though

<sup>8</sup> During the housing boom at mid-decade when interest rates were low, the after-tax interest cost of a home equity loan was measurably lower than MI, which at the time was not deductible.

there is still a high probability that the borrower with the modified loan will eventually default. If there are enough such defaults in the future, then even Aaa investors may not get their money back; a risk they were not paid to take. Complicating matters is that Aaa investors do not trust the servicers to act in their best interest as some mortgage servicers are also investors in the low or non-rated securities. Lawsuits are already being filed.

Given the seeming failure of Hope Now, Project Lifeline and other voluntary loan modification efforts to stem the increase in mortgage foreclosure and defaults, there is legislation in Congress to provide a stronger impetus for more modifications to occur. There is legislation to indemnify mortgage servicers from investor lawsuits. There is also legislation to allow subprime first mortgage loans originated during the period when underwriting was its most frenzied to be crammed down in a Chapter 13 bankruptcy filing. The appropriate cram-down would be determined by a bankruptcy judge and could include the reduction in mortgage principal owed to the appraised value

of the home, a lower interest rate, and/or changes in the loan's maturity. Under current bankruptcy law first mortgages are exempt from any such changes so that homeowners are unable to effectively use bankruptcy to avoid foreclosure. Both pieces of legislation would be helpful in inducing more substantive loan modifications, but they are strongly opposed by industry groups and the Bush administration.<sup>9</sup>

While substantial, it appears increasingly likely that the increasingly aggressive policy response to date to the ongoing housing and mortgage crisis will prove insufficient to resurrect the global financial system and fully revive the economy. The economic efficacy of monetary stimulus has been impaired given that the principal near-term link between monetary policy and the broader economy runs through the evaporating housing and mortgage

<sup>9</sup> See "The Growing Mortgage Foreclosure Crisis: Identifying Solutions and Dispelling Myths," testimony by Mark Zandi before the House Subcommittee on Commercial and Administrative Law Hearing on Tuesday, January 29, 2008.

markets. Lower rates will not make housing more affordable if there is no mortgage credit. The economy may even begin to recover this summer, lifted by the fiscal stimulus package. The tax cuts are expected to add as much as one and a half percentage points to annualized real GDP growth during the second half of this year. The concern is what happens after the stimulus fades early next year if credit markets and the banking system fail to find their footing. The economy may continue to grow, but without a healthy financial system any recovery will prove weak and disappointing.

Moreover, confidence that financial markets will work through their problems aided by lower interest rates and some coaxing by the Treasury Department appears increasingly misplaced. The financial system may not be up to the task of restarting itself, at least not quickly enough. A more aggressive policy response, specifically targeted to the problems in the nation's housing and mortgage markets and financial system, seems necessary. At the very least policymakers should be planning as if their efforts to date will not be sufficiently successful.

# Guiding Principles for Further Policy Action

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Given the substantial risks that the economy will continue to struggle with, the global financial system will remain unsettled; and that the policy actions taken to date will prove inadequate to solving these problems, at least in a reasonable amount of time and with acceptable financial loss, more policy action appears called for.

Any further policy action to address the housing and mortgage crisis, however, should satisfy a number of criteria. First, any further policy action must work to keep as many homeowners facing foreclosure as possible remaining in their homes. That is, any policy effort must be successful in facilitating an increased flow of mortgage credit to and/or to result in substantial and substantive loan modifications. Only if more homeowners are able to remain in their homes will the negative cycle of foreclosures begetting

house price declines begetting more foreclosures be short-circuited. This in turn is necessary to ending the downdraft in the housing market that is weighing so heavily on the economy and financial system.

Second, any further policy action must not bail out mortgage owners or imprudent homeowners. This would not be equitable to those homeowners who have been circumspect in their financial affairs, and it may create moral hazard problems that would result in excessive risk-taking in the future. Policy must therefore exclude housing investors—both short-term investors or flippers and those with longer-term investment horizons—from receiving any benefits of the action. Policy should also be designed so that mortgage owners suffer losses consistent with those that would be borne in a reasonably functioning market. The costs involved in any new policy should also be

shared in an equitable fashion between the imprudent parties.

Third, any further policy action should be designed to limit the costs to the government. Taxpayer funds should be used only if the policy will be paid for by the tax revenues generated by the resulting stronger economy and financial systems. In other words, the government's role in the policy must not expose it to onerous or excessive liabilities or current costs that are out of balance with the likely social benefits of the policy.

Finally, any further policy action must be designed so that it can be implemented quickly. For this to occur, it is likely that the policy will require participation by both government and the private sector. Policies that rely solely on government, particularly if it requires the development of a new government agency, will be difficult to get up and running in time to make a substantive difference.

# The Home Appreciation Mortgage Plan

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The Home Appreciation Mortgage Plan is a sustainable, low-cost solution to the nation's housing crisis, by providing quantifiable benefits to homeowners, mortgage owners, and the government. For the plan to be successful each of these players must benefit financially compared to the alternatives. The core of the HAM plan is to modify individual mortgages in such a way that it leads to a substantial reduction in the debt burden for homeowners while minimizing the losses for mortgage owners and should result in no net cost to taxpayers. The HAM plan is expected to benefit an estimated 1.3 million hard-pressed homeowners, helping to stabilize the housing market and thus the broader economy and financial system.

*The advantages of the HAM plan are:*

- Mortgage owners must write down their mortgages to 90% of the current appraised value of the home. The HAM plan is not a bailout of mortgage owners.
- Mortgage owners maintain ownership of the 1st mortgage and thus have a strong incentive to only put homeowners into the plan that they believe will succeed in remaining current on their new mortgage.
- Mortgage owners share in the future price appreciation of the home.
- There is an incentive for 2nd lien holders to subordinate their interests and allow loan modifications to occur. This incentive results from their share in the future price appreciation of the home.
- Homeowners owe on a much smaller mortgage, have a lower monthly mortgage payment, and share in the future price appreciation of their home.
- The HAM plan is revenue neutral for the federal government under nearly all scenarios.

*Broadly, the key components of the HAM plan are:*

- Mortgage owners modify the 1st and 2nd mortgages of non-investor

homeowners that are delinquent and that they believe are at significant risk of default.

- The homeowner must be an owner-occupant, have a debt-to-income ratio of no less than 40%, and certify that he/she has not intentionally defaulted on their existing mortgages.
- The modification consists of writing down the original 1st mortgage into a new smaller first mortgage and a non-amortizing HAM 2nd mortgage loan.
- An appraisal is conducted on the home.
- The mortgage owner selects a new combined LTV relative to the appraised value of the home of up to 90%, depending on how much of the original mortgage they are willing to write down. The original combined mortgage balance is written down to the new combined 90% LTV. The combined LTV of the new 1st and new HAM 2nd mortgage must be no greater than 90%, with a 15% maximum LTV on the HAM 2nd mortgage.
- A new 1st mortgage is established. This mortgage will be a 30-year fixed rate loan at prevailing mortgage rates.
- A new 2nd HAM mortgage with a FHA principal guarantee is established. The original 1st mortgage owner is the owner of both the new 1st mortgage and the new 2nd HAM.
- The FHA guarantee applies only to the HAM 2nd mortgage, up to a maximum 15% LTV. This limits the government's future credit risk while better aligning the interests of mortgage owner. To make the HAM plan as affordable to as many homeowners as possible, the insurance premiums paid to the FHA are paid at the sale or refinancing of the home.
- In cases where there is a 2nd mortgage lien on the home, the 2nd mortgage owner is required to subordinate to the new 1st mortgage and HAM loans. The 2nd mortgage owner participates in the distribution of proceeds at the sale or refinancing of the home.

- Homeowners will be subject to a fee if they sell or refinance within 3 years.
- Upon termination of the mortgage through (a) refi; (b) sale of home; or (c) reaching the 10-year term (which would require a refi), the proceeds from sale (or value determined by appraisal) are distributed as follows:
  1. 3% of HAM guarantee to FHA (e.g. \$20,000 \* .03 = \$600).
  2. 1st mortgage principal.
  3. HAM principal.
  4. 2 times the HAM LTV (e.g. 10% HAM = 20% fee).
  5. The original 1st and 2nd lien mortgage owners and homeowner share proceeds 1:1. The original 1st and 2nd lien mortgage owners in turn divide their proceeds 60:40 between themselves until the original principal balances have been repaid in full. When one loan (1st lien or 2nd lien) has been repaid it is capped and the distribution continues with the homeowner 1:1 until it too has been repaid in full.
  6. Homeowner receives any remaining equity.

*The terms of the HAM loan are as follows:*

- 2nd lien mortgage available up to 15% of the current appraised value. The combined 1st and 2nd mortgage LTV limit is 90%
- HAM size calculated by formula: 1st + HAM <= 90%, with HAM maximum of 15%.
- Interest rate terms: 2% interest-only (non-amortizing) loan.
- Shared appreciation rate: applied at the sale, refinancing, or refi value when reaching the 10-year term after principal of 1st and 2nd mortgages have first been paid.
- Principal is guaranteed by the FHA.
- A secondary trading market of HAMS allows owners to sell the HAM loans for a discount or premium value dependent on the market's expectations for home price appreciation.

To see how the plan works, consider the following example:

A family purchases a home for \$250,000 and finances it with a 30-year \$200,000 8% 1st mortgage and a \$25,000 8% piggyback 2nd mortgage. The homeowner has become delinquent in his payments and the mortgage owner is considering foreclosure proceedings. As an alternative to foreclosure, the lender chooses to modify into a new 1st and a HAM 2nd mortgage.

- Step 1: An appraisal is conducted and the home is appraised at \$200,000.
- Step 2: The mortgage owner selects an 80% LTV 1st mortgage and a 10% HAM 2nd mortgage with a cumulative LTV of 90%. The 1st mortgage is for \$160,000 and the HAM 2nd mortgage is for \$20,000.
- Step 3: The new 1st mortgage of \$160,000 is a 30-year fixed rate loan at the current prevailing rate.
- Step 4: The new FHA principal-guaranteed, interest-only HAM 2nd loan of \$20,000 has terms of 2% interest per year plus a share appreciation fee upon termination of mortgage ( $2 * \text{HAM LTV} = 2 * 10\% = 20\%$ )

Now suppose the home is sold in 5 years for \$238,000 assuming an average annual house price gain of approximately 3.5%. The distribution of the proceeds from the sale is as follows:

		\$ 238,000
1. FHA HAM Guarantee Payout(+)/Receipts(-)	less	\$ 600
		<u>\$237,400</u>
2. Remainder of 1st mortgage principal is repaid:	less	\$ 152,112
		<u>\$ 85,288</u>
3. 2nd mortgage HAM principal is repaid:	less	\$ 20,000
		<u>\$ 65,288</u>
4. 20% of appreciation is paid as fee to HAM	less	\$ 13,058
		<u>\$ 52,231</u>
4. Homeowner and original 1st & 2nd lien holder paid 1:1 to the \$45,000 level of short-sale writedown:		
a. Homeowner:	less	\$ 26,115
b. 1st Mortgage:	less	\$ 13,058
c. Original 2nd Mortgage:	less	\$ 13,058
5. No additional balance for homeowner.		

**Net Distributions at Termination:**

A. Original 1st Lien		
Revised 1st Mortgage Remaining Principal		\$152,112
Revised HAM 2nd Principal		\$20,000
Revised HAM 2nd Appreciation		\$13,058
Sub-Total		<u>\$185,169</u>
Share of Distributions for Original Mortgage Writedown		<u>\$13,058</u>
Total Distributions of Original 1st Lien		<u>\$198,277</u>
B. Original 2nd Lien		
2nd Mortgage Principal		\$13,058
C. Homeowner Equity		\$26,115
D. FHA Insurance Paid		\$600

# Assessing the Benefits of the HAM Plan

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The HAM plan produces benefits for each of the parties involved in the current housing and mortgage crisis when compared against the “do-nothing” option and also when contrasted with other existing mortgage plans.

## Homeowner:

The current problems facing many homeowners have been widely publicized and include high mortgage payment burdens, and the loss of significant equity in the home following the slump in home prices. These two factors have led to the possibility that many homeowners risk losing their house. This proposal lowers the mortgage burden on homeowners by a meaningful amount with the mortgage owner writing off and refinancing part of the original loan with a HAM. This allows the homeowner to rebuild equity by paying down a more manageable principal and sharing any gains in home price appreciation in the future.

*To see this consider how the homeowner fares example on page 12:*

- The monthly payment on the original first and second mortgages of \$200,000 and \$25,000, assuming 30-year terms and 7% and 9% interest rates, respectively, were:  $\$1330 + \$201 = \$1531$ .
- The monthly payment on the new \$160,000 first and \$20,000 HAM second loans, assuming 7% first and 2% (non-amortizing) HAM second, respectively, are:  $\$1064 + \$33 = \$1097$ .

Conclusion: The homeowner is able to remain in his home. The monthly cost is reduced from \$1531 to \$1097, or 28.3%, to a more affordable level. The homeowner even has a chance to rebuild equity when home values recover.

## Mortgage Owner:

Mortgage owners face considerable risk of losses in a foreclosure, particularly in the current environment. The cost of

foreclosing on a property through the sale and recovery of a debt can absorb a considerable proportion of the debt itself. Even in well-functioning housing markets the cost of foreclosure to mortgage owners totals as much as 50% of the value of the mortgage loan. This means that mortgage owners are very keen to avoid foreclosing on properties if possible. The HAM plan provides the mortgage owner with an opportunity to write down part of the debt on the home but keep much of the mortgage principal intact. The write-down process leads to the creation of a HAM, which has market value and can be sold for cash or alternatively can be kept by the bank as part of its mortgage portfolio. Perhaps the major benefit to the mortgage owner is that the reduction in principal and shift of part of the mortgage to a HAM loan reduces the mortgage payment burden for the homeowner, hence reducing the probability of default in the future and improving the credit quality of the new first mortgage.

*To see this, consider how the mortgage owner fares in the example on page 12:*

- National foreclosure costs range from 30% to 50% of the outstanding mortgage balance, depending on location, quality of property, etc. In the example above, this would translate into a loss of between \$67,500 and \$112,500.
- Under the proposed modification alternative, the mortgage owner has modified the \$225,000 combined original loan into a new first and second loan of \$180,000, for a write-down of \$45,000.
- The new first mortgage is in a more secure position. The size of the loans is smaller and the homeowner has better cash flow to cover them. The first mortgage is still in a first lien position and would be buffered from further write-downs by the new equity cushion that has been created and the government’s guaranty of the second lien principal.

- The principal written down at the time of the mortgage revision has the potential of being recovered in part or in full at the termination of the mortgage—a unique element of this plan and one that will create a greater incentive for mortgage owner’s participation.

Conclusion: The write-down of \$45,000 is much less costly than foreclosure. Furthermore, there is potential to share in the appreciation proceeds upon termination of the HAM loan to reduce the amount of the write-down.

## Original 2<sup>nd</sup> Mortgage Owner:

There are substantial incentives in the HAM plan for the original 2<sup>nd</sup> mortgage owner to either sell their claim to the mortgage owner or subordinate their claim in the HAM refinancing. The size of the government guarantee on the HAM depends on the home’s total LTV, not just the LTV for the 1<sup>st</sup> mortgage. This means there is an incentive for the 1<sup>st</sup> mortgage owner to negotiate with the 2<sup>nd</sup> over their claim. If the 1<sup>st</sup> mortgage owner can buy these claims, and extinguish them, then the LTV for all mortgage debts on the home will be smaller and the government guarantee on the HAM larger, thus increasing its value to the 1<sup>st</sup> mortgage owner. The amount the 1<sup>st</sup> mortgage owner is willing to pay to the 2<sup>nd</sup> lien holder will depend on the size of the premium. Of course, this negotiation may fail, but the 2<sup>nd</sup> lien holder still has an incentive to subordinate in the HAM modification as they will share in the future price appreciation of the home; a measurably better prospect financially than those currently available to them.

## Government:

The government’s role in insuring the principal balance is dramatically lower than alternative proposals. Only the principal of the new second lien HAM loan is insured by the FHA. Home prices would have to decline by a further 10% before the principal of the second lien HAM loan would be affected. The government’s exposure would

be limited to a maximum of 15% of the principal—far less than the exposure in other mortgage plans currently being considered. The premium paid to the FHA is the first priority payment from the distribution of proceeds and can be adjusted to make the plan revenue neutral to the government.

### **Secondary Markets:**

The new first mortgages and second HAM mortgages could be sold at the prevailing market price. Investors in the new, more secure first mortgages would be attracted to the relatively high interest rate of a mortgage backed security. Investors in the new HAM loans would be attracted to the discounting mechanism of housing price changes—and would allow for the trading at a discount if the perception is for weakness or at a premium if the perception is for strength. The trading desks of banks and investment banks would provide the market-making capability. The HAM provides a return linked to the performance of the residential real estate market. Even with the diverse array of current financial products, it is difficult to gain direct exposure to the very large residential real estate sector. HAM would provide a new asset class, which may have diversification benefits for some major

investors. Investing in HAMs would be an ideal way for state investment funds to help homeowners in their states as well as earn a positive return on their investment.

Conclusion: By providing a secondary trading capability, the resale market for mortgages, which has been virtually shut down, can be reopened and allow for the return of a more normal functioning mortgage market and improved liquidity to the system.

### **Conclusions**

The Home Mortgage Appreciation Plan is designed to directly address the surging number of mortgage foreclosures that is undermining the housing market, the broader economy and the global financial system. It has a number of advantages:

- The plan has considerable benefits for homeowners who currently face foreclosure on their home. Under the plan, homeowners have lower monthly mortgage payments and owe less mortgage debt. They are also able to rebuild equity in their home.
- First mortgage owners significantly reduce their losses compared to what they are sure to face in foreclosure. Second mortgage owners have the potential to earn something more than if the loan goes into foreclosure

or they continue to hinder a modification or refinancing.

- Since first mortgage owners retain the credit risk of the first loan after the modification, they have an incentive to modify loans of those homeowners with the best prospects for remaining current on them. These homeowners would most likely be those that were the most judicious when receiving their original loan and thus most deserving of receiving help now.
- This plan is not a government bailout and is primarily market-driven. Government intervention is kept to a minimum and little taxpayer money is required. The government payouts that may be required will largely accrue to new investors and not to the homeowners or mortgage owners who bare some responsibility for the current situation.
- The plan can be implemented very quickly. It does not require establishing a new government entity and the FHA is well-equipped to manage the new HAM loan guarantee.
- A novel asset class is brought to market—the home appreciation mortgage—which offers investors a return linked to residential real estate and portfolio diversification benefits.

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Mark M. Zandi is Chief Economist and co-founder of Moody's Economy.com, Inc., where he directs the company's research and consulting activities. Moody's Economy.com is an independent subsidiary of the Moody's Corporation and provides economic research and consulting services to businesses, governments and other institutions. Mark's research interests include macroeconomic, financial, and regional economics. Recent areas of research include studying the determinants of mortgage foreclosure and personal bankruptcy, an analysis of the economic impact of various tax and government spending policies, and an assessment of the appropriate policy response to bubbles in asset markets. In addition, Mark conducts regular briefings on the economy. He is frequently quoted in national and global news outlets. Dr. Zandi received his Ph.D. at the University of Pennsylvania, where he did his research with Gerard Adams and Nobel Laureate Lawrence Klein, and he received his B.S. from the Wharton School at the University of Pennsylvania.

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Daniel Melser is a Senior Economist at the Moody's Economy.com office in Sydney and as a member of the economic research team has worked across the spectrum. Presently Daniel is mainly engaged in consultancy projects, which have involved forecasting, simulation, commentary and in depth data analysis. His particular strengths are in subnational econometric modeling and forecasting at the provincial or metropolitan level, and in global housing markets. Daniel has extensive experience in modeling and analyzing housing markets in the Asia-Pacific region as well as in the

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