



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

January 4, 2012

The Honorable Tim Johnson
Chairman
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, D.C. 20510

The Honorable Richard Shelby
Ranking Member
Committee on Banking, Housing,
and Urban Affairs
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman and Ranking Member:

Restoring the health of the housing market is a necessary part of a broader strategy for economic recovery. There has been much discussion about the pathway forward, and the Federal Reserve has received questions and requests for our input and assistance. We have been looking at these issues and in the interest of continuing a dialogue, my staff has written a white paper, entitled "The U.S. Housing Market: Current Conditions and Policy Considerations." In this report, we do not attempt to address every problem faced by the housing market; rather, it is our intention to provide a framework for thinking about certain issues and tradeoffs that policymakers might consider.

I have enclosed a copy of the white paper for your review. I and my staff would be happy to discuss these ideas more fully. I hope that you will not hesitate to contact me if we can be of assistance.

Sincerely,

A handwritten signature in dark ink, appearing to be "B. Bernanke", written in a cursive style.

Enclosure



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

BEN S. BERNANKE
CHAIRMAN

January 4, 2012

The Honorable Spencer Bachus
Chairman
Committee on Financial Services
House of Representatives
Washington, D.C. 20515

The Honorable Barney Frank
Ranking Member
Committee on Financial Services
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman and Ranking Member:

Restoring the health of the housing market is a necessary part of a broader strategy for economic recovery. There has been much discussion about the pathway forward, and the Federal Reserve has received questions and requests for our input and assistance. We have been looking at these issues and in the interest of continuing a dialogue, my staff has written a white paper, entitled "The U.S. Housing Market: Current Conditions and Policy Considerations." In this report, we do not attempt to address every problem faced by the housing market; rather, it is our intention to provide a framework for thinking about certain issues and tradeoffs that policymakers might consider.

I have enclosed a copy of the white paper for your review. I and my staff would be happy to discuss these ideas more fully. I hope that you will not hesitate to contact me if we can be of assistance.

Sincerely,

A handwritten signature in dark ink, appearing to be "BSB", written in a cursive style.

Enclosure

January 4, 2012

The U.S. Housing Market: Current Conditions and Policy Considerations

The ongoing problems in the U.S. housing market continue to impede the economic recovery. House prices have fallen an average of about 33 percent from their 2006 peak, resulting in about \$7 trillion in household wealth losses and an associated ratcheting down of aggregate consumption. At the same time, an unprecedented number of households have lost, or are on the verge of losing, their homes. The extraordinary problems plaguing the housing market reflect in part the effect of weak demand due to high unemployment and heightened uncertainty. But the problems also reflect three key forces originating from within the housing market itself: a persistent excess supply of vacant homes on the market, many of which stem from foreclosures; a marked and potentially long-term downshift in the supply of mortgage credit; and the costs that an often unwieldy and inefficient foreclosure process imposes on homeowners, lenders, and communities.

Looking forward, continued weakness in the housing market poses a significant barrier to a more vigorous economic recovery. Of course, some of the weakness is related to poor labor market conditions, which will take time to be resolved. At the same time, there is scope for policymakers to take action along three dimensions that could ease some of the pressures afflicting the housing market. In particular, policies could be considered that would help moderate the inflow of properties into the large inventory of unsold homes, remove some of the obstacles preventing creditworthy borrowers from accessing mortgage credit, and limit the number of homeowners who find themselves pushed into an inefficient and overburdened foreclosure pipeline. Some steps already being taken or proposed in these areas will be discussed below.

Taking these issues in turn, the large inventory of foreclosed or surrendered properties is contributing to excess supply in the for-sale market, placing downward pressure on house prices and exacerbating the loss in aggregate housing wealth. At the same time, rental markets are strengthening in some areas of the country, reflecting in part a decline in the homeownership rate. Reducing some of the barriers to converting foreclosed properties to rental units will help redeploy the existing stock of houses in a more efficient way. Such conversions might also increase lenders' eventual recoveries on foreclosed and surrendered properties.

Obstacles limiting access to mortgage credit even among creditworthy borrowers contribute to weakness in housing demand, and barriers to refinancing blunt the transmission of monetary policy to the household sector. Further attention to easing some of these obstacles could contribute to the gradual recovery in housing markets and thus help speed the overall economic recovery.

Finally, foreclosures inflict economic damage beyond the personal suffering and dislocation that accompany them.¹ In particular, foreclosures can be a costly and inefficient way to resolve the inability of households to meet their mortgage payment obligations because they can result in “deadweight losses,” or costs that do not benefit anyone, including the neglect and deterioration of properties that often sit vacant for months (or even years) and the associated negative effects on neighborhoods.² These deadweight losses compound the losses that households and creditors already bear and can result in further downward pressure on house prices. Some of these foreclosures can be avoided if lenders pursue appropriate loan modifications aggressively and if servicers are provided greater incentives to pursue alternatives to foreclosure. And in cases where modifications cannot create a credible and sustainable resolution to a delinquent mortgage, more-expedient exits from homeownership, such as deeds-in-lieu of foreclosure or short sales, can help reduce transaction costs and minimize negative effects on communities.

Intertwined in these issues is the unresolved role of the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac, in both the near term and long term.³ The GSEs hold or guarantee significant shares of delinquent mortgages and foreclosed properties. Because of their outsized market presence, the GSEs’ actions affect not only their own portfolios, but also the housing market overall. However, since September 2008, the GSEs have operated in conservatorship under the direction of the Federal Housing Finance Agency (FHFA), with specific mandates to minimize losses for taxpayers and to support a stable and liquid mortgage market. In many of the policy areas discussed in this paper--such as loan modifications, mortgage refinancing, and the disposition of foreclosed properties--there is bound to be some tension between minimizing the GSEs’ near-term losses and risk exposure and taking actions that might promote a faster recovery in the housing market. Nonetheless, some actions that cause greater losses to be sustained by the GSEs in the near term might be in the interest of taxpayers to pursue if those actions result in a quicker and more vigorous economic recovery.

¹ This paper does not address the important issues surrounding whether lenders and servicers have appropriately carried out their roles in foreclosures. In April 2011, the Federal Reserve, along with the other federal banking agencies, announced formal enforcement actions requiring many large banking organizations to address a pattern of misconduct and negligence related to deficient practices in residential mortgage loan servicing and foreclosure processing. These deficiencies represented significant and pervasive compliance failures and unsafe and unsound practices at these institutions. For further information, see Board of Governors of the Federal Reserve System (2011), “Federal Reserve Issues Enforcement Actions Related to Deficient Practices in Residential Mortgage Loan Servicing and Foreclosure Processing,” press release, April 13, www.federalreserve.gov/newsevents/press/enforcement/20110413a.htm, and Board of Governors of the Federal Reserve System (2011), “Federal Reserve Board Announces a Formal Enforcement Action against the Goldman Sachs Group, Inc. and Goldman Sachs Bank USA,” press release, September 1, www.federalreserve.gov/newsevents/press/enforcement/20110901b.htm.

² See, for example, John Y. Campbell, Stefano S. Giglio, and Parag P. Pathak (2011), “Forced Sales and House Prices,” *American Economic Review*, vol. 101 (August), pp. 2108–31, www.aeaweb.org/atypon.php?return_to=/doi/pdfplus/10.1257/aer.101.5.2108; and Dan Immergluck and Geoff G. Smith (2006), “The External Costs of Foreclosure: The Impact of Single-Family Mortgage Foreclosures on Property Values,” *Housing Policy Debate*, vol. 17 (1), pp. 57–80 (Washington: Fannie Mae Foundation), <http://content.knowledgex.org/kp2/cache/documents/1860/186040.pdf>.

³ This paper does not discuss alternatives for longer-term restructuring of the housing finance market, including the future form or role of the GSEs.

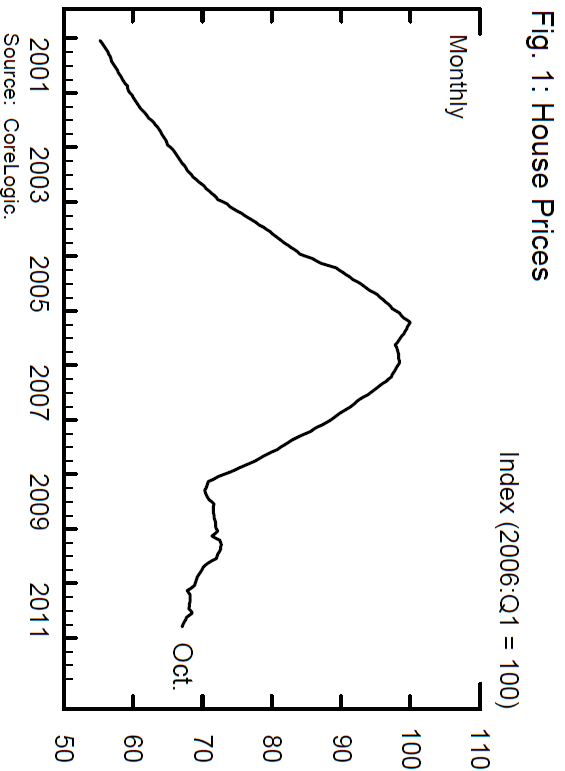
In this report, we provide a framework for thinking about directions policymakers might take to help the housing market. Our goal is not to provide a detailed blueprint, but rather to outline issues and tradeoffs that policymakers might consider. We caution, however, that although policy action in these areas could facilitate the recovery of the housing market, economic losses will remain, and these losses must ultimately be allocated among homeowners, lenders, guarantors, investors, and taxpayers.

We begin with some background regarding housing market conditions. We then discuss proposals aimed at foreclosed properties that are owned by financial institutions such as the GSEs or banks. After that, we examine proposals aimed at homeowners at risk of default or foreclosure. Finally, we discuss ideas for improving mortgage servicing practices.

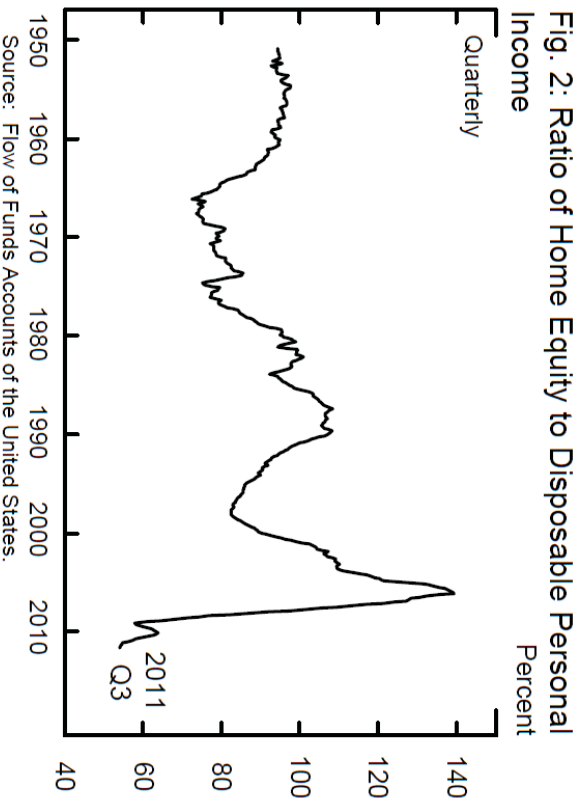
Housing Market Conditions

House Prices and Implications for Household Wealth

House prices for the nation as a whole (figure 1) declined sharply from 2007 to 2009 and remain about 33 percent below their early 2006 peak, according to data from CoreLogic. For the United States as a whole, declines on this scale are unprecedented since the Great Depression. In the aggregate, more than \$7 trillion in home equity (the difference between aggregate home values and mortgage debt owed by homeowners)--more than half of the aggregate home equity that existed in early 2006--has been lost. Further, the ratio of home equity to disposable personal income has declined to 55 percent (figure 2), far below levels seen since this data series began in 1950.⁴



⁴ Data are from the Federal Reserve Board's Flow of Funds Accounts.



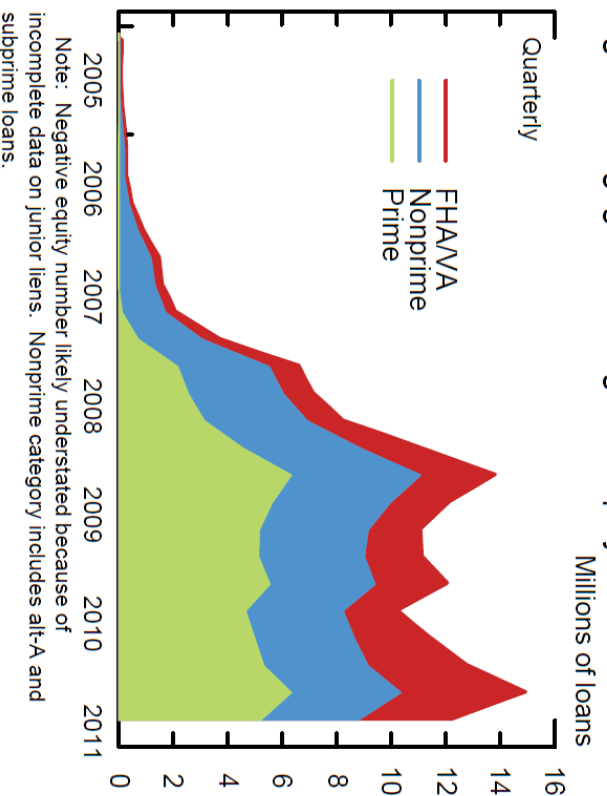
This substantial blow to household wealth has significantly weakened household spending and consumer confidence. Middle-income households, as a group, have been particularly hard hit because home equity is a larger share of their wealth in the aggregate than it is for low-income households (who are less likely to be homeowners) or upper-income households (who own other forms of wealth such as financial assets and businesses). According to data from the Federal Reserve's Survey of Consumer Finances, the decline in average home equity for middle-income homeowners from 2007 through 2009 was about 66 percent of the average income in 2007 for these homeowners. In contrast, the decline in average home equity for the highest-income homeowners was only about 36 percent of average income for these homeowners.⁵

For many homeowners, the steep drop in house prices was more than enough to push their mortgages underwater--that is, to reduce the values of their homes below their mortgage balances (a situation also referred to as negative equity). This situation is widespread among borrowers who purchased homes in the years leading up to the house price peak, as well as those who extracted equity through cash-out refinancing. Currently, about 12 million homeowners are underwater on their mortgages (figure 3)--more than one out of five homes with a mortgage.⁶ In states experiencing the largest overall house price declines--such as Nevada, Arizona, and Florida--roughly half of all mortgage borrowers are underwater on their loans.

⁵ Middle-income households are defined as those in the 40th through 60th percentiles of the household income distribution. High-income households are defined as those with income exceeding the 90th percentile of the household income distribution. In 2007, the 40th percentile was around \$40,000; the 60th percentile was around \$65,000; and the 90th percentile was around \$150,000.

⁶ This calculation does not account fully for second liens. The share of underwater borrowers would likely be a bit higher if we had complete coverage of these liens. These estimates are derived from CoreLogic and LPS Applied Analytics data.

Fig. 3: Mortgages with Negative Equity

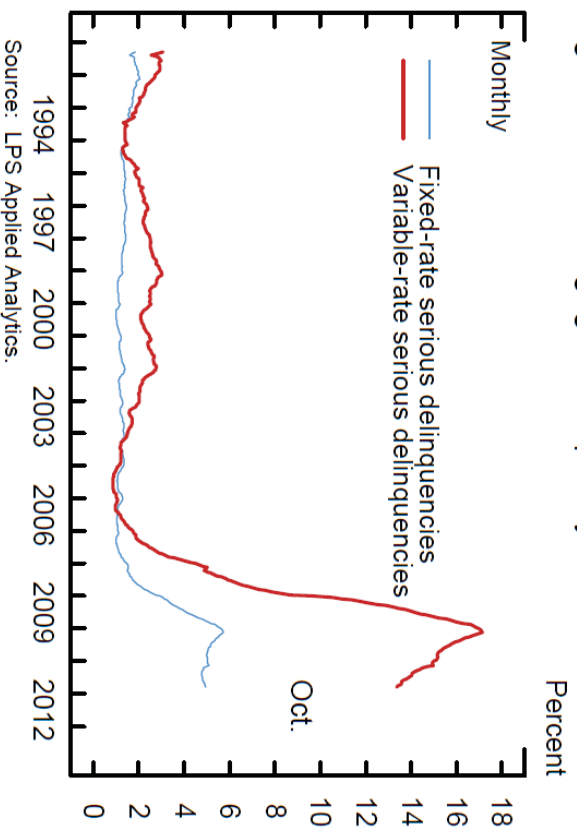


Negative equity is a problem because it constrains a homeowner’s ability to remedy financial difficulties. When house prices were rising, borrowers facing payment difficulties could avoid default by selling their homes or refinancing into new mortgages. However, when house prices started falling and net equity started turning negative, many borrowers lost the ability to refinance their mortgages or sell their homes. Nonprime mortgages were most sensitive to house price declines, as many of these mortgages required little or no down payment and hence provided a limited buffer against falling house prices. But as house price declines deepened, even many prime borrowers who had made sizable down payments fell underwater, limiting their ability to absorb financial shocks such as job loss or reduced income.⁷

The resulting surge of delinquencies (figure 4) has overwhelmed the housing finance system. Mortgage servicers were unprepared for the large number of delinquent borrowers and failed to invest the resources necessary to handle them properly, resulting in severely flawed and, in some cases, negligent servicing practices. Exacerbating the problem, some of the incentives built into servicing contracts encouraged foreclosures rather than loan modifications.

⁷ For more discussion, see Christopher Mayer, Karen Pence, and Shane M. Sherlund (2009), “The Rise in Mortgage Defaults,” *Journal of Economic Perspectives*, vol. 23 (Winter), pp. 27–50, www.aeaweb.org/atypnon.php?return_to=/doi/pdfplus/10.1257/jep.23.1.27.

Fig. 4: Prime Mortgage Delinquency Rates



Source: LPS Applied Analytics.

Mortgage Credit Conditions

As a result of these developments, mortgage credit conditions have tightened dramatically from their pre-recession levels. Mortgage lending standards were lax, at best, in the years before the house price peak, and some tightening relative to pre-crisis practices was necessary and appropriate. Nonetheless, the extraordinarily tight standards that currently prevail reflect, in part, obstacles that limit or prevent lending to creditworthy borrowers. Tight standards can take many forms, including stricter underwriting, higher fees and interest rates, more-stringent documentation requirements, larger required down payments, stricter appraisal standards, and fewer available mortgage products.⁸ Bank responses to the quarterly Senior Loan Officer Opinion Survey on Bank Lending Practices indicate persistent net tightening in lending standards for mortgages to purchase homes from 2007 through 2009, and surveys since then have yet to show any unwinding of that move, even for prime mortgages eligible for GSE or Federal Housing Administration (FHA) guarantees, for which lenders do not bear the credit risk.⁹

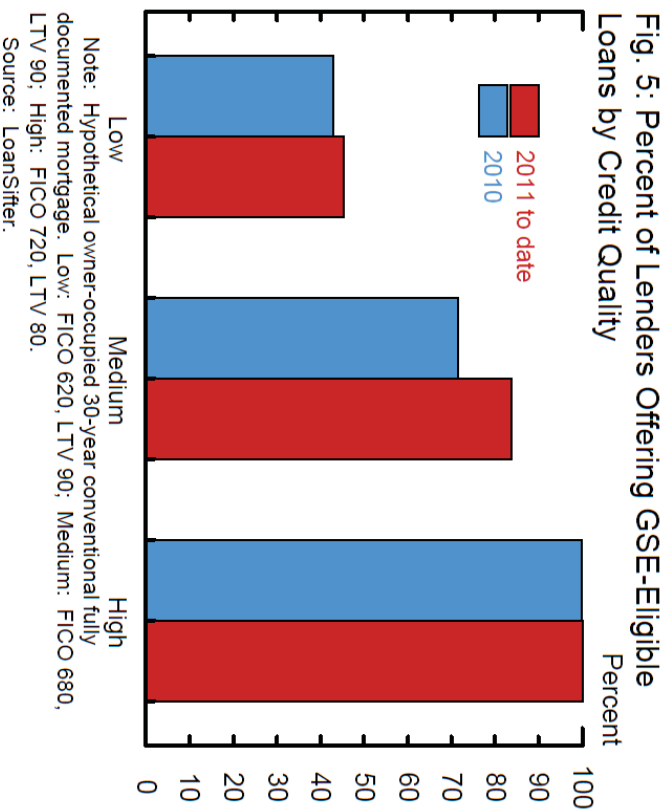
Other data show, for instance, that less than half of lenders are currently offering mortgages to borrowers with a FICO score of 620 and a down payment of 10 percent (figure 5)--even though these loans are within the GSE purchase parameters.¹⁰ This hesitancy on the part of lenders is due in part to concerns about the high cost of servicing in the event of loan delinquency and fear that the GSEs could force the lender to repurchase the loan if the borrower defaults in the

⁸ With regard to appraisals, the Appraisal Foundation's Appraisal Practices Board has recently issued for public comment a draft of guidance that would address the special challenges of performing residential appraisals in declining-value markets, including the method by which appraisers assemble data on market conditions and the extent to which distressed transactions should affect the comparable-sales valuation of a property.

⁹ Results from the Senior Loan Officer Opinion Survey on Bank Lending Practices are available at www.federalreserve.gov/boarddocs/snloansurvey.

¹⁰ Federal Reserve staff calculation based on data from Loansifter.

future.¹¹ Concerns about the high cost of servicing reflect recent experience, in which servicers were badly underprepared to deal with the volume of troubled loans, along with ongoing uncertainty about the cost of compliance with mortgage servicing-related regulatory requirements going forward; prospective capital treatment of mortgage servicing rights under Basel III may also be affecting the perceived costs and benefits of servicing operations. Lenders' reaction to the possibility of forced repurchases highlights the tradeoff between the GSEs pursuing a policy of reducing their near-term losses and risk exposure versus adopting policies to support the broader housing market. Aggressively putting back delinquent loans to lenders helps the GSEs maximize their profits on old business and thus limits their draws on the U.S. Treasury, but at the same time, it discourages lenders from originating new mortgages. Meanwhile, for loans that are ineligible for GSE purchase, only high-credit-score borrowers generally have access to financing, and lenders often keep these loans in portfolio, leading them to be selective about the volume of such loans they originate.



Reduced mortgage lending is also notable among potential first-time homebuyers, who are typically an important source of incremental housing demand. These households often have relatively new credit profiles and lower-than-average credit scores, as they tend to be younger and have fewer economic resources to make a large down payment. Consumer credit record data show that the share of 29- to 34-year-olds getting a first-time mortgage was significantly lower

¹¹ When the GSEs purchase mortgages from originators, the contracts specify that the originators make “representations and warranties” with respect to information related to the borrower, property, and so on. In the case of delinquency, if the GSEs believe these representations and warranties were violated (for example, information was false or inadequately verified), they can “put back” the loan to the originator, who is obligated to repurchase the mortgage at par value.

in the past 2 years than it was 10 years earlier.¹² The same data show that the drop-off was more pronounced among individuals with less-than-excellent credit scores, even in parts of the country where unemployment rates are better than the national average.¹³ These data suggest a large decline in mortgage borrowing by potential first-time homebuyers due to not only weaker housing demand, but also the effect of tighter credit conditions on all but the highest-credit-quality borrowers.

At the same time, a host of factors have been weighing on housing demand. High unemployment and weak income growth have made it difficult for many households to purchase homes despite the large declines in house prices and mortgage rates. Uncertainty about the future prospects for the economy and labor market has also likely made some households reluctant to buy homes. The combination of weak demand to purchase homes and the restricted supply of mortgages has put considerable downward pressure on house prices in many areas.

Addressing Foreclosed Properties: REO to Rental

Background

At the same time that housing demand has weakened, the number of homes for sale is elevated relative to historical norms, due in large part to the swollen inventory of homes held by banks, guarantors, and servicers after completion of foreclosure proceedings. These properties are often called real estate owned, or REO, properties. While the total stock of REO properties is difficult to measure precisely, perhaps one-fourth of the 2 million vacant homes for sale in the second quarter of 2011 were REO properties. The combination of weak demand and elevated supply has put substantial downward pressure on house prices, and the continued flow of new REO properties--perhaps as high as 1 million properties per year in 2012 and 2013--will continue to weigh on house prices for some time.¹⁴ To the extent that REO holders discount properties in order to sell them quickly, the near-term pressure on home prices might be even greater.

In contrast to the market for owner-occupied houses, the market for rental housing across the nation has recently strengthened somewhat. Rents have turned up in the past year (figure 6), and the national vacancy rate on multifamily rental properties has dropped noticeably from its peak in late 2009. These developments have been fairly widespread across metropolitan areas. The relative strength of the rental market reflects increased demand as families who are unable or unwilling to purchase homes are renting properties instead. Rental demand has also been

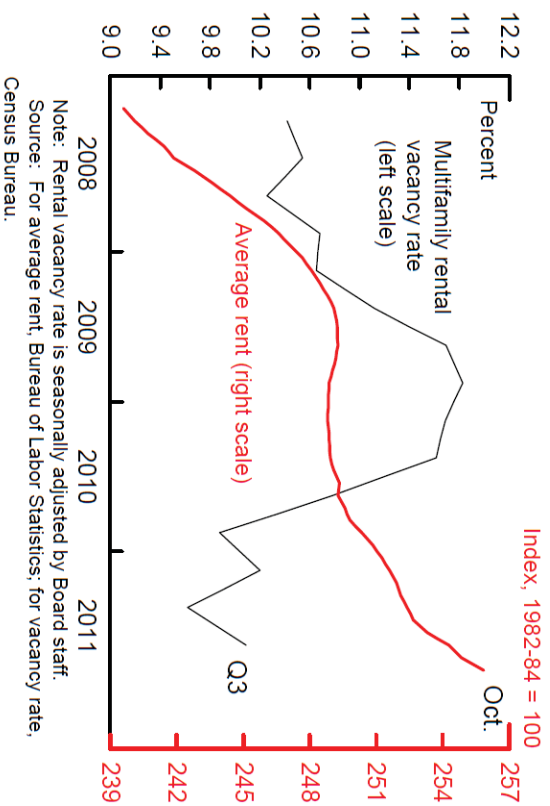
¹² In particular, 17 percent of individuals in this age group acquired a mortgage for the first time between mid-1999 and mid-2001, while only 9 percent did so between mid-2009 and mid-2011. These figures were calculated using data from the FRBNY/Equifax Consumer Credit Panel.

¹³ For example, among individuals with credit scores between 620 and 740 and who lived in counties with unemployment rates less than 9 percent in 2010, the share obtaining first-time mortgages was 23 percent from 1999 through 2001 and only 14 percent from 2009 through 2011. In contrast, individuals with credit scores above 740 in the same counties experienced a decline of just 2 percentage points (26 percent to 24 percent). These figures were calculated using data from the FRBNY/Equifax Consumer Credit Panel.

¹⁴ The timing of future REO flows is difficult to forecast because the foreclosure process has slowed considerably in many states since the October 2010 revelations of significant deficiencies in foreclosure processes at many servicers. Foreclosures in states with judicial foreclosure processes have been particularly affected.

supported by families who have lost their homes to foreclosure--the majority of whom move to rental housing, most commonly to single-family rentals.¹⁵

Fig. 6: Rent Index and Multifamily Rental Vacancy Rate



The price signals in the owner-occupied and rental housing markets--that is, the decline in house prices and the rise in rents--suggest that it might be appropriate in some cases to redeploy foreclosed homes as rental properties. In addition, the forces behind the decline in the homeownership rate, such as tight credit conditions, are unlikely to unwind significantly in the immediate future, indicating a longer-term need for an expanded stock of rental housing.

Although small investors are currently buying and converting foreclosed properties to rental units on a limited scale, larger-scale conversions have not occurred for at least three interrelated reasons. First, it can be difficult for an investor to assemble enough geographically proximate properties to achieve efficiencies of scale with regard to the fixed costs of a rental program.¹⁶ Second, attracting investors to bulk sales opportunities--whether for rental or resale--has typically required REO holders to offer significantly larger price concessions relative to direct sales to owner occupants through conventional realtor-listing channels, in part because it can be difficult for investors to obtain financing for such sales. Third, the supervisory policy of GSE and banking organization regulators has generally encouraged sales of REO property as early as practicable. We discuss each of these issues in more detail later.¹⁷

¹⁵ See Raven Molloy and Hui Shan (2011), "The Post-Foreclosure Experience of U.S. Households," Finance and Economics Discussion Series 2011-32 (Washington: Board of Governors of the Federal Reserve System, May), www.federalreserve.gov/pubs/feds/2011/201132.

¹⁶ Consider the most cost-effective form of rental housing: a large apartment building in which the costs of operating the building are spread over many units. By pooling nearby properties, a rental program can come closer to approximating the efficiencies of a large apartment building.

¹⁷ As discussed later in this paper, under banking laws and regulations, banking organizations generally may not engage in property management as an ongoing business, although they are generally allowed to manage REO properties during the permitted REO holding periods. In contrast, those who make decisions regarding disposition

Characteristics of REO Properties

Fannie Mae, Freddie Mac, and the FHA together hold about half of the outstanding REO inventory and so might be able to aggregate enough properties to facilitate a cost-effective rental program in many rental markets. As of early November 2011, about 60 metropolitan areas each had at least 250 REO properties currently for sale by the GSEs and FHA--a scale that could be large enough to realize efficiency gains.¹⁸ Atlanta has the largest number of REO properties for sale by these institutions with about 5,000 units. The next-largest inventories are in the metropolitan areas of Chicago; Detroit; Phoenix; Riverside, California; and Los Angeles, each of which have between 2,000 and 3,000 units.

Other financial institutions also hold or control substantial inventories of REO properties. More than one-fourth of REO properties are held by non-agency securitized pools, which are controlled by mortgage servicers under the terms of pooling and servicing agreements. Because these properties are more likely to have been financed by subprime and alt-A loans, they are concentrated in somewhat different metropolitan areas than the inventory held by the GSEs and FHA. About 50 metropolitan areas appear to have at least 250 REO properties held by securitized pools, with the largest inventories in Miami; Los Angeles; Riverside, California; Chicago; and Las Vegas.¹⁹ The remaining REO inventory--a bit less than one-fourth--is held by commercial banks and thrifts. Roughly 50 metropolitan areas each have at least 250 properties held by these institutions, and the geographic distribution of these properties is similar to that of the inventory held by the GSEs.²⁰

Not all of these REO properties are good candidates for rental properties, even in geographic markets with sufficient scale. As discussed in more detail later, some properties are badly damaged, in low-demand locations, or otherwise low value. Nonetheless, according to Federal Reserve staff calculations, many REO properties appear to be viable rental properties in terms of both physical adequacy and potential attractiveness to tenants. For example, most REO properties are in neighborhoods with median house values and incomes that are roughly similar to the medians for the metropolitan area overall.²¹ Similarly, the vast majority of REO properties are in neighborhoods with an average commute time that is similar to the average for the entire metropolitan area, suggesting that the properties are not located unusually far from employment centers.²²

of REO properties in securitized pools may be, or may feel, restrained from renting properties by provisions in the pooling and servicing agreements.

¹⁸ Federal Reserve staff calculations from data on the Department of Housing and Urban Development's Real-Estate Owned Properties Portal, available at www.huduser.org/reo/reo.html. Recently, only around half of the properties in the REO inventories of the GSEs have been offered for sale at any given point. The other properties are leased to existing tenants under the provisions of the Protecting Tenants at Foreclosure Act, are located in states with a redemption period after foreclosure, or are under renovation or otherwise unavailable for sale.

¹⁹ Federal Reserve staff calculation based on data from CoreLogic.

²⁰ Federal Reserve staff calculation based on data provided by McDash Analytics, LLC, a wholly owned subsidiary of Lender Processing Services, Inc.

²¹ About three-fourths of REO properties are in neighborhoods where the median house values and incomes are greater than 80 percent of the medians for the metropolitan area.

²² Data on median house values, income, and commute times are from the 2000 Census.

Many REO properties also appear to be viable rental properties in terms of improving loss recoveries to the REO property holder. One method of gauging the profitability of renting a particular property is to calculate its capitalization rate, or cap rate--the expected annual cash flows from renting the property relative to the price at which the REO property holder could expect to sell it in the owner-occupied market.²³ Preliminary estimates suggest that about two-fifths of Fannie Mae's REO inventory would have a cap rate above 8 percent--sufficiently high to indicate renting the property might deliver a better loss recovery than selling the property.²⁴ Estimated cap rates on the FHA's REO inventory are a bit higher--about half of the current inventory has a cap rate above 8 percent--because FHA properties tend to have somewhat lower values relative to area rents. These cap rate calculations are illustrative examples subject to a number of assumptions, and do not control for the fact that holding on to properties and renting them may entail more risk than selling into the owner-occupied market. In particular, the REO holder receives cash in the event of a sale, but earns a potentially higher but more uncertain return from renting a property.

Finally, the number of properties currently in the foreclosure process is more than four times larger than the number of properties in REO inventory. The geographic distribution of these "pipeline" properties is similar to that of REO properties, although states that are experiencing significant foreclosure delays tend to have larger backlogs.²⁵ If recent trends continue, the share of REO inventory held by the GSEs and FHA should increase.

REO to Rental Program Design

The data cited earlier suggest that a government-facilitated REO-to-rental program has the potential to help the housing market and improve loss recoveries on REO portfolios. The FHFA released a request for information on August 10, 2011, to collect information from market participants on possible ways to accomplish this objective and received more than 4,000 responses. An interagency group in which the Federal Reserve is participating is considering issues related to the design of a program that would facilitate REO-to-rental conversions. As no such program currently exists, predicting its success or efficacy is difficult. Ongoing experimentation and analysis will be a crucial component of developing such a program.

²³ For further discussion of cap rates in the real estate context more generally, see Board of Governors of the Federal Reserve System, Division of Banking Supervision and Regulation (2009), "Interagency Policy Statement on Prudent Commercial Real Estate Loan Workouts," Supervision and Regulation Letter, SR 09-07 (October 30), p. 31, www.federalreserve.gov/boarddocs/srletters/2009/sr0907a1.pdf.

²⁴ The return from renting is the annual gross rental income less leasing costs, maintenance expenses, property taxes, management fees, and foregone rent when the property is vacant. This estimate assumes leasing costs are equal to one month's rent, management fees are 8 percent of monthly rent, maintenance expenses are 2 percent of the property's market value, and the property is vacant for one month per year. Data on rents are from Zillow and the 2010 American Community Survey, and data on property taxes are from the 2007-09 American Community Survey. The cap rate estimates are based on Fannie Mae's and the FHA's REO portfolios as of midsummer 2011.

²⁵ Of course, it is possible that properties will transition from foreclosure to REO at a faster rate in some locations than others, for instance due to state foreclosure laws, so the flow of incoming REO could be distributed somewhat differently than the current stock.

A government-facilitated REO-to-rental program could take many forms. The REO holder could rent the properties directly, sell the properties to a third-party investor who would rent the properties, or enter into a joint venture with such an investor. In making this decision, policymakers should consider what program design will provide for the best loss recoveries and the best outcomes for communities.

To date, REO holders have avoided selling properties in bulk to third-party investors because the recoveries that REO holders receive on such sales are generally lower than the corresponding recoveries on sales to owner occupants. Investors considering such bulk-sale transactions tend to demand a higher risk premium than owner occupants and thus will purchase only at lower prices. Investors in such transactions also might have more difficulty obtaining debt financing than owner occupants. Although mortgage products are available for individual one- to four-family houses and for multifamily properties (albeit currently at tight terms), no mortgage products currently exist for a portfolio of single-family homes.²⁶ In addition, REO holders must absorb the costs of assembling inventory for bulk sale--that is, holding properties off the market until enough properties have been assembled to cover the fixed costs of a rental program. Until the inventory is assembled, the REO holder receives no revenue from the property but incurs direct financing costs; carrying costs such as taxes, utilities, and maintenance expenses; and the continued depreciation of the property.

An REO-to-rental program that relies on sales to third-party investors will be more viable if this cost-pricing differential can be narrowed. REO holders will likely get better pricing on these sales if the program is designed to be attractive to a wide variety of investors. Selling to third-party investors via competitive auction processes may also improve the loss recoveries.

Providing investors with debt financing will likely also affect the prices they offer on bulk pools of REO properties. As noted, such financing is largely unavailable now, thus limiting the number of potential investors. In the current tight mortgage lending environment, private lenders may not have the capacity to fund a large-scale rental program, and it may be appropriate for REO holders to fill the gap. However, whether such funding should be subsidized is an important question. Subsidized financing provided by the REO holder may increase the sales price of properties, but at the cost of reducing the REO holder's future income stream. If so, the costs of such financing need to be accounted for in the rental program.

In addition, a program that minimizes the amount of time that a vacant property lingers in REO inventory before being rented would reduce disposition costs to the REO holder. These costs might be reduced by including properties that are already rented, such as properties rented under the provisions of the Protecting Tenants at Foreclosure Act.²⁷ Another possibility is to auction to

²⁶ It is unclear whether these mortgages have not existed because of a historical lack of demand (that is, under earlier housing market conditions, investors did not find operating large-scale rental programs of single-family homes attractive) or because lenders perceived such loans as not worth the risk.

²⁷ The Protecting Tenants at Foreclosure Act of 2009 protects tenants from immediate eviction by persons or entities that become owners of residential property through the foreclosure process. Title VII of the Helping Families Save Their Homes Act of 2009. Public Law 111-22, effective May 20, 2009 (www.gpo.gov/fdsys/pkg/PLAW-111publ22/pdf/PLAW-111publ22.pdf).

investors the rights to acquire, in a given neighborhood, a future stream of properties that meet certain standards instead of auctioning the rights to current REO holdings. A third possibility is to encourage deed-for-lease programs, which circumvent the REO process entirely by combining a deed-in-lieu of foreclosure--whereby the borrower returns the property to the lender--with a rent-back arrangement in which the borrower remains in the home and pays market rent to the lender.

If, after addressing these obstacles, selling to third-party investors still provides lower loss recoveries than selling to owner occupants, policymakers might want to consider the merits of allowing or facilitating the rental of properties by REO holders themselves. Alternatively, policymakers may judge that the broader positive effects on the economy from redirecting properties to the rental market justify a moderate decline in loss recoveries. Finally, even if the cost differential is large at this point, the calculation may change if the foreclosure process accelerates in some states and REO holders experience significant increases in their inventories.

An REO-to-rental program should also consider the effects that poorly managed or maintained properties have on communities and, in particular, ensure that communities are not damaged by rental practices. For example, investors might be allowed to bid on properties only after demonstrating some experience with property management and commitment to rehabilitation of properties. Experienced nonprofit organizations with established ties to the community could also play a natural role as rental managers. In the case of for-profit companies or joint ventures, investors might be given an incentive to provide appropriate property management by deferring some of their compensation. Investors might receive some proportion of their payment only after several years of renting properties in a manner consistent with “good landlord” practices and compliance with pertinent landlord-tenant and fair-housing requirements.

A final consideration is the length of time REO properties are rented before they are placed on the for-sale market. Given the depressed state of the housing market, properties may remain rental properties for an extended period. Rent-to-own provisions, which would give existing tenants the option to purchase their properties during their tenancies, might facilitate the transition of some renters back to the owner-occupied market. Such provisions may also reduce costs by encouraging renters to maintain their properties to a greater extent.

The Role of Banks

The GSEs, of course, do not hold all of the residential REO exposure. As of September 2011, U.S. commercial banks had \$10 billion in residential REO properties on their balance sheets, while savings and loans had an additional \$1.4 billion.²⁸ Generally, banking organizations are not permitted to engage in real estate ownership or property management, and supervisory policy typically encourages banking organizations to dispose of REO property as early as practicable. However, current law clearly contemplates some scope for REO ownership to last beyond the fastest-possible disposition. In particular, federal laws dealing with bank holding companies and

²⁸ In aggregate, the serviced-for-others REO portfolios managed by banking organizations are significantly larger than their owned portfolios. These statistics are for the owned portfolios in depository institutions, as disclosed in bank and thrift regulatory reports.

national banks and state laws dealing with state-chartered banks typically allow banking institutions to hold REO properties for a time (such as up to five years), and often include a possibility of extending the permissible holding period, if approved by the appropriate regulator. During this holding period, banking organizations are permitted to rent the REO properties on their balance sheets, as well as manage the properties directly or through a third-party vendor, and take steps necessary to keep up the properties' condition and value. Regulators generally expect that such rentals would be done with the goal of improving the ultimate recovery to the banking organizations. Regulators also expect that banking organizations engaged in rental of REO properties demonstrate ongoing good faith efforts to sell the properties within the statutory and regulatory time periods and as appropriate under prevailing market conditions.

In light of the current unusually difficult circumstances in many housing markets across the nation, the Federal Reserve is contemplating issuing guidance to banking organizations and examiners to clarify supervisory expectations regarding rental of residential REO properties by such organizations while such circumstances continue (and within relevant federal and statutory and regulatory limits). If finalized and adopted, such guidance would explain how rental of a residential REO property within applicable holding-period time limits could meet the supervisory expectation for ongoing good faith efforts to sell that property. Relatedly, if a successful model is developed for the GSEs to transition REO properties to the rental market, banks may wish to participate in such a program or adopt some of its features.

Land Banks: An Option for Low-Value Properties

Some REO properties are low value and less likely to be viable for an REO-to-rental program. About 5 percent of properties in the REO inventory of the GSEs and FHA are appraised at less than \$20,000. In some markets, the share is significantly higher; for example, in Detroit and Cleveland, more than half of the REO inventory of these institutions is appraised below this value. In these markets, low-value properties are less suitable for disposition through sales in the owner-occupied market or through rental market strategies, and alternative disposition strategies may be needed.

Currently, a small number of these properties are disposed of through land banks, which are typically public or nonprofit entities created to manage properties that are not dealt with adequately through the private market. Land banks are government entities that have the ability to purchase and sell real estate, clear titles, and accept donated properties. Properties may be rehabilitated as rental or owner-occupied housing, or demolished, as market conditions dictate.

While the number of land banks has increased significantly over the past few years, capacity nationwide remains quite limited, in terms of both institutional infrastructure and funding. Only a handful of states have passed legislation to establish land banks, and, as a result, many areas lack land banks altogether. Only about half of the GSE and FHA inventory of low-value REO properties (properties with a value of \$20,000 or less) is in metropolitan areas with an existing land bank. In addition, the land banks that have been created have only limited resources--the largest land bank can handle about 100 properties per month, but most handle just a few each month. This capacity pales in comparison with the number of low-value REO properties in current inventory. One potential strategy would be to consider increasing funding (at the federal,

state, or local level) and technical assistance to land banks in existence, encourage the creation of more land banks on the local or regional level, or create a national land bank program, in order to scale up capacity to match current low-value inventories. Such initiatives would need appropriate controls to promote value to the communities affected and maximize efficiency whenever possible.

Credit Access and Pricing

As noted earlier, mortgage credit conditions have tightened dramatically from their pre-recession levels. Lax mortgage lending standards in the years before the house price peak contributed to problems in the housing market, so some tightening relative to pre-crisis practices was necessary and appropriate. The important question is whether the degree of tightness evident today accurately reflects sustainable lending and appropriate consumer protection.

Financial regulators have been in consultation with the GSEs and originators about the sources of the apparent tightness in lending standards. Continued efforts are needed to find an appropriate balance between prudent lending and appropriate consumer protection, on the one hand, and not unduly restricting mortgage credit, on the other hand. In particular, policymakers should recognize that steps that promote healthier housing and mortgage markets are good for safety and soundness as well.

Addressing Homeowners at Risk of Default or Foreclosure

Obstacles to Refinancing

Many homeowners have been unable to take advantage of historically low mortgage rates because of low or negative home equity, slightly blemished credit, or tighter credit standards. Perhaps only about half of homeowners who could profitably refinance have the equity and creditworthiness needed to qualify for traditional refinancing.

In response to some of these obstacles, the FHFA introduced the Home Affordable Refinance Program (HARP) in 2009. HARP allows qualifying borrowers who are current on their payments, and whose mortgages are owned or guaranteed by Fannie Mae or Freddie Mac, to refinance even if they have insufficient equity to qualify for a traditional refinance.²⁹ Participation in the program to date has been relatively modest, with only about 925,000 mortgages refinanced through HARP.³⁰

²⁹ A traditional GSE refinance requires a loan-to-value (LTV) ratio of 80 percent or less unless the mortgage is enhanced with mortgage insurance provided by a third party. Initially, HARP allowed refinances of qualifying loans with LTVs up to 125 percent. To have qualified, loans must have been originated before May 31, 2009, and have been current with certain restrictions on late payments over the preceding year.

³⁰ Data from the FHFA's quarterly Foreclosure Prevention & Refinance Report. See Federal Housing Finance Agency (2011), "Foreclosure Prevention & Refinance Report: Third Quarter 2011," report (Washington: FHFA, October), www.fhfa.gov/webfiles/22827/3Q2011ForePrevFullReport12611.pdf.

The low participation rate has been attributed, in part, to lender worries about GSE putback risks. When a lender refinances a loan originated by a competitor, the new lender in effect takes on some of the original lender's putback risk. Because lenders are reluctant to take on this added risk, they tend to refinance only their own loans and do not aggressively market the program to borrowers.

GSE fees known as loan-level pricing adjustments (LLPAs) are another possible reason for low rates of refinancing. Under normal circumstances, LLPAs are used to provide higher compensation to the GSEs for the risk that they undertake when new loans are extended to borrowers with high loan-to-value (LTV) ratios or low credit scores. In a HARP refinancing, however, the GSEs already carry the credit risk on the original mortgage, and refinancing to a lower rate could even lower the credit risk of some such loans; thus, it is difficult to justify imposing a higher LPPA when refinancing in this circumstance.

To reduce these and other obstacles to refinancing, the FHFA announced changes to HARP in October 2011.³¹ LLPAs for HARP loans were eliminated for borrowers shortening the term of their loans to 20 years or less and reduced for longer-term loans, certain representation and warranty requirements were waived, loans with LTVs greater than 125 percent were made eligible for the program, the appraisal process was largely automated, servicers were given greater flexibility to notify borrowers of their eligibility for refinancing through HARP, and private mortgage insurers agreed to facilitate the transfer of mortgage insurance. Some estimates suggest that another million or so homeowners could refinance their mortgages with these changes in effect.

Nonetheless, more might be done--for example, reducing even further or perhaps eliminating remaining LLPAs for HARP refinances (again, on the rationale that the GSEs already carry the credit risk on such loans); more comprehensively reducing putback risk; or further streamlining the refinancing process for borrowers with LTVs below 80 percent, a potentially large group of borrowers who face some (though not all) of the same obstacles confronting high-LTV borrowers. Fannie Mae has reduced putback risk for all loans (including those below 80 percent LTV as well as those above 80 percent LTV), while Freddie Mac has reduced putback risk for loans above 80 percent LTV but not those below 80 percent LTV. Harmonizing traditional refinancing programs for borrowers with LTVs less than 80 percent, so that these programs become operationally consistent with HARP, could facilitate more refinancing among this group of borrowers.

An important group of borrowers who are not able to take advantage of the HARP program is homeowners with high LTVs but whose mortgages are not guaranteed by the GSEs. For the most part, these borrowers are not able to refinance through any public or private program. One possible policy option might be to expand HARP--or introduce a new program--to allow the GSEs to refinance non-GSE, non-FHA loans that would be otherwise HARP eligible. Unlike HARP refinances, however, these refinances would introduce new credit risk to the GSEs

³¹ Federal Housing Financing Agency (2011), "Fannie Mae and Freddie Mac Announce HARP Changes to Reach More Borrowers," press release, October 24, www.fhfa.gov/webfiles/22721/HARP_release_102411_Final.pdf.

because the GSEs do not currently guarantee the loans, even if the loans were offered only to borrowers who are current on their payments and would meet underwriting standards (for example, debt-to-income ratio and credit score), if not for their high loan-to-value ratios. Perhaps 1 million to 2-1/2 million borrowers meet the standards to refinance through HARP except for the fact that their mortgages are not GSE-guaranteed.³²

To be sure, this change would introduce a host of risk-management issues, and the GSEs would likely require new underwriting and fees for insuring these loans. Moreover, legislative changes to GSE governing statutes would likely be needed because the GSEs are prohibited from purchasing or guaranteeing mortgages with LTV ratios exceeding 80 percent unless the mortgages have credit enhancement such as mortgage insurance. This policy, because it requires a potentially large expansion of the GSE balance sheet, would also have to be balanced against the other policy goals of winding down the GSEs over time and returning private capital to the mortgage market.

The structure of the HARP program highlights the tension between minimizing the GSEs' exposure to potential losses and stabilizing the housing market. Although the GSEs would take on added credit risk from expanding HARP to non-GSE loans, the broader benefits from an expanded program might offset some of these costs. In particular, some homeowners who are unable to refinance because of negative equity, slightly blemished credit, or tighter underwriting standards could reduce their monthly payments significantly, potentially reducing pressures on the housing market. A stronger housing market would in turn likely imply an earlier stabilization of house prices and reduced rates of mortgage delinquency, helping both borrowers and lenders. Neighborhoods would benefit from reduced rates of foreclosure and fewer vacant homes, while localities would experience gains, or less pronounced reductions, in property tax receipts. The reduction in aggregate mortgage payments could also provide some boost to consumer spending, although the net effect would likely be relatively small, in part because the gains to homeowners may be partially offset by corresponding reductions in the incomes of investors in mortgage-backed securities.

However, many GSE and non-GSE mortgages are not eligible for traditional or HARP refinancing because they are already delinquent or have been sufficiently delinquent in the past. These mortgages might be best addressed through loan modification programs--the topic of the next section.

Loan Modifications and the HAMP Program

Loan modifications help homeowners stay in their homes, avoiding the personal and economic costs associated with foreclosures. Modifying an existing mortgage--by extending the term, reducing the interest rate, or reducing principal--can be a mechanism for distributing some of a homeowner's loss (for example, from falling house prices or reduced income) to lenders, guarantors, investors, and, in some cases, taxpayers. Nonetheless, because foreclosures are so

³² Federal Reserve staff calculation based on data from CoreLogic and from McDash Analytics, LLC, a wholly owned subsidiary of Lender Processing Services, Inc.

costly, some loan modifications can benefit all parties concerned, even if the borrower is making reduced payments.

About 880,000 permanent modifications have been made through the voluntary Home Affordable Modification Program (HAMP), which is part of the Making Home Affordable (MHA) program. HAMP pays incentives to lenders, servicers, and borrowers to facilitate modifications. Among its key program terms, HAMP reduces monthly payments for qualifying borrowers to 31 percent of income. For borrowers who have received HAMP modifications, the help is often substantial. For example, the median monthly payment after a permanent HAMP modification is about \$831, compared with about \$1,423 before the modification.³³ Millions of additional mortgages have been modified by lenders, guarantors, and the FHA.

As is the case with all loan modifications, some mortgages that have been modified under HAMP have ended up defaulting after modification. For example, among HAMP modifications made permanent in the first quarter of 2010, 16 percent of mortgages were more than 90 days late a year after modification, and 22 percent were 90 days late after 18 months.³⁴ These re-default rates are lower than those for non-HAMP modifications, according to Office of the Comptroller of the Currency (OCC) statistics.³⁵ Such defaults after modification highlight the difficulty that some homeowners have had in sustaining even substantially reduced mortgage payments over time. In some cases, this difficulty likely owes to the burden from other expenses, such as medical or elder care, or other debt, such as a second mortgage or consumer debt, which may make a 31-percent-of-income first mortgage payment unaffordable.

On the other hand, the 31 percent payment-to-income target has also precluded the participation of borrowers who might benefit from a modification even though their first-lien payment is already less than 31 percent of income. One potential method of expanding the reach of HAMP that may be worth exploring would involve allowing payments to be reduced below 31 percent of income in certain cases. This exploration might consider incorporating all of a borrower's mortgage payments on a property in the debt-to-income calculation, instead of just the first lien. Alternatively, taking the entirety of a borrower's balance sheet into account or making

³³ Data from the October 2011 Making Home Affordable program servicer performance report. See U.S. Department of the Treasury (2011), *October 2011 Making Home Affordable Report and Servicer Assessments for Third Quarter 2011*, report (Washington: U.S. Department of the Treasury, December), available at www.treasury.gov/initiatives/financial-stability/results/MHA-Reports/Pages/default.aspx.

³⁴ More recent modifications may have different default experiences due to different economic conditions during the life of the loan.

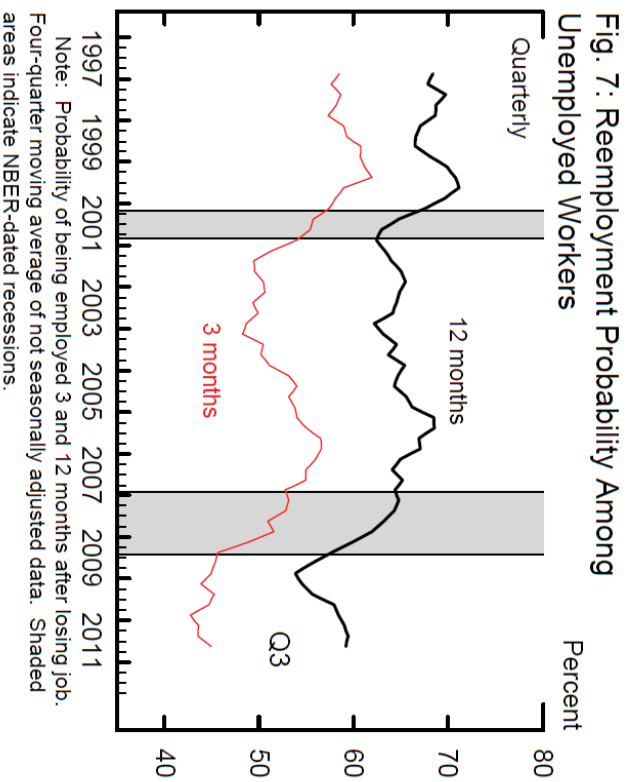
³⁵ For example, according to the OCC Mortgage Metrics Report for the third quarter of 2011 (table 32), some 17 percent of HAMP permanent modifications finalized in the second quarter of 2010 at a select group of national banks and thrifts had fallen 60 days delinquent within 12 months of the modification. In contrast, for this same group of financial institutions, some 31 percent of non-HAMP modifications made permanent in the second quarter of 2010 had become 60 or more days delinquent within the same interval. The lower rate of delinquency for HAMP permanent modifications has likely been influenced by differences in documentation standards, magnitudes of payment reduction, and requirements for a trial period. For the OCC report, see U.S. Department of the Treasury, Office of the Comptroller of the Currency (2011), *OCC Mortgage Metrics Report, Third Quarter 2011* (Washington: Department of the Treasury, December), www.occ.treas.gov/publications/publications-by-type/other-publications-reports/mortgage-metrics-2011/mortgage-metrics-q3-2011.pdf.

allowances for other unavoidable borrower expenses might be considered. Expanding the magnitude of potential payment reduction in this way would, though, raise difficult issues of fairness and implementation.

Another issue is the fact that many borrowers have gone delinquent or have defaulted because of income loss resulting from unemployment or other presumably temporary factors, which impairs their ability to meet previously affordable payment obligations. The basic HAMP modifications focus on longer-term payment reduction to a level that can be supported by the borrower's income at the time of modification. This approach is often ill-suited for those who have lost their jobs because the income of unemployed borrowers is generally quite low.

Instead of a longer-term modification, a payment deferral may be more helpful to temporarily unemployed borrowers whose income, it is hoped, will rise in the near future. MHA has introduced an unemployment forbearance program under which servicers grant 12 months' forbearance. Resources from the Hardest Hit Fund, which was created by the Department of the Treasury (Treasury) under the Troubled Asset Relief Program, have been used to provide assistance to unemployed homeowners through a variety of programs run by state housing finance agencies.

Programs of this type may prove helpful in preventing costly foreclosures among homeowners suffering temporary income reductions. Nonetheless, a significant challenge involves targeting these initiatives to the borrowers most likely to be reemployed. In the current economy, fewer than 60 percent of unemployed workers find reemployment within a year of losing their jobs (figure 7). Moreover, even after reemployment, a borrower's income from the new job may be lower than in the previous job, and his or her savings may be depleted, reducing the borrower's ability to keep up with mortgage payments. Further work in this area is warranted to better understand the tradeoffs in devising such programs.



Broadly speaking, HAMP emphasizes modifications in which the net present value to the lender of the modification exceeds the net present value of pursuing a foreclosure. It should be recognized that other types of loan modifications may be socially beneficial, even if not in the best interest of the lender, because of the costs that foreclosures place on communities, the housing market, and the broader economy. However, although policymakers might very well decide that the social costs--while obviously difficult to gauge--are great enough to justify additional loan modifications, lenders are unlikely to be willing to make such modifications on their own. Moving further in this direction is thus likely to involve additional taxpayer funding, the overriding of private contract rights, or both, which raises difficult public policy issues and tradeoffs.

Loan Modifications with Principal Reduction

Reducing monthly payments to a sustainable level for distressed borrowers who are significantly underwater on their mortgages may require principal reductions--that is, reductions in their mortgage balances--in addition to interest rate concessions and term extensions. Consequently, HAMP allows principal reduction to be used as part of its standard protocol when interest rate reduction and term extension are not sufficient to reduce a borrower's debt-to-income ratio to 31 percent. In addition, the HAMP program introduced the Principal Reduction Alternative (PRA), which allows the servicer to use principal reduction as the first step in modifying the loan. In both cases, HAMP uses principal reduction primarily as a means to improve the affordability of a borrower's mortgage, though with the concomitant benefit of reducing negative equity.³⁶ The Hardest Hit Fund has also funded principal reduction programs at the state level.

Negative equity is a problem, above and beyond affordability issues, because it constrains the ability of borrowers to refinance their mortgages or sell their homes if they do not have the means or willingness to bring potentially substantial personal funds to the transaction. An inability to refinance, as discussed previously, blocks underwater borrowers from being able to take advantage of the large decline in interest rates over the past years. An inability to sell could force underwater borrowers into default if their mortgage payments become unsustainable, and may hinder movement to pursue opportunities in other cities.

Principal reduction has been proposed and debated as one possible policy response to negative equity, including for borrowers current on their mortgage payments. Principal reduction has the potential to decrease the probability of default (and thus the deadweight costs of foreclosure) and to improve migration between labor markets. Principal reduction may reduce the incidence of default both by improving a household's financial position, and thus increasing its resilience to economic shocks, and by reducing the incentive to engage in "strategic" default (that is, to default solely based on the household's underwater position rather than on the affordability of the payments).

³⁶ Reflecting the preference for capitalization and interest rate reduction that is built into the HAMP "waterfall," 98 percent of HAMP modifications reduced the interest rate and 31 percent reduced principal. Since its inception in October 2010, the PRA program has modified 32,000 loans.

These potential benefits, however, are hard to quantify. Based on the evidence to date, the effect of negative equity on migration between labor markets appears to be fairly small.³⁷ The effect of reducing negative equity on default is hard to estimate because borrowers with high LTV ratios tend to have other characteristics correlated with default.³⁸ For example, high-LTV homeowners often made small initial down payments--perhaps due to a lack of financial resources--and tend to live in areas with greater declines in house prices, where unemployment and other economic conditions also tend to be relatively worse. Hence, principal reduction is likely to lower delinquency rates by less than the simple correlation between LTV and default rates would suggest. Further research or policy experiments in this area would be useful.

At the same time, the costs of large-scale principal reduction would be quite substantial. Currently, 12 million mortgages are underwater, with aggregate negative equity of \$700 billion. Of these mortgages, about 8.6 million, representing roughly \$425 billion in negative equity, are current on their payments.³⁹ These costs might be reduced if it was possible to target borrowers who are likely to default without a principal reduction. However, identifying such borrowers among the many who are current on their payments is difficult. Moreover, targeting principal reduction efforts on those most likely to default raises fairness issues to the extent that it discriminates against those who were more conservative in their borrowing for home purchases or those who rent instead of own. Depending on the requirements for relief, such a program may also give some borrowers who otherwise would not have defaulted an incentive to do so.

An alternative to large-scale principal reduction for addressing the barriers that negative equity poses for mortgage refinancing and home sales could involve aggressively facilitating refinancing for underwater borrowers who are current on their loans, expanding loan modifications for borrowers who are struggling with their payments, and providing a streamlined exit from homeownership for borrowers who want to sell their homes, such as an expanded deed-in-lieu-of-foreclosure program (described later). This approach focuses on reducing payments rather than reducing principal per se, and could be more effective at keeping committed borrowers in their homes if affordability is the prime consideration driving default.

Alternatives to Foreclosure

Despite the potential for loan modifications and targeted forbearance programs to prevent unnecessary foreclosures, many borrowers will not be able to keep their homes. In these cases, the most efficient solution may be to find an alternative to foreclosure such as a short sale or a deed-in-lieu-of-foreclosure (DIL). In a short sale, the home is sold to a third-party buyer offering less than the amount owed by the homeowner. In a DIL, there is no sale, but the

³⁷ See Raven Molloy, Christopher Smith, and Abigail Wozniak (2011), "Internal Migration in the United States," *Journal of Economic Perspectives*, vol. 25 (Summer), pp. 173–96, www.aeaweb.org/articles.php?doi=10.1257/jep.25.3.173.

³⁸ See Neil Bhutta, Jane Dokko, and Hui Shan (2010), "The Depth of Negative Equity and Mortgage Default Decisions," Finance and Economics Discussion Series 2010-35 (Washington: Board of Governors of the Federal Reserve System, June), www.federalreserve.gov/pubs/feds/2010/201035/201035pap.pdf.

³⁹ About 660,000 mortgages are 30 days past due, 310,000 are 60 days past due, 1 million are 90 days or more past due, and 1.4 million are in foreclosure.

property is transferred directly to the lender or guarantor, rather than going through the formal foreclosure process. Both options are within the bounds of mortgage contracts and avoid some of the economic damage potentially caused by the foreclosure process. Short sales can be attractive because the property is transferred to a (presumably sustainable) new owner, keeping the property out of REO and reducing potential negative effects on communities from vacant properties. DILs can also be helpful because they can sometimes be easier to execute than a short sale and because they can fit into an REO-to-rental program to prevent a discounted sale that would otherwise occur. Both options may be particularly attractive to borrowers if lenders partially or fully waive borrower liability for deficiency balances. The MHA's Home Affordable Foreclosure Alternatives program provides incentive payments to facilitate both short sales and DILs.

Both short sales and DILs, however, face barriers in current markets. Short sales require a willing buyer, a price that is acceptable to all parties, and a timeline that allows the transaction to close before foreclosure (which is likely proceeding on a parallel path). DILs may not be actively pursued because of informational or logistical obstacles. Further, short sales and DILs often present additional obstacles to lenders, such as the disposition of second liens, the cost and uncertainty of loss recovery via mortgage insurance or deficiency judgments, and (in the case of DILs) accumulating additional REO properties. For their part, borrowers may not know about DILs or short sales as an alternative to foreclosure and, in some cases, may see little reason to engage in a short sale or DIL rather than stay in their homes throughout the often drawn-out foreclosure process. Given the scope of the economic losses associated with foreclosure, figuring out ways to surmount these obstacles is crucial.

Mortgage Servicing: Improving Accountability and Aligning Incentives

Mortgage servicers interact directly with borrowers and play an important role in the resolution of delinquent loans. They are the gatekeepers to loan modifications and other foreclosure alternatives and thus play a central role in how transactions are resolved, how losses are ultimately allocated, and whether deadweight losses are incurred.

Thus far in the foreclosure crisis, the mortgage servicing industry has demonstrated that it had not prepared for large numbers of delinquent loans. They lacked the systems and staffing needed to modify loans, engaged in unsound practices, and significantly failed to comply with regulations. One reason is that servicers had developed systems designed to efficiently process large numbers of routine payments from performing loans. Servicers did not build systems, however, that would prove sufficient to handle large numbers of delinquent borrowers, work that requires servicers to conduct labor-intensive, non-routine activities. As these systems became more strained, servicers exhibited severe backlogs and internal control failures, and, in some cases, violated consumers' rights. A 2010 interagency investigation of the foreclosure processes at servicers, collectively accounting for more than two-thirds of the nation's servicing activity, uncovered critical weaknesses at all institutions examined, resulting in unsafe and unsound

practices and violations of federal and state laws.⁴⁰ Treasury has conducted compliance reviews since the inception of HAMP, and, beginning in June 2011, it released servicer compliance reports on major HAMP servicers. These reports have shown significant failures to comply with the requirements of the MHA program.⁴¹ In several cases, Treasury has withheld MHA incentive payments until better compliance is demonstrated.

These practices have persisted for many reasons, but we focus here on four factors that, if addressed, might contribute to a more functional servicing system in the future. First, data are not readily available for investors, regulators, homeowners, or others to assess a servicer's performance. Second, even despite this limitation, if investors or regulators were able to determine that a servicer is performing poorly, transferring loans to another servicer is difficult. Third, the traditional servicing compensation structure can result in servicers having an incentive to prioritize foreclosures over loan modifications.⁴² Fourth, the existing systems for registering liens are not as centralized or as efficient as they could be.

The lack of consistent metrics for assessing the quality of practices across servicers is a significant problem. Helpful metrics might include measures of borrowers' ability to contact representatives through call centers, results from third-party satisfaction surveys, or measures of investors' abilities to get data on loss-mitigation activities. Treasury has taken steps toward addressing this lack of consistent metrics in its monthly MHA reports, which include data on error rates, complaint response quality, and conversion rates (from trial to permanent modifications). These data could help inform the development of appropriate metrics for the industry.

The information provided by the metrics could be even more helpful if combined with lower costs when transferring servicing rights to a competing servicer. In a well-functioning servicing market, lower quality servicers would quickly lose business to competitors who are better able to reduce losses to investors, deliver a high quality of interaction with homeowners, and comply with regulations. However, because servicing systems are not interoperable or designed to easily import or export new records, transferring servicing responsibilities from one servicer to another is expensive, time consuming, and prone to error.

A third potential area for improvement in mortgage servicing is in the structure of compensation. Servicers usually earn income through three sources: "float" income earned on cash held temporarily before being remitted to others, such as borrowers' payments toward taxes and hazard insurance; ancillary fees such as late charges; and an annual servicing fee that is built into

⁴⁰ See Federal Reserve System, Office of the Comptroller of the Currency, and Office of Thrift Supervision (2011), *Interagency Review of Foreclosure Policies and Practices*, report (Washington: Board of Governors of the Federal Reserve System, April), www.federalreserve.gov/boarddocs/rptcongress/interagency_review_foreclosures_20110413.pdf.

⁴¹ The latest quarterly servicer assessment reports (through October) can be found in the Treasury's *October 2011 Making Home Affordable Report* (see note 33).

⁴² See Larry Cordell, Karen Dyan, Andreas Lehnert, Nellie Liang, and Eileen Manskopf (2008), "The Incentives of Mortgage Servicers: Myths and Realities," Finance and Economics Discussion Series 2008-46 (Washington: Board of Governors of the Federal Reserve System, November), www.federalreserve.gov/pubs/feds/2008/200846/revision/index.html.

homeowners' monthly payments. For prime fixed-rate mortgages, the servicing fee is usually 25 basis points a year; for subprime or adjustable-rate mortgages, the fee is somewhat higher. From an accounting and risk-management perspective, the expected present value of this future income stream is treated as an asset by the servicer and accounted for accordingly.

The value of the servicing fee is important because it is expected to cover a variety of costs that are irregular and widely varying. On a performing loan, costs to servicers are small--especially for large servicers with highly automated systems. For these loans, 25 basis points and other revenue exceed the cost incurred. But for nonperforming loans, the costs associated with collections, advancing principal and interest to investors, loss mitigation, foreclosure, and the maintenance and disposition of REO properties might be substantial and unpredictable and might easily exceed the servicing fee.

The standard servicing compensation model assumes that the revenue streams are more than enough in low-default environments, allowing servicers to cross-subsidize for high-default scenarios. But most servicers do not appear to have invested in enough infrastructure, or reserved sufficient capital, for high-stress conditions. Thus, they were ill equipped to deal with the magnitude of the ongoing foreclosure wave. Also, the fee structure of the servicing industry helped create perverse incentives for servicers to, for example, reduce the costs associated with working out repayments and moving quickly to foreclosure, even when a loan modification might have been in the best interest of the homeowner and investor.

Possible changes to the compensation model might include aligning servicing fees more closely with expenses, such as smaller annual servicing fees for performing loans but higher compensation for servicing delinquent loans, with fees tied directly to expenses incurred and with incentives for loan performance.⁴³ A small part of the current servicing business, including niche institutions known as "special servicers," already operates under such a payment regime. In addition, servicers' contractual requirement to continue advancing payments of principal and interest to investors, even when a loan is delinquent, strengthens servicers' incentives to move quickly to foreclosure. One possibility might be to advance mortgage principal and interest only 60 days beyond the first missed payment. This change would affect payment streams to investors modestly, and the market could adjust pricing accordingly, but it could also help align the interests of servicers, borrowers, and investors in reaching final resolution of delinquent mortgages.

A final potential area for improvement in mortgage servicing would involve creating an online registry of liens. Among other problems, the current system for lien registration in many jurisdictions is antiquated, largely manual, and not reliably available in cross-jurisdictional form. Jurisdictions do not record liens in a consistent manner, and moreover, not all lien holders are required to register their liens. This lack of organization has made it difficult for regulators and policymakers to assess and address the issues raised by junior lien holders when a senior mortgage is being considered for modification. Requiring all holders of loans backed by

⁴³ The FHFA has proposed and sought comment on alternative servicer compensation structures. See Federal Housing Finance Agency (2011), "Alternative Mortgage Servicing Compensation Discussion Paper," white paper (Washington: FHFA, September), www.fhfa.gov/webfiles/22663/ServicingCompDiscussionPaperFinal092711.pdf.

residential real estate to register with a national lien registry would mitigate this information gap and would allow regulators, policymakers, and market participants to construct a more comprehensive picture of housing debt.

The national lien registry could also record the name of the servicer. Currently, parties with a legitimate interest in contacting the servicer have little to go on from the land records because, among other reasons, many liens have been recorded only in the name of the trustee or of Mortgage Electronic Registration Systems (MERS).⁴⁴ Registering the servicer, and updating the information when servicing is transferred, could help local governments and nonprofits, for example, who might be working to resolve the status of vacant or abandoned properties. Implementing a modernized registry could build on systems that have been put in place locally in some jurisdictions and could be designed to retain a role for state and local governments as the default collectors of information, as long as the information is collected in an efficient and consistent manner.⁴⁵

Conclusion

The challenges faced by the U.S. housing market today reflect, in part, major changes taking place in housing finance; a persistent excess supply of homes on the market; and losses arising from an often costly and inefficient foreclosure process (and from problems in the current servicing model more generally). The significant tightening in household access to mortgage credit likely reflects not only a correction of the unsound underwriting practices that emerged over the past decade, but also a more substantial shift in lenders' and the GSEs' willingness to bear risk. Indeed, if the currently prevailing standards had been in place during the past few decades, a larger portion of the nation's housing stock probably would have been designed and built for rental, rather than owner occupancy. Thus, the challenge for policymakers is to find ways to help reconcile the existing size and mix of the housing stock and the current environment for housing finance. Fundamentally, such measures involve adapting the existing housing stock to the prevailing tight mortgage lending conditions--for example, devising policies that could help facilitate the conversion of foreclosed properties to rental properties--or supporting a housing finance regime that is less restrictive than today's, while steering clear of the lax standards that emerged during the last decade. Absent any policies to help bridge this gap, the adjustment process will take longer and incur more deadweight losses, pushing house prices lower and thereby prolonging the downward pressure on the wealth of current homeowners and the resultant drag on the economy at large.

In addition, reducing the deadweight losses from foreclosures, which compound the losses that households and creditors already bear and result in further downward pressure on house prices, would provide further support to the housing market as well as provide assistance to struggling homeowners. Policymakers might consider minimizing unnecessary foreclosures through the

⁴⁴ MERS provides services related to tracking and registering residential mortgage ownership and servicing, acts as mortgagee of record on behalf of lenders and servicers, and initiates foreclosure actions. The April 2011 enforcement action included an action against MERS (see note 1).

⁴⁵ Although most of the information that would be registered is already in the public record, safeguards would be needed to protect privacy.

use of a broad menu of types of loan modifications, thereby allowing a better tailoring of modifications to the needs of individual borrowers; and servicers should have appropriate incentives to pursue alternatives to foreclosure. Policymakers also may want to consider supporting policies that facilitate deeds-in-lieu of foreclosure or short sales in order to reduce the costs associated with foreclosures and minimize the negative effects on communities.

Restoring the health of the housing market is a necessary part of a broader strategy for economic recovery. As this paper suggests, however, there is unfortunately no single solution for the problems the housing market faces. Instead, progress will come only through persistent and careful efforts to address a range of difficult and interdependent issues.