

CRS Report for Congress

The Process, Data, and Costs of Mortgage Foreclosure

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Summary

The passage of legislation such as P.L. 110-289, the Housing Rescue and Foreclosure Prevention Act of 2008 (Representative Barney Frank et. al.), and the introduction of numerous bills such as H.R. 5818, the Neighborhood Stabilization Act of 2008 (Representative Maxine Waters et. al.), serve as evidence of the concern in the 110th Congress over recent foreclosure activity. This report provides a description of, as well as some brief analysis of, foreclosure and related issues generated by the behavior of U.S. housing and mortgage markets.

Specifically, this report explains the foreclosure process, both from the point of view of a traditional financial lending institution, and from the viewpoint of securitization when loans are sold in secondary markets. The decision by the servicer to foreclose is also discussed, as are foreclosure data sources and recent foreclosure trends. Finally, this report examines estimates of average foreclosure costs and relevant computational issues.

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The Process, Data, and Costs of Mortgage Foreclosure

Introduction

This report provides an analysis of the process, activity, and policy issues related to mortgage foreclosures. A description of the foreclosure process is presented, first in a traditional banking context, and then under securitization, when the loan originator no longer owns the distressed mortgage. A brief discussion is also included concerning what guides the decisions to foreclose. Next, the various foreclosure data sources are summarized. Lastly, some estimates of foreclosure costs are presented.

The General Foreclosure Process

The foreclosure process is governed by state law and varies widely by state. The description of the foreclosure process provided in this report is in general terms, first assuming a traditional lending framework, followed by a brief explanation of how the process works when the mortgage has been securitized.

Foreclosure Under A Traditional Lending Framework

Foreclosure can begin after a borrower defaults on the mortgage loan.¹ Default is generally defined as being 90 days (or more) delinquent, although some lenders may use other definitions. Once in default, the lender must decide whether a loss mitigation or workout option would suffice, or whether to proceed with foreclosure (the process of recovering losses by repossessing and selling the property).² A financially motivated lender will try to select the option that minimizes losses.

¹ For a primer on delinquency, default, foreclosure, and loan workouts, see Charles A. Capone, “Research Into Mortgage Default and Affordable Housing: A Primer,” prepared for the Local Initiatives Support Corporation for Home Ownership Summit 2001, November 8, 2001, available at [http://www.lisc.org/files/906_file_asset_upload_file755_793.pdf].

² Loss mitigation or ‘workouts’ refer to a menu of possible options to avoid foreclosure. Lenders may choose from various options such as forbearance, rescheduling payments, or restructuring the loan, which may help distressed borrowers become current and continue to stay current in the payments. After forbearance or loan modification, a borrower can become delinquent again. If borrower circumstances will not allow for a loan to re-perform, agreement to a pre-foreclosure sale or deed-in-lieu of foreclosure may also be viable options to mitigate losses.

Depending upon the state, a foreclosure process may take from several months to almost two years to complete. To ensure a valid transfer of title, the lender must prove that the borrower is in default, and follow various legal procedures prior to the authorization of a foreclosure auction. In states that follow a *judicial foreclosure* process, a foreclosure petition must be heard and ruled upon by a judge who examines all of the evidence in the case. In *power-of-sale* states, the lender holds a deed of trust with a clause that allows foreclosure without court action. Because of the additional legal work, foreclosure generally takes longer and is more costly to complete in judicial foreclosure states.

After proper notification requirements and other legal procedures have been completed, a foreclosure auction process begins. States typically require that the property owner be given advance notice regarding when the foreclosure auction will take place. In addition, a legal advertisement must appear in local news media announcing the time and place of the auction, a legal description of the property, and the sale terms and conditions. At the auction, the auctioneer may begin with a reading of the legal advertisement and then set a minimum bid. The highest bidder at the conclusion of the bidding period assumes title of (and responsibility for) the property.

If no one purchases the property above the minimum bid, the lender receives title; the property becomes *real estate owned* (REO), a term used for foreclosed houses that lenders carry until they can be resold by conventional means. Like any seller, the lender may need to incur expenses for deferred maintenance or outright damage before putting the property on the market. Lenders may hire the services of realty brokers, who are paid commissions, to sell REO properties. Meanwhile, the lender still incurs costs such as forgone interest, property taxes, and any other delinquent liabilities assumed from the previous borrower. Consequently, even if the property were sold at market value, the lender may incur losses. The stigma of being a REO property, however, may have the effect of reducing the list price below current market value. Furthermore, the lender may pay some or all of the closing costs to entice new buyers, just as any seller might do in any ordinary real estate transaction. Once title has been transferred to a new owner, the tabulation of the lender's total foreclosure costs, from borrower default to final property disposition, may begin.

The foreclosure process does not necessarily end after title of the property is transferred. Some states provide borrowers with a *statutory right of redemption*, which allows the borrower a period of time, perhaps longer than a full year, to repurchase the property after the foreclosure auction. Hence, the foreclosure sale is not final in these states until the end of the redemption period.³ The length of time from initiation to completion of the foreclosure process, therefore, depends on whether the foreclosure must go to court and whether a right of redemption exists.

³ If a property sells for less than the current mortgage, there will be a remaining unpaid balance. The tax consequences on the unpaid mortgage debt vary according to state law. For more information, see CRS Report RL34212, *Analysis of the Tax Exclusion for Canceled Mortgage Debt Income*, by Mark P. Keightley and Erika Lunder.

The discussion so far has focused upon a single lender foreclosing on a single mortgage. If the borrower used two loans to acquire the property, however, then two lenders would be affected. Suppose a borrower whose property has been foreclosed obtained a primary loan for 80% of the total needed amount and a “piggy-back” or secondary loan for the remaining 20%. After subtraction of legal and administrative costs, the proceeds of the foreclosure or REO sale go to pay off the primary lender first, and the lender of the secondary loan gets whatever is left over. Given that foreclosure costs can be substantial, the second lender risks not recouping anything on the unpaid secondary loan balance.

Foreclosure Under A Structured Financing Framework

The term *lender* has so far been used in the traditional context in which a bank that originates a mortgage also holds it in portfolio. In modern financial markets, however, originators do not necessarily keep loans in their own portfolios. Loans originated in the primary market, where the home purchaser and the loan originator conduct business, are often sold in a secondary market, where the loan originator and an investor conduct business. The process of structured financing in the mortgage market involves the following steps.

First, a home buyer goes to an originator, which can be a financial institution or a mortgage broker, who approves and issues a mortgage loan. Second, the originator sells the loan to a securitizer. A securitizer can be a government-sponsored enterprise (GSE), such as Fannie Mae or Freddie Mac, or a private securitization trust. Third, the securitizer bundles the individual mortgages together and creates a new financial product, the mortgage-backed securities (MBS). Finally, the securitizer may sell MBS payment streams to investors, who become the ultimate “lenders.” Investors may be hedge funds, pension funds, sovereign wealth funds, or other financial institutions. (If the securitizer decides not to sell the securities to third party investors and instead holds them in its own portfolio, then the securitizer becomes the investor.) MBS payment streams, which are called *tranches*, have specific risk or return requirements that meet various investor needs. For example, a securitizer may create a senior-junior tranching structure in which the senior tranche investors receive payment first, but their yield is lower than for the junior tranche investors. The senior tranche would appeal to investors who prefer lower risk investments, and the junior tranche would appeal to investors who prefer to take higher risks for the possibility of earning a higher yield. The senior-junior tranching structure is only one of the numerous disbursement structures securitizers can use to attract investors. This particular tranching structure, however, is used throughout this report for the sake of illustration.⁴

The key difference between the foreclosure process under traditional banking versus structured financing frameworks has to do with the amount of flexibility that the mortgage holder has to make important financial decisions if default occurs. Suppose the securitizer either acts as or appoints a *servicer*, who collects mortgage

⁴ For more information on the securitization process, See CRS Report RS22722, *Securitization and Federal Regulation of Mortgages for Safety and Soundness*, by Edward Vincent Murphy.

payments from borrowers and disburses these to the tranches. The investor and servicer negotiate rules that the servicer will follow while acting on the investor's behalf. If default occurs, servicer contract provisions (along with state law) determine (1) whether the servicer can offer loss mitigation solutions, and if so, of what types and with what limitations; (2) when the servicer can initiate foreclosure; (3) if the servicer may act as an agent at the foreclosure auction; and (4) any bidding rules the servicer must follow. For example, if a servicer can initiate foreclosure, the rules are likely to state how much can be bid (e.g., up to a certain percentage or the full amount of a borrower's unpaid balance) at a foreclosure auction. Given that the costs associated with foreclosure will be borne by the ultimate investors, the rules are designed to minimize those expenses.⁵

Any foreclosure costs generated from defaulted mortgages in a pool of MBS must be subtracted from the proceeds paid to the securitization trust. Suppose the securitizer is currently using the senior-junior tranching structure described above. If the senior tranche gets paid first, then the junior tranche will initially suffer the revenue loss. The investors in the senior tranche would be adversely affected should the number of foreclosures be greater than expected, and associated costs exceed the stream of revenues that would have been paid out to the junior tranche. Of course, fewer foreclosures can translate into the junior tranche holders being rewarded with higher yield than senior holders, which compensates them for assuming more default risk.⁶

More on Foreclosure Incentives

Lenders may try a loss mitigation solution with defaulted borrowers. While a workout may result in a reduction of revenues compared with the original mortgage agreement, the revenue loss may still be a less costly alternative to foreclosure. Of course, if a loan falls into default a second time after a loss mitigation option has been applied, the additional forgone interest expenses are also added to the overall foreclosure costs. Hence, loss mitigation may be a less costly alternative to foreclosure if it is successful in getting the mortgage loan to perform again. For this reason, lenders may be cautious and adopt different policies regarding the frequency of loss mitigation usage based upon their individual experiences.

Another consideration regarding the decision to foreclose is whether the mortgage loan carries mortgage insurance. Foreclosure costs can be reduced if some or all of the delinquent mortgage loss is covered by private or government mortgage insurance. Private mortgage insurance (PMI) is typically required by lenders when the borrower puts down less than 20% of the appraised value of the home. PMI pays the lender based on the outstanding balance of the loan, foreclosure costs, property maintenance costs, taxes, and hazard insurance. Federally insured mortgages, which

⁵ See CRS Report RL33775, *Could Securitization Obstruct Voluntary Loan Modifications and Payment Freezes?*, by Edward Vincent Murphy.

⁶ The liquidity problem of August 2007 was triggered by senior tranche holders reassessing the riskiness of their exposure to financial problems. See CRS Report RL34182, *Financial Crisis? The Liquidity Crunch of August 2007*, by Darryl E. Getter, Mark Jickling, Marc Labonte, and Edward Vincent Murphy.

are typically guaranteed up to 100% of the statutory maximums for eligible borrowers, are provided by the Federal Housing Administration (FHA) and the Veterans Administration (VA). When lenders file insurance claims, mortgage providers may either pay just a fraction of the loss (allowing lenders to retain title) or pay the full amount of the mortgage balance and take title to the property (and then decide whether to proceed with foreclosure). Consequently, a lender incurring a loss from a defaulted mortgage, in particular one with private insurance, may decide to initiate foreclosure and pass on some of the loss to the mortgage insurance provider.⁷

As stated earlier in this report, however, the foreclosure decision is usually guided by the contracts negotiated by the lender or investor and the servicer. For example, the contracts typically specify how servicers will get paid and reimbursed for expenses. Suppose a servicer collects fees in the form of a commission, which may be calculated as a percentage of the interest (or mortgage coupon) paid by the borrower. Under this arrangement, payment occurs as long as the mortgage loan is performing, so a foreclosure would translate into a lost income stream. There may even be additional financial penalties associated with the inability to get delinquent loans to re-perform. Some servicing firms have incentive compensation plans that *deduct* money from employees unable to avoid completing foreclosure.⁸ Servicers who acquire a reputation for not being able to get a sufficient number of loans to re-perform may risk being unable to obtain future servicing rights for other types of loans (e.g., for automobiles, credit cards, etc.). Hence, some payment structures provide servicers the incentive to avoid foreclosure.

Some servicing agreements may not allow servicers to have much discretion. For example, for mortgages that Fannie Mae holds in its portfolio, servicers must follow guidance on how to proceed with loss mitigation solutions.⁹ The servicer must first get written permission from Fannie Mae before implementing a loss mitigation solution as well as follow guidances on how to implement the solution. Given that it is subject to various capital requirements, accounting, and tax rules, Fannie Mae must purchase a delinquent mortgage from its MBS pool before a loss mitigation solution can be applied. As a result, Fannie Mae monitors and approves all decisions concerning troubled loans in its portfolio. Similarly, FHA servicers must follow FHA guidelines for troubled loans. FHA servicers, however, have more discretion over how to get troubled loans to re-perform. FHA, a federal mortgage insurance company, does not face the capital requirements and tax consequences of a private mortgage securitizer. Hence, FHA *requires* its servicers to participate in the FHA Loss Mitigation Program and avoid foreclosure if at all possible.¹⁰ Servicers cannot simply file a claim on a troubled mortgage and convey title of the property to FHA without permission from the Department of Housing and Urban Development

⁷ FHA typically assumes all of the borrower's default risk by insuring 100% of the mortgage loan. After a default, the agency pays an insurance claim filed by the lender. FHA can then decide whether to initiate foreclosure and dispose of the property.

⁸ See [http://www.ocwenbusiness.com/documents/pdf/Congressional_Testimony.pdf].

⁹ See [<https://www.efanniemae.com/sf/guides/ssg/annltrs/pdf/2006/0627.pdf>].

¹⁰ See [<http://www.hud.gov/offices/adm/hudclips/letters/mortgagee/files/00-05.doc>].

(HUD). FHA servicers will not be reimbursed unless they show evidence of adherence to FHA policies and procedures regarding troubled loans.

Because of the various contractual arrangements that loan servicers are obligated to follow, borrowers cannot necessarily avoid foreclosure by contacting their servicers. In some cases, present and future compensation for servicers depends on the number of loans they can get to perform, which encourages servicers to try solutions to avoid completing foreclosure; in other cases, servicers may have limited authority and options.¹¹ Consequently, understanding why servicers may or may not complete the foreclosure process requires an understanding of the servicing contractual agreements or guidelines attached to the various mortgage loans.

Measuring U.S. Foreclosures

The federal government does not collect mortgage foreclosure data; various private data sources are therefore used to measure foreclosure developments. Different sources employ different approaches to measuring foreclosures. One approach is to look at the number of foreclosures as a percentage of mortgages outstanding. Another approach is to count the number of foreclosure filings or starts. The selected measurement approach may affect whether changes in foreclosure activity are viewed as being more or less severe. This section examines some key differences in the various data sources as well as interpretation caveats.

Foreclosure Data Sources

The National Delinquency Survey. The Mortgage Bankers Association (MBA) reports on the percentage of delinquencies and foreclosure filings in its quarterly National Delinquency Survey (NDS).¹² The NDS sample consists of more than 40 million loans serviced by mortgage companies, commercial banks, thrifts, credit unions, and other servicing institutions.¹³ This measurement approach counts foreclosures as a percentage of outstanding mortgage loans. The NDS data include delinquency and foreclosure information about primary or first-lien mortgage loans at the state, regional and national levels. Homes that have *completed* the foreclosure process and are currently sitting in REO inventory are no longer included in the foreclosure data. The NDS dates back to 1979.

RealtyTrac. RealtyTrac, an on-line real estate marketplace designed to facilitate real estate transactions, reports monthly on the total number of properties

¹¹ See CRS Report RL34386, *Could Securitization Obstruct Voluntary Loan Modifications and Payment Freezes?* by Edward Vincent Murphy and CRS Report RL34372, *The HOPE NOW Alliance/American Securitization Forum (ASF) Plan to Freeze Certain Mortgage Interest Rates*, by David H. Carpenter and Edward Vincent Murphy.

¹² See [<http://www.mbaa.org/ResearchandForecasts/ProductsandSurveys/NationalDelinquencySurvey.htm>].

¹³ For more information about the Mortgage Bankers Association and the National Delinquency Survey, please go to [<http://www.mbaa.org>].

with at least one foreclosure filing.¹⁴ The foreclosure data are compiled from approximately 2500 counties, using data from courthouses and newspapers. Data are obtained at the address level and can be aggregated to zip code, county, metropolitan, and state levels. RealtyTrac counts properties in the default or pre-foreclosure period, the auction period, and those properties sitting in REO. RealtyTrac data have been collected since 1996.

Loan Performance Securitized Subprime Loans. Loan Performance provides information on mortgage financing, servicing, and securitization.¹⁵ A Loan Performance data subscriber or client may access its database and receive delinquency, bankruptcy and REO information for more than 75% of U.S. prime first-lien mortgages, including the portfolios of Fannie Mae and Freddie Mac. Loan Performance also provides this information for its repository of subprime mortgage loans, home equity lines of credit and secondary mortgage loans, and jumbo (mortgages exceeding the GSE purchase limits) loans.¹⁶ Loan Performance data are collected monthly at the zip code, core based statistical area, county, and state levels. Loan Performance has been in business for over 20 years.

Credit Bureau Data. Experian, Equifax, and TransUnion are three national U.S. credit reporting agencies that collect data on consumer payment activity, which can be used to capture trends in borrowing and payment behavior.¹⁷ These data contain useful borrower credit usage and repayment information pertaining to all types of credit — automobile, credit card, other installment debt, as well as mortgage debt. Taking on additional amounts of debt or being 90 days or more delinquent on a mortgage payment can signal higher mortgage foreclosure risk. If a consumer has experienced a pre-foreclosure sale or a completed foreclosure, this information also appears on the credit report.¹⁸ Individual credit report information can be aggregated to local, state, or regional levels to identify geographic areas with neighborhood traits more prone to foreclosure risk.¹⁹

¹⁴ See [<http://www.realtytrac.com/>].

¹⁵ See [<http://www.loanperformance.com/>].

¹⁶ The Federal Reserve Bank of New York has currently made county-level subprime data from the Loan Performance database available on its website at [<http://www.newyorkfed.org/regional/subprime.html>].

¹⁷ See [<http://www.experian.com>], [<http://www.equifax.com/home>], [<http://www.transunion.com/>], and [http://findarticles.com/p/articles/mi_m1094/is_1_35/ai_59964463].

¹⁸ According to one report, a homeowner's credit score may drop by 200 to 300 points after a pre-foreclosure sale, deed-in-lieu of foreclosure, or an actual foreclosure. See [<http://homebuying.about.com/od/4closureshortsales/qt/060907SScredit.htm>]. When this report was written, no information could be found directly on the websites of the credit bureau agencies to verify the numerical score deductions reported on the cited blogsite.

¹⁹ For empirical academic discussions on the use of credit history data as a predictor of foreclosure, see Michael Grover, Laura Smith, and Richard M. Todd, "Targeting Foreclosure Interventions: An Analysis of Neighborhood Characteristics Associated with High Foreclosure Rates in Two Minnesota Counties," *Federal Reserve Bank of Minneapolis* (continued...)

Measurement Issues. Given that not all properties that begin a foreclosure process will complete it, foreclosure starts represents an “upper-limit” of completed foreclosures. Foreclosure starts or filings refer to the filing of legal documents during various stages of the foreclosure process. As previously described, many states require lenders to file a notice of foreclosure to begin the process. A borrower and servicer can nonetheless resolve a repayment problem and avoid completing foreclosure. Some states require a lender or servicer to file an initial notice of foreclosure intent followed by another filing when the foreclosure sale takes place. Consequently, if every filing is counted as a new foreclosure, then multiple counting will inflate or severely overstate foreclosure activity.²⁰ This report uses the NDS data, which provide an upper-limit measure of completed foreclosures, to track foreclosure activity.

Tracking Foreclosure Activity

The data on foreclosure rates used in **Figure 1** and **Figure 2** come from the NDS. The figures include data on foreclosure filing rates for prime loans, FHA insured loans, subprime loans, and a composite rate for all foreclosed loans. The foreclosure rate for each loan category is computed as the total number of foreclosures filed at the end of the quarter divided by the total number of loans in that particular category. The loan categories are defined as follows:

- Prime loans, typically made to creditworthy borrowers who meet the standards set by the GSEs.²¹
- Alternative or “Alt-A” loans, which typically meet the GSE credit score requirements; they do not meet the standard requirements for documentation, property type, debt (or qualifying) ratios, or loan-to-value (LTV) ratios. FHA targets Alt-A borrowers, although it does insure loans for borrowers with lower credit scores. FHA also allows more flexibility with respect to debt and LTV ratios than prime lenders, and FHA borrowers must comply with standard documentation requirements.
- Subprime loans are primarily made to borrowers with impaired or limited credit. Subprime loans do not have to meet the GSE credit

¹⁹ (...continued)

Community Affairs Report No. 2006-1 (Revised June 2007) at [<http://www.minneapolisfed.org/community/pubs/foreclosureinterventions.pdf>]; and Robert B. Avery, Raphael W. Bostic, Paul S. Callem, and Glenn B. Canner, “Credit Risk, Credit Scoring, and the Performance of Home Mortgages”, *Federal Reserve Bulletin* (July 1996) at [<http://www.federalreserve.gov/pubs/bulletin/1996/796lead.pdf>].

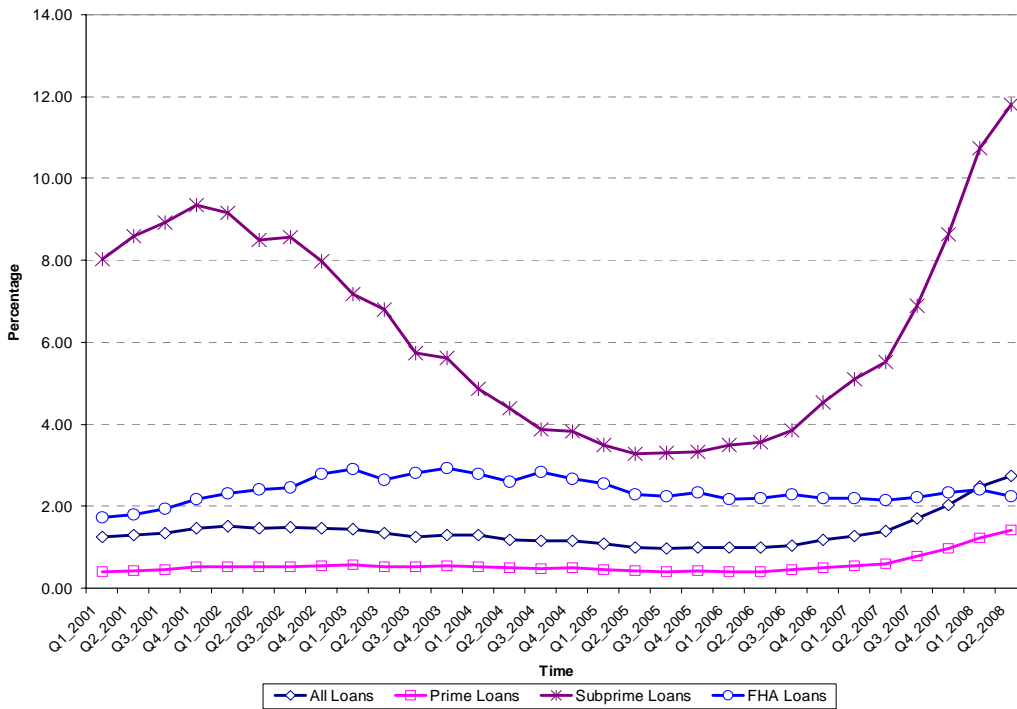
²⁰ See discussions pertaining to the reporting of overstated foreclosure numbers at [<http://www.msnbc.msn.com/id/22011114/>], [<http://www.inman.com/news/2007/05/3/foreclosure-activity-62-last-year>], and [<http://www.businessandmedia.org/printer/2007/20070907071643.aspx>].

²¹ For background and other information about GSEs, see CRS Report RS21724, *GSE Regulatory Reform: Frequently Asked Questions*, by N. Eric Weiss.

score requirements, and other standard underwriting requirements may also be waived, including standard documentation requirements.

Figure 1 indicates that subprime foreclosure rates since 2001 have consistently been greater than prime and FHA foreclosure rates. When housing prices were rising and interest rates were falling between 2002 and 2005, the overall foreclosure rate for prime loans was steady, while subprime foreclosure rates declined markedly.²² Foreclosures began to rise in early 2006, and have continued rising through the second quarter of 2008.

Figure 1. Percentage of Foreclosures by Aggregate Category



Source: Mortgage Bankers Association.

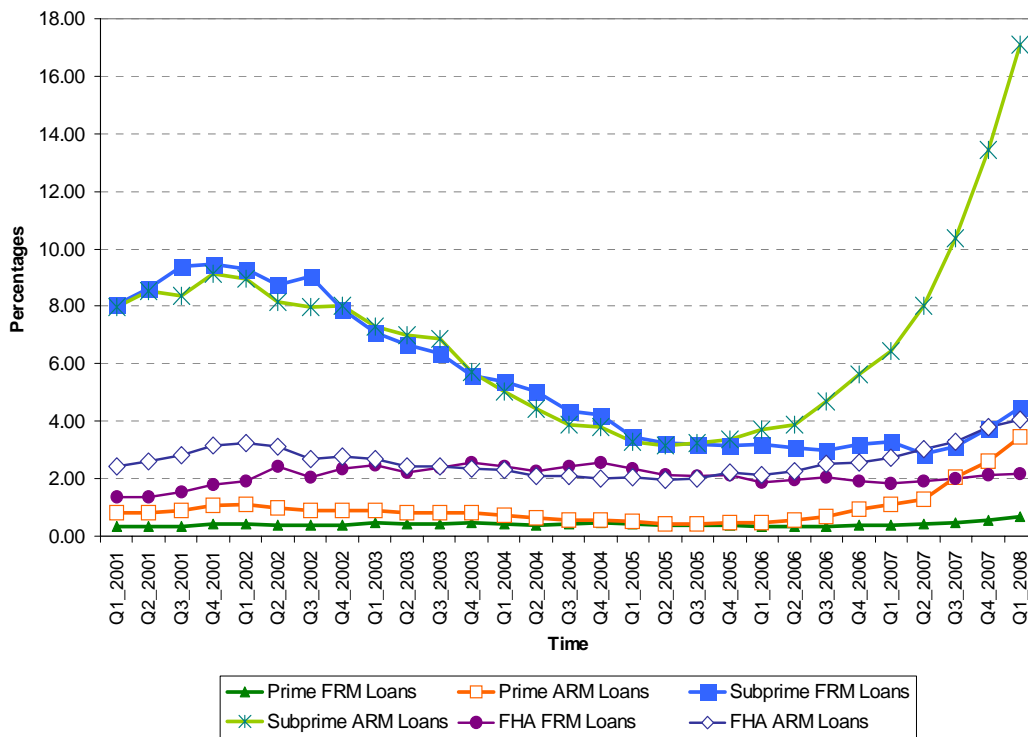
The average foreclosure rate for all subprime loans during this period was 6.42%, while the average foreclosure rate for all FHA loans was 2.24%. The foreclosure rate for all prime loans averaged 0.73%. Given a low prime foreclosure rate relative to the other loan type categories and the fact that prime loans make up a larger share of the mortgage market, the overall foreclosure rate for all loans in the survey averaged 1.58%. The maximum foreclosure rate over the entire period for all

²² FHA foreclosures saw an increase arguably because some of its more creditworthy borrowers were refinancing out of FHA. These borrowers were either obtaining prime loans and no longer paying FHA mortgage insurance premiums or they wanted to obtain cash-out refinances that exceeded the FHA loan limits, since house prices were rapidly appreciating. Hence, the rise in the FHA foreclosure rate might reflect a decrease in the denominator of total mortgage loans, rather than an increase in the numerator of total foreclosures.

loans in the survey was 2.75%, which occurred during the second quarter of 2008. The rise in the overall foreclosure rate since 2006, therefore, reflects the large increase in subprime foreclosure rates.

In **Figure 2**, the composite categories have been further separated into fixed rate mortgage (FRM) foreclosures and adjustable rate mortgage (ARM) foreclosures. From 2006 to the first quarter of 2008, subprime foreclosure rates were again the highest, followed by FHA, and then prime loans.²³ Foreclosure rates averaged 3.32% for subprime FRM loans, 8.14% for subprime ARM loans, 1.99% for FHA FRM loans, 2.93% for FHA ARM loans, 0.44% for prime FRM loans, and 1.46% for prime ARM loans. The NDS does not report composite foreclosure rates for all FRM loans or all ARM loans. Based upon the information provided here, however, the overall FRM and ARM composite foreclosure rates are likely to be much lower than the equivalent rates computed for the subprime and FHA categories. Furthermore, the composite series of FRM loan foreclosure rates is likely to be lower than composite series of foreclosure rates for ARM loans.²⁴ The descriptive data in **Figure 2** indicate that many foreclosures were associated with ARMs and particularly subprime ARMs.

Figure 2. Percentage of Foreclosures FRM versus ARM



Source: Mortgage Bankers Association.

²³ Foreclosure rates for separate fixed and adjustable rate mortgage categories were not available when this report was updated.

²⁴ See CRS Report RL33775, *Alternative Mortgages: Causes and Policy Implications of Troubled Mortgage Resets in the Subprime and Alt-A Markets*, by Edward Vincent Murphy.

Microeconomic factors that help explain foreclosures include unanticipated changes in economic or personal circumstances. Examples of unanticipated changes in personal circumstances include divorce, sudden changes in health, and job loss. Given no abnormal rise in national divorce rates or debilitating medical injuries, those reasons do not fully explain the recent rise in foreclosures. Foreclosures could potentially be attributed to local labor market conditions. For example, foreclosures in Ohio rose when its unemployment rate rose to approximately one percentage point higher than the annual U.S. national unemployment rate (5.5% compared with 4.6% in 2006). Rising job losses, however, still cannot entirely account for aggregate developments. Florida, for instance, had unemployment rates at or below the U.S. national average during 2006, yet the state still experienced a marked rise in foreclosures. Hence, unanticipated changes in personal circumstances do not entirely explain the recent rise in foreclosures.

Regional and more widespread macroeconomic factors that can translate into a rise in foreclosures include a slowdown in sales activity and the rate of house price appreciation. Declining sales activity increases the difficulty of borrowers with cash flow problems to avoid foreclosure because they cannot quickly sell their homes and reduce expensive mortgage payments. Falling house prices affects the ability to refinance a mortgage and may even encourage some borrowers to stop making mortgage payments altogether.²⁵ Homeowners with substantial equity in their homes arguably have a greater incentive to cooperate with the lender and renegotiate an arrangement to avoid foreclosure. Foreclosures are, however, more likely to occur when homeowners have little (10% or less) equity in their homes. If the market value of a house falls sufficiently below the value of the mortgage, or if very little or no downpayment was used to purchase the home, the borrower may have a financial incentive to walk away and not attempt steps to avoid foreclosure.²⁶

According to national U.S. Census Bureau data, new home prices fell by 4.11% between June 2006 and June 2007, and new home sales were down by 22.18% during the same period. According to the National Association of Realtors, median existing home prices fell by 0.04% during the same period, and existing home sales declined by 11.25%.²⁷ Hence, selling a home or refinancing a mortgage, perhaps prior to an interest rate adjustment on an ARM loan that would result in a substantial increase in the monthly payment, appear to be less feasible options in the current market. Consequently, a rise in foreclosures would not be considered unusual given the recent

²⁵ In some cases, rising mortgage rates may have the same financial impact as falling house prices.

²⁶ See [<http://news.bbc.co.uk/1/hi/business/7529277.stm>]. Although a borrower with little home equity may not suffer a major financial loss after foreclosure, the subsequent ability to obtain loans may be severely affected for several years.

²⁷ The January 2006 to June 2007 time frame would have best coincided with the period that foreclosures began to rise (as reported by the NDS). Some of the housing price and sales data, however, are not seasonally adjusted, making it necessary to use the June 2006 to June 2007 period for computing annual rates.

decline in housing market activity. Housing market activity and foreclosure rates are cyclical and typically move in opposite directions.²⁸

In addition to unanticipated housing market changes, the mortgage market also experienced structural changes, including the expansion of the subprime market. Prior to this expansion, people with impaired credit were unable to obtain home equity or cash-out refinance loans from prime market lenders. Furthermore, when home prices began to exceed the maximum FHA loan limits in various regions, credit impaired borrowers looked for alternative credit sources. Hence, the growth in subprime lending during the late 1990s and early to mid-2000s enabled people evaluated as having lesser credit quality to gain access to mortgage credit. By 2005, subprime loans accounted for an estimated 20% of all mortgage originations.²⁹ The recent housing market slowdown has revealed that subprime borrowers appear to be more susceptible than prime borrowers to changing housing market conditions, and perhaps also more susceptible than those who satisfy current FHA requirements for mortgage insurance.

Estimates of Foreclosure Costs

Foreclosures are rarely profitable for lenders.³⁰ The legal fees, lost interest, property taxes, other delinquent obligations incurred by the former homeowners (e.g., association fees), and selling expenses make foreclosures costly to lenders.³¹

Although many studies provide dollar value estimates of foreclosure costs, it is difficult to know how cost estimates were obtained without access to proprietary data.³² A study cited in a Freddie Mac Working Paper estimated the total costs of

²⁸ See Jan Hatzius, “Beyond Leverage Losses: The Balance Sheet Effects of the Home Price Downturn,” *Brookings Papers on Economic Activity*, (Fall 2008) Conference Draft, p. 20 at [http://www.brookings.edu/economics/bpea/~media/Files/Programs/ES/BPEA/2008_fall_bpea_papers/2008_fall_bpea_hatzius.pdf]; and John B. Taylor, “Housing and Monetary Policy,” presentation at the *Policy Panel at the Symposium on Housing, Housing Finance, and Monetary Policy* sponsored by the Federal Reserve Bank of Kansas City (September 2007), p. 6, Figure 4 at [<http://www.stanford.edu/~johntayl/Housing%20and%20Monetary%20Policy—Taylor—Jackson%20Hole%202007.pdf>].

²⁹ See Robert B. Avery, Kenneth P. Brevoort, and Glenn B. Canner, “Higher-Priced Home Lending and the 2005 HMDA Data,” *Federal Reserve Bulletin* (September 2008), p. A125.

³⁰ Fraudulent sellers, as opposed to lenders, may profit by successfully selling overvalued properties. Damaged properties may be sold at inflated prices using fraudulent appraisals or making shoddy repairs that pass inspections. Should home buyers suspect they may be victims of fraud and perhaps have loans higher than the actual property values, they may simply choose to walk away and allow the property to be foreclosed upon. Under these circumstances, the lender, who is likely to be saddled with an over-valued property that must be repaired and resold, may also be considered a victim of fraud.

³¹ Although the generic ‘lender’ term is being used, this discussion is still applicable to investors who have servicers acting on their behalf.

³² See Desiree Hatcher, *Foreclosure Alternatives: A Case for Preserving Homeownership*, (continued...)

foreclosure for a sample of loans at approximately \$58,759 per loan.³³ Those costs include the interest lost during the delinquency period, foreclosure costs, and disposition of the property — costs that the lender would be likely to incur. The working paper does not state explicitly if these costs were paid by the lender, nor whether the \$58,759 was an average or median amount per foreclosure, but it did say the foreclosure process took an average of 18 months to resolve. Hence, this reported dollar amount may be fairly representative of the actual costs incurred only by a single lender, presumably in 2002.³⁴

Foreclosure costs are far-reaching. In addition to losing their homes, borrowers are likely to find it difficult to obtain credit in the future, even at high interest rates. Lenders suffer the losses associated with acquiring the property from the borrower, settling outstanding claims, repairing any damages, and selling the property. Local governments may face the problem of vacant units in neighborhoods and loss of tax revenues. Foreclosure may reduce the value of neighboring homes. As a result, foreclosure is something that parties directly and indirectly involved with the property would want to avoid.³⁵

³² (...continued)

Profitwise News and Views, published by the Federal Reserve Bank of Chicago (February 2006). The article mentions that GMAC-RFC (Residential Funding Corporation) reported losing \$50,000 per foreclosed home.

³³ See Amy Crews Cutts and Richard K. Green, *Innovative Servicing Technology: Smart Enough to Keep People in Their Houses?*, Freddie Mac Working Paper #04-03 (July 2004). The authors cite Craig Focardi, *Servicing Default Management: An Overview of the Process and Underlying Technology*, TowerGroup Research Note, No. 033-13C (November 15, 2002). The \$58,759 cited in the Freddie Mac report comes from Focardi's study.

³⁴ It is not clear whether the final sales price was subtracted from the gross costs in order to obtain the net cost of foreclosures to lenders. If this figure is net costs, then estimated foreclosure costs reflect current market conditions at the time the estimates were computed. Foreclosure costs are likely to be higher during 2006 and 2007 when housing market activity has slowed. Lenders would be unable to turn over foreclosed properties as quickly and market prices have declined in many areas over this period.

³⁵ The Joint Economic Committee estimates that foreclosures on average may cost as much as \$80,000. This estimate includes costs to homeowners, loan servicers, lenders, neighbors, and local governments. See U.S. Congress, Senate Joint Economic Committee, *Sheltering Neighborhoods from the Subprime Foreclosure Storm*, Special Report by the Joint Economic Committee, 110th Cong., 1st sess. (Washington: GPO 2007) at [<http://jec.senate.gov/Documents/Reports/subprime11apr2007revised.pdf>].