Continued Decay and Shaky Repairs:

The State of Subprime Loans Today

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Center for Responsible Lending

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CENTER FOR RESPONSIBLE LENDING

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About the Center for Responsible Lending

The Center for Responsible Lending is a nonprofit, nonpartisan research and policy organization dedicated to protecting homeownership and family wealth by working to eliminate abusive financial practices. CRL is affiliated with Self-Help, one of the nation's largest community development financial institutions.

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In 2005, Alan Greenspan, then chairman of the Federal Reserve Bank, praised subprime mortgages as a positive innovation made possible by better risk assessment, and "representative of the market responses that have driven the financial services industry throughout the history of our country."[1] Only two years later, there was growing concern that failing subprime loans, which had shot up to nearly a quarter of the total mortgage market originations, were driving our economy into recession.[2]

It is now clear these concerns were well-founded. The damage stemming from subprime foreclosures has grown and spread beyond even most pessimistic predictions, bursting the housing bubble and resulting in the Unites States' first nationwide decline in housing prices since the Great Depression. In this report, we provide an update on the subprime mortgages that triggered the current crisis, focusing on the performance of these loans and efforts to stop the ongoing surge of foreclosures.

In short, the outlook for outstanding subprime loans is grim. Although there are a number of voluntary efforts underway designed to mitigate home losses, the rate of subprime foreclosures is growing worse instead of better. In our analysis, we find:

- Over 1.5 million homes have already been lost through subprime foreclosures, and another two million families with subprime loans are currently delinquent and in serious danger of losing their homes in the near future.

- Fewer refinance and home sale options and increasing subprime delinquencies mean more home losses ahead and continued strains on the economy.

- Current efforts to stop foreclosures through voluntary loans modifications are not keeping pace with the rising rate of defaults.

    - 26% of subprime loans originated during the second half of 2005 are currently delinquent or have ended in foreclosure, but for subprime loans originated during the first half of 2007, the comparable figure already has soared to 42%.

    - These results are consistent with recent reports showing that mortgage servicers are overwhelmed by the volume of foreclosures, and even when loan modifications occur, all too often they are not affordable to the borrower.

Finally, problems in the housing market have continued to spread beyond subprime mortgages, as rising foreclosures among "Alt-A" loans are projected to get worse.[3] It is beyond the scope of this report to provide an in-depth analysis of non-subprime mortgages, but as policymakers address these issues, it is essential to factor in a sharp increase in foreclosures anticipated to occur among all types of home loans.

I. Background

During the past decade, the subprime mortgage market expanded rapidly and became the fastest-growing sector in the mortgage industry. Throughout this surge, a number of analysts expressed concern about abuses in the market and sustainability of loans that were aggressively marketed with looser qualifying requirements.[4] In December 2006, as the subprime market ballooned to nearly a quarter of all mortgages originated, the Center for Responsible Lending issued a report projecting that one out of five subprime mortgages made in 2005 and 2006 would end in foreclosure.[5]

Since then, the losses stemming from subprime mortgages have exceeded even the worst expectations. The fallout has been enormous, affecting economies all over the globe and spilling over into virtually every sector of the United States. In August 2008, CRL estimated that subprime foreclosures will drain $352 billion in property values from 40 million families who live nearby—almost $9,000 per family, most of whom have paid their mortgages on time every month.[6] (These projections represent only property value declines caused by nearby foreclosures, not other price drops associated with the slowdown in local housing markets.) Beyond lost home values, the total cost of reckless subprime lending is difficult to calculate, but with federal bailouts, reduced tax revenues, and numerous spillover costs, the costs certainly exceed trillions of dollars. For example, just the estimated decline in U.S. household wealth between 2007 and 2009 is forecast to be between $9 and $10 trillion, or about $30,000 per person.[7]

In this report, we provide a brief update on the subprime market, focusing on delinquencies, foreclosures and attempts to mitigate losses. Where noted, our analysis is based on an examination of subprime mortgage-backed securities included in the credit-default swap index series known as the ABX.HE (hereafter referred to as “ABX”). The ABX series includes 80 subprime securities originally comprising 633,217 loans with $120 billion of volume and representing approximately 14% of the subprime securities market for that time period. For this report, CRL obtained loan characteristics and loan performance data for the loan pools supporting the 20 securities making up each of the four ABX series. We collected pool-level loan characteristics for each individual security at the time of origination, as well as historical and current loan-level monthly performance data.[8] Appendix A provides more details about the ABX index.

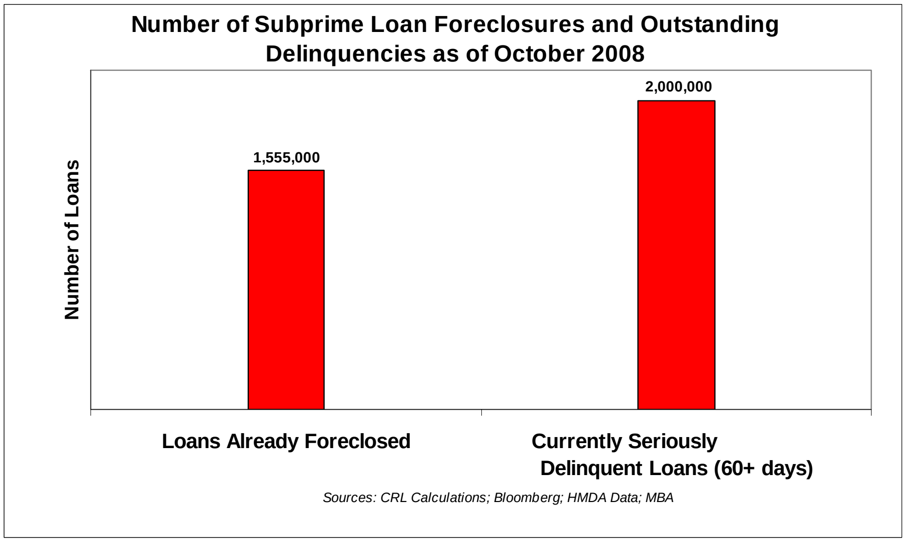
II. Key Findings

Finding 1: Over 1.5 million homes have already been lost through subprime foreclosures, and another two million families with subprime loans are currently delinquent and are in serious danger of losing their homes in the near future.

This estimate of 1.5 million is based on the proportion of loans in the ABX securities that are currently “REO” (repossessed real estate) or have been charged off, applied to the number of subprime loans originated during 2005-2007. As a point of comparison, the number of foreclosures on subprime loans in this two-year period is one-third higher than the total number of subprime foreclosures in the <u>eight-year</u> period preceding.[9]

The estimate of two million loans that are currently 60 days or more delinquent is based on the proportion of delinquent loans in the ABX securities applied to the total number of subprime loans outstanding.[10] This estimate reflects homeowners who are most in need of assistance in the form of substantive loan modifications.

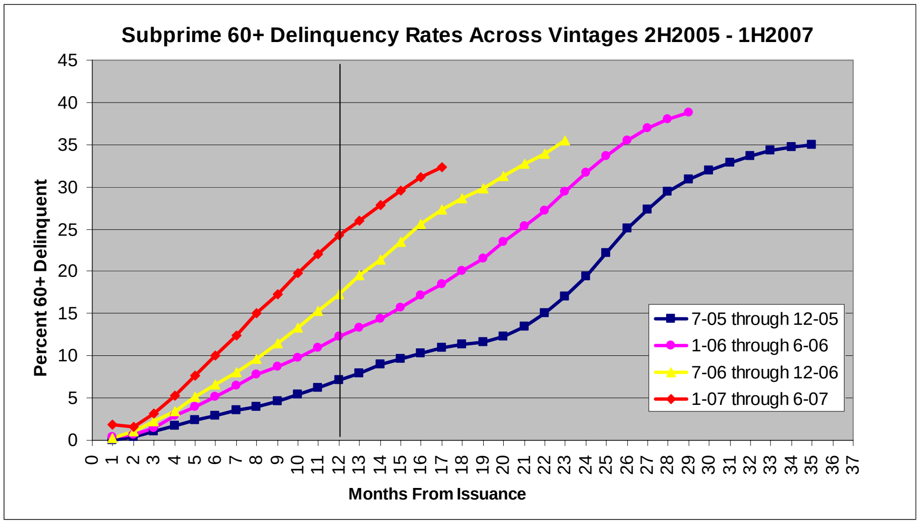
Figure 1: Subprime Foreclosures and Delinquencies



These projections are in line with other industry-reported data,[11] but do not include non-subprime loans that also are showing increased levels of foreclosure, including Alt-A loans and other prime loans. In that regard, **Credit Suisse recently projected foreclosures on all types of mortgages over the next five years at 8.1 million, up by nearly two million from a projection earlier this year.[12] This updated figure means that one in every nine homeowners—and one in six households who have a mortgage—will lose their home to foreclosure.** These projections are staggering. The subprime meltdown has now sent the entire global economy into a tailspin, despite industry experts' repeated assurances that it wouldn't.[13]

Our analysis of the ABX series shows that delinquencies on subprime loans are not only severe, but they are also occurring at a faster rate and much earlier in the life of the mortgages. As shown in Figure 2, while only 7% of the borrowers who received loans in the second half of 2005 were 60 days or more delinquent after twelve months, this number climbs to 24% of the outstanding borrowers who got loans in the first half of 2007. This chart also shows that these delinquency rates—and the worsening disparity between earlier and later ABX cohorts—were continuing to climb as of November 2008.

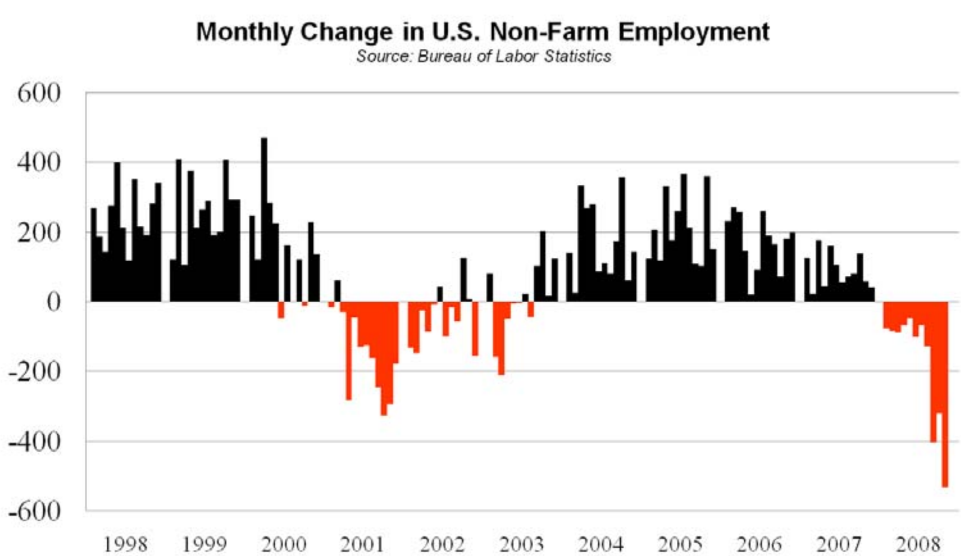
Figure 2: Delinquency Rates for Subprime Loans 60 Days or More Past Due



Finding 2: Fewer refinance and home sale options and increasing delinquencies mean more subprime foreclosures ahead.

It is now clear that problems in the subprime market are not confined to subprime borrowers. The economic distress precipitated by the subprime debacle has spread, magnifying problems throughout the economy. For example, Figure 3 shows the dramatic change that occurred in U.S. employment, as the 76,000 jobs lost in January 2008 rose to more than half a million by November 2008.

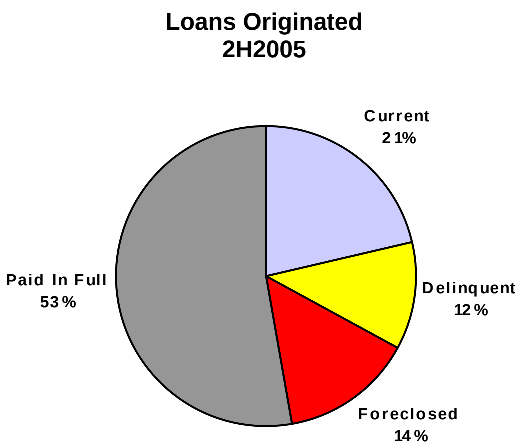
Figure 3: Subprime Foreclosures have Spurred Broad Economic Woes

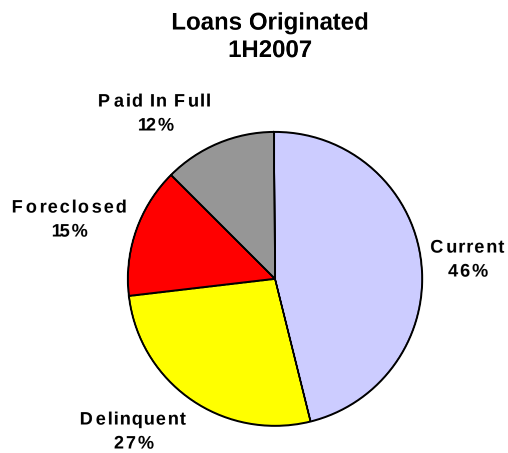


Higher unemployment, combined with the decline in house prices and the collapse of the subprime market, greatly increase the stress on households struggling with mortgage payments, particularly since the option to refinance that previously masked unaffordable loans is no longer readily available. As a result, millions of families now find that they cannot afford their mortgage payment when their introductory interest rate expires, nor can they refinance or sell their home because they owe more on their mortgage than the house is worth and may, in addition, be locked into their loan by a prepayment penalty.

This dilemma is illustrated by the performance of loans in the ABX securities. Figure 4 below shows the current status of all ABX loans originated in the second half of 2005 and the first half of 2007. We see that, as of November 2008, a greater proportion of loans originated in the first half of 2007 are already either delinquent or foreclosed (42%), compared with those originated approximately 18 months earlier in the first half of 2005 (26%). Given the young age of the 2007 pools of loans, we can anticipate that the proportion of delinquencies and foreclosures will continue to grow.

Figure 4: Current Status of ABX Loans as of November 2008





Equally striking, while 53% of all the loans have paid off from the second half 2005 vintage, only 12% of the loans from the first half 2007 have done so.[14] Although we would expect more loans from the older cohort to be paid off, it is likely that the low number of payoffs from the first half of 2007 also has been driven by the precipitous decline in subprime mortgage originations, since most subprime loans are refinances rather than purchase loans. In both 2005 and 2006, over $600 billion in subprime loans was originated annually, compared with $191 billion in 2007, $14 billion through the second quarter of 2008, and a projected $28 billion for all of 2008.[15] Homeowners' inability to refinance out of unaffordable adjustable-rate mortgages will result in further increases to the delinquency and foreclosure rates as the interest rates on these loans continue to reset every six months.

These findings are consistent with trends showing a sharp increase in mortgages that move rapidly from early default status to foreclosure. According to the Mortgage Bankers Association, during the 1990s, only about 10% of loans that were 30 days past due turned into foreclosures during the following quarter. Today that share has tripled, with 30% of defaults moving into foreclosure in the following quarter.[16]

This is also consistent with market developments. Recent reports estimate that up to 13 million homeowners holding 16% of all mortgages now owe more on their mortgage than their home is worth.[17] Borrowers who are "underwater" on their mortgage default in greater numbers than those who are not, largely because the safety nets of selling the house or refinancing the mortgage are no longer available when an income shock occurs through either reduced family income or higher expenses.[18] This trend is being exacerbated as a growing number of foreclosures and short sales depress home prices even further. The National Association of Realtors estimated that these "distressed sales" accounted for 35 to 40 percent of homes sales in third quarter 2008, pulling down the national median existing single-family price nine percent compared to a year earlier.[19]

Finally, many families who previously might have escaped unaffordable mortgages by refinancing have found themselves trapped by a prepayment penalty. According to *Inside Mortgage Finance*, 67% of subprime loans securitized from 2005 to 2007 came with a prepayment penalty.[20] On a $250,000 loan, a prepayment penalty typically would be in the range of $4,000 to $5,000—enough to prevent or discourage many borrowers from refinancing. Independent research has fixed the increased risk of default on subprime mortgages with prepayment penalties from 16% to 20% over already high baseline rates.[21]

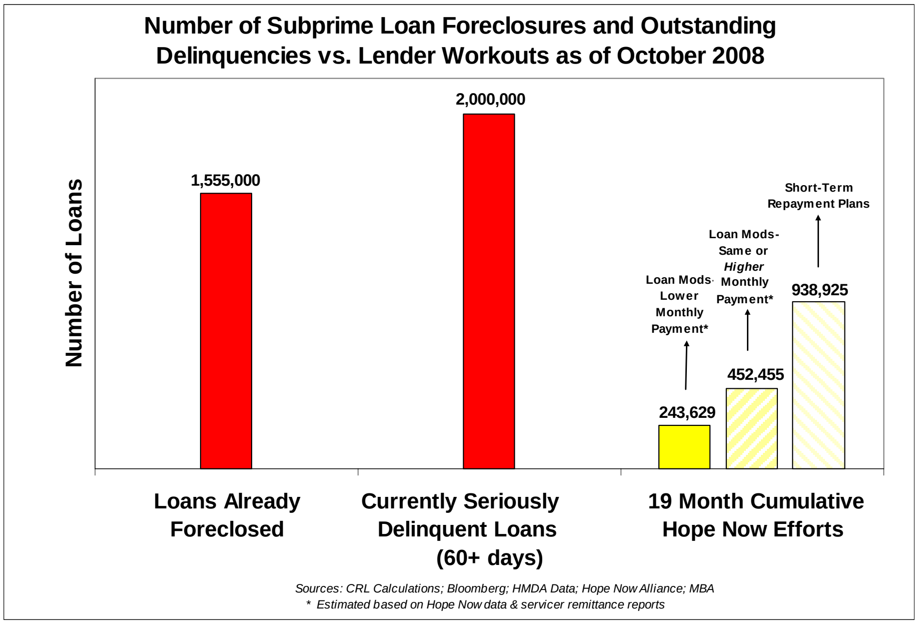
Finding 3: Efforts by the mortgage industry to prevent foreclosures are being eclipsed by the growing number of defaults—and, too often, the loss mitigation alternatives offered are not affordable.

Recent research from the financial industry confirms that effective loan modifications are not only critical to keeping borrowers in their homes, but also can be in the best interest of investors.[22] However, the specific terms of the loan modification have a significant impact on whether borrowers keep their home and investors continue to receive returns. A recent report by Credit Suisse found that the most successful loan modifications focus on reducing the homeowner's monthly payment, either by reducing interest rates or the loan principal. These types of modifications redefault at significantly lower rates (half the rate or less) than repayment plans (sometimes called "workout plans or "traditional modifications") that either leave the payment unchanged or increase the payment.[23] As further evidence, a report by Lehman Brothers found that performance within the first six months after modification was 33% better on loans with interest rate reductions than on those with [principal and interest] capitalization only, where the amount that is past due is simply added onto the loan balance.[24]

Unfortunately, many homeowners are not on track for any loss mitigation at all. The State Foreclosure Prevention Working Group—a consortium of state banking regulators and state attorneys general—calls industry loan modification efforts "profoundly disappointing" and reports that eight out of 10 seriously delinquent homeowners are not involved in any loss mitigation outcome.[25]

For those that do receive assistance, the terms of the modifications or repayment plans are often unaffordable, prolonging homeowners' struggles without changing the outcomes. In fact, a study by Professor Alan White of Valparaiso University shows that voluntary loss mitigation efforts of all kinds are rarely decreasing a borrower's principal debt, and that many (over 80%) are not even reducing monthly payments.[26] Hope Now, a consortium of mortgage lenders and investors established to assist struggling homeowners, reports that it has helped some 2.7 million borrowers through October 2008, including 1.6 million subprime borrowers.[27] However, it is not clear that assistance is providing long-term relief for struggling homeowners, since we estimate less than 20% of these loss mitigation efforts result in lower monthly payments (see Figure 5).

Figure 5: Subprime Foreclosures and Delinquencies vs. Loan Workouts with Hope Now Efforts



Last month the Office of the Comptroller of the Currency and the Office of Thrift Supervision issued their *Mortgage Metrics Report for Third Quarter 2008* reporting that more than half of mortgages modified during the first quarter of 2008 redefaulted again within six months.[28] These bleak results are difficult to evaluate. First, the report considered loans with 30+ day delinquencies as redefaults. Typically defaults are associated with 60+ or even 90+ day delinquencies, since many 30-day delinquencies cure. Additionally, the report did not include information about the terms of the modifications, including whether or not they involved interest rate and/or principal reductions. Comptroller of the Currency, John C. Dugan acknowledged that not enough information is available to determine the cause of the high rate of redefaults. However, he mentioned several possible culprits, including the possibility that "the modifications did not reduce monthly payments enough to be truly affordable to borrowers."[29]

Because repayment plans and modifications that do not reduce payments so often result in redefaults, the Credit Suisse report referred to above concludes that servicers and investors will likely come out ahead by modifying loans to affordable, lower monthly payment terms rather than foreclosing. However, there are a number of obstacles to modifications and market disincentives that discourage voluntary loan repairs by industry, even when common sense would seem to dictate strong actions to avoid foreclosures. As noted by Federal Reserve Chairman Ben Bernanke, "…despite the substantial costs imposed by foreclosure, anecdotal evidence suggests that some foreclosures are continuing to occur even in cases in which the narrow economic interests of the lender would appear to be better served through modification of the mortgage."[30]

> *"These [voluntary] initiatives represent an aggressive effort, from both the government and the private sector, to expand loan modification efforts significantly. However, we believe there are many flaws with these programs and they won't be sufficient to stem the rising tide of foreclosures."*
>
> *- Credit Suisse, Foreclosure Update December 4, 2008*

In brief, several barriers exist that impede the effectiveness of voluntary modifications:

<u>Mortgage securitization</u>: When servicing securitized loans, servicers are bound by the terms of contracts that may impose legal limitations on modifying loans that are included in investment pools. This is

revealed in data presented in the OCC/OTS Mortgage Metrics Report for Third Quarter 2008 showing modifications on loans held in portfolio perform better than those in securities.[31]

Fear of lawsuits: Another legal impediment is fear of investor lawsuits, since most loan modifications will have disparate financial impacts on different classes of investors in any given security.

Financial incentives to foreclose: The way that servicers are compensated by lenders often creates a bias for foreclosing on a mortgage rather than trying to prevent foreclosure. Servicer costs are reimbursed following a foreclosure, but generally not reimbursed for a modification in privately securitized mortgages.[32]

Second mortgages: Between one-third and one-half of the homes purchased in 2006 with subprime mortgages were made with two mortgages, and many more homeowners have open home equity lines of credit secured by their home.

Obstacles to assistance by servicers: Despite repeated attempts and many hours of effort, many homeowners report they repeatedly get put on hold when they call servicers or bounced from one person to another without receiving any meaningful assistance.

For a more detailed discussion of these obstacles to modifying mortgages, see testimony before the Senate Banking Committee presented by Eric Stein, Senior Vice President of the Center for Responsible Lending.[33]

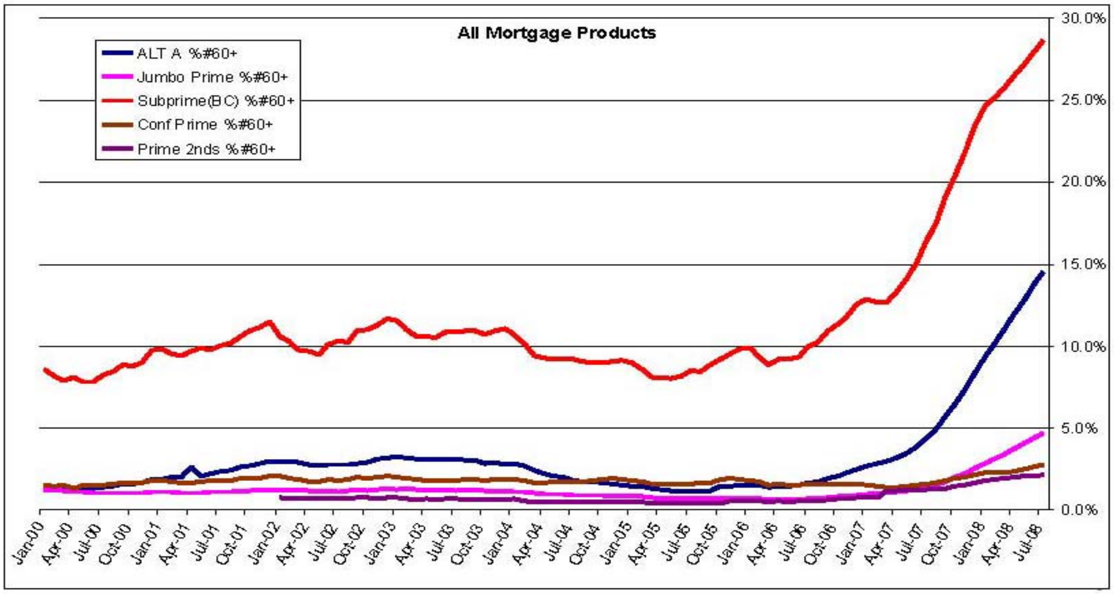
III. Looking Ahead: "We're All Subprime Now"

While this report focuses primarily on the performance of subprime mortgages, foreclosures also are increasing sharply for other types of home loans that were considered less vulnerable to default when they were originated, including prime and "Alt-A" mortgages. "Alt-A" is not a type of mortgage but rather an investment grade assigned to mortgages that fall between the categories of prime (A paper) and subprime (B&C paper). Alt-A loans typically have reduced or no income documentation requirements (also known as "stated income" loans.) Originally designed for borrowers with high credit profiles who were for one reason or another unable to fully document their income (self-employed or seasonal workers), Alt-A loans were increasingly sold as "affordability products" in recent years.

Alt-As were often coupled with payment option adjustable-rate mortgages (POARMs) or interest-only amortization terms. These loans often entice borrowers with low teaser rates up front but ultimately result in heavy payment shock to the borrower once the rates or payments reset (sometimes doubling their housing payment). In the case of POARMs, many of the loans also carry negative amortization features that can cause the balance of the loan to increase rather than pay down.

Figure 6 below shows the recent climb in 60+ day delinquency rates for various categories of outstanding mortgages. As shown in the graph, the performance of Alt-A loans is deteriorating rapidly. Currently 14% of Alt-A loans are 60 days or more delinquent.

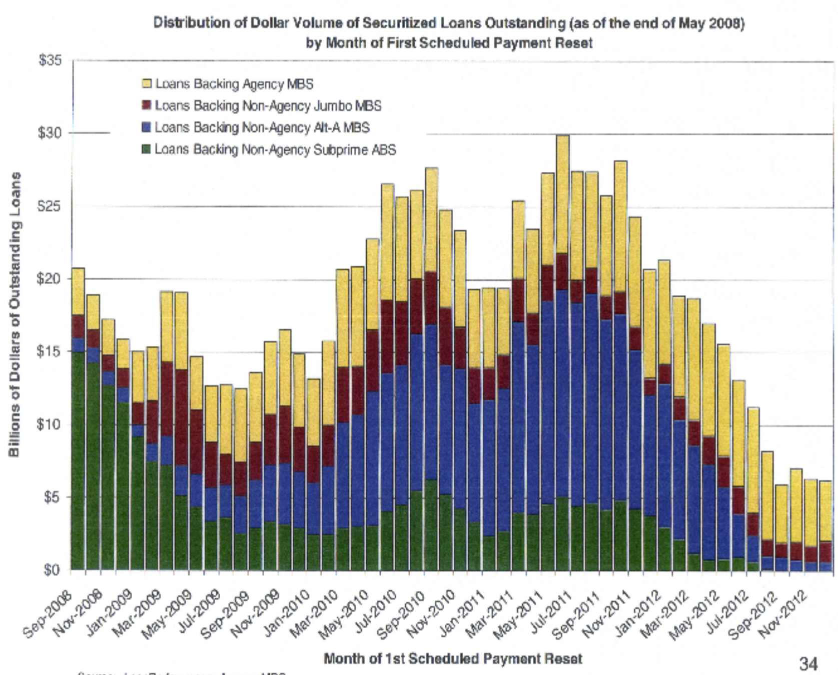
Figure 6: Percent of Loans with 2 or more Payments Past Due



Source: First American Core Logic

Looking forward, this trend is likely to continue since the majority of the outstanding POARMs are scheduled to experience rate resets in the 2010-2012 (see Figure 7). Investment Banker Whitney Tilson, founder and managing partner of Tilson Mutual Funds and a financial writer, recently projected that over 50% of POARMs will default, saying "The defaults right now are incredibly high. At unprecedented levels. And there's no evidence that the default rate is tapering off."[34]

Figure 7: Timing of First Payment Resets by Loan Type



The coupling of low- or no-income documentation loans with payment shock and negative amortization is proving more than borrowers in our current economy can shoulder. Declining housing prices along with the dwindling refinance market mean more borrowers with higher credit profiles are finding themselves in the same position as subprime homeowners—unable to make their housing payment and also unable to refinance or sell their homes.

IV. Policy Recommendations

There is an urgent need to stop subprime foreclosures on a large scale. The overwhelming majority of lenders' response involves repayment plans, which are most likely to result in only a temporary fix that ends in another loan default. Loan modifications—the remedy most likely to result in sustainable mortgages—are being dwarfed by the number of continuing foreclosures. Voluntary measures simply are not working, and any effective action must lead to lasting loan repairs on a large scale.

In addition, to restore trust and stability in the housing market, we need to eliminate lending incentives that encourage unsustainable loans and the lack of accountability that have been associated with massive foreclosures. These specific policy actions should be implemented immediately or in the very near future[35]:

1. Help millions of families at risk of foreclosure prevent the loss of their homes:

- The Department of Treasury should incorporate stronger mechanisms for achieving sustainable loan modifications through the Troubled Asset Relief Program (TARP). This can be achieved by implementing a program to guarantee mortgages to a sustainable level and to insist on streamlined loan modifications whenever the government invests equity in or purchases assets from a bank. The FDIC's approach to modifying loans held by IndyMac Bank represents a reasonable and effective approach that could be implemented on a larger scale through TARP.

- Congress should lift the ban on judicial loan modifications, which would prevent hundreds of thousands of foreclosures without requiring any taxpayer funding. More details on this proposal are included in recent Congressional testimony by CRL president, Michael Calhoun.[36]

2. Enact policy reforms that protect homeownership and family wealth against mortgage lending abuses in the future:

- Congress and state policymakers should establish reasonable safeguards against reckless lending practices. Fees that trap borrowers in costly loans, such as prepayment penalties and yield-spread premiums, should be curbed. Policymakers also should ensure that legal accountability flows through the mortgage chain. Since lenders and investors benefit from the system of passing loans from party-to-party, there must be "assignee liability"—reasonable liability throughout the lending chain.

Our research shows that homeowners are losing their homes at staggering rates, voluntary loan-by-loan modification efforts are falling far short, and the foreclosure crisis is far from over. Congress and the Administration have taken serious measures to support the financial industry, with efforts focused on increasing liquidity in the credit markets. However, financial institutions will not survive if their mortgage-related portfolios continue to fail. Taken together, the information presented here on subprime performance and the low success rate on loan repairs underscores the need for sustainable loan modifications that benefit not only homeowners, but also lenders, servicers, and the economy as a whole.

APPENDIX A

I. Data

A. Data from ABX Index: A Benchmark for Subprime Loans

In this analysis, CRL examines a series of loan pools serving as collateral in subprime mortgage-backed securities[37] included in the credit-default swap index series known as the ABX.HE (ABX). The ABX series was issued semi-annually in 2006 and 2007 by Markit, a financial information services company. Each issuance is linked to 20 subprime residential mortgage-backed securities (MBS). To date, the index has issued four series, each six months apart, covering subprime loans originated during the last half of 2005 through the first half of 2007.

As shown in Table 1, the ABX series includes 80 subprime securities originally comprising 633,217 loans with $120.6 billion of volume and representing approximately 14% of the subprime securities market for that time period.

Table 1: ABX Coverage of Total Subprime MBS

ABX Issue	Loan Origination Period	Total Subprime MBS Volume ($B)	MBS Volume in ABX index ($B)	ABX Percent of Overall MBS Market
6.1	6-05 through 12-05	$247.6	$30.9	**12.5%**
6.2	1-06 through 6-06	$240.8	$32.4	**13.5%**
7.1	7-06 through 12-06	$207.8	$28.2	**13.6%**
7.2	1-07 through 7-06	$163.2	$29.1	**17.8%**
Total	6-05 through 7-06	**$859.4**	**$120.6**	**14.0%**

Sources: Markit; *2008 Mortgage Market Statistical Annual*, Inside Mortgage Finance

The ABX is considered to be a benchmark of the overall subprime securities market: According to Moody's Investor Service, "the performance of the pools underlying the ABX indices closely tracks the performance of the respective wider subprime universe."[38] Table 2 below shows that key characteristics of loans making up the ABX are similar to those of the overall subprime market.

Table 2: ABX Securities Collateral Averages Compared to 2006 Subprime Mortgage Originations

Source	Credit Score	Loan-to-Value	Limited Documentation	Loan Balance (in thousands)	Interest Rate
Fitch Ratings[39]	615 - 625	80 - 82%	43 - 54%	$206 - $221	7.9 - 8.4%
Standard & Poor's[40]	626	82%	77%	$200	8.0%
ABX securities issued in 2006 (Series 6.2 and 7.1)	624 - 626	79 - 80%	46%	$185 - $190	8.2 - 8.9%

Note: Weighted by dollar volume Sources: *Subprime Collateral Trends and Early Payment Defaults*, Fitch Ratings; *A Comparison of 2000 and 2006 Subprime RMBS Vintages Sheds Light on Expected Performance*, Standard and Poor's; Bloomberg Market

II. Selection and Characteristics of Mortgage-Backed Securities in the ABX Index

The loan-level and pool-level data we analyzed was taken from the ABX indices. The ABX is a credit default swap index linked to twenty subprime residential mortgage-backed securities (MBS). Administered by Markit, the loans making up the ABX securities are considered to be a benchmark of the overall subprime securities market. According to Markit, ten days prior to the release date, the administrator reviews mortgage-backed securities from the 25 largest issuers and sends the list of securities to a group of index participants. Based on the results of the polling, 20 securities are selected to be the basis of each release of the index. Each security included must meet the following requirements as of the release date:

<u>MBS Collateral Eligibility Requirements</u>
-Minimum deal size is $500 million
-First liens must make up at least 90% of collateral
-Weighted average FICO score can not exceed 660
-Each tranche must have expected weighted average life of 4 to 6 years
-AAA tranche must have expected weighted average loan life of at least 5 years.
-Maximum of 4 deals from a single originator
-Maximum of 6 deals with the same master servicer

In addition, the pool level loan characteristics of each security (averaged) as well as the loan level monthly servicing information must be reported to Bloomberg L.P. (Bloomberg), a financial news and data firm. To date, Markit has released four series of the ABX index. Each series of the index covers the respective time periods listed below:

-ABX 06.01 – MBS issued in last half of 2005
-ABX 06.02 – MBS issued in first half of 2006
-ABX 07.01 – MBS issued in last half of 2006
-ABX 07.02 – MBS issued in first half of 2007

A fifth series of the ABX index (08-01) was scheduled to be launched in January of 2008. Markit has postponed that launch due to the severe decrease in the number of subprime mortgage-backed securities in the market from the later half of 2007 through today.

APPENDIX B

Other Data and Calculations Used in Analysis

Using a Bloomberg Terminal, a product of Bloomberg Finance L.P, we obtained and analyzed loan characteristics and loan performance data for the twenty securities making up each ABX series. We collected pool level loan characteristics for each security at the time of origination, as well as historical and current loan level monthly performance data. For those values and measurements that were not provided in Bloomberg, CRL performed calculations based on the information provided in Bloomberg to populate the data.

Data Elements: Loan Characteristics	Source	Description or Calculation
Number of Loans	**Bloomberg**	The number of outstanding loans in a given security.
Total number of outstanding subprime borrowers	**CRL -derived**	The total number of outstanding subprime loans as reported by the Mortgage Bankers Association (MBA) 3Q 2008 National Delinquency Survey, grossed up by .80. (The MBA reports that their survey represents approximately 80% of the total mortgage market.)
Data Elements: Performance Measurements		
Delinquency Rate	**Bloomberg**	The percentage of loans that are 30, 60, or 90 days delinquent. While the industry has designated the standard 30/60/90 labels, the breakdown is actually 30—59, 60-89 and 90+ days delinquent. Additionally, loans that are in foreclosure or are real estate owned (REO) are excluded from the calculations.
Foreclosure	**Bloomberg**	The percentage of loans that are in some stage of the foreclosure process (force the mortgage holder to seize the property of a homeowner who is delinquent in mortgage and interest payments).
REO	**Bloomberg**	The percentage of all bank-owned property, except that taken in consideration of a defaulted loan
Cumulative Loss (in Millions)	**Bloomberg**	The cumulative dollar amount of the collateral that has been written down due to the losses on the underlying loans.
Number of loans that are 30, 60, or 90+ days delinquent, in foreclosure status, or in REO status	**CRL-derived**	To determine the number of 30, 60, 90+ delinquent loans, as well as the number of loans in foreclosure and REO, we multiplied the percentage of loans in delinquency, foreclosure and REO categories times the number of outstanding loans in each security for each month reported by Bloomberg.
Number of loans with current status	**CRL-derived**	The outstanding number of loans that are being paid on time was calculated as the total number outstanding loans in a security, minus the number of loans that were 30, 60, or 90+ days delinquent, in foreclosure, or REO.
Estimated total number of charge-offs	**CRL-derived**	The cumulative number of charge-offs was estimated by dividing the cumulative loss amount for each security by an assumed severity rate of .50. We then divided this number by the original weighted average loan amount to determine an estimated number of charge-offs per security. (Note: The S&P servicer evaluation report from January of 2008 reported an average severity rate on subprime loans for 2007 of 45%. We used a 50% severity rate to calculate the number of charge-offs in order to be conservative in

		our assessment.)
Estimated total paid in fulls	**CRL-derived**	The cumulative number of loans that paid in full was determined by subtracting the estimated number of charge-offs per security from the total number of loans that exited the pool since the security was issued
Figure 1 and Figure 5		
Currently seriously delinquent	**CRL-derived**	As of November 1, 2008 all ABX loans that were reported 60 days or more delinquent, including those in the process of foreclosure, against the outstanding number of loans. Using the outstanding number of loans within each security to derive an overall weighted average 60+ delinquency percentage for all loans reported in the ABX index (29.13%). We then applied this percentage to the total number of outstanding subprime loans (6,867,956) as of 3Q 2008. (The Mortgage Bankers Association reported 5,541,463 outstanding subprime loans in its 2Q 2008 National Delinquency Survey. Because MBA indicates that their survey represents approximately 80% of the total mortgage market, we divided their reported number of subprime loans by .80 to calculate the total number of outstanding subprime borrowers.)
Already foreclosed	**CRL-derived**	We used the performance data from the ABX index to calculate the total number of loans that are currently in the REO status as well as the cumulative number of charged-off loans (as calculated above) to arrive at the percentage of loans that have already foreclosed. We then divided the total number of REOs and Charge-offs by the total number of original loans from the ABX cohorts to arrive at a percentage of loans that have already foreclosed. We then applied this percentage to the overall number of subprime loans originated from 2005-2007 as reported by HMDA (9,421,849 loans) to calculate the total number of subprime loans that have foreclosed.
Figure 2		
Subprime 60+ Delinquency	**CRL-derived**	The weighted average percentage of loans reported 60 days or more delinquent (including those in the process of foreclosure and REO), against the outstanding number of loans from each month since issuance for each ABX cohort.
Figure 4		
Current	**CRL-derived**	As of November 1, 2008, the weighted average percentage of outstanding loans paid on time (as calculated above) against the original number of loans from each ABX cohort.
Delinquent	**CRL-derived**	As of November 1, 2008, the weighted average percentage of loans that were reported 60 days or more delinquent, (including those in the process of foreclosure but not in REO) against the original number of loans from each ABX cohort.
Foreclosed	**CRL-derived**	As of November 1, 2008, the weighted average percentage of loans that were in REO status or charged-off (as calculated above) against the original number of loans from each ABX cohort.
Paid in full	**CRL-derived**	As of November 1, 2008, the percentage of loans that were paid in full (as calculated above) against the original number of loans from each ABX cohort.

NOTES

[1] Alan Greenspan, Remarks at the Federal Reserve System's fourth Annual Community Affairs Research Conference, Washington, D.C. (April 8, 2005), available at www.federalreserve.gov/BoardDocs/speeches/2005/20050408/default.htm.

[2] See, e.g., Julie Ann Amos, "Subprime Mortgage Crisis Takes Toll on Securities," Rebuild.org (December 10, 2007), available at www.rebuild.org/news-article/subprime-mortgage-crisis-takes-toll-on-securities/.

[3] "Alt-A" mortgages are those that are considered to have a risk level that falls between prime and subprime loans. See, e.g., *Fitch Expects 'Significantly' More Alt A Losses*, Inside B&C Lending (January 2, 2009).

[4] See, e.g., Eric Stein, "Quantifying the Cost of Predatory Lending," Coalition for Responsible Lending (July 25, 2001 – revised October 30, 2001); Sue Kirchhoff and Sandra Block, "Subprime Loan Market Grows Despite Troubles," USA Today (December 7, 2004), available at http://www.usatoday.com/money/perfi/housing/2004-12-07-subprime-day-2-usat_x.htm.

[5] Ellen Schloemer, Wei Li, Keith Ernst, and Kathleen Keest, Losing *Ground: Foreclosures in the Subprime Market and Their Cost to Homeowners*, (December 2006), available at www.responsiblelending.org/issues/mortgage/reports/page.jsp?itemID=31214551.

[6] Updated Projections of Subprime Foreclosures in the United States and Their Impact on Home Values and Communities," Center for Responsible Lending (August 2008), available at http://www.responsiblelending.org/issues/mortgage/research/updated-projections-of-subprime-foreclosures-in-the-united-states-and-their-impact-on-home-values-and-communities.html.

[7] *When Will This Horror Show Come to an End? 2009 Annual Outlook*, Wachovia Economics Group (December 10, 2008) available at http://www.wachovia.com/ws/econ/view/0,,4558,00.pdf

[8] In a few instances, the information provided by Bloomberg on a specific security was missing data we needed for our analysis. In those instances we obtained the missing data from the security prospectus on the Security and Exchange Commission's EDGAR portal.

[9] Losing Ground, note 5, at p. 16.

[11] Although there are differences among the individual delinquency buckets between the sample pool and the recent *MBA 3Q 2008 National Delinquency Survey (NDS)*, there is little difference is the cumulative performance across all delinquency buckets. In comparing the seriously delinquent number (as defined in Appendix D) for the sample pool to the same calculation from the NDS, the sample pool's is 29.13% and the NDS's is 24.02%. Using the 30, 60, 90 and foreclosure buckets to calculate a total past due figure, the sample pool's is 33.50% and the NDS's is 33.02%. Data for the sample pool is compiled through 10/31/2008 and the NDS through 09/30/2008.

[12] Rod Dubitsky, Larry Yang, Stevan Stevanovic and Thomas Suehr, *Foreclosure Update: Over 8 Million Foreclosures Expected*,, Credit Suisse (December 4, 2008).

[13] For more details on the subprime meltdown's impact on the housing bubble and the greater economy, see "Turmoil in the U.S. Credit Markets: The Genesis of the Current Economic Crisis," testimony of Eric Stein, Center for Responsible Lending, before the Senate Committee on Banking, Housing and Urban Affairs (October 16, 2008), available at www.responsiblelending.org/pdfs/senate-testimony-10-16-08-hearing-stein-final.pdf. Regarding experts' comments: In May of 2007, the MBA Chairman said: "As we can clearly see, this is not a macro-economic event. No seismic financial occurrence is about to overwhelm the U.S. economy." Statement of John M. Robbins, CMB, Chairman, Mortgage Bankers Association at the National Press Club's Newsmakers Lunch – Washington, DC (May 22, 2007), available at http://64.233.169.104/search?q=cache:DClB6ScFSu8J:www.mortgagebankers.org/files/News/InternalResource/54451_NewsRelease.doc+%22seismic+financial+occurrence%22+%26+John+M.+Robbins+%26+mortgage+bankers+association&hl=en&ct=clnk&cd=4&gl=us; *see also* Julia A. Seymour, "Subprime Reporting , Networks blame lenders, not borrowers for foreclosure 'epidemic,'" Business & Media Institute (Mar. 28, 2007) ("[T]here are experts who say the subprime 'meltdown' is not the catastrophe reporters and legislators are making it out to be. 'We don't believe it will spill over into the prime market or the U.S. economy,' said [Laura] Armstrong [Vice President, Public Affairs] of the Mortgage Bankers Association.").

[14] Paid in fulls also include loans that the lender was contractually required to repurchase for failing to meet representations and warranties to the investor.

[15] *Subprime Originations All but Vanish in 2nd Quarter of 2008*, p. 1 Inside B&C Lending (August 29, 2008); 2008 Mortgage Market Statistical Annual – Volume 1, p. 4 Inside Mortgage Finance (2008).

[16] Ted Cornwell, '*Roll Rate' Shows Loan Troubles Mounting*, National Mortgage News (December 15, 2008).

[17] "Economist Examines Housing Prices, Recovery Plans," NPR at http://www.npr.org/templates/story/story.php?storyId=97973446. James Hagerty and Ruth Simon, *Housing Pain Gauge: Nearly 1 in 6 Owners 'Under Water,* The Wall Street Journal (October 8, 2008) available online.wsj.com/article/SB122341352084512611.html.

[18] Kristopher Gerardi, Adam Hale Shapiro, and Paul S. Willen, *Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosures*, Federal Reserve Bank of Boston Working Papers (May 4, 2008), available at http://www.bos.frb.org/economic/wp/wp2007/wp0715.pdf.

[19] *Home Prices Rise in Some Metros, Buyers More Active in Other Areas. National Association of Realtors (*November 18, 2008), available at http://www.realtor.org/press_room/news_releases/2008/home_prices_rise_in_some_metro_areas.

[20] *Inside Mortgage Finance* proprietary MBS Database (2005-2007).

[21] Roberto G. Quercia, Michael A. Stegman & Walter R. Davis, *The Impact of Predatory Loan Terms on Subprime Foreclosures: The Special Case of Prepayment Penalties and Balloon Payments*, (vol. 18, issue 2, 2007), available at http://www.mi.vt.edu/data/files/hpd%2018.2/5.hpd_quercia_web.pdf.

[22] Max Nissman, Kamal Abdullah and Akiva J. Dickstein, *Loan Modifications: What Investors Need to Know*, Merrill Lynch (November 21, 2008); Akhil Mago, Rahul Sabarwal and Madhuri Iyer, *The Loan Modification Story So Far,* Lehman Brothers (September 11, 2008).

[23] Rod Dubitsky, Larry Yang, Stevan Stevanovic and Thomas Suehr, *Subprime Loan Modifications Update*, Credit Suisse (October 1, 2008).

[24] The Loan Modification Story So Far, note 22

[25] *Analysis of Subprime Mortgage Servicing Performance, Data Report #3*, State Foreclosure Prevention Working Group (September 2008), available at http://www.csbs.org/Content/NavigationMenu/Home/SFPWGReport3.pdf

[26] Alan M. White, *Deleveraging American Homeowners: December 18,2008 Update to August 2008Report*, Valparaiso University School of Law (December 18, 2008) available at http://www.hastingsgroup.com/Whiteupdate.pdf; *Rewriting Contracts, Wholesale: Data on Voluntary Mortgage Modifications from 2007 and 2008 Remittance Reports,* Fordham Urban Law Journal, forthcoming (August 26, 2008), available at http://ssrn.com/abstract=1259538.

[27] *HOPE NOW Loss Mitigation National Data July 07 to October 08*, Hope Now Alliance, available at www.hopenow.com/upload/data/files/HOPE%20NOW%20Loss%20Mitigation%20National%20Data%20July07%20to%20October%202008.pdf

[28] *OCC and OTS Mortgage Metrics Report: Disclosure of National Bank and Federal Thrift Mortgage Loan Data, Third Quarter 2008*, Office of the Comptroller of the Currency and the Office of Thrift Supervision, (December 2008), available at http://www.occ.treas.gov/ftp/release/2008-150a.pdf.

[29] Press release from the Comptroller of the Currency, "Comptroller Dugan Highlights Re-default Rates on Modified Loans," (December 8, 2008), available at http://www.occ.treas.gov/ftp/release/2008-142.htm.

[30] Statement of Chairman Ben S. Bernanke at the Federal Reserve System Conference on Housing and Mortgage Markets, *Housing, Mortgage Markets, and Foreclosures*, Federal Reserve System (December 4, 2008) available at www.federalreserve.gov/newsevents/speech/bernanke20081204a.htm.

[31] *OCC and OTS Mortgage Metrics Report*, note 28.

[32] Larry Cordell et al., The Incentives of Mortgage Servicers: Myths and Realities, Federal Reserve Board, Divisions of Research & Statistics and Monetary Affairs-Finance and Economics Discussion Series (2008-46), available at www.federalreserve.gov/pubs/feds/2008/200846/revision/200846pap.pdf.

[33] Available at www.responsiblelending.org/policy/testimony/turmoil-in-the-u-s-credit-markets-the-genesis-of-the-current-economic-crisis.html.

[34] "*Second Mortgage Disaster On The Horizon*", *60 Minutes*, CBS (December 14, 2008) Transcript available at http://www.cbsnews.com/stories/2008/12/12/60minutes/main4666112.shtml

[35] Testimony of Martin Eakes before the U.S. Senate Committee on Banking, Housing and Urban Affairs, "Oversight of the Emergency Economic Stabilization Act: Examining Financial Institution Use of Funding Under the Capital Purchase Program (November 13, 2008), available at www.responsiblelending.org/pdfs/martin-testimony-11-13-08-final.pdf.

[36] Testimony of Michael Calhoun before the Senate Judiciary Committee, "Helping Families Save Their Homes: The Role of Bankruptcy Law," (November 19, 2008), available at www.responsiblelending.org/pdfs/calhoun-testimony-senate-judiciary-111908.pdf.

[37] For a brief description of mortgage-backed securities, see Chris Wilson, *What is a Mortgage-Backed Security? The Financial Instrument that Destroyed Bear Stearns.* Slate.com (March 17, 2008) available at http://www.slate.com/id/2186801/

[38] Karandeep S. Bains, *ABX Performance Update: October 2007,* p. 1 Moody's Investor Service (November 21, 2007)

[39] Glenn Costello and Suzanne Mistretta, *Subprime Collateral Trends and Early Payment Defaults,* p. 1 Fitch Ratings (April 27, 2007) available at http://www.fitchratings.com/corporate/reports/report_frame.cfm?rpt_id=324008§or_flag=3&marketsector=2&detail= The Fitch report looked at subprime collateral characteristics of loans from 2003 through 2006 and provided a breakdown of characteristics of loans that had experienced early payment default (90+ days delinquent within first 12 months) and loans that had not experienced early payment default. We included the range of results for both groups for the 2006 vintage.

[40] Scott Mason and Michael Stock, *A Comparison of 2000 and 2006 Subprime RMBS Vintages Sheds Light on Expected Performance,* Standard & Poors. (March 22, 2007). The Standard & Poor's report compared subprime collateral trends for 2000 and 2006 vintages from their RMBS Trends database which contains information on every deal they have rated since 1998. We included their results for the 2006 vintage. From the ABX.HE data we gathered, we included information from the 6.2 and 7.1 series that represent the 2006 vintage of subprime RMBS securities. We included the range of results from the two series.