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Subprime Mortgage Problems: Research, Opportunities, and Policy Considerations

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I would like to thank the sponsor of this breakfast, MassINC, for the opportunity to discuss[1] an issue of national, regional, and local importance – recent problems with subprime mortgages. Like MassINC, the Federal Reserve Bank of Boston believes in the power of non-partisan research and collaborative debate to address issues that are important to the economic well-being of all citizens. So I am very happy to be with you this morning.

Background: Developments in Subprime Mortgages

The subprime mortgage market – involving mortgages with a higher risk of default, often due to the borrower's credit history – has experienced significant changes over the past several decades. Historically, most mortgage loans were issued by financial institutions that would originate and hold them. However, since financing long-term mortgages with short-term deposits presented some difficulties for financial institutions, the mortgage market innovated and evolved so that mortgages were increasingly originated by a financial institution or a mortgage broker, then packaged into securities that could be sold to a wide variety of investors.

While securitization of mortgages originally focused on mortgages to prime borrowers and mortgages with government guarantees, over the past decade there was significant demand for mortgage-related securities that would provide a higher return to investors. This investor demand created an incentive for more aggressive outreach to borrowers who previously may have had difficulty buying houses, resulting in a significant increase in homeownership. These trends were beneficial for borrowers who were able to make payments – which, by the way, still includes the majority of subprime borrowers. However, in retrospect, many borrowers took significant risks that would only be successful in a market with rising housing prices and the ability to refinance as needed – and as long as their own financial circumstances did not take a turn for the worse.

Securitization played a particularly strong role in the expansion of subprime lending. Certain lenders specialized in subprime mortgages, but most of these lenders only originated the mortgages, with the majority of loans packaged for the securities market rather than being held in the portfolio of the originator. As the market moved to this "originate to distribute" model banks, particularly smaller community banks, ceded much of the subprime market to specialized mortgage lenders.

Despite fairly benign economic conditions (the unemployment rate is currently 4.7 percent and core inflation is close to 2 percent) subprime mortgages began experiencing a significant rise in delinquencies and foreclosures. The rise in delinquencies has been particularly concentrated in adjustable-rate subprime mortgages, particularly for mortgages underwritten in the past two years.

The effects have already been far-reaching. Homeowners who thought they were buying into the American dream of homeownership are now facing the loss of their home and the destruction of much of their financial wealth, as they realize they cannot afford their mortgage. Multi-family properties have experienced delinquencies at more than double the rate of single family homes – a trend that has significant ramifications for unsuspecting tenants. Entire communities are impacted as foreclosures of neighboring houses depress prevailing home prices and in some cases encourage others to walk away from their mortgages. This is particularly concerning since foreclosures have disproportionately affected communities of low and moderate income borrowers. Finally, the losses on mortgages have had a big impact on the markets for mortgage-backed securities and on the financial institutions and investors who purchased securities based on subprime mortgages.

As a result of these significant problems emerging, the Boston Fed has undertaken a significant research agenda to better understand recent mortgage-market trends. Much of my talk today benefits from that work, so let me just highlight some of the initial findings. Much of the work is being done by Kris Gerardi, Adam Shapiro, and Paul Willen, who have just published a working paper on subprime defaults that can be accessed on our web site.[2] They have been examining data on all loans in Massachusetts since 1987.

They are finding, among other things, that the current problems in the subprime market are heavily dependent on economic conditions – particularly housing prices.[3] As a result, the outlook for how much worse this problem could become depends critically on the outlook for the economy and the housing market. We are currently expecting the economy to grow well below potential for the next two quarters, before gradually improving over the course of next year. Our research suggests that the foreclosure crisis will get worse before it gets better, but our forecast is quite dependent on how far house prices fall.

The problems emerging in the subprime market have been well documented in the press and in speeches by other policymakers. Much of the focus has been on the problems of borrowers who are already in trouble, and close to or in the process of foreclosure. These borrowers are experiencing significant hardship and it is appropriate that many are focused on these problems. This group of borrowers is experiencing a very painful human toll, one that is likely to worsen as home prices slump. The toll is also difficult for neighborhoods, since foreclosures tend to cluster. These are issues we at the Fed, and I'm sure all of you, are very concerned about.

However, today I want to focus on the borrowers in the subprime market who have received somewhat less attention – those borrowers who have subprime mortgages but are not yet in a position where foreclosure is imminent.

Subprime *adjustable* rate loans have experienced significantly more difficulties – currently 12.4 percent of subprime adjustable mortgages are seriously delinquent.[4] My particular focus today is on the other 87 percent that are not seriously delinquent, where action now may avoid future problems and foreclosures.

Most of the problems are concentrated in 2/28 and 3/27 mortgages[5] that have a fixed rate for the first 2 or 3 years and then float, frequently at rates 6 percent or more above a measure of short-term rates (usually the benchmark six month London Interbank Offered Rate, known as LIBOR).

These 2/28 and 3/27 mortgages have suffered from several misperceptions. First, the fixed rate for the first 2 or 3 years is often referred to as the teaser rate. However, the "teaser" is very different than what is experienced on many prime loan products. The teaser rate was not particularly low – nationally, the average rate on a 2006 subprime 2/28 mortgage was 8.5 percent, which would reset on average 6.1 percent over the benchmark LIBOR. These high initial rates are not surprising because most of these mortgages were refinanced or the homes were sold prior to the mortgage being reset. Nationally, 71 percent of 2004 subprime 2/28 ARMS were retired in two years, and 88 percent in three years. In New England, 74 percent were retired in two years and 93 percent in three years.[6]

Rising house prices and the abundant availability of financing were key factors allowing the refinancings. The chart on slide 9 shows the relationship between house price growth and the foreclosure rate in Massachusetts. As a result many borrowers did not worry about the reset, since they had no intention to remain in the mortgage once the mortgage reset. Historically, loans incorporating a reset feature have not been a serious problem because borrowers could refinance out of the mortgage prior to the reset (somewhat contrary to conventional wisdom that views resets as *the* problem). But, importantly, this result is conditional on housing prices rising and loans being available – conditions that may not apply over the next several quarters.

The Policy Challenge: Aiding Borrowers in Trouble

With this background we can turn to the policy challenge. What can be done to aid that large pool of borrowers who are not in trouble now, but could be if falling housing prices and fewer active lenders make refinancing or selling more difficult?

Fundamentally, we want to encourage refinancing before a problematic reset. Banks may not have viewed this market as an engaging opportunity when mortgage brokers were going aggressively after the business, but banks may now find profitable lending opportunities in the current environment – perhaps, in some cases, with guarantees provided by Federal Housing Administration (FHA) loan guarantees, or state programs.

A brief discussion of guarantee programs, such as those provided by the FHA is probably warranted. The FHA program is designed to provide government guarantees on mortgage loans to low and moderate income borrowers. The underwriting standards are designed to provide low cost insurance that allows the borrower to qualify for a rate, because of the guarantee, that is closer to the rate on a prime mortgage. This results in a significant potential savings for borrowers relative to subprime loans, often a savings of 2 percentage points or more. The underwriting standards are designed to enable low and moderate income borrowers to afford a house and be able to continue to make payments over time. The loans provide financing for borrowers with as little as 3 percent equity, and do not require a minimum FICO score.

How many subprime borrowers might be able to refinance into bank mortgages or loans guaranteed by FHA or state programs? Some should be able to do so relatively easily. Our research suggests that nationally, 20 percent of securitized subprime loans had, at origination:

- favorable loan-to-value (below 90 percent)
- favorable credit ratings (FICO[7] scores over 620)
- full documentation
- and were identified as owner-occupied

In New England, the figure is even higher, at 26 percent. These borrowers may qualify for prime loans and/or loan guarantee programs.

Instead of minimum credit scores, borrowers can provide a history of making payments to qualify for the FHA guarantee. Currently, 55 percent of the 2.2 million securitized subprime ARMS (not jumbo, and owner occupied) have not missed payments in the past year – that's 1.2 million borrowers. These subprime borrowers may meet the credit standards required for FHA guarantees or for similar state programs, with potentially a significant savings. In addition, fixed-rate options are available for borrowers no longer willing to use a floating-rate product.

While the FHA program uses credit criteria beyond credit scores, many subprime borrowers had reasonable credit scores when they originally got their subprime loan. For all securitized subprime mortgages, at the time of origination 50 percent had FICO scores above 620 nationally (in New England the figure is even higher, at 71 percent).[8]

However, there are significant challenges in refinancing borrowers. In Massachusetts, 8 of the 10 largest subprime "specialists" are no longer lending [See the chart on slide 14]. So to refinance a loan or to seek government-guaranteed loan products, many borrowers will need to seek out new lenders.

Furthermore, FHA lending is underutilized, falling from about 16 percent of mortgage originations in 2000 to only 2.8 percent in 2006.[9] Unfortunately, FHA lending currently carries some issues and concerns – but also opportunities. First, most commercial and community banks are not FHA approved lenders. The largest FHA lenders in New England are not New England financial institutions.[10] The program has been modernizing and there may be an opportunity for commercial and community banks to take a fresh look at whether being an FHA-approved lender is in their interest.

Second, FHA limits may be binding in high-cost areas like Boston. These limits have been raised over time and are currently $363,000 for single-family properties and about $461,000 for multi-family. Notably, multi-family properties account for 10 percent of homes in Massachusetts, but 27 percent of foreclosures. While potentially binding on some subprime loans, many loans to low and moderate income borrowers should be below the limits, and considering raising the limits in high cost areas probably makes some sense.

Third, FHA is seen as slow and cumbersome by lenders and borrowers, not to mention less lucrative for brokers. This suggests opportunities to streamline the appraisal and approval process, and opportunities to better articulate underwriting. Furthermore, there seem to be opportunities to further modernize and fund FHA, so the program better evaluates and monitors risks. While the FHA has been making improvements to processes and products, which may be of some help, further efforts could help mitigate some of the subprime problems likely to emerge going forward.

Another area to explore involves state programs that may also be helpful. Notably, many states are considering new programs. Traditionally, many states had focused on first-time home buyers, but events suggest they may want to put more focus on the refinance of subprime mortgages.

All in all, FHA and state programs should be considered by lenders and borrowers. Many borrowers may qualify for existing programs. However, knowledge of the available programs among borrowers and lenders is limited. Ideally, borrowers should ask lenders about the programs, and more commercial and savings banks should consider the benefits of offering these programs.

There are also opportunities for FHA to look for ways to better meet subprime borrowers' needs.[11] Greater outreach to borrowers and lenders seems needed. Potentially, FHA may want to raise loan amounts, if they are binding, in high cost markets. And of course there seems to still be a need to simplify and streamline the program for both borrowers and lenders. I should stress that our focus on the opportunities for the FHA program to play a role in alleviating this crisis does not represent advocating a government bailout of lenders, investors, or reckless borrowers. Rather, I am advocating using existing programs for what they were designed to do – provide an option for low- and moderate-income borrowers to obtain financing at more affordable rates.

Another consideration involves extending the terms of current subprime loans. Still-solvent subprime lenders should extend terms or refinance borrowers into fixed-rate loans wherever possible. Given the high teaser rates on most 2/28 or 3/27 loans, credit extensions or refinances of current loans may frequently be in both the borrower's and lender's interests. In addition, given the importance that securitization has played, those involved in securitization should look for additional ways to allow modification of securitized loans.

In summary, I want to stress that the continued availability of loans to subprime borrowers is important. We will continue to encourage banks to lend to qualified borrowers. And we encourage existing lenders to extend terms or refinance into fixed-rate products. Of course, for depository institutions, lending to low- and moderate-income borrowers is positive in terms of meeting Community Reinvestment Act responsibilities.

In closing, I just want to touch on a few Federal Reserve Bank of Boston initiatives in this area. I've already mentioned some of our research on mortgage markets, including the new working paper *"Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosures."* Also, for some time now we have been tracking and analyzing foreclosures in New England and sharing the research. We also aim to provide straightforward information for consumers, in part through a new website we have launched called *theinformedhomebuyer.org*, and guides and brochures that we publish in both English and Spanish.

Issues for Future Research

As a final note, I think it is useful to just mention some issues for further research that I think are well worth exploring, and may be quite fruitful. One involves the incentives that mortgage brokers have in transactions, and whether incentives can be better aligned to avoid these problems in the future.

The second involves the field of behavioral economics, something we are very interested in at the Boston Fed. The question is, should lenders be required to offer *fixed* rate loans, with the borrowers needing to actively opt out of the fixed rate loan in order to be offered an adjustable rate loan (or, should borrowers always be given, and have to make, a choice). Such proposals are beginning to surface in states (such as Massachusetts) and may be an experiment worth exploring. Research on things like 401k saving suggests that opt-out arrangements can influence behavior and outcomes.[12]

In closing I want to again thank MassINC and thank all of you for your attention to this important issue and its implications nationally and locally. Working with financial institutions, city and state governments, community organizations, regulators, and others, we at the Fed hope to play a constructive role in mitigating subprime mortgage problems.

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[1] The views I express today are my own, not necessarily those of my colleagues on the Board of Governors or the Federal Open Market Committee (the FOMC).

[2] "Subprime Outcomes: Risky Mortgages, Homeownership Experiences, and Foreclosures" is available on the Bank's website, www.bos.frb.org

[3] As a reminder, housing prices in New England began to appreciate rapidly in the second half of the 1990s, and through the end of 2004 price increases in the region outstripped those nationally. Over the past year, prices in the region have barely increased and are down somewhat in Massachusetts and Rhode Island. When housing prices were rising rapidly in New England, the number of foreclosures initiated was very low – considerably lower, as a fraction of loans outstanding, than nationally. Beginning in 2005, however, foreclosure initiations began to rise in the region, particularly for subprime adjustable-rate mortgages.

[4] The figure is 5.8 percent for subprime *fixed*-rate loans.

[5] ARMS's known as "2/28" loans feature a fixed rate for two years and then adjust to a variable rate for the remaining 28 years.

[6] The figures refer to subprime first-lien 2/28 ARMs.

[7] "Credit bureau risk scores produced from models developed by Fair Isaac Corporation are commonly known as FICO® scores. Fair Isaac credit bureau scores are used by lenders and others to assess the credit risk of prospective borrowers or existing customers, in order to help make credit and marketing decisions." [Source: Fair Isaac Corporation]

[8] LoanPerformance data from Middlesex County show that almost two-thirds (64 percent) of borrowers who received subprime loans had FICO scores greater than 620, and 18 percent had scores over 700. They may have been in subprime products because they chose to make a highly leveraged home purchase, or they may have been steered to a more costly mortgage than their credit score would dictate. Either way, it is encouraging to note that these borrowers could be in a position to refinance to another product.

[9] These figures reflect the national share of Home Mortgage Disclosure Act (HMDA) reported loans backed by the FHA.

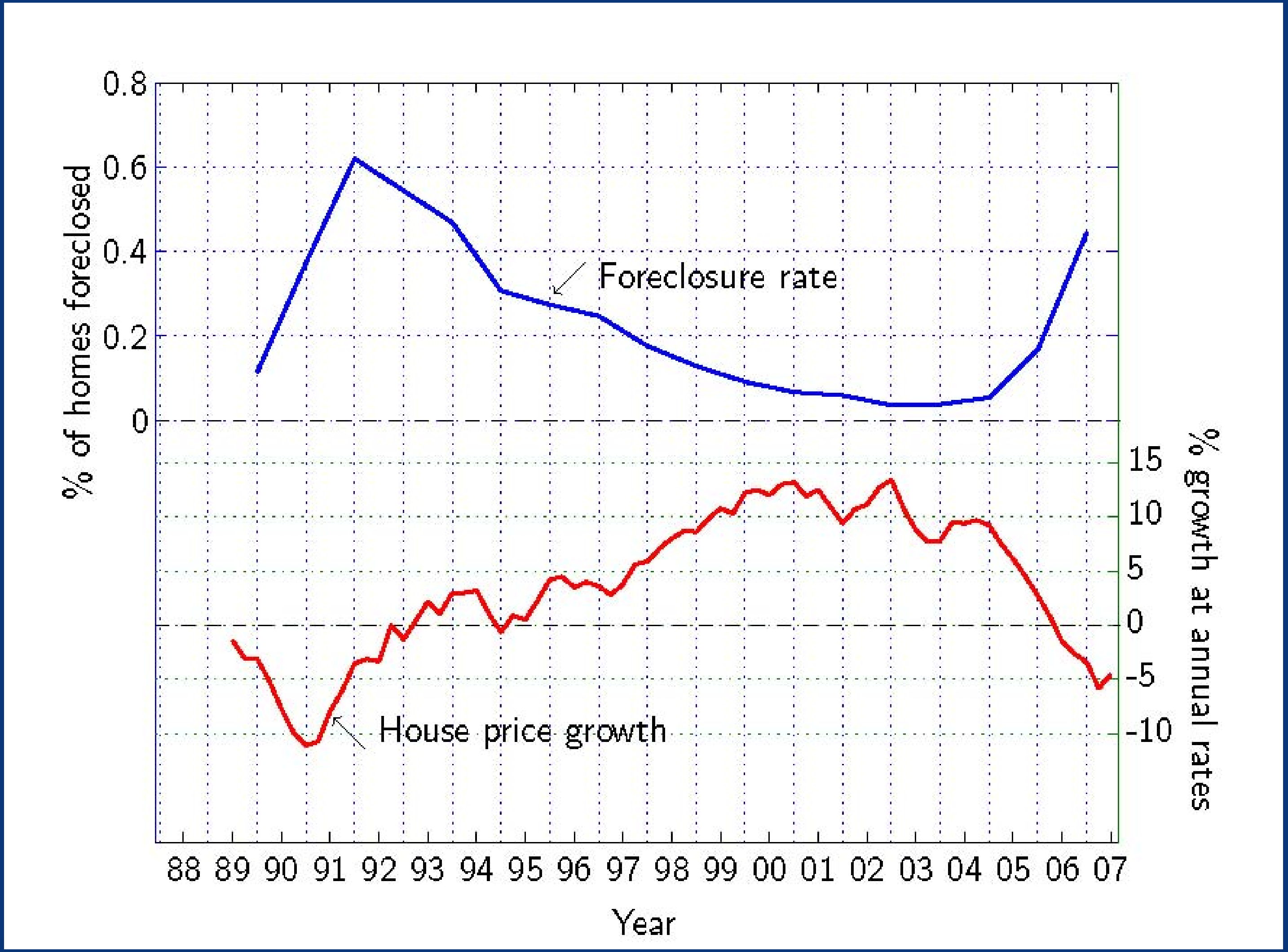
[10] The top 5 FHA lenders in New England (in 2006) are as follows:

	Number of Loans	Combined Value
McCue Mortgage Co.	1,127	$203,700,000
Wells Fargo	849	$172,100,000
GMAC	833	$158,100,000
Countrywide	696	$128,800,000
First Tennessee National	479	$108,100,000
Source: 2006 Home Mortgage Disclosure Act (HMDA) data		

[11] This fall, Federal Reserve Board Chairman Ben Bernanke included comments on FHA modernization in testimony before the House Committee on Financial Services and the Congress's Joint Economic Committee, available at http://www.federalreserve.gov/newsevents/testimony/bernanke20070920a.htm and at http://www.federalreserve.gov/newsevents/testimony/bernanke20071108a.htm.

[12] Lorenz Goette, Senior Economist in the Bank's Center for Behavioral Economics and Decision-Making, notes that empirical research by a number of scholars documents the impact on behavior (on decisions) of the "default option" presented to people. Despite the benefits and the ease of switching, research shows individuals are too likely to go with what they perceive as the "status quo" – for example in 401k decisions, opt-out versus opt-in makes a significant difference in behavior. Individuals may not enroll in a 401(k) if not enrolling is the default, but are happy to be saving in the 401(k) if they are enrolled by default (with the opportunity to opt out rather than opt in). Goette notes a second notion, also supported by empirical research, that presenting choices and forcing individuals to decide either way can similarly break the "status quo" effect. Goette notes that these areas of inquiry call on the research of John Beshears, James Choi, David Laibson, Brigitte Madrian, Andrew Metrick, Eric Johnson, Daniel Goldstein, Alois Stutzer, Michael Zehnder, Amos Tversky, Daniel Kahneman, and others.

Looking Closer:
Foreclosures & House Prices in Mass.



Components of the Challenge:

1. **In MA, 8 of the 10 largest subprime "specialists" are no longer lending**

	# loans	% of subprime purchase mortgages	status
Option One Mtg. Corp.	11,243	18.6	operating
New Century Financial Corp.	5,951	9.9	shutdown
Freemont Investment & Loan	5,550	9.2	shutdown
Argent Mtg. Co.	3,599	6.0	shutdown
Summit Mtg. Co.	3,067	5.1	shutdown
Mortgage Lender Net	2,798	4.6	shutdown
Long Beach Mtg. Co.	2,520	4.2	shutdown
WMC Mtg. Corp.	2,316	3.8	shutdown
Accredited Home Lenders	2,174	3.6	shutdown
First Franklin Financial	1,896	3.1	operating
Total	41,114	68.1	-

Note: This is a list of the top ten subprime lenders in terms of number of purchase mortgage originations in Massachusetts from 1993 to 2007. The status of each lender is updated through November 2007.