Returning Private Capital to Mortgage Markets: A Fundamental for Housing Finance Reform

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Getting private capital back into the mortgage market is clearly an important goal. Right now almost all mortgage lending is done via Fannie Mae and Freddie Mac, which are under government control via conservatorship, and FHA and Ginnie, Mae, which are government owned. It wasn't always that way. Forty years ago the industry was dominated by Savings and Loans, and more recently by Fannie and Freddie as privately owned corporations. Beyond that, in the years after 2000 the market in which mortgages were securitized became increasingly dominated by "private label" securities. All of these institutions have, to varying degrees, collapsed.

Appearances can be deceiving, and what is and is not private capital can be difficult to determine. Indeed, whether capital is private or not is not the most important question. What is most important is who ultimately bears the risk and how it can be controlled. In the cases of both the Savings and Loans and Fannie and Freddie the government provided (explicitly in the first case, implicitly in the second) guarantees to shareholder owned institutions, and these guarantees subsequently required very large cash outlays. In the case of private label securities collapse in value caused a financial panic, which provoked other bailouts and was the impetus to the Great Recession. Making mortgage markets work again will require an understanding of who is taking the risk.

It is very likely that any system that we end up with will have a role for the government as guarantor at the end of the process, and that what we mean by having private capital in the market means having private capital taking risk ahead of the government. This requires decisions regarding both the quantity of capital ahead of the government (e.g., capital ratios) and the types of incentives used to keep risk under control. Discussions regarding risk-taking in the residential mortgage market often focus on the risks presented by specific mortgages or the risk inherent to the institutions that originate or fund mortgages. As discussed below, this focus is misplaced, as it is not obvious what specific properties

make one mortgage more risky than another and institutional form (or name) matters less than specifics about the capital they hold.

A central point is that all this is very difficult. Many of the things associated with the huge increase in defaults in the Great Recession were close to unpredictable and certainly not easy for regulators to control. As a result we need policies that provide automatic solutions and incentives for those closest to the operations of financial institutions, their management, to control risk-taking. After reviewing some of the lessons learned I will focus on work done with Rose Neng Lai at the University of Macau on the use of contingent capital, both as a source of new capital in tough times and as a way of providing incentives to the mangers of financial institutions to take on less risk.

In the next section I review some of the issues involved in guarantees. This is followed by a discussion of what data so far tell us about what is important, followed by ways, including contingent capital, of improving capital standards.

Market Structure and Guarantees

For decades almost all American mortgages have benefited from some sort of government guarantee, e.g., directly via FHA insurance, or indirectly from deposit insurance for banks and Savings and Loans or guarantees for Government-Sponsored Enterprises (GSEs) like Fannie Mae and Freddie Mac. If financial markets were perfect, or close to it, and transfer payments were easy to make, there would be little economic justification for the government to have a role in financing housing and certainly no need to provide guarantees to get people into good housing. Anything that needed to be done could be done with housing vouchers or direct provision of housing services, letting the financing take care of itself.

Guarantees can make sense outside of housing policy - deposit insurance and GSE guarantees, for example, as a way of stabilizing financial markets - and they can be justified in a “second best” sense as a way of promoting housing and homeownership when transfer

payments are hard to make or there are inefficiencies in financing housing. But guarantees also have important incentive effects.

Basics of Guarantees

Guarantees have two principle effects:

- If not fully priced and regulated they lower the cost of housing and alter resource allocation, redirecting investment into housing and away from other uses. When targeted they promote housing for particular classes of households. This is "good" to the extent that housing is under produced, which is a hard case to make, or when targeting is important, for instance to encourage homeownership.
- They help prevent financial panics, by removing the motivation for "bank runs." However, if they are not well regulated, they lower the cost of risk-taking and promote excessive risk-taking.

The first effect is most closely associated with housing goals; the second is indirectly associated with it but also has broad macro effects. Both have costs, in terms of misallocated resources and "bailout" costs when institutions getting the guarantees fail.

The two costs are related; the bailout costs typically go along with misallocated resources, but even without misallocation bailout costs are disruptive and unpopular. In the U.S. a bailout of the Savings and Loans insurance fund ultimately cost taxpayers around $150 billion. For Fannie Mae and Freddie Mac cost is not clear because they appear to be making money again and may pay back most of what the government injected, but still there was a bailout.

Guarantees have many of the characteristics of financial options in that the owners of guarantees get the upside from risk-taking but have limited liability on the downside. If a guarantee is not priced or regulated properly, then recipients get downside protection at below cost, essentially an underpriced insurance policy. This provides incentives to take on risk to maximize upside returns without having to worry about downside losses. Indeed,

absent other factors, like reputation or franchise value, maximizing wealth will tend to involve maximizing the value of the guarantee, which in turn means maximizing risk. As a result the subsidy that comes with guarantees changes incentives. Because risk-taking is hard to observe and control, the subsidy is hard to control, as are bailout costs once the guarantee is in place.

Effects of guarantees and bailouts have been mixed. For instance, while they have received considerable support, neither banks nor Fannie Mae and Freddie Mac were a source of systemic risk, not because they didn't take risk, but because their guarantees kept the values of their deposits or debt from falling. That is the paradox of guarantees. They make it easier to take on risk, but they also limit systemic risk and bank runs. It's hard to have one without the other. Sometimes you can't live with; sometimes you can't live without them.

Probably more important than bailout costs, however, are the economic costs that come with recessions and Great Recessions. In the Great Recession systemic risk happened mainly in the private "shadow banking" system, which was not guaranteed (and because it was perceived as not guaranteed), but which still took on excessive risk and saw something akin to bank runs as investors lost confidence in the ability of the system's assets to cover its liabilities (See Gorton (2009) and FCIC (2011)).

Recent History

I have attached as an appendix a summary of some work on mortgage default done with a colleague at George Washington, Jason Thomas. It summarizes some of the data for the performance of loans (both those securitized by Fannie and Freddie and those securitized through the private label channel) originated in 2003 and 2006, along with a simple analysis of the risk of requiring low income lending. I am putting it there because I think a few pictures can summarize some important trends in defaults, and because some of what has been thought to be true about the surge in defaults is not true (or incomplete).

Major points are:

- ***The usual suspects matter.*** Looking at 2003 and 2006 vintage default rates, lower downpayment meant higher defaults if credit scores are held constant, and *vice versa* for credit score with downpayment constant.
- ***There are trade-offs***. A low downpayment can be offset with a higher credit score. What does seem to matter is low downpayment combined with low credit score. This is an example of *risk layering*.
- ***Economic conditions were very important***. Loans originated in 2006 had much higher defaults than those in 2003 for all categories (of credit score and downpayment) and for both Fannie/Freddie and private label mortgages.
- ***The Channel is very important***. Private label securities had much higher default rates, even controlling for credit score and LTV, than did Fannie/Freddie mortgages.

What is Risky?

The above describes things that were the case all the time. A more important issue is what things were *risky* in the sense of causing bigger changes in defaults from the good years (e.g., 2003) to the bad years (e.g., 2006). Main results are:

- ***Low down-payment, by itself was not especially risky***. This was especially true for loans that were not risk-layered. In particular, there is no clear relation between downpayment and increase in default rate, holding credit score constant.[1] Furthermore most of the loss for low down-payment loans sold to Fannie and Freddie was taken by private insurance companies.
- ***Low credit scores did matter, as did risk layering***. This was true for both channels.
- ***Loans with LTV from 75%-85% had the biggest increase for every level of FICO.*** This might be because loans involving moral hazard were more likely to have downpayments right at 20%, and these loans were more sensitive to declines in property values. This "hump" in the risk profile is entirely from the 2006 vintage

[1] This is probably because when dealing with prices falling by 40% in some regions, even down payments of 20% provide much less protection than might be thought at loan origination.

(see Table 2 in the appendix); there was no such hump in the profile of loans originated in 2003.

- ***The channel mattered***; Private label loans loans had much bigger increases across loan characteristics, by roughly twice.
- ***The housing goals*** added little to the risk of the GSEs.
- ***Size is ambiguous***. The biggest intuitions (Fannie and Freddie) had the lowest default rates and the lowest increase during the recession. The private label market, which was served by a wide range of institutions, was much worse. On the other hand Fannie and Freddie were very big, and the market was clearly sensitive to their behavior. A hard to quantify dimension of size is that it can generate "franchise value" (aka monopoly power), which has a tendency to produce risk aversion to protect the franchise.

Institutional performance

The above focused on defaults by loan product, channel etc. An interesting question going forward is what type of institution structure do we need? I am inclined to think that while this is important, it is not crucial and that the key questions are incentives. A question behind all of this is the role of fixed rate mortgages in our economy. They tend to have lower default rates that do adjustable rate loans, but leave many intuitions subject to interest rate risk because their value fluctuates with interest rate changes. The GSEs and private label markets both provided access for fixed rate loans to bond market investors. This was less the case with private label because it securitized a considerable amount of adjustable rate mortgages. In any evemt, because the overall size of the mortgage market (around $10 trillion in outstanding balance) is about the size of all the assets in the banking system it is likely that some sort of securitization structure will be needed. This can be done in a lot of different ways. Here I outline some things we have learned lately:

- The best source for private capital still might be Fannie and Freddie (or their clones-bond market institutions with the government at the back end). They are currently profitable, as evidenced by combined net income of $13 billion per quarter (before

accounting for the change in deferred tax assets). In any event it long run net outlays by Treasury may well be close to zero; that is it is possible that the residual value of Treasury's stake is at least as big as the amount of money it has put in.

- Private label security issuance was hugely dependent on Collateralized Debt Obligations (CDOs) to buy the riskiest parts of their deals pieces. There are important information asymmetries in this market, which were behind the huge losses in it. Investors would need huge coupons to be willing to buy such "information-intensive" pieces. These costs would flow through directly to borrowers.

- It may be more efficient if the loss-bearing private capital layer is an equity claim to a mortgage insurer or GSE. Raising capital on a deal-by-deal basis, as in the private label market, through subordinated tranches is less efficient because of information costs.

- Gross business volumes in 2012 between Fannie and Freddie were $1.4 trillion. It is unlikely that the private label market could replace these volumes at current mortgage interest rates. Mortgages are complex instruments with multiple embedded options. Fannie and Freddie absorbed most of the mortgage credit risk and reduced the interest rate risk through retained portfolios. Maybe this didn't work perfectly, but we don't have any historical evidence that banks and capital markets can manage these risks better.

Comment

A problem with all of this is that a lot of went wrong was very hard to predict, and some proposals, for instance limiting low downpayment loans and low income lending, are not likely to help much. The structure going forward is probably going to be something like GSEs, maybe more of them, maybe as co-ops or specially chartered mortgage banks, but with as much private capital as possible and with government stepping at the back end.

This is because having the government as final risk-taker is going to be hard to avoid, and probably shouldn't be avoided. That role can provide stability, but it leaves open a lot of questions about the details of risk and capital.

Capital and Contingent Capital

Whatever we do, we'll need better capital rules. Capital provides a cushion that protects debt holders and guarantors, and it provides incentives to control risk because more investor money is at stake. Before the crisis, Fannie and Freddie had two capital rules applied to them: stress tests that simulated company performance under stressful conditions and required that enough capital be held to survive them and a minimum capital requirement that applied even if they passed the stress tests. Clearly they did not have enough capital to withstand the Great Recession.

There are limits, however, to how far we can get by relying on capital ratios and shutting down insolvent institutions. It is very difficult to know whether or not institutions are really insolvent. This is in part because that is a difficult problem, but especially because accounting measures of capital are not up to the task. They tend both to overestimate and underestimate net worth, and they tend to be pro-cyclical, requiring institutions to raise capital at exactly the times when this is most difficult. This leaves us with stress tests and manipulating incentives. I shall leave stress tests, which I believe are an excellent way of improving on required capital ratios, for another time and focus on incentives in the form of contingent capital.

Incentives: Contingent Capital

You don't have to agree with the recent bailouts to understand the difficult choices facing the Fed and Treasury when institutions like AIG, or Fannie and Freddie or a slew of banks get into trouble and threaten the rest of the financial system. In a well-ordered world there would be clear rules for resolution via bankruptcy: rules for settling claims would be clear and acted on quickly; bondholders would take over, and there would be no need for panic. This is something that happens relatively easily in structured securitization deals, but not

for actual corporations. Bankruptcy is costly and time consuming. Uncertainty can breed panic and bank runs, and leave us with a choice between a bailout and a meltdown.

The current debate about financial regulation is largely about avoiding that choice in the future. It has focused on making insolvency less likely by making financial institutions hold bigger capital cushions and on making insolvency less costly by setting up resolution systems. These are daunting tasks. However, there is a relatively easy way of starting to address the problem: We can require banks, and other financial institutions, to issue contingent capital, for instance in the form of Conditional Convertible (or "Coco") bonds. This can be done by requiring issuance of bonds that look like regular bonds most of the time, but which are automatically converted into common stock when capital levels are low. [2]

The automatic conversion gives Coco bond investors a strong interest in risk management (they can't assume a bailout). If mandated as a part of pay, the bonds give management incentives to control risk, and movements in the market price of the bonds will provide daily evaluation of banks' risk. Coco Bonds also limit concern about institutions being "too big to fail;" because conversion avoids bankruptcy it mitigates concerns about disruptions.

Why do this instead of just requiring more equity and less debt? One reason is that debt has advantages. It is easier to evaluate than equity, so it attracts a wider range of investors. Meeting debt payments imposes discipline on management, and debt has tax advantages.

A second reason for liking Coco bonds is that they address a problem that higher capital ratios cannot easily solve: the problem of banks that are still solvent but with low capital ratios. Suppose that the minimum capital ratio for banks is 5% of assets. Banks will keep a cushion above the required level, but not by much because equity is more costly than

[2] A relatively early example of CoCo bonds is the first issue of the "Enhanced Capital Notes" by the Lloyds Banking Group PLC in November 2009. These are subordinated debt that will be converted into equity if the core capital falls to 5% of its risk-weighted assets. Other examples of CoCo bond issues are from Rabobank in May 2010, Credit Suisse in February 2011, and the more recent ones from Barclays Bank in April 2013. By classifying into Tier 1 capital, the mandatory leverage ratio required in the Basel Accord can be met easier.

debt. If a bank's capital ratio falls to, say, 3%, it will either have to raise capital or lower assets (lend less) to get back to 5%. It will be solvent but in trouble.

During a period when large numbers of banks are missing their ratios and there is a great deal of uncertainty, raising capital is difficult, putting banks in the position of having to cut back assets. In the extreme, getting back to 5% by shrinking the balance sheet would mean a 40% cut in assets. This problem will exist even with higher capital ratios as long as banks keep their ratios just above the minimum. With suitable triggers the decline in stock price that accompanies banks' declining asset values will convert Coco bonds into equity, providing an automatic and countercyclical cushion.

CoCo bonds are not entirely appealing to holders of the bonds, who will want a higher interest payment on their bonds and will worry about premature exercise. A way of handling some problems is to make the shares convertible back into bonds if the company subsequently recovers.

It is important to emphasize CoCo bonds as a tool of monitoring and management. Traded bonds will provide a market read on the state of the banks, which will not be clouded by questions of bailouts. Including them in management's compensation, can provide some disincentives for risk-taking. To the extent management is compensated with stock and stock options (or close substitutes) it has the incentive to take on risk in much the same way as shareholders. Imposing coco bonds as a part of their package forces them to take on some downside. Furthermore, these do not have to be traded, which mitigates some of the criticism around the trading of coco bonds. They can be designed in very specific ways (for instance by tying conversion to the bank's asset value), which can unravel most of the disincentives that come from the asymmetric of outcomes to owning shares.

Comments

There are lots of structures that can work in principle. Given failure of the private label market to provide market stability, having government ultimately be a guarantor is probably necessary and not as scary as it might sound; it can enhance affordability and liquidity in the market where mortgages are traded-making a TBA market readily available.

But there needs to be capital and incentives to limit risk-taking. While there are several ways of doing it I think that contingent capital can move incentives in the right direction.

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APPENDIX

What Is Credit Risk and Where Does It Come From?[3]

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The last decade has provided us with some great data on credit risk-across product types, origination channels and risk characteristics, because the market has experienced both good times and, especially, bad. Most of the data we have are for loans that have been securitized, by the Federal Agencies (Fannie Mae, Freddie Mac, often referred to as Government-Sponsored Enterprises or GSEs) or in the "Private Label" securities (PLS) market. Much of the data has been proprietary. The following sets of pictures from available data sets provide some summary information on where the risks have been. While obviously just a snapshot of a much wider set of data, they capture some important stylized facts.

A key point is that risk is not about the *level* of defaults; rather it is about *dispersion*.[4] We all know that some types of loans default more than others, but those differences can be priced, and they may not be especially important. If, for instance, pools of low down-payment mortgages always have the same very high default rates, we could readily price

[3] Prepared for Conference on "The Future of Housing Finance," cosponsored by George Washington University and PWC, May 14, 2013

[4] More important, but not possible to cover here, is the notion that risk applies to a whole portfolio, not just individual asset types, which means diversification should count too.

the loans to at least cover losses, in which case the pools would not have any risk and would have a fixed, risk-free return.

That does not happen often, of course, but the example is illustrative. What matters regarding risk is how far default rates (more broadly, default costs) vary from what is expected when conditions change. From this perspective, from the data presented, there are some surprises: Low down-payment loans, by themselves, were not especially risky; nor were "affordable" loans that Fannie Mae and Freddie Mac were mandated to buy.

Defaults and Risk

The following three pictures, set up as tables, summarize some of the data supplied by the Federal Housing Finance Agency (FHFA).[5] Here the focus is on fixed rate mortgages. (Adjustable rate loans have similar properties but worse experience in general.) The data set covers loans bought by Fannie Mae and Freddie Mac and those put into PLS. The tables present matrices that show performance of the loans for different origination years, controlling for two important measures of credit risk: loan-to-value ratio (LTV) and borrower credit score (measured by the Fair Isaac (FICO) statistical credit score).

The four LTV classes include:

- 75% and below, the safest category
- 75%-85%, the most common category, which clusters around 80%
- 85%-95%, high LTV loans, which cluster around 90%
- 95%, which contain 95% and higher

Credit scores range from low 500s to 800; they are put into discrete buckets. While there is not a clear definition of subprime, a reasonable definition for our purposes is that subprime covers anything with a credit score below 640 and anything from 640-680 with a loan-to-value ratio over 85%.

[5] See http://www.fhfa.gov/Default.aspx?Page=313

Performance is measured by the share of loans of that year's originations that were ever 90 days delinquent from the time of origination through 2009. Table 1 depicts defaults on loans originated in 2003, a good year because property values rose rapidly in the following three years. For instance, the table says for loans with LTV less than or equal to 75% and FICO score below 640 6.9 percent of the loans originated in 2003 ever had at least one spell where they were 90 days delinquent. Table 2. looks at the same measure for loans originated in 2006, a bad year with sharply declining housing prices. Table 3. presents the differences between Tables 2. and 1.

Table 1. Default Rates: 2003 Vintage (Ever Seriously Delinquent)

2003 GSE FRMs

LTV BUCKET (%)	FICO BUCKET				
		<640	**640 – 680**	**680 - 720**	**>720**
	<75	6.9%	3.2%	1.6%	0.5%
	75 – 85	9.6%	5.3%	3.0%	1.1%
	85 – 95	13.3%	8.0%	4.9%	2.3%
	>95	20.7%	10.7%	6.5%	3.2%

2003 PLS FRMs

LTV BUCKET (%)	FICO BUCKET				
		<640	**640 – 680**	**680 - 720**	**>720**
	<75	11.0%	5.5%	3.3%	1.4%
	75 – 85	16.3%	9.7%	6.3%	3.2%
	85 – 95	18.4%	12.3%	8.8%	5.3%
	>95	25.2%	14.8%	9.9%	6.1%

Table 2. Default Rates: 2006 Vintage (Ever Seriously Delinquent)

2006 GSE FRMs

LTV BUCKET (%)	FICO BUCKET			
	<640	**640 – 680**	**680 - 720**	**>720**
<75	20.0%	12.7%	8.0%	2.7%
75 – 85	24.8%	19.8%	15.0%	6.5%
85 – 95	27.5%	21.3%	16.8%	9.3%
>95	40.1%	25.6%	18.0%	9.5%

2006 PLS FRMs

LTV BUCKET (%)	FICO BUCKET			
	<640	**640 – 680**	**680 - 720**	**>720**
<75	31.8%	23.8%	18.9%	9.0%
75 – 85	46.3%	42.5%	36.0%	23.3%
85 – 95	47.6%	39.4%	31.0%	22.3%
>95	50.1%	39.0%	31.0%	22.4%

Table 3. Differences between Table 2 and Table 1

GSE FRMs

LTV BUCKET (%)	FICO BUCKET			
	<640	**640 – 680**	**680 - 720**	**>720**
<75	13.1%	9.5%	6.4%	2.3%
75 – 85	15.2%	14.5%	12.0%	5.4%
85 – 95	14.3%	13.3%	11.9%	7.0%
>95	19.4%	15.1%	11.5%	6.5%

PLS FRMs

LTV BUCKET (%)	FICO BUCKET			
	<640	**640 – 680**	**680 - 720**	**>720**
<75	20.8%	18.3%	15.7%	7.6%
75 – 85	30.0%	32.8%	29.7%	20.1%
85 – 95	28.8%	27.1%	24.0%	17.0%
>95	25.9%	25.2%	21.1%	16.3%

As can be seen by looking at the tables, default rates have varied greatly by product, vintage and mortgage characteristic. Major points with respect to the first two tables are:

- ***The usual suspects matter.*** Looking at 2003 and 2006 vintage default rates, higher LTV meant higher defaults if FICO scores were held constant, and *vice versa* for FICO with LTV constant.
- ***There are trade-offs***. For instance, in Table 1, for Fannie/Freddie data, 95% or greater LTV loans with credit scores in the (680-720) range had about the same default rates as those loans below 75% LTV loans with low credit scores (6.5% vs.

6.9% rates). What looks to be worst is not simply high LTV or low FICO, but high LTV combined with low FICO score. This is an example of *risk layering*.

- ***Economic conditions were very important***. The 2006 vintage had much worse defaults than the 2003 vintage for all categories and for both Fannie/Freddie and private label mortgages. The story is worse than the tables suggest because the 2006 loans had only three years of exposure until 2009; whereas the 2003 loans had six. [6]
- ***The Channel is very important***. Private label securities had much higher default rates, even controlling for credit score and LTV, than did Fannie/Freddie mortgages.

What is Risky?

But what about risk? Risk of default is not the same as expected level of default. As discussed above, we know that high LTV loans have high default rates, but to be riskier they must have more volatile losses, rather than simply higher losses. If losses on loans (more broadly on portfolios of loans) are more volatile, then the risk of insolvency is higher even if the loans are correctly priced.

The data sample depicted above is too narrow for complicated measures of volatility or dispersion. But it does depict a very severe sort of "one-shot" volatility from the extreme differences between 2003 and 2006. This measure of risk is akin to analysis from a stress test. If two products both have their losses increase by the same amount in the face of stress, then even if their losses are quite different on average, they are equally risky (and have the same implications for insolvency under that particular stress).

Consider Table 3. It depicts differences between the first two tables. It shows sensitivity to the very poor economic conditions after 2006, relative to the good conditions following 2003. It is a natural stress test.

Main results are:

[6] This data set only tracks defaults through 2009, so it is not possible to have comparable three year periods of exposure.

- ***Low down-payment loans were not especially risky***.[7] This is especially true in the middle of the matrices; for most elements of both the GSE and PLS matrices there is no clear relation between LTV and increase in default rate, holding FICO constant.[8]
- ***High FICO scores did matter, as did risk layering***. This was true for both channels; moving northeast from southwest in the pictures lowered the lift from 2003 to 2006.
- ***Loans with LTV from 75%-85% had the biggest increase for every level of FICO.*** This might be because loans involving moral hazard were more likely to have LTVs right at 80% and these loans were more sensitive to declines in property values. This "hump" in the risk profile is entirely from the 2006 vintage (see Table 2); there was no such hump in the profile of loans originated in 2003.
- ***The channel mattered***; PLS loans had much bigger increases across loan characteristics, by roughly twice.

The last two points are suggestive of moral hazard being associated with 80% LTV loans after 2003, being in PLS pools, and being sensitive to property value changes.

Low income and targeted lending

The above does not separate out low income and other types of "affordable" lending products that have been blamed for defaults. Again, the question is not whether they had higher default rates (they did), but whether they were riskier. Here I look at some data and analysis provided to the Financial Crisis Inquiry Commission,[9] which compares actual performance with expected for various loan types, using Freddie Mac data.

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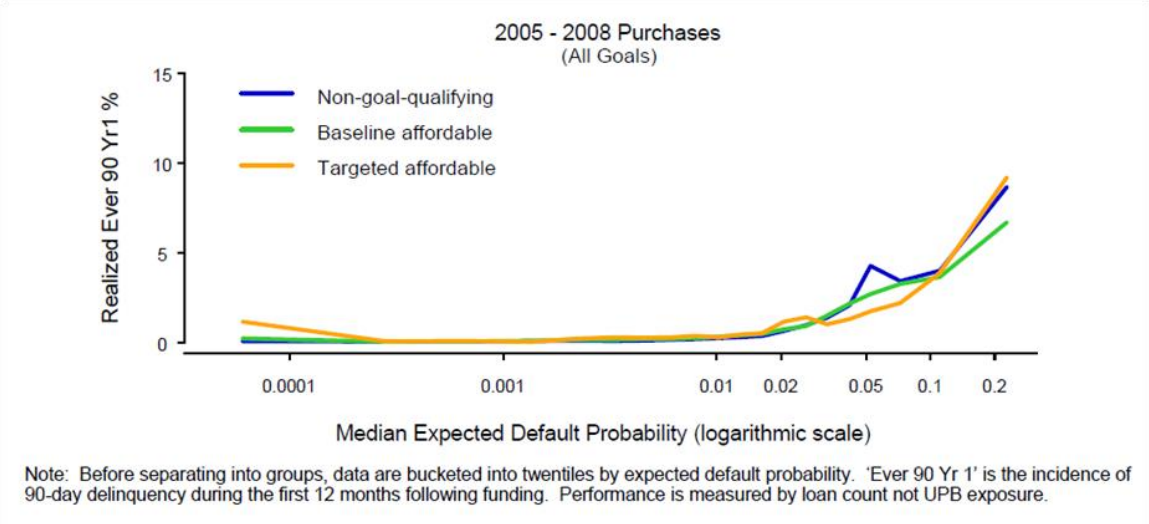
[7] For Fannie/Freddie loans risk is even lower for high LTV loans because most of the losses have been covered by private mortgage insurance. http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-06-04%20Freddie%20Mac-%20Cost%20of%20Affordable%20Housing%20Mission.pdf

[8] This is probably because when dealing with prices falling by 40% in some regions, even down payments of 20% provide much less protection than might be thought at loan origination.

[9] See "Cost of Freddie Mac's Affordable Mission," presented to Freddie Mac Board, June 4, 2009. See http://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2009-06-04%20Freddie%20Mac-%20Cost%20of%20Affordable%20Housing%20Mission.pdf

The picture looks at three types of loans: those that did not qualify for housing goals (blue line), those that did qualify but were not done via special programs (yellow line), and those done via programs designed to attract goals-rich loans (green line). The horizontal axis has default rates estimates before the fact (from Freddie Mac models) and the vertical axis is corresponding actual default rates.



The lines show that all three types did considerably worse than predicted. However, the blue and yellow lines (regular business and special affordable programs) are very close, indicating that the reaction to the Great Recession shock was the same for regular as it was for affordable loans. This bit of evidence suggests that the housing goals added little to the risk of the GSEs.

In summary, the news from the two sets of pictures is that two types of loans that might be thought to have been risky, low down-payment and "affordable," have not been especially risky. Risk, in the Great Recession stress test was largely due to economic conditions, the channel through which the loans were made and layered risk loans.
http://business.gwu.edu/creua/research-papers/files/FHA2011Q3.pdf