

March 11, 2011

**SPECIAL REPORT**

# The Skinny on Skin in the Game

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# The Skinny on Skin in the Game

BY MARK ZANDI AND CRISTIAN DERITIS

**T**he U.S. residential mortgage finance system is stable but far from normal. Since the financial system's near collapse in late 2008, practically no mortgage credit has been available except through the federal government. Private mortgage lending has been nearly dormant, with the major banks very reluctant to lend and the private market effectively issuing no residential mortgage-backed securities.

No one is comfortable with the current federal role in housing. Acting on behalf of taxpayers, the Federal Housing Authority has taken on much more credit risk than was ever envisaged for this institution, and Fannie Mae and Freddie Mac are operating in conservatorship, a kind of regulatory purgatory. Appropriately, the Obama administration has made reducing the government's role in the mortgage market a top priority.

Yet for the government to scale back its role without significantly disrupting the housing and mortgage markets, private securitization must be revived. Major banks and other depository institutions have neither the capacity nor the inclination, given their already-large mortgage exposures, to meet the demand for mortgage loans. At its peak in 2005, RMBS issuance reached nearly \$1.1 trillion, accounting for more than 40% of residential mortgage originations in that year (see Chart 1). While the private securitization market will not play a similar role any time soon, it is clear that this market is a key to restoring the health of U.S. housing and mortgage lending.

Moreover, the right kind of securitization offers significant economic benefits by allowing investors to more easily diversify risk and to match investments with risk tolerance. This expands the number of mortgage investors, reduces costs to mortgage borrowers, and increases the availability of mortgage credit.

Bringing the private mortgage market back requires first charting a clear path for

the government's exit. The administration has done this in a recent white paper, where it suggests reducing conforming loan limits; increasing the insurance premiums charged by the FHA, Fannie and Freddie; and increasing down payments on GSE loans. But these steps are not sufficient; they must be accompanied by a range of accounting, regulatory and legislative changes to the securitization process before banks and investors will be comfortable re-entering this market.

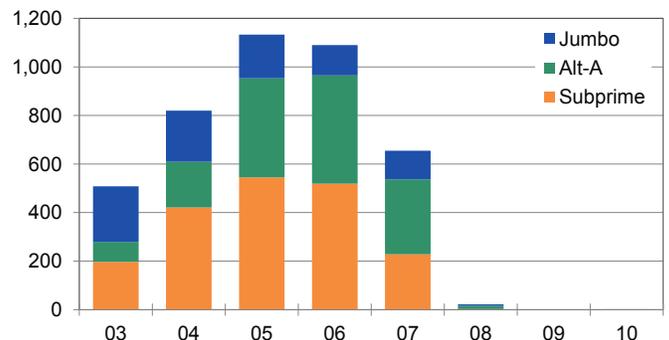
An important near-term step is the risk-retention rule, being fashioned by regulators under the Dodd-Frank financial reform legislation.<sup>1</sup> This rule requires mortgage originators and securitizers to keep at least 5% of the credit risk whenever they are involved in creating or selling residential mortgage-backed securities. During the housing boom, mortgage originators made "representations and warranties" about the quality of their loans, and investment banks, with the help of the rating agencies, provided extra collateralization to obtain higher ratings for the resulting securities. But the massive losses suffered on these securities showed during the housing bust that such safeguards were inadequate.

Behind risk retention is the idea that issuers will work harder to ensure their mortgage securities are backed by high-quality loans if they have a direct stake in their performance—so-called "skin in the game." That, in turn, is expected to make private RMBS a more attractive investment, bringing the securitization market back to life.

While the risk-retention rule seems sensible in theory, its success in practice will depend on how it is defined and implemented. Regulators are expected to put forth a proposal in the next week or so, finalize the rule in April, and implement it by April 2012. This is not much time, and if regulators do not get it roughly right, the rule will at best have no meaningful benefit and could at worst do significant damage to the fragile mortgage and housing markets.

## RMBS Boom and Bust

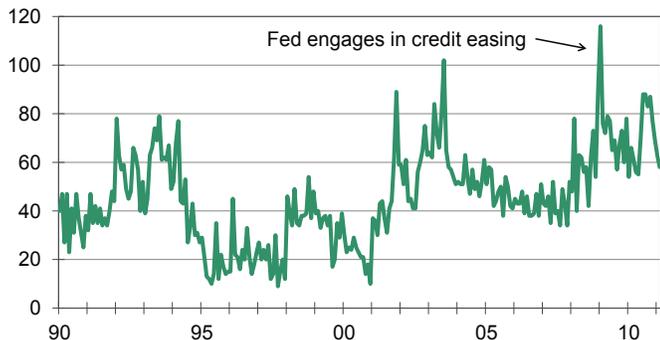
Bond issuance, \$ bil



Source: Dealogic

### Widening Mortgage Spreads

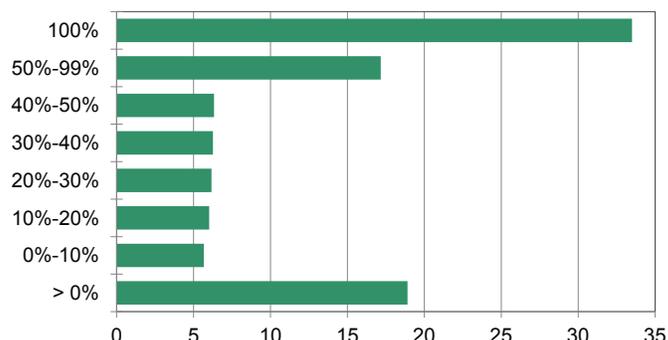
Spread between primary and secondary rates, bps



Sources: Fannie Mae, Freddie Mac, Federal Reserve, Moody's Analytics

### Many Homeowners Have Little or No Equity

Distribution of homeowners' equity, %



Source: Moody's Analytics

#### Originators or securitizers

A key, very difficult design question for the risk-retention rule is who it will cover: those who originate the loans backing a mortgage security, those who assemble the loans into securities, or both.

Requiring originators to hold some of the risk has some logic—their earlier “reps and warranties” were inadequate—but this could drive out of the business many smaller originators with fewer financial resources and a higher cost of capital. Since most smaller originators were wiped out during the housing bust, the rule will also be a significant barrier to entry for smaller players in the future. The financial crisis left the mortgage origination industry much more concentrated—the top five lenders account for more than half of all originations, up from less than one-third just a decade ago.

Imposing risk-retention rules could result in an even more concentrated mortgage lending industry, the consequence being higher mortgage interest rates. Just how much higher is suggested by the spread between rates being charged by mortgage lenders and those they can receive if they sell their loans to Fannie Mae. The current spread of 60 basis points is up from 40 just before the financial crisis and around 20 basis points a decade ago (see Chart 2). The spread may settle lower as the mortgage market grows less uncertain, but it is unlikely to return to the precrisis level, given the market power of those left standing in the mortgage origination industry.

Requiring securitizers to hold some risk also seems to carry some logic, since these organizations held insufficient collateral in their

securities before the crisis. But in reality this rule is unlikely to change securitizers' behavior. Before the financial crisis, many investment banks held a significant amount of the credit risk in their securitizations. To get many of these issues to market, banks needed to invest in the securities' so-called equity tranches—the pieces most exposed to default.<sup>2</sup> Banks were also attracted to the high returns of these risky tranches. Thus, despite having lots of skin in the game, the securitizers still made huge errors. Requiring them to hold 5% of the credit risk may not hurt mortgage rates or credit availability, but it will also do little to improve the quality of securitization.

How securitizers could be required to retain more risk is also an issue, given the complexity of the securities. Securitizers could be required to suffer the first loss in a multi-layered security, or a pro-rata share of all losses, or even losses on a representative sample of the security's assets. Setting this requirement rigidly could stifle future innovation in securitization.

To be effective, the risk-retention rule must also address the ability of originators and securitizers to hedge their risks. Hedging is an essential risk management tool for financial institutions, but it could also be used to completely circumvent the intent of the risk-retention rule. The rule must therefore restrict hedging; but if not done well, this could measurably increase the overall risk in the financial system.

One potential solution to these concerns is to require originators to place 5% of the RMBS value in escrow, which would be used to automatically repurchase any loans that

missed any of their first four payments or that defaulted with erroneous underwriting values. The trustee would return a portion of the escrow every year, depending on the performance of the RMBS. Another benefit of this approach is that it provides trustees with more independence than if the originator owned 5% of the RMBS. A problem with ownership is that the originator may have some influence over the trust not to pursue aggressive repurchases. In some sense, this repurchase solution is a compromise between a covered bond and a traditional RMBS.

#### Qualified residential mortgages

Perhaps even more important will be how risk retention is defined. This depends critically on how regulators define so-called qualified residential mortgages, those deemed to carry a lower risk of default. Mortgage securities backed by QRM loans will be exempt from the risk-retention rules, on the theory that investors understand the underwriting quality and risks of these loans sufficiently that additional skin in the game is unnecessary.

The Dodd-Frank legislation stipulates that FHA loans are QRM, because of their explicit government backing. The Obama administration has suggested that loans guaranteed by Fannie Mae and Freddie Mac also be labeled QRM loans as long as the two finance agencies operate under government control.

Getting the QRM definition right is vital. Too narrow a definition—limited to loans with very high down payments and high credit scores, for example—could significantly raise the cost of mortgage credit and reduce its availability for a large

Table 1:

**Foreclosure Rates by Down Payment**

30%	20%	15%	10%	5%	3%
0.2%	1.3%	2.4%	3.3%	4.0%	4.7%

Full-documentation, fixed-rate, owner-occupied, prime credit (660+FICO), purchase and rate/term refinance transactions with total debt-to-income ratios below 45% insured by MGIC in 2006 and 2007

Source: MGIC

number of potential borrowers. Too wide a QRM definition could blunt the risk-retention rule's ability to raise market confidence in securitization.

Much of the debate regarding QRM has centered on the size of down payments. Some argue that since this is the most important predictor of whether a homeowner will pay on time, loans should require down payments as high as 30% to be considered QRMs. Yet this would be a high bar for many households. Fewer than two-thirds of all U.S. homeowners have more than 30% equity in their homes and fewer than half if those without mortgages are excluded (see Chart 3). According to Fannie Mae's most recent annual report, fewer than half of all mortgages originated in 2010 had a loan-to-value ratio below 70%.

While there is no question that larger down payments correlate with better loan performance, low down payment mortgages that are well underwritten have historically experienced manageable default rates, even under significant economic or market stress. Consider a group of strongly underwritten loans: 30-year, fixed-rate, fully-amortizing mortgages with full documentation on owner-occupied properties whose borrowers have prime credit scores (above 660 FICO), that were originated by mortgage lenders at the height of the housing bubble in 2006-2007 and subsequently insured by the nation's largest mortgage insurer, MGIC.<sup>3</sup> The foreclosure rate for such loans with a 30% down payment is a very low 0.2%, but for those with down payments of 10%, the foreclosure rate is still relatively low at 3.3%. Even loans with only 3% down at origination have experienced a surprisingly modest 4.7% foreclosure rate (see Table 1). A 3% down payment can be a substantial down

payment to some borrowers, requiring most or all of their savings.

Other factors should thus be considered in setting QRM, including whether the loan is fully-amortizing. Negative amortization loans have performed three to four times worse than fully-amortizing loans in recent years, all else being equal, according to MGIC (see Table 2). Documentation is also very important, as stated-income loans—where the borrower is not required to provide proof of income—have performed three times worse than full-documentation loans. Subprime loans with FICO scores below 660 have performed two to three times worse, as have loans to investors. Borrowers with high debt-to-income ratios and those who have done cash-out refinance also have performed a bit worse.

It is also worth noting that a higher frequency of default does not necessarily increase risk. Uncertainty increases risk. The problem during the financial crisis was the uncertain impact of layering on multiple risk attributes, leading to overly optimistic assumptions. If the impact of these loan attributes on

default were known with some confidence, they could be priced accurately without increasing risks for investors or taxpayers.

Broadly, the QRM definition should encompass the traditional "plain-vanilla" type of mortgage lending that existed before the housing bubble. Lenders have a long successful history underwriting such loans with features that borrowers readily understand and value. More specifically, QRM loans should be defined to include FHA, Fannie Mae- and Freddie Mac-insured loans, and nongovernment mortgage loans that have the following characteristics:

- » Standard loan attributes: Mortgages should be fully-amortizing over a period of no more than 30 years. Restrictions on additional terms and conditions may be covered by the new Consumer Financial Protection Agency, but in general, features determining a QRM loan should be easily understood and fully disclosed.
- » Collateral: Eligible properties should be owner-occupied, single-family dwellings with up to four units. The property's value should receive an independent appraisal, using the lesser of market, cost and income approaches. The total, combined loan amount should equal no more than 80% of the value of the property, including any subordinated financing, fees or financed closing costs, unless private mortgage insurance is obtained.

Table 2:

**Incremental Foreclosure Risk by Loan Attribute**

Negatively amortizing ARM	3-4 times
Reduced documentation	3 times
Subprime credit	2-3 times
Non-owner occupied	2-3 times
Amortizing ARM	1.5-2 times
Over 45% total debt-to-income	1.5 times
Cash-out refinance	1.5 times

Incremental risk relative to the performance of the base loan shown in Table 1 that is similar in all respects except for the risk factor being analyzed.

Source: MGIC

- » Capacity: The total monthly mortgage payment should not exceed 33% of the borrower's documented, stable income. Total monthly debt service obligations should not exceed 45%. The borrower should have a documented employment and income history of at least two years.
- » Character: Borrowers should have at least two years of credit history free of serious delinquency (90 days or more) on both mortgage and nonmortgage credit accounts.
- » Private mortgage insurance: Mortgage loans with standard private mortgage insurance and a minimum down payment of 5% should be considered QRM, provided all other conditions are met. While PMI increases the pool of QRM-eligible borrowers to those with small down payments, it also provides a second underwriting of the loan, independent from the originator or securitizer.<sup>4</sup>

To be effective, the QRM definition should be simple, consistent with existing laws, and easy to monitor. A proposal with numerous complex restrictions may be difficult to track for smaller lenders, further concentrating the mortgage market. Difficulties in auditing originators' and securitizers' compliance with the rules also argue for a simple and easily verified QRM definition. Thus, QRM proposals to require homeowners to notify lenders if they take on subsequent liens, to allow for the repricing of loans if

liens are added, to create greater disclosure and due diligence requirements, and to allow lender recourse beyond the home may be good ideas, but they would significantly complicate the successful implementation of QRM and the risk-retention rule.

### Conclusions

There is broad consensus for a clear, measured government exit from the residential mortgage market. Private capital has moved to the sidelines and will stay there until the government's future role is defined, along with the rules and restrictions that will govern the securitization market.

With the passage of Dodd-Frank, the risk-retention rule and the definition of a QRM mortgage have become the next steps in this process. The hope is that well-defined and implemented rules will re-establish confidence among investors and thus help restart the RMBS market. While this could have probably been achieved more efficiently by simply tightening mortgage underwriting guidelines and the "reps and warranties" system, risk retention is now law.

Given the still-fragile mortgage and housing markets, the rule should be clearly defined as soon as possible but phased in slowly. Removing uncertainty is necessary, but it is even more important that the government not unsettle the housing and mortgage markets. It is unclear how global investors and private markets will respond to all of this, and without continued mortgage credit at low rates, the current

decline in house prices will grow measurably more severe, threatening the broader economic recovery.

It also makes sense for QRM eligibility to be defined broadly, at least initially. Effectively implementing the risk-retention rule for non-QRM mortgages could pose a significant challenge if QRM is too narrowly defined with multiple exceptions. Historical loan performance data demonstrate that imposing stricter criteria, especially larger down payments, goes beyond the requirements of the Dodd-Frank legislation. Furthermore, it would unnecessarily increase the cost or deny homeownership to many Americans. Almost half the mortgage originations in 2010 involved loans with less than a 20% down payment. Most of these had down payments below 10%. A narrowly defined rule could also increase taxpayer exposure by shifting even more business to the FHA if a down payment differential exists with the private sector.

Even if a simple risk-retention rule is phased in over time, it is not clear it will sufficiently revive private mortgage securitization. Whether the rule will revive RMBS investor confidence and whether mortgage originators and securitizers will be able to comply and stay in business are unknown. Unless regulators are careful and cautious in how they design and implement the risk-retention rule, the law of unintended consequences will apply, severely complicating the government's exit from what will be a weaker housing market.

## Endnotes

- 1) The regulators involved in designing the risk-retention rule for RMBS include the FDIC, OCC, Federal Reserve, SEC, FHFA and HUD. As part of Dodd-Frank, the Treasury Department was required to conduct a study of the “Macroeconomic Effects of Risk Retention Requirement,” which can be found at [http://www.treasury.gov/initiatives/wsr/Documents/Section%20946%20Risk%20Retention%20Study%20%20\(FINAL\).pdf](http://www.treasury.gov/initiatives/wsr/Documents/Section%20946%20Risk%20Retention%20Study%20%20(FINAL).pdf).
- 2) In general, prime jumbo securitizations during the mid part of the past decade had 2%-5% subordination levels below Aaa, while Alt-A securitizations had 5%-10%, and subprime had 10%-15%.
- 3) The foreclosure rate is the percent of MGIC-insured loans originated in 2006 and 2007 that have resulted in a foreclosure and a claim to MGIC through December 2010. Recissions—claims rejected by MGIC because of fraud and other violations of their insurance policy—are included in the foreclosure rate. The benefit of the MGIC data is that it isolates the impact of downpayment on the foreclosure rate by controlling for other key factors that impact foreclosure including borrowers’ credit score, debt-to-income ratio, geography, etc... The principal potential drawback of the MGIC data is that it may not be representative for loans with more than a 20% downpayment for which PMI is not required, although it is unlikely that foreclosure rates for high downpayment loans would be measurably lower than the low rates shown in the MGIC data. Competition to the PMI industry from piggyback home equity lending during 2006-2007 may also bias the MGIC data compared to the overall population of loans, although it is not clear in which direction.
- 4) Based on historical performance, PMI generally reduces credit losses to near zero in normal times, and in stress scenarios, PMI reduces credit losses to levels comparable with 30% down payment mortgages. Ideally, the QRM rule should be set so that there is parity on downpayment requirements between PMI and FHA loans. If FHA loans are permitted to have a lower downpayment requirement, it could lead to the government insuring a disproportionate share of low downpayment loans with 100% insurance, thereby defeating the intent of having “skin in the game.”

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Mark Zandi is chief economist of Moody's Analytics, where he directs research and consulting. Moody's Analytics, a subsidiary of Moody's Corporation, is a leading provider of economic research, data and analytical tools. Mark is the author of *Financial Shock*, an exposé of the financial crisis. His forthcoming book, *Paying the Price*, provides a roadmap for meeting the nation's daunting fiscal challenges. He is on the board of directors of The Reinvestment Fund, a Philadelphia non-profit that marries public with private capital to make investments in inner cities, and MGIC, a publicly traded firm that is the nation's largest private mortgage insurer. Dr. Zandi received his PhD at the University of Pennsylvania, where he did his research with Gerard Adams and Nobel laureate Lawrence Klein, and received his B.S. from the Wharton School at the University of Pennsylvania.

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Cristian deRitis is a director in the Credit Analytics group at Moody's Analytics, where he develops probability of default, loss given default, and loss forecasting models for firms and industries; contributes to forecasts and analysis for CreditForecast.com; and writes periodic summaries of the mortgage and consumer credit industries. In his previous work at Fannie Mae, Dr. deRitis supervised a team of economists who developed models of borrower default and prepayment behavior. He has published research on consumer credit and credit modeling as well as on the costs and benefits of community mediation. He received a PhD in economics from Johns Hopkins University, where he focused on the impact of technology on labor markets and income inequality. His bachelor's degree in economics is from the Honors College at Michigan State University.

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