The Rebirth of Securitization: Where is the Private Label Mortgage Market?

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Abstract

In the wake of the financial crisis, new securitization activity ground to a halt in all asset classes that did not have an implicit or explicit government guarantee. Though securitization has since resumed in most asset classes, including automobiles, credit cards, collateralized loan obligations (CLOs), and commercial mortgage-backed securities (CMBSs), the private-label residential mortgage-backed securities market remains stagnant. In this brief, we discuss why the residential mortgage market experience has been so different and provide guidance about what remains to be fixed.

The Rebirth of Securitization: Where is the Private Label Mortgage Market?

In the wake of the financial crisis, new securitization activity ground to a halt in all asset classes that did not have an implicit or explicit government guarantee. While securitization has since resumed in most asset classes, including automobiles, credit cards, collateralized loan obligations (CLOs) and commercial mortgage-backed securities (CMBS), the private-label residential mortgage-backed securities (PLS) market remains stagnant. In this issue brief, we discuss why the residential mortgage market experience has been so different, in the hope of providing some guidance about what still needs to be fixed.

While securitization of loans backed by Fannie Mae, Freddie Mac, the Federal Housing Administration, and the Veteran's Administration (the latter two compose the bulk of Ginnie Mae securitization) has remained strong or strengthened since the financial crisis, securitization of loans that do not have that government backing has collapsed. This has not affected the availability or cost of credit for loans made to high net worth borrowers or borrowers with perfect credit, because banks compete to put these loans on their balance sheets. Thus, it is difficult to argue that it is the government funding advantage that has held back development of the PLS market, as issuance of jumbo mortgage loans held in bank portfolios has remained strong without this advantage. We argue that in this article that it is the weaknesses in the structures of the RMBS securitizations themselves.

What will it take to restore the health of the PLS market? One would hope that steps being proposed by the Structured Finance Industry group and the group of participants convened by the U.S. Treasury would be incorporated into these structures, and would lead to a resurgence. However, the impetus may have to be economic: when the profitability of holding high quality jumbo loans on bank balance sheets declines, access for these borrowers will become more difficult and expensive in the absence of a PLS market. That may prove to be the impetus to solve many of the outstanding PLS market issues.

By contrast, borrowers with less wealth, and imperfect credit who do not qualify for a loan guaranteed by the government currently face limited credit availability and high rates. And the range of borrowers who do not qualify is wider than the GSE and FHA boxes indicate, as many lenders put overlays on the government lending, due to fears about put-backs and litigation, and the high costs of servicing delinquent loans. Moreover, banks are not willing to put their loans on their balance sheets and the securities market for such loans has disappeared. With no market for these loans, few lenders will make them. And securitization for loans with less than pristine credit, with the objective of transferring credit risk, will take much longer to emerge; because market participants are likely to demand "proof of concept" with pristine collateral.

A Cross Asset Class Comparison

Exhibit 1 shows the experience of the largest classes of securitized assets from 2001 through 2015, excluding mortgagesⁱ. Issuance of all of these securitized products rose dramatically in the 2005-2007 period, fell in the wake of the crisis and has since recovered. Both autos and high yield collateralized loan obligations are back above 2001 levels.

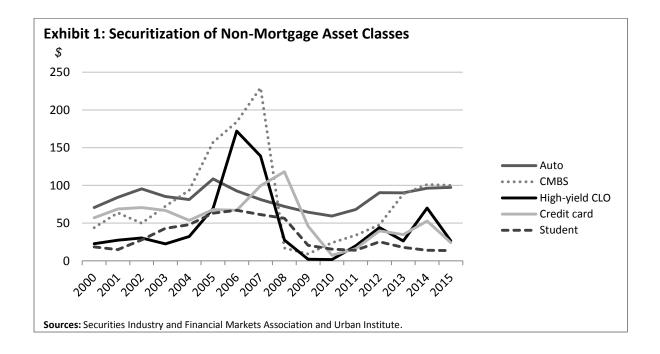


Exhibit 2 shows mortgage volumes.

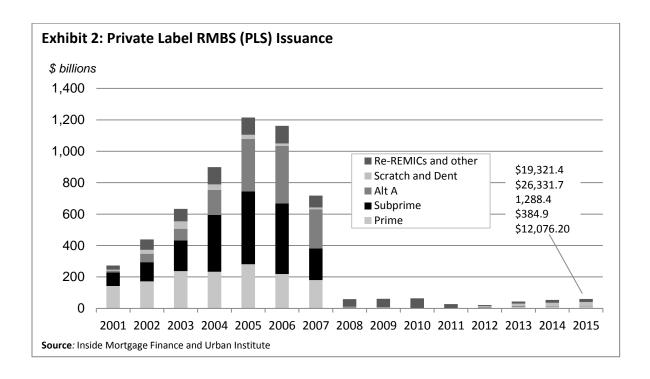


Exhibit 3 shows the percent change in issuance from calendar year 2001 to calendar year 2015. During this period auto securitizations were up by 15.7 percent, high yield CLOs were up by 2.9 percent, CMBS were up by 57.1 percent, and student loans were down by 9.4 percent. Credit cards, which had been recovering through 2014, were down sharply in 2015 because of sharp cuts in securitizations by the two largest issuers. In contrast to other asset classes, as shown in Exhibit 2, the private label securities market never recovered from the financial crises and was down by 72.2 percent.

Exhibit 3: Percent Change in Securities Issuance from 2001 to 2015	
Auto	15.7%
Credit card	-64.9%
Student	-9.4%
High-yield CLO	-2.9%
CMBS	57.1%
Private Label RMBS	-72.2%

Investors are, however, willing to take mortgage credit risk. The Fannie Mae Connecticut Avenue Securities (CAS) and the Freddie Mac Structured Agency Credit Risk (STACR) deals are proof of that; there have been 9 CAS securitizations and 18 STACR securitizations. Through these securitizations, which have gained widespread investor interest, the government sponsored enterprises GSEs have laid off a significant portion of the risk on their new originations.

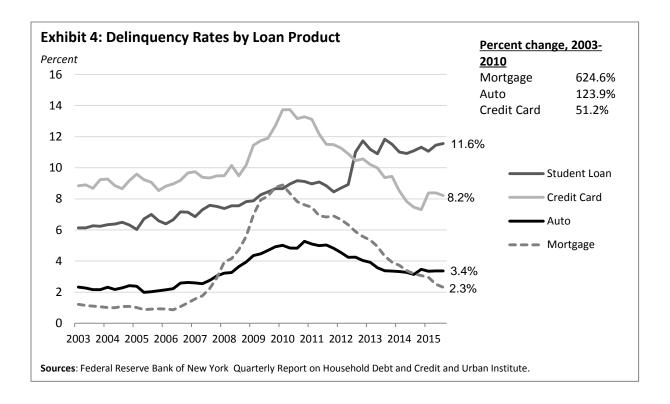
Three factors explain the difference in recent year volumes between other asset-backed securitizations: (autos, credit cards, student loans, high yield loans, and commercial mortgages) and PLS:

- Mortgages exhibited the most severe dislocations of any asset class. These dislocations exposed
 flaws in the cash flow waterfall and in the collateral that backed private label securitizations.
- Mortgages were the only asset class to experience significant policy changes affecting already outstanding securities in the wake of the crisis.
- Though the interests of investors and issuers were largely aligned in the securitizations of other
 asset classes, private-label securitization was riddled with conflicts of interest among all of the key
 players.

As we explain, many of the issues underlying the first factor have been corrected, yet more work needs to be done on the second and third. We recommend several steps, many of which have already been proposed by either or both of the Structured Finance Industry Group (SFIG) and the group of market participants convened by the U.S. Treasury Department to address PLS reforms. We discuss each of these issues in turn.

Mortgages exhibited the most severe dislocations of any asset class, which exposed structural flaws in private label securitizations

Exhibit 4 shows the percent of loans, by dollar volume, that are more than 90 days delinquent for each class of asset; illustrating that delinquencies shot up for mortgages more than for any other asset class.



From 2003 to the peak in 2010, delinquencies increased by 625 percent for mortgages versus 124 percent for auto loans, 51 percent for credit cards and 45 percent for student loans. Though the mortgage delinquency rate were considerably lower than each of the other categories in 2001, by 2007 the mortgage delinquency rate was higher than auto delinquencies, and by 2009 the mortgage delinquency rate were higher than both student loan and auto delinquency rates, though still lower than those of credit cards. Note that mortgage delinquencies are now, again, the lowest among the four rates.

With this surge in delinquencies, the vast majority of the AAA-rated PLS were downgraded and most incurred actual losses. As risk and losses began to flow through the system rather than revenues, investors and policymakers began to discover flaws in the design of private label securitizations.

Weaknesses in the cash flow waterfall. In many cases, subordinate bonds offered less protection for the senior classes than expected, imposing levels of loss on senior PLS noteholders. In the pre-crises structures, deals had a shifting interest structure, in which the subordinate bonds, which were initially locked out from principal paydowns; they began to receive their pro rata share of these paydowns after a specified number of years. The subordinate securities could get paid their full pro rata share more quickly if the deal prepaid rapidly, bringing the credit enhancement level up to twice the initial subordination level (that is, the deal met the so-called "two times test"). This provided inadequate protection to the AAA-rated bonds; the most credit worthy borrowers prepaid, leaving the senior bondholder exposed if losses were incurred later in the life of the deal. All new deals from 2010 on have a required minimum level of subordination for the AAA-rated bonds, based on the original balance of these bonds. The lower-rated bonds are not entitled to any principal unless that level is met at every point in time.

Weaknesses in the loan underwriting process. Prior to the crises, there was a breakdown in basic underwriting practices, in combination with widespread misrepresentation that the underwriting guidelines had been properly applied. The key undisclosed items of defective underwriting were inflated appraisals, overstated borrower income, misstated occupancy status and insufficient compensating factors to justify exceptions. And the use of practices requiring less onerous documentation, with no compensating factors exacerbated these practices. In due diligence after the fact it became clear that on the stated income loans, there was usually no checking to make sure the stated income was consistent with the levels for those with similar jobs in the area; there was no checking to make sure the home was to be a primary residence, even when borrowers purchased multiple homes within short periods of time, many borrowers did not have sufficient reserves, many applications did not contain required forms such as verification of employment.

After the crises, the market began to demand that loans be fully documented, and most lenders either eliminated non-traditional products, or became very selective in their use of these products. This was codified by the Ability-to –Repay rules, promulgated by the CFPB, requiring institutions making a mortgage to, as part of the due diligence process, acquire enough information to determine that the borrower has the ability to repay the loan. We would argue that the market has overcorrected for sloppy origination pre-crises, and is not currently taking enough risk. (Bai, Li and Goodman, 2015)

Lack of consistent loan-level information. Investors did not have adequate information about the loans in the deal, and reporting varied substantially across deals. Income and the debt-to-income ratio were often missing or misreported. There was no indication whether the loan was originated through a broker. The investor often did not know whether the borrower had a second mortgage on the same collateral. The definition of "full documentation" differed between originations; moreover, documentation was often waived, and counted as if it had been submitted. The source of each borrowers' income was often not reported, even if it was collected.

Project Restart, a collaborative effort between issuers and investors working under the auspices of the American Securitization Forum, a residential mortgage backed securities (RMBS) trade group, attempted to address the problem in 2009 with the release of a RMBS disclosure package. This document suggested that investors be provided with 157 fields of information on each loan, in a standardized format. This was enormously helpful in standardizing the information and setting a minimum standard. Most new deals provide more information than this requirement.

Sloppy due diligence. Due diligence, in which the loans in the deal were verified by a third party provider to be as represented, was not taken seriously before the financial crises. The due diligence provider was supposed to check a certain percentage of the loan files to make sure the loans were complete, that they met the necessary regulatory guidelines, that they conformed to the underwriting standards of the

originator, and that the credit and property values that were disclosed were properly verified. The checks were usually perfunctory. In one lawsuit, the due diligence process was described in depth: the vendor providing the due diligence had only the minimum requirements for the loans in the pool, as defined by LTV (no LTV/CLTV ratio over 100), DTI (no ratio greater than 55%), and FICO score (no FICO under 500). No overlays were given. The due diligence provider simply compared the documents in the loan file to the originator's underwriting guidelines and the minimum requirements for loans in the pool. Even if the loan was deemed by the vendor to have "substantial deviations with insufficient compensating factors to offset the overall risk", the deal sponsor could opt to override the vendor's judgement and waive the loan into a pool. More than 50% of the loans in this suit that were found to have "substantial deviations" were waived in, with no explanation. Moreover, when a defective loan was acknowledged, it was often simply removed from the deal; no analysis was performed to determine whether it indicated a broader pattern of defects in the underlying collateral. In fact, the defective loans were often put into subsequent deals, in the hope that they would not be one of the loans selected for sampling in those deals.

Today, due diligence is taken much more seriously. The rating agencies, as part of their revised rating practices, require heavy due diligence on any pool they rate. This includes reviews for data integrity, underwriter conformity to stated guidelines, property valuation review, compliance with regulatory lending and state laws, and recording of loan documents. The rating agencies do make it clear that while they take steps to assure the accuracy of the data, they are not auditors and cannot guarantee the integrity of the data. Even so, this increased emphasis on due diligence by the rating agencies is important in itself, and in the eyes of many investors, provides encouragement to due diligence providers to do the job right, not take shortcuts.

The new deals (the so-called RMBS 2.0) have thus eliminated most of the flaws in the cash flow waterfall and in the collateral that plagued RMBS 1.0 deals. In particular, the cash flow waterfall has been re-

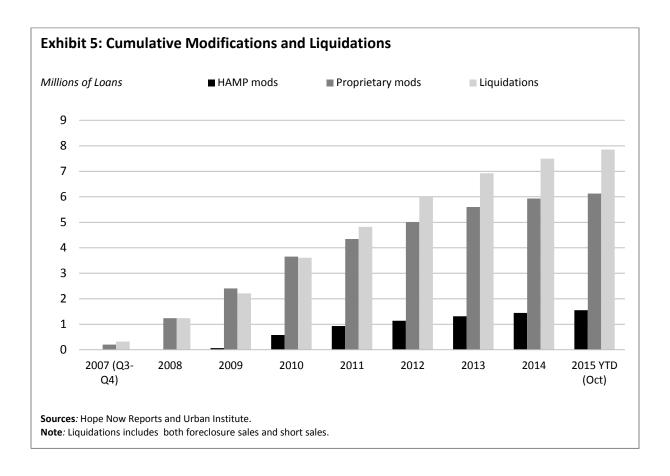
engineered to provide more protection for AAA-rated investors. Mortgages are being underwritten much more carefully; evidence of this comes from the loan level database that supports the STACR and CAS transactions. Goodman et al (2015) found that recent production is experiencing 6 months delinquencies at rates considerably lower than the 2000-2003 production at the same age. And the jumbo loans are generally underwritten very similarly to the GSE loans; underwriters often run jumbo loans through the GSE's automated underwriting process. In addition, information disclosure has been substantially increased and due diligence has improved dramatically. None of these changes, however, appear to have restored issuance. This leads us to the other impediments.

Mortgages were the only asset class to experience significant policy changes after the crises

Mortgages are by far the largest consumer debt instrument, with close to \$10 trillion outstanding. The next largest markets are student loan debt and auto debt, at \$1.2 trillion and just under \$1 trillion, respectively. Moreover, home equity is the primary source of wealth for the majority of borrowers. Not surprisingly, then, the mortgage market experienced the most aggressive regulatory responses to the crises of any asset class. The policymakers' responses were designed both to keep borrowers in their home and to punish institutions for wrongdoing. In many cases, the mortgage-backed securities investors bore both the costs and uncertainty of these policy changes. There was no significant change in policy for any of the other asset classes, except student loans, where the changes were much more modest. It is useful to outline some of these policy changes—which affected securities already in the market—and then view them through the lens of the investor.

Lack of disclosure for wave of loan modifications. Before the crises, no standardized tools for mortgage loan modifications existed because mortgage defaults were relatively uncommon. During the crisis, the Home Affordable Modification Program (HAMP) was enacted, providing a blueprint for modifications. As

shown in Exhibit 5 (which covers the vast majority of mortgage servicers) since Q2, 2007, the mortgage market has experienced 7.85 million liquidations (out of approximately 50 million homes with a mortgage), and an equal number of modifications.



While only 20 percent of these were HAMP modifications, the program set the blue print for the modification of loans controlled by the GSEs and FHA, as well as for loans in PLS and on bank balance sheets. Controversial though this and other modification programs were, the number of foreclosures would have been much higher without the programs. That is, if each of the modified loans were foreclosure upon (an unrealistic worst case), the number of foreclosures would have been double.

The problem was that many of details on this large wave of modifications, critical though they were to the market, went entirely unreported to the investors that owned pools of these loans. Investors were required to "infer" them by observation. Did a loan that was delinquent become current and experience

a payment decline when it was not scheduled to reset? Was there a principal loss on a now-performing loan? Was this forbearance or forgiveness? Did the servicers apply the net present value (NPV) rules correctly? Not only did investors not know the answers to these questions, they had no way to find them out.

Servicing Settlements. The settlements among the Department of Justice, various state attorneys general and many of the nation's largest bank servicers were designed to punish banks for poor servicing practices and provide consumers with relief. In doing so, however, some of the cost of consumer relief was pushed onto investor first lien note holders. While banks primarily settled by providing consumer relief on their own loans, the fact that they were able to cover some of their obligations by providing relief on loans owned by investors angered many investors. This perceived injustice was further aggravated by the fact that neither GSE nor FHA loans could be used for the settlements.

The settlements all required an NPV test, which should have ensured that investors' loans would be written down only where it was in their financial interests, but the lack of disclosure over the NPV test's contents left investors' skeptical that they were being treated fairly. There was no disclosure to investors (or a party that represents investors) on the details of the NPV test used, whether it was being applied properly, which loans were actually being modified and on what terms. There was no monitoring to ensure that the servicers were behaving as required under their contracts with investors. While most of these settlements fell under various Monitors, these settlement monitors were charged with ensuring that lenders are meeting their obligations to consumers under the settlements; investors were not a party to the settlements, nor were their interests represented in these settlements.

Expansion of timelines. The long foreclosure timelines in many states, particularly those that require judicial review before foreclosure, have added to the severity of losses on liquidated loans. In most private-label securitizations, servicers are required to advance principal and interest payments to the trust

(i.e., the investors) as long as the amount advanced is deemed recoverable. When recovery is cast into question, payments are withheld until the loan is liquidated. Thus, the longer the foreclosure timeline, the longer the period in which the investor is unable to collect, and the more the property tends to deteriorate, driving down the amount ultimately collected.

Eminent domain. What arguably generated the most investor ire was a program that never took effect. Several cities proposed programs under which performing, underwater loans were to be seized out of private-label securitizations using the right of eminent domain. The investors would be paid whatever the city deemed appropriate, and the loans would be written down and then refinanced into an FHA loan. Though cities claimed that they would pay a fair market rate, investors pointed out that the only way the economics worked was if the loans were purchased as a deep discount to the market value of the property. Moreover, FHA/VA, GSE and bank portfolio loans were not subject to this; the eminent domain essentially took advantage of the weak investor protections in the PLS market.

The proposals were never implemented in any municipalities, in part because of loud protests by investor groups, and in part because of steps taken by regulators. On August 8, 2013 the Federal Housing Finance Agency (FHFA), the regulator of the GSEs, released a statement throwing cold water on the proposal:

"we continue to have serious concerns on the use of eminent domain to restructure existing financial contracts and has determined such use present a clear threat to the safe and sound operations of Fannie Mae, Freddie Mac and the Federal Home Loan Banks....Therefore FHFA considers the use of eminent domain in a fashion that restructures loans held by or supporting pools guaranteed or purchased by FHFA regulated entities a matter that may require use of its statutory authorities". vi

The issue was finally settled in December of 2014, when Congress prohibited the FHA, Ginnie Mae or HUD from insuring, securitizing or establishing a federal guarantee on any mortgage or mortgage-backed

security that refinances or otherwise replaces a mortgage that has been subject to eminent domain condemnation or seizure.

Even though no municipality actually moved forward to use eminent domain in this manner, more than any other single factor, this issue highlighted to investors that the private label securitization structure did not adequately protect their interests. It is also the factor for which policymakers are most clearly at fault. By allowing the issue to sit idly for several years as a real risk, policymakers allowed much investor angst to build unnecessarily, angst that has been a roadblock to investor participation in the PLS market.

Securitizations of other asset classes had better alignment of interests between the issuer and the investor

In most consumer lending (credit cards, autos, and student loans), the issuer retains significant equity after securitization, aligning the interest of the issuer and the investor. That is, the securitizations are primary designed to provide funding rather than transfer credit risk^{vii}.

Securitizations of Commercial mortgage loans and CLOs do have a general alignment of interests, with conflicts arising if the deal is doing very badly. In CMBS, servicing control is retained by the holder of the B note, which is subordinate to the other securitized bonds and has "duty of care" responsibilities. Thus, the B note holder is required to police the servicer on behalf of all the investors. (The weakness of this approach is if the deal is doing very badly, the interests of the most junior noteholder may differ from those of investors in the rest of the deal.) In CLOs, the alignment is achieved because the manager is given incentive fees for good performance, and often holds equity. (Again, in certain instances if the deal is doing very poorly, the interests of the manager may differ from those of the more senior investors in the deal).

In residential mortgage lending many conflicts of interest exist among the originator/servicer and the investors. Moreover incentive structure is often misaligned; accentuating these conflicts of interest. It is worth walking through how the misalignment of interests in the residential mortgage market actually plays out.

Enforcement of Representations and Warranties. In the pre-crisis securitizations, there was no mechanism to enforce the representations and warranties (reps and warrants) that lenders made to investors at the point of origination. The trustee for the securitization (who was very modestly compensated) was generally charged with enforcement once a violation was detected, but the trustee lacked access to the loan files and thus lacked the information to detect the violation. (The only way a trustee could gain access to the loan files was if a threshold percentage of investors could agree to work together, give the trustee access to the loan files, compensate the trustee for the outside services used for the evaluation, and indemnify the trustee against claims. But there was no mechanism to organize investors). In short, the trustees had neither the ability nor the incentive to detect breaches of reps and warrants. The servicer was charged with detection, but had no incentive to do so, because the originator that would be forced to buy back the defective loans was often a related party. In short, investors had no mechanism to enforce the reps and warrants in PLS.

Misplaced incentives due to ownership of second liens. When the originator serviced the first lien and owned the second, decision-making was subject to distortion when the first lien became delinquent. For example, the servicer may be more reluctant to do a short sale on the property, even though it is the best alternative for the first lien, as the second lien will be wiped out entirely. On HAMP modifications, the servicer is required to modify the second mortgage in the same manner as he modifies the first; thus in HAMP modifications, the two mortgages are treated as though they are equally senior. Servicers who own

the second lien may be less willing to do principal reductions on the first mortgage if the second mortgage is still paying.

Vertical integration in the servicing process. Many servicers own shares in companies that provide ancillary services-- such as property maintenance--during the foreclosure process. The advantage of this ownership is that the servicer can schedule maintenance activities more efficiently. In some cases, however, the servicer overcharges the trust for these services. But no one is monitoring the conflicted servicer or otherwise looking out for the investors' interests.

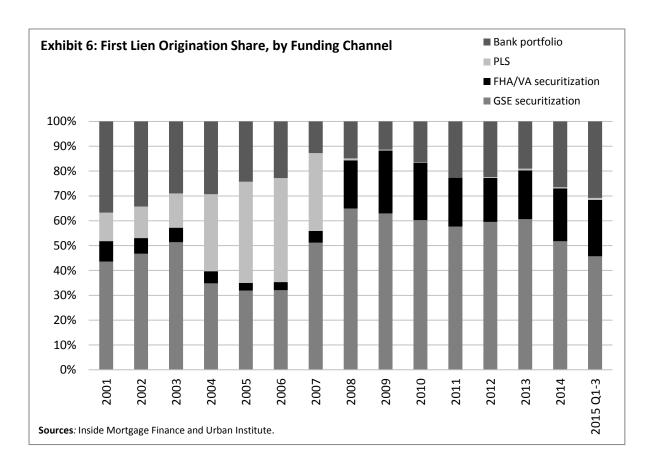
It is interesting to note that under the Dodd-Frank legislation, securitizations require 5% risk retention.

These risk retention guidelines hit every other asset class harder than RMBS. In the RMBS market, securitizations of qualified residential mortgages (QRM) do not require this risk retention. Since the broadest possible definition was used for the QRM rule, most RMBS deals do not require any risk retention. The goal of securitizations going forward should be to recognize and minimize these conflicts of interest and give investors representation when these issues arise. The market is moving toward these goals, but has a distance to go, as described in the last section.

Does the Much Larger Role of the Government in the MBS Market Explain Much?

Many investors have argued that PLS are in competition with the government in the mortgage market. Other asset-backed loan products do not compete against a government-backed agency with pricing advantages and unlimited funding. The student loan market is the only other asset class with a sizeable government presence, but in that market the government guarantees some of the loans but does not run a securitization vehicle. While these statements are true, they don't do much to explain the disappearance of the private-label securities market. In particular, the government has always had a role in the mortgage market. Exhibit 6 shows new mortgage originations by funding channel. Note that the PLS share increased from 11.5 percent in 2001, to 42.4 percent in 2006; it is now 0.8 percent. As the PLS

market grew, the bank portfolio share shrank from 36.7 percent in 2001 to a low of 12.8 percent in 2007. It is now 30.8 percent.



Yes, the government does have an advantage in funding. Yes, the government did step in and raise loan limits in 2008, allowing the GSEs and the FHA to insure loans they had not been able to before. But bank portfolios face the same competition and they have grown considerably. It is very difficult to make a case that the government funding advantage is a significant issue for the PLS market.

In fact, for most prime, jumbo PLS deals, the choice is either to sell into a bank portfolio or to go the PLS route, and most jumbo loans are selling to bank portfolios. Out of the \$58.7 billion in PLS in 2015, Exhibit 2 shows only \$12.1 billion was prime jumbo collateral. The remainder is re-performing and non-performing loan deals and re-securitizations. Alt A and subprime were missing entirely. To put this \$10

billion in perspective, in 2015, bank portfolios retained \$416 billion in loans, of which \$250 billion represented jumbo prime production.

With current PLS pricing, it is more economical for an originator to sell the loans to a bank than into a PLS (or equivalently, it is more economic for a bank to retain its own production than to sell the loans into a PLS). This is because the AAA-rated bond in a PLS, which is 94 percent of the deal, is the hardest bond to sell; investors demand a hefty premium over agency MBS to buy these bonds. This reflects three factors: the increased prepayment risk (as, all else equal, jumbo mortgages have a greater propensity to refinance), a small amount of credit risk, and a liquidity premium. The first two factors are relatively modest, and most of the difference between AAA-rated PLS and agency MBS can be explained by the liquidity premium. On the credit risk side, the current -to-30 day DQ roll rates on new jumbo collateral are a fraction (less than half) of that on the loans underlying the STACR deals, and the eventual losses the STACR deals are expected by market participants to be in the 6-8 bps range. This liquidity premium is high both because there is relatively limited issuance and the deals do not all look the same. If the liquidity premium for the AAA-rated bonds were to decrease, originators would reconsider this decision. A decrease in the liquidity premium for AAA-rated bonds requires that if the governance rules for private label securities be standardized and structured in a more investor friendly form, a point to which we now turn.

What has to change in the PLS market to restore issuance?

Several major sets of changes are needed, which we detail here.

Standardization. Currently, each securitization sponsor has its own documentation; there is no standardization. When investors bought a deal before the crises, they generally read the deal summary, if that. In some cases, these agreements contained ambiguous language or contradictory instructions. Post-crises, investors read every page of the documentation (the deal summary, the prospectus, the pooling

and servicing agreement) totaling many hundreds of pages, as they are concerned there is something adverse to their interests buried deep inside one of the documents. This does not produce a scalable market. The market needs to standardize the documentation, so investors can quickly understand how a particular deal differs from the standard. SFIG has taken a huge step in this direction, with the November 2015 release of the third version of their Green paper, suggesting a standardization of the language on representations and warranties, repurchase governance and other enforcement mechanisms (SFIG, 2015). In some cases, banks who rely on a retail origination and non-banks who are aggregators have different needs, and certain items required several standard variants.

Introduction of a Deal agent. Under RMBS 1.0, no one was effectively charged with looking after the interests of investors. Moreover, there was no mechanism for investors to look out for themselves. In theory, investors could have organized to protect themselves, there was no mechanism for communication. A deal agent (who should not be the trustee) can fill this role, the group of market participants convened by the Treasury has largely endorsed this concept, and SFIG included it in the section of their report outlining the roles of each of the transaction counterparties. Ideally, the deal agent would be charged with (1) rep and warrant review on every loan that goes 60 days delinquent, (and on other loans, as needed), as well as enforcement of rep and warrant breaches, (2) servicing oversight, (3) doing a loan-level cash flow reconciliation (making sure the trust received the money it was supposed to) and (4) communication and reporting to investors. The deal agent would most likely be selected by the sponsor, but would have a duty of loyalty and a duty of care to the trust as a whole.

While there is general agreement among investors that a deal agency is essential; no consensus has been reached on which entities can be deal agents. How are they to be selected and compensated? If they are not regulated, will investors require certain minimal levels of capital? Moreover, the PLS structures must

be explicit about who has what responsibilities to the investor. Where do the responsibilities of the trustee end and the deal agent begin?

Better transparency in and monitoring of servicing operations and other servicing improvements. Investors would like to see much more disclosure and better monitoring on the servicing side, a topic that has received little attention to date. That is, they would like to see servicers provide better transparency on all loan modifications (e.g. new rate and term, extension, forgiveness or forbearance amount, and capitalization of delinquent payments). This includes modifications generated by mortgage settlements. Investors would like to see the deal agent charged with seeing that servicers follow the policies they have laid out, upholding investor interests in the loan modification and loss mitigation process. That is, the deal agent would spot check loan modifications, making sure the NPV test has been applied property, as well as spot check loans that employed foreclosure alternatives (short sales and deeds-in-lieu of foreclosure) instead of foreclosure, in order to ensure investor interests were upheld. The deal agent would also be charged with doing (or overseeing) a loan-level cash flow reconciliation, and well as a line-item reconciliation of loan liquidation proceeds; the servicers would need to provide the information to do this.

There is broad agreement that servicers should be charged with maximizing the value of the collateral to the trust as a whole; but that means different things to different investors. Some investors believe that modifications should maximize NPV, while others are comfortable as long as the modifications are NPV positive and the servicers' policies are clearly stated. Most investors would like to see more standardization in NPV models and inputs to ensure consistency in treatment of loans across servicers, but don't see if as a major impediment to re-entering the market.

Market participants broadly agree that the servicer compensation structure needs to be reformed to better align the incentives of servicers and investors. This can best be done on a fee-for-service basis.

Many investors are supportive of a stop-advance trigger at 120 days, as it increases standardization and

reduces subjectivity. This view is not universal, however, because as under certain circumstances it means the senior tranche either does not receive the contractual interest payments, or the subordinate bonds must be written down to pay interest to the senior tranches. As discussed, if a servicer services the first and owns the second, it presents serious conflicts of interest. Investors would like to see the servicing rights on one of the two liens transferred if the first becomes delinquent.

The attempt to standardize documentation and the introduction of the concept of the deal agent are huge steps forward. However, many operational issues relating to the deal agent are unresolved. It also remains to be seen whether and when the standardized documentation and the deal agent concept will be broadly adapted for prime jumbo deals.

The Future of Non-Prime Mortgages

We have a hard time believing the market for securitizing non-prime mortgages will return in its old form in the near term. We expect that for the next several years, the market for riskier loans, most of which will be loans that do not fall under the safe harbor of the Qualified Mortgage Rule, will likely be held in portfolio by private equity funds, hedge funds, and Real Estate Investment Trusts (REITs). These market participants will need leverage (financing) to buy the assets in a way that meets their required return threshold. The leverage is likely to come from two sources: bank or repurchase agreement (repo) funding or securitizations that are merely financing vehicles, in which the holder of the loan retains the credit risk.

Bank and repo funding is generally locked in for relatively short terms. Many will prefer longer term financing, which they can get through securitizations.* The market for PLS as a financing vehicle for less than pristine new origination is largely untested, there have only been a small number of deals so far. We believe the revival for this market would come after the prime PLS market has re-established itself as a safe and reliable sector. Initially, the rating agencies are apt to be conservative in rating this collateral, so the securitizations may not make sense economically, even for financing transactions. And there may be a

limited number of investors, who are willing to participate without a longer performance history on these loans. Securitizations of non-performing and re-performing loans, which constitute most of the current PLS issuance is done as financing transactions, but securitizations backed by newly originated loans are much longer in duration than their non-performing and re-performing counterparts. It will take both time and data showing the performance history of these loans to make both the rating agencies and the investor base more comfortable. In the meantime, origination of these loans is apt to be fairly limited.

Conclusion

Securitization has returned to the market for every asset class other than mortgages. In this article, we took a close look at the landscape, investigating why other asset classes have returned to the market and mortgages have not.

We concluded there were three major differences.

- Mortgages exhibited the most severe dislocations of any asset class, exposing flaws in both the
 cash flow waterfall and in the collateral that backed the private label securitizations. Most of
 these issues have been corrected.
- Mortgages were the only asset class to experience policy changes that affected investors in already-issued securities. While it is hard to ensure that this will never happen in the future, through the changes discussed in this issue brief(better transparency, better alignment of interests and better communication)will allow investors to have more confidence that they will not be singled out unfairly for losses.
- Securitizations of other asset classes have better alignment of interest between the issuer and the
 investor. Again, most of the investor trust issues that arose from the misalignment of interest
 among the various parties could be mitigated if the changes discussed in this issue brief were
 implemented.

Industry efforts to address the standardization, conflict of interest, transparency and communications are underway. These can somewhat improve the relative economics of securitization. However, a macroeconomic environment in which balance sheet retention of pristine collateral is less attractive, would certainly accelerate the re-emergence of a robust private-label securities market for prime jumbo collateral.

The successful resolution of the issues discussed in this issue brief, and the return of a robust PLS market for pristine collateral are pre-conditions for securitization on less-than-pristine collateral as a vehicle for risk transfer. In the near term, we believe these loans will be held on the balance sheets of private equity funds, money managers and REITs, and securitization will be rare, and occur primarily as a funding vehicle for these assets, not to transfer credit risk. And without a robust financing vehicle, we expect origination of these loans to be fairly limited.

Endnotes

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¹ Mortgages are not included in Exhibit 1 because the scales of issuance are totally different, with mortgages reaching \$1.2 trillion2005 (dropping to \$42.2 billion in 2013), much more than the maximum of \$250 billion in Exhibit 1.

ⁱⁱ See Federal Housing Finance Agency v Nomura Holdings, US District Court, Southern District of New York. http://www.nysd.uscourts.gov/cases/show.php?db=special&id=467

For example, the income based modifications on student loan debt (payments limited to 10-20 percent of a borrower's discretionary income; all unpaid loans forgiven after 20 -25 years) only applied to government guaranteed debt. While the trusts could experience some loss of income, the principal that was ultimately forgiven was guaranteed. And income based modifications are not applicable to private student loans.

^{iv} Risk retention can be considered a change in the rules, but the risk retention guidelines for assets other than mortgages do not go into effect until December 2016, and only affects new securitizations (or refinancing or restructuring of existing deals), Thus, there was no ex-post change in the rules on existing deals, as was the case in the residential mortgage market.

^v Servicing advances is one of the items that is up for re-evaluation. Redwood Trust has adopted a policy where no servicing advances are made after the loan is a given number of months delinquent, replacing servicer discretion with a fixed policy. This does not solve the timeline extension issue.

vi See Federal Housing Finance Agency, FHFA Statement on Eminent Domain, 8/8/2013. http://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Statement-on-Eminent-Domain.aspx

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vii One part of the PLS market has done better than the rest: the so –called "scratch and dent" market, which mostly consists of deals backed by non-performing and re-performing loans. Like auto loan securitizations, these are structured as financing vehicles, where the subordination level is so high as to make the possibility of a credit loss remote, and the subordination is held the owner of the loans. Similarly, beginning in 2013, the market has seen the emergence of single family rental securitizations. These, too, are financing transactions, where the single family rental operator holds significant equity.

viii Historically, government guaranteed student loans were included in securitizations. However, the 2010 elimination of FFELP (Federal Family Education Loan Program) origination in favor of the Direct Student Loan program, in which loans are owned by the Dept. of Education, means the only government loans being securitized are legacy government guaranteed loans, and these are being securitized on a far smaller scale than previously. Thus, the recent growth in the student loan securities market has been in private student loans, which explains the overall drop in issuance in this asset class in Exhibit 1.

^{ix} One of the issues in PLS is whose returns the servicer is trying to maximize. The standard should be to maximize the total value of the collateral, not the value to any one tranche. The interests of the various tranches are not always aligned.

^x The FHLB System was a potential source of financing for these loans, those who held the loans could set up captive insurance subsidiaries to join the FHLB system. However, the FHFA recently prohibited captives from joining the FHLB system (FHFA, 2016)