

Lender CRT With The GSEs: A Closer Look

One of the roadblocks to lender CRT participation has been a lack of knowledge of the risk/reward profile.

By Madeline H. Johnson & Jonathan B. Glowacki

Government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac have participated in limited credit risk transfer (CRT) deals directly with lenders so far. The GSEs have more heavily utilized insurance contracts with reinsurers or created credit-linked note-type transactions through structured agency credit risk (STACR) and Connecticut Avenue securities (CAS) transactions for Freddie Mac and Fannie Mae, respectively. Between 2013 and 2016, the GSEs issued 95 CRT agreements totaling \$46.1 billion, with a reference pool volume of nearly \$1.5 trillion.



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A recently proposed bill in the U.S. House of Representatives would require the GSEs to participate in more CRTs with the private sector. Among other requirements, the bill would create pilot programs to increase CRT with small and midsize lenders. This type of CRT is known as front-end CRT because the CRT agreement is made before the underlying mortgages are originated and guaranteed by the GSEs.

In this article, we will refer to front-end CRT with lenders as lender CRT. Under the 2017 scorecard, the GSEs have been directed to work with the Federal Housing Finance Agency (FHFA) to conduct an analysis and as-

essment of front-end CRT agreements and to take appropriate steps to continue them.

One of the roadblocks for lender CRT participation has been a lack of knowledge and understanding of the risk/reward profile of a potential lender CRT transaction. To help address this issue, we will provide an overview of lender CRT and use public information to demonstrate the expected premium and loss rates for a potential lender CRT transaction.

At this time, lender CRT opportunities with the two GSEs generally offer potentially attractive risk and return profiles, as long as the lender has the capital to participate in the transactions. Lenders considering entering into lender CRT can assume collateral requirements of 1% to 3% of the notional amount of the mortgages, and the capital may be locked up for a period of up to 10 years, depending upon the structure.

Expected returns range from 5% to 20%, based on the structure of the transaction, use of leverage and other considerations. In addition, mortgage credit risk is sensitive to many factors, including economic conditions, borrower behavior and governmental policies. A repeat of the late 2000s housing crisis

could result in significant credit losses for these types of structures.

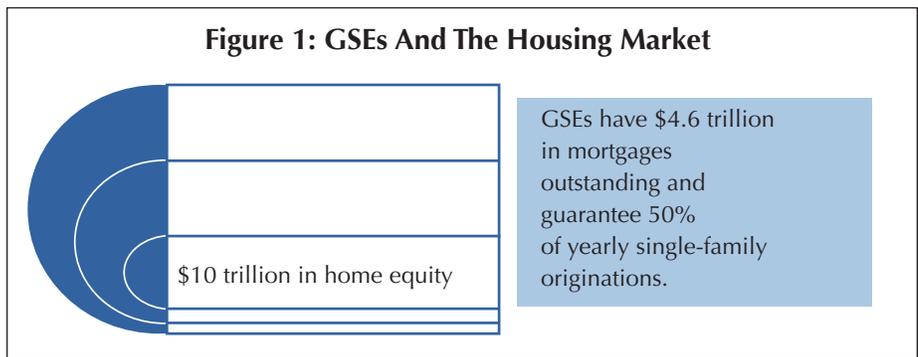
Overview of lender CRT

The GSEs acquire single-family mortgage loans from multiple lenders and create securities backed by those mortgages for sale to investors. In today's securitization process, the lender transfers the credit risk to the GSEs in exchange for paying a guarantee fee, which covers administrative costs, projected credit losses from borrower defaults over the life of the loans, and the cost of holding capital to protect against unexpected credit losses that could occur during stressful macroeconomic conditions. The GSEs' charters require CRT on higher loan-to-value (LTV) mortgages.

One of the goals of CRT is to reduce taxpayer risk by transferring credit risk exposure to the private market while not disrupting



Figure 1: GSEs And The Housing Market



Source: Milliman

the primary markets. This means that the “To Be Announced” (TBA) market is preserved and borrowers can receive loan pricing terms and 30-year products as they do now. However, many of the interested participants in CRT are relatively new to this market, and it is important to understand the risk profile of CRT before participating in such transactions.

Lender CRT analysis: recourse deal overview

Since 2014, the GSEs have been working with a few lenders (often larger lenders) executing recourse lender CRT transactions. These transactions require counterparties to dedicate collateral in an account (“collateral account”) to meet structural and regulatory guidelines. Generally, the proceeds from the sale of the reference securities are used to fund the collateral account. In these recourse transactions, the lenders agree to reimburse the GSEs for a certain percentage of credit losses on the loans in exchange for a fee or a risk premium strip.

As of September 2016, the GSEs have completed 12 upfront transactions totaling over \$11 billion, and all are fully collateralized lender recourse transactions. Three of the 12 transactions were “L Street” transactions executed by Fannie Mae, in which lenders in the transactions have sold most of the risk to other investors as opposed to holding the risk themselves.

The L Street deals required the lenders to establish a special purpose entity to deliver mortgages to Fannie Mae for securitization. The collateral account was created and funded by the lender from the proceeds of the sale of the referenced securities. In the first lender recourse deal, there was a

4.75% credit enhancement from the “M” tranches. This means that the M tranches support the structure prior to any losses paid from the higher tranches. The interest-only strip of 27 basis points (bps) functions as a guarantee fee for the structure. For reference, the average lender guarantee fee has been between 50 bps and 60 bps, according to the most recent FHFA guarantee fee reports.

The interest-only premium strip structure allows the lender to participate in the investment of its originated credit risk. This alignment of interests between the GSE and the lender facilitates the ability to monetize any value beyond capital expenses and expected losses. Depending upon the structure and projected net results, some lenders may be able to realize upfront execution improvements as a result of the lender CRT transaction. This deal was issued in December 2014, and there were other deals executed by PennyMac and Wells Fargo with similar structures.

In a recent transaction with Fannie Mae, PennyMac’s structure included

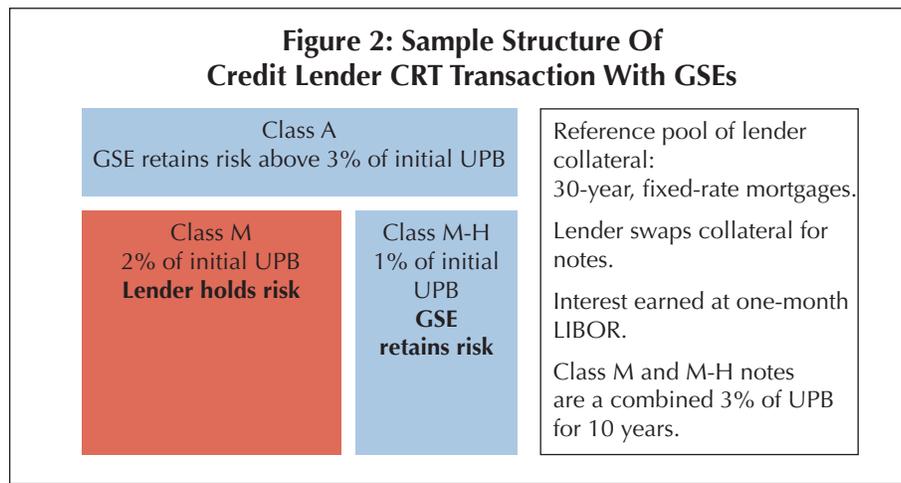
first-loss exposure of 3.5% on \$9.6 billion of mortgage unpaid principal balance (UPB), using a funded cash collateral account. Similar to the L Street transactions, the mortgage loans subject to the lender CRT agreements are transferred by PennyMac to subsidiary trust entities, which sell the mortgage loans into Fannie Mae mortgage loan securitizations and issue cash-collateralized credit guarantees to Fannie Mae.

What is important to understand is that the TBA market is not interrupted in these types of CRT transactions - meaning that mortgage loan pricing for the borrower and origination processes are undisturbed. Additionally, lenders continue to remit their guarantee fees to the GSEs, but the GSEs, in turn, then pay the CRT investors for taking some of this risk.

Opportunities for lenders

Figure 2 shows the general structure of a lender CRT transaction with the GSEs. In general, the lender creates a trust for the transaction and sells its loans into the trust. The trust then sells notes to the lender that are collateralized by the mortgages, and the lender is repaid through principal and interest payments on the notes. This is the same structure as an STACR note. However, with the lender deals, there may not be as many tranches as with an STACR note because the lender CRT transaction can be negotiated with the GSEs to be consistent with the lender’s risk profile as opposed to being designed to meet multiple risk

Figure 2: Sample Structure Of Credit Lender CRT Transaction With GSEs



Source: Milliman

profiles for multiple investors. For the purposes of this article, we assume a single tranche for the lender. The GSE generally participates in a vertical slice of the transaction and retains catastrophic risk (e.g., in excess of 3% of initial UPB).

The interest rate on the notes is equal to a floating rate, such as the one-month LIBOR, and could also include a margin for credit risk. Alternatively, there have also been transactions in which the lender was paid a portion of the guarantee fee (or risk premium) for the life of the collateral. For this example, we will assume a portion of the guarantee fee is paid to the lender as a risk premium strip for the life of the collateral.

To show an example of the analysis required to evaluate a lender CRT

transactions had higher average interest rates and a higher percentage of borrowers with purchase mortgages (compared with refinance). The chart in Figure 3 provides a comparison of the baseline expected default rate using our firm's proprietary mortgage default scoring model. The chart shows that each of the PennyMac CRT trusts has similar average default rates compared with all Fannie Mae acquisitions. We see similar results for estimated loss, given default rates (i.e., the amount of loss incurred by investors in the event of default) between the PennyMac loans and all Fannie Mae deliveries.

Based on the default rate estimate chart in Figure 3, for this analysis, we will assume a baseline default rate of 1.5% for the collateral in a lender CRT

amount divided by the original mortgage amount. We note recent actual severity rates have been lower than 17%, but 17% is consistent with our model output and provides a reasonable long-term estimate for purposes of this article. This severity rate is net of any mortgage insurance coverage. For sensitivity testing, we will assume a severity rate of 17%, 20% and 30% for the three scenarios.

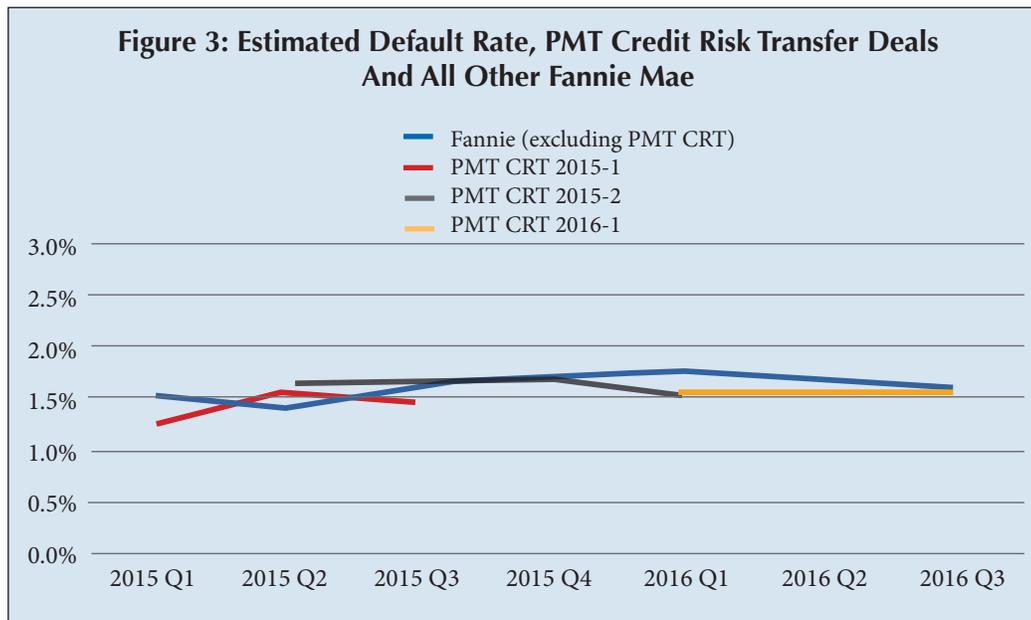
A review of the credit insurance structures between Fannie Mae and the reinsurance community provides insight on the potential fee Fannie Mae charges for certain credit exposures. The insurance premiums for past CRT transactions are approximately 14 bps to 20 bps of the pool and vary depending on the coverage provided. CRT bonds also provide insight into

the potential fee that would be paid to a lender to assume credit risk. For ground-up credit loss to 3.0% of UPB, the credit risk fee for 2016 Fannie Mae CAS bonds has been roughly 10 bps to 15 bps when expressed as a percentage of the original UPB of the pool. The L Street transactions had credit enhancement up to 4.75% and an interest-only strip of 27 bps of the pool. Therefore, we will assume a premium structure of 10 bps, 15 bps and 20 bps for this demonstration.

The table in Figure 4 provides a summary of a simple estimate of the risk and return profile of a hypothetical lender CRT transaction using the aforementioned assumption.

Premium is estimated as the product of the weighted average life for each scenario and the credit risk premium. For simplicity, we assume weighted average life of six years for the baseline, seven years for rising rate and nine years for catastrophic scenarios. In this example, we assume the lender must accumulate CRT-eligible loans over a fill-up period of several months and have the ability to hedge the interest rates exposure and hold the loans on its balance sheet until delivery.

Figure 3: Estimated Default Rate, PMT Credit Risk Transfer Deals And All Other Fannie Mae



Source: Milliman

transaction, we utilized the general structure in Figure 2, along with actual lender data. Using Fannie Mae's loan-level acquisition data, we extracted the loans underlying each of the three PennyMac CRT deals with Fannie Mae and compared them with all Fannie Mae loans to get an understanding of the type of collateral in lender CRT deals relative to the total market. In general, the loans in the PennyMac CRT deals are very similar to all acquisitions in terms of average credit score, LTV ratio and general credit risk profile.

However, the loans in the CRT

transaction. In addition to a baseline scenario, it is important to understand how a transaction might perform in alternative scenarios. Therefore, we will assume a second scenario in a rising interest rate environment (which extends duration and credit events) and a catastrophic scenario similar to the global financial crisis. The default rates for these alternative scenarios are selected to be 2.0% and 5.0% for this demonstration.

Estimated severity rates are assumed to be 17% for the same performance profile of loans; severity rates are defined as the expected loss

From the table in Figure 4, we see that the cumulative risk premium at these levels would be sufficient to cover baseline losses. In a rising interest rate scenario, where we would have extended duration and default activity (because borrowers do not prepay and, therefore, remain in the pool for a longer time, potentially ex-

to the transactions must be carefully considered before entering into discussions on lender CRT. Lenders that have investment vehicles to fund CRT deals will have a competitive advantage in terms of funding costs.

In addition, lenders that service their own loans have the ability to efficiently manage loss mitigation

results, the lender needs to ensure there is sufficient capital to cover the unexpected loss scenario. In addition, the lender may see volatility or benefit from the changes in the buy-up and buy-down grids over time. As part of the secondary manager's best execution process, the lender must evaluate interest-only spreads, as well as credit spreads, to maximize execution on a CRT.

Figure 4: Estimates Of Collateral Loss And Premium

Scenario	Ultimate collateral default rate	Average collateral severity rate	Ultimate collateral loss rate	Credit risk premium @ 10 bps	Credit risk premium @ 15 bps	Credit risk premium @ 20 bps
Expressed as a percent of original UPB of the collateral						
Baseline	1.50%	17%	0.26%	0.60%	0.90%	1.20%
Rising interest rates	2.00%	20%	0.40%	0.70%	1.05%	1.40%
Catastrophic	5.00%	30%	1.50%	0.90%	1.35%	1.80%

Source: Milliman

periencing life events that result in defaults), the models again indicate the premium would be sufficient to cover credit losses. However, in a catastrophic scenario, the risk premium is insufficient to cover losses in two of the three premium scenarios. Lenders need to fully consider and understand the risks and scenarios that would result in a loss before pursuing lender CRT activities with the GSEs.

Lender CRT considerations

In order to participate in lender CRT with the GSEs, lenders must establish internal review policies, evaluate if the transaction meets internal capital return requirements, understand the operational requirements, and perform internal due diligence to evaluate the opportunities. Transaction costs to consider include increased resources in accounting, finance, audit and risk.

In addition to operational considerations and the economics of the cashflows, another consideration is the amount of capital required for the transactions. To manage counterparty credit risk, the GSEs generally require collateral accounts to absorb future credit losses. Capital requirements by the GSEs and others for entering in-

processes, such as loan modifications. These lender/servicers will have greater control over the successful outcome of loans that are able to re-perform after a default.

Lenders must have the ability to efficiently hedge and evaluate best execution alternatives for the production during the fill-up period and be operationally ready for Freddie Mac Participation Certificate or Fannie Mae mortgage-backed securities deliveries. This means that the lender will need to ensure that the net costs of the transaction do not exceed the execution benefits while maintaining a price sheet for its mortgage origination team. The goal for the lender is to implement a process by which the CRT can be repeatable if it remains the best execution for CRT-eligible loans.

If capital and expected loss hurdles are met, lenders may see an opportunity to attract new business and customers at a lower cost to the borrower, thereby increasing competitiveness in certain markets by passing on a portion of the credit risk fee in pricing when aggregating mortgages. This strategy must be weighed against expectations for future losses on the transaction. If the actual results deviate significantly from the expected

Other considerations

Many institutions will need to consider the impact of Basel III¹⁰ and the implications of holding capital for these types of transactions. Although Basel III is not expected to be implemented for all banking institutions for a few years, banks have been evaluating their additional capital requirements

since the proposal was distributed. The lack of "True Sale Treatment¹¹" is also an issue for banks. True Sale, meaning that the assets are the property of the securitization vehicle and not the assets of the originator, allows for the transaction not to be held on a balance sheet, where it would require capital to be held against it.

Lenders have multiple strategies they can employ to manage and participate in CRT. Whether participating in their own risks or purchasing bonds with another originator's risks (such as STACR and CAS), the lender must be prepared to evaluate the structure returns, the risks associated with default and other losses, as well as establish operational infrastructure, to facilitate lender CRT. **SME**

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