

**STATEMENT OF TED DURANT BEFORE THE SENATE COMMITTEE ON BANKING,
HOUSING, AND URBAN AFFAIRS
Hearing on Housing Finance Reform: Fundamentals of Transferring Credit Risk In A
Future Housing Finance System
December 10, 2013**

MGIC HISTORY

Originally formed in 1957 by Milwaukee real estate attorney Max Karl, MGIC was established to provide an innovative, affordable alternative for families wanting to buy a home with less than a 20 percent down payment. In 1965 MGIC became the nation's first publicly traded mortgage insurer. Throughout its history MGIC has been at the center of what has evolved into today's highly efficient secondary market. In addition to providing mortgage insurance, MGIC created the nation's first private secondary market facility that brought buyers and sellers together, was the first to insure mortgage backed pass-through securities, and was the first to form a conventional mortgage securities conduit. In 1971, MGIC created the first modern bond insurance company. With a focus on sustainable homeownership, MGIC has grown to provide a critical component of our country's residential mortgage finance system, protecting mortgage lenders and investors from credit losses.

**THE ROLES OF MORTGAGE INSURANCE AND BOND INSURANCE IN A NEW HOUSING
FINANCE SYSTEM**

We believe that, having survived the recent housing finance crisis and saved taxpayers from \$40 billion of additional losses, the private mortgage insurance model has proven its value and should be a fundamental component of a new housing finance system. The definition of an Eligible Mortgage in S. 1217 recognizes the benefits of loan-level credit enhancement by requiring minimum coverage levels for low down payment loans. However, mortgage insurers can provide an important additional role with the provision of pool-level mortgage insurance.

The role of bond insurer is different but is also an important component of the new housing finance system. Bond insurance was adapted for use in mortgage-backed securities (MBS) from the municipal bond market. Importantly, bond insurers do not, like the GSEs, purchase and aggregate loans for securitization. The role of the bond insurer is to guarantee timely payment of principal and interest to the bondholders in the event of failure of the issuer. In order to provide this guaranty, bond insurers require that the risk of the issuer failing be remote. Bond guarantors generally paid insufficient attention to loan-level credit enhancement on the MBS they guaranteed leading up to the housing crisis. Consequently, most of them failed. Nevertheless, the role of guaranteeing timely payment of principal and interest is an important one and, with the first-loss risk sufficiently transferred to other entities, the bond guarantor model can work.

The new housing finance system envisioned in S. 1217 can be improved by:

1. Clarifying the distinction between mortgage insurance and bond insurance, allowing for both loan-level and pool-level mortgage insurance, and limiting bond insurance to its traditional role of guaranteeing timely payment of principal and interest to bondholders in

the event of failure of the issuer, relying on other, first-loss credit enhancement to ensure that the bond guarantor is in a remote risk position.

2. Recognizing the loss absorbing resources of mortgage insurers in the calculation of private capital at risk in front of the FMIC.
3. Establishing a preference for entities over securities as a means of ensuring a stable supply of capital through the cycle, and relying more on existing regulators of those entities as a means of clarifying the role of FMIC and avoiding a single point of regulatory failure.
4. Clarifying the point of attachment of the government guaranty, and taking into consideration the application of the guaranty to all forms of credit enhancement.
5. Broadening the bill to include comprehensive housing finance reform that establishes consistent, uniform rules that apply regardless of the source of funding for the loans.

WOULD THE BOND GUARANTOR BUSINESS BE ATTRACTIVE?

With those recommended improvements in place, we expect that there will be interest from investors, including companies who write mortgage insurance, to capitalize bond guarantors. However, we expect that the insurance would be provided by separately capitalized and regulated companies who might be jointly owned within a holding company structure. In serving very different purposes, mortgage insurance and bond insurance should be viewed as complementary, not competing forms of mortgage credit risk enhancement. Nevertheless, they should be managed, capitalized, and regulated separately.

The GSEs combined mortgage insurance, bond insurance, mortgage aggregation, and securitization into two excessively powerful entities. As a consequence they were both our largest beneficiaries and our largest competitors. We would be hesitant about competing against entities that are renamed GSEs, who are chartered to provide a combination of mortgage insurance and bond insurance. With years of data and experience as de facto regulators of the MI companies, and currently being in the process of determining new eligibility requirements for MI companies, rehabilitated GSEs set up to be mortgage insurers would have an insurmountable advantage over existing or other new mortgage insurers. Setting up the former GSEs as bond insurers would likely limit investor appetite for creating competition in that business. A healthy housing finance system that minimizes cost to the consumers will require many bond guarantors and many mortgage insurers.

ATTACHMENT OF THE GOVERNMENT GUARANTY

S. 1217 creates two different ways in which the FMIC guaranty could be triggered. In the case of structured finance, such as a senior/subordinate structure, the guaranty would be triggered by the failure of any individual security reaching the subordination level of losses. In the case of a bond guarantor, the guaranty would be triggered by failure of the entity.

Individual securities will be backed by a limited number of loans, possibly all from the same lender and concentrated geographically. They will certainly be originated within a narrow window of time. Thus, individual securities will have a great deal of variation in their performance, and their likelihood of reaching the 10% level will be much greater than a collection of those securities. Using a vintage-level loss trigger eliminates some of the potential lender and geographic risk, but still has a higher likelihood of reaching the trigger level than a collection of securities issued over many

years. As the point of attachment gets farther away from individual securities, the attachment level needed to provide the same level of protection to taxpayers decreases.

In general, the higher the attachment level, the greater the amount of private capital that will be required and, consequently, the higher the fees will need to be to provide the private sector guaranty. This, of course, translates directly to higher costs to the borrower. However, our appetite for participation as mortgage insurers or bond guarantors depends not so much on the level of attachment as it does the equality of the attachment level and capital requirements among all competing forms of mortgage finance. A requirement for a 10% subordination level for individual securities and a 10% capital level for bond guarantors would make the bond guaranty business uncompetitive until the next housing crisis, when investors in subordinate tranches will again abandon the market.

REGULATION OF BOND GUARANTORS AND MORTGAGE INSURERS

Bond guarantors and mortgage insurers, being engaged in insurance activities, are regulated by the states. Regulation of bond insurers or mortgage insurers by FMIC raises significant state-federal questions, adds further complexity to the management of FMIC, and concentrates oversight in a single point of failure.

We believe there are strong arguments in favor of maintaining the existing system of state regulation and federal oversight. Aside from the political challenges of changing the state-federal landscape with respect to insurance, there are good reasons to separate the responsibilities of regulation and prudential oversight from the responsibilities of counterparty risk management. In the housing finance system envisioned by S. 1217, the bond guarantors would hold the counterparty risk of the mortgage insurers, and FMIC would hold the counterparty risk of the bond guarantors. Thus, FMIC is the ultimate counterparty for both bond guarantors and mortgage insurers. As such, it makes sense for FMIC to be responsible for issuing eligibility requirements and monitoring compliance. Giving them full authority for approval and prudential regulation, however, concentrates too much responsibility in one entity that may have conflicting priorities. The recent financial crisis demonstrated the importance of having multiple points of oversight of mortgage insurers, with the majority of companies surviving and continuing to fully pay valid claims.

CONSIDERATIONS FOR CHOOSING RISK TRANSFER TOOLS

HIGHER RISK LOANS REQUIRE LOAN-LEVEL GUARANTEES

A fundamental principle in selecting a form of risk transfer is that, the higher the level of the risk of the loans, the closer the risk transfer should be to the loan level. Any loan with a significant level of risk of loss should require loan-level credit enhancement placed at origination by an entity that is involved in the underwriting, origination, and servicing of the loan.

Safe loans, to borrowers with substantial down payments and income, steady jobs, and strong credit histories, do not require much individual attention. There is very little credit risk to transfer and the entities that acquire the risk can safely do so after the origination of those loans. This lower risk segment of lending is where pool MI and bond insurance are appropriate. This is also the segment in which Fannie Mae and Freddie Mac have undertaken their recent credit risk transfer transactions.

However, as the level of risk increases, it becomes progressively more important to pay attention to the quality of underwriting and verification of the offsetting factors that will help a borrower overcome weak points in their qualifications. Entities that take the credit risk on these loans must participate in and make their credit decisions during the underwriting and origination process. This is a distinguishing feature of loan-level private MI and an important source of protection for the U.S. taxpayer. The use of subordinated tranches and security-level guarantees for the securitization of subprime mortgages, for example, produced disastrous results. The guarantors and the investors in the bonds were too isolated from the underwriting and origination of the loans to understand and manage the true risk they presented. Loan-level mortgage insurance has been proven to reduce the default risk on high LTV loans, demonstrating its effectiveness and justifying its longstanding inclusion in bank capital requirements, GSE charter requirements, QRM statutory language, and the S. 1217 definition of Eligible Mortgage.

DIFFERENTIATION MUST BE MAINTAINED BETWEEN MORTGAGE INSURANCE AND BOND INSURANCE

Bond insurance and mortgage insurance serve two different purposes. Mortgage insurance covers losses to the lender in the event a borrower defaults. Bond insurance covers timely payment of principal and interest to bond investors in the event an issuer defaults. The guaranty of timely principal and interest requires substantial, immediate liquidity in the event of an issuer default, so bond insurers rely on other forms of credit enhancement to ensure that the likelihood of a claim is remote. Mortgage insurance, on the other hand, involves frequent claims at the loan level, but the time between borrower default and the resolution of the claim is substantial (usually well over a year), so liquidity is not as important as overall capital. Those are different business models that require separately capitalized entities for proper risk management.

Importantly, bond insurers should be kept in a remote risk position through a combination of loan attributes and additional credit enhancement. As long as that is the case, bond insurance and mortgage insurance should be thought of as complementary, not competing, forms of credit enhancement.

ENTITY-BASED ENHANCEMENT IS MORE STABLE THAN SECURITY-BASED ENHANCEMENT

Another fundamental goal of housing finance reform should be to ensure the proper supply of capital for mortgages through the economic cycle. People like to refer to two states of the world – “Normal” and “Stress” (See, for example the presentation by James Stock to the Urban Institute 11/13/13, available at <http://www.urban.org/UploadedPDF/412947-Cyclical-Stabilization-and-the-Structure-of-Mortgage-Finance.pdf>). From the perspective of a mortgage insurance company, the period 2003-2007 is not normal, and we should not be trying to get ourselves back to that state. If there is going to be government intervention in mortgage markets, the purpose must be both to ensure sufficient liquidity in a stress and to prevent excessive liquidity in “normal” times. This is only feasible if mortgage credit risk is managed by entities that dedicate their capital, both human and financial, to being in business through the cycle. The illusion of a “best execution” cost advantage of structured transactions is, in reality, the mechanism that creates the boom-bust cycle, providing too much credit in a boom, and no credit in a bust. Entities in the business of creating structured transactions are motivated to make the next deal, creating a very short-term focus on transaction volume. Insurers, in contrast, are motivated to build and maintain a book of insurance

in force that is sized to the amount of capital they have available. This capital level does not change quickly, creating a significantly more stable level of funding capacity through the cycle.

CAPITAL REQUIREMENTS MUST RELATE CONSISTENTLY TO RISK ABSORBED

While it is important for there to be a number of tools available for mortgage credit risk transfer, it is also important for regulators to ensure that capital treatment across the tools is consistent with the risks they bear and the benefits they bring. It is a deceptively simple matter to calculate the amount of “private sector capital” in a senior/subordinate securitization structure. The level of subordination marks a clear dividing point, and the subordinated bonds represent true cash available to absorb losses at the initiation of the transaction. In practice, the level of subordination can be highly affected by prepayments. Complicated interest maintenance mechanisms have to be in place to ensure the sufficiency of the subordination level as the security is paid down. Shifting prepaid principal can significantly alter the prepayment characteristics and, consequently, the valuation of the senior bonds.

The equivalent protection offered by insurers is best measured as loss absorbing capacity, which includes capital, reserves, and premium. Capital and reserves are readily converted to an equivalent of cash. While the forecast of premium is subject to some uncertainty, in practice the forces that cause increased losses also generally cause increased premium (also known as *guarantee fees*) through longer loan lives. Projection of premiums and, thus, the calculation of how much loss absorbing capacity is provided by an insurer should be the kind of task easily performed by a competent regulator.

In addition to correctly calculating the capital requirements for each form of risk transfer, it is vitally important that all of the loss absorbing capacity be included in the calculation of private capital at risk in front of the taxpayers. As written, S. 1217 does not appear to allow for credit for mortgage insurance, for example, to be included in the calculation of whether there is 10% capital. The result will be a significant understatement of the private capital at risk. This will increase borrowing costs and create the disincentive for use of anything other than minimal levels of MI, regardless of the actual economics and amount of risk transferred.

INCENTIVES AND MORAL HAZARD

The phrase “skin in the game” is overused, but it describes an important aspect of designing a sound housing finance systems. All the participants must have some incentive to properly manage risk. Insurers employ a variety of tools to manage the risk of *moral hazard*, in which insurance beneficiaries have the incentive to behave in such a way as to increase the risk to the insurer. Deductibles and coinsurance are two commonly used tools. In mortgage insurance, limited depth of coverage on primary loan-level insurance provides servicers with the incentive to take proper care of delinquent borrowers and minimize the loss severity on defaulting loans. Risk transfer tools should always be designed to ensure that the potential for moral hazard is explicitly managed. Retention of some amount of risk is frequently and appropriately used to accomplish that.

ACCOUNTING TRUE SALE AND CONSOLIDATION

Discussion of risk retention in mortgage securitization must also include consideration of the accounting issues of *true sale* and *consolidation*. One of the primary values of securitization is to create a source of funding that allows the lender to remove the loans from their balance sheet. This occurs when the securitization transaction is considered to be a true sale of the loans to the

securitization entity. Accounting rules, specifically FAS 166 and 167, describe the circumstances under which a true sale of the loans has occurred, and whether the loans must be consolidated back to the lender's balance sheet even if it is considered a true sale. While moral hazard considerations make it desirable for lenders to retain risk, true sale and consolidation issues could cause those risk retention features to make the mechanism unusable. Critical factors for ensuring the securitization successfully transfers the risk include control of the underwriting criteria, control of the servicing, beneficial interest in the securities, and exposure to risk. In Ginnie Mae securitization, the control of underwriting and servicing criteria by the insurers (FHA, VA, RHS) and the position of the government as the ultimate bearer of risk make the federal government the consolidating entity, despite the fact that the lenders, as Ginnie Mae issuer/servicers, retain a portion of the risk. In GSE securitization, there is no question that a lender selling a loan to the GSE constitutes a true sale and there is no consolidation risk back to the lender. However, as private entities, the GSEs should have to consolidate all the loans underlying their guaranteed bonds back to their balance sheets. Under S. 1217, it is not yet clear whether the system envisioned would result in the government being the consolidating entity, or whether private entities would have to consolidate. The resolution of that question will have a significant impact on the feasibility of the system.

BACKGROUND: THE FUNDAMENTALS OF MORTGAGE RISK

Mortgage loans are *secured lending*, meaning that the borrower has pledged her ownership of her house as collateral in case she is unable (or unwilling) to repay the loan. The risk to the lender, then, is determined by both the likelihood of the borrower failing to make her payments and, should that happen, the risk that the value of the property will not be sufficient to pay off the remaining debt. The likelihood of the borrower failing to pay off the loan is referred to as *default incidence* by insurers and *probability of default* (PD) by bankers. The amount that the lender loses, which is the difference between the remaining debt and the value of the property, is referred to as *loss severity* by insurers and *loss given default* (LGD) by bankers.

Default incidence is driven by borrower circumstances, including the amount of equity the borrower has in the property. When the borrower purchases the home, the amount of equity is the down payment. Over time, the property may gain or lose value, the borrower may pay down the loan, or refinance for a greater amount (*cash out*), or take out a second mortgage. All of those events change the borrower's equity in the home. If a borrower takes out additional financing and the home loses value, the borrower may find himself in a position of *negative equity*, also referred to as being *underwater*. A borrower with negative equity, who might otherwise be able to afford to make his mortgage payments, might choose to stop making those payments, in what is called a *strategic default*. Under normal market conditions, most borrowers default because of adverse changes in their personal circumstances, such as job loss, death or disablement, or divorce.

Loss severity is driven by the amount that can be recovered by selling the property, relative to the outstanding debt. In addition, expenses associated with foreclosure, including legal fees, accrued interest, and real estate maintenance and sale expenses, increase loss severity. The longer it takes to complete the process, the greater the loss severity. This results both from the increased expenses and interest, and the deterioration of the property as homes in foreclosure are typically not maintained properly.

Loss mitigation is the reduction of loss severity through a variety of actions by the loan servicer to, first, keep the borrower in the home and, second, minimize the amount of time it takes to resolve

the default. Keeping the borrower in the home often results in an improved outcome for the lender. Techniques for doing this include *forbearance*, in which some amount of the debt is delayed in repayment, and *modification*, in which the term of the loan may be extended, the interest rate reduced, or some portion of the debt forgiven. Another loss mitigation approach is a *short sale*, in which the borrower and lender agree to sell the property for a loss, and the lender then either forgives the remaining debt or the borrower may agree to pay off some portion of the remaining debt as an unsecured loan.

Fraud and misrepresentation are an additional risk in mortgage lending that became more widely recognized in the recent financial crisis. They are more accurately described as *operational risk*, not credit risk, but they have a significant impact on credit risk. Mortgage lenders, investors, and insurers all rely on *representations and warranties* (reps and warrants) from other entities as to the truth of the information on a mortgage application. Borrowers make representations to lenders. Lenders make reps and warrants to investors and insurers. Misrepresentation of facts, either unintentionally or fraudulently, may significantly alter the credit risk of a mortgage loan. For example, if a borrower makes \$40,000 per year and the application shows \$480,000 per year, the borrower will have a substantially greater likelihood of default than what would be expected from the application. Note that this mistake could have occurred because a) the borrower lied, b) the lender changed the information without the borrower's knowledge, or c) an annual income amount was accidentally treated as monthly and multiplied by 12.

The consequences of fraud and misrepresentation have been widespread, particularly in loans originated from 2005-2008. Mortgage insurers that found material fraud and intentional misrepresentation have rescinded coverage, meaning they cancelled the coverage and returned all premiums paid, refusing to pay insurance claims on those loans. Mortgage investors like Freddie Mac and Fannie Mae have required lenders to repurchase billions of dollars of loans. Financial guarantors, having paid significant claim losses on guaranteed pools, have sued and obtained billions of dollars in recoveries from issuers. FHA has recovered billions of dollars from their lenders through indemnification requests and through government fraud suits involving treble damages.

FIRST LOSS EXPOSURE AND THE CREDIT RISK STACK

First loss exposure is a significant concept in secured lending. Most defaults involve a recovery of some amount from sale of the property or continued payment of the modified loan by the borrower. Someone in a first loss position takes losses regardless of how much is recovered, assuming the recovery is not sufficient to pay off the whole loan. For example, if a loan has a balance of \$100,000, and the lender recovers \$70,000 from the sale of the home, the loss is \$30,000. If the lender has mortgage insurance that covers the first 25% of losses, the insurer pays the first 25% * \$100,000 = \$25,000, leaving the lender with the remaining \$5,000 of loss. The remaining loss is referred to as *residual risk* after the first loss position.

Importantly, the first dollar of loss is more at risk than the next dollar. This follows from the uncertainty of how much will be recovered from the sale of the property, and the fact that each additional dollar of recovery is less likely. Put another way, the first dollar of loss will almost certainly be lost in a default, but the last dollar will almost certainly be recovered.

This concept illustrates why down payment is such an important consideration in mortgage lending. The borrower's down payment represents the true first loss position in the transaction. Losses to the lender (and any insurers) only come after the borrower's equity is used up. Greater borrower equity directly lowers the expected severity in the event of default. And, as discussed earlier, greater borrower equity, all else equal, lowers the likelihood of default, as well.

The *credit stack* is often used to illustrate the exposure to loss, as shown in Figure 1. The various entities exposed to risk are shown in a vertical stack, with the first loss position at the bottom, and more remote positions toward the top. If the borrower has equity, they may be shown at the bottom. In this example, the borrower makes a 10% down payment, the mortgage insurer covers 25% of the loan amount, and the investor (Freddie or Fannie) has the residual risk. The amount covered by the mortgage insurer is referred to as the *depth of coverage*. The farther you get from the bottom of the stack, the more remote is your risk.

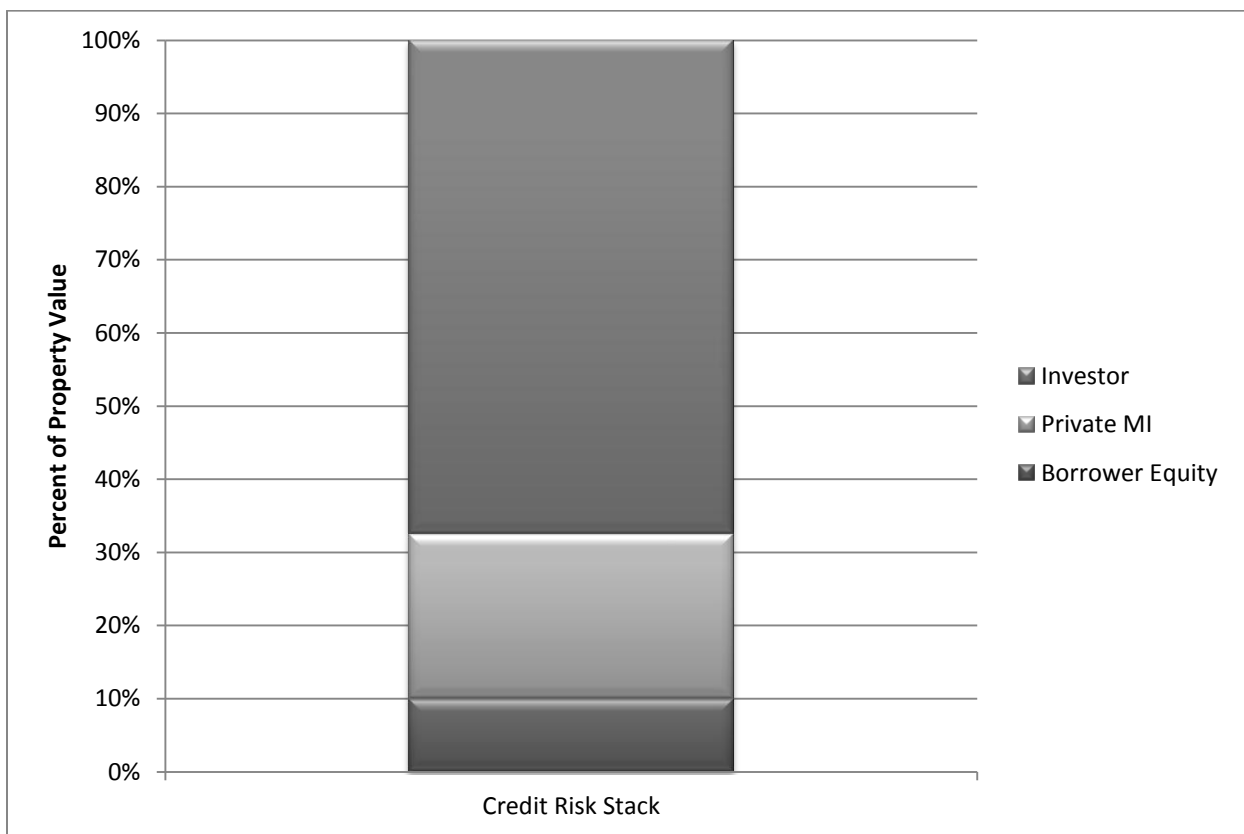


FIGURE 1

Structured securitization involves a similar concept, but it operates on a pool of loans, rather than an individual loan. In a senior-subordinate securitization, the monthly loan payments flow through a *waterfall*, in which the senior bondholders are paid first and the subordinate bondholders receive any remaining payments. In this case, the subordinated holders bear 100% of the severity of each loss, up to the point at which they have lost their remaining principal. At that point, the senior bondholders begin bearing 100% of the severity of each loss. Figure 2 shows a securitization credit stack, which typically does not include the borrower equity. In the example, there is a 10% *subordination level*, in which two subordinate bonds equal 10% of the total debt and senior bonds

equal 90% of the total debt. Just as in the case of the individual loan, the higher you go in the stack, the more remote the likelihood of a loss.

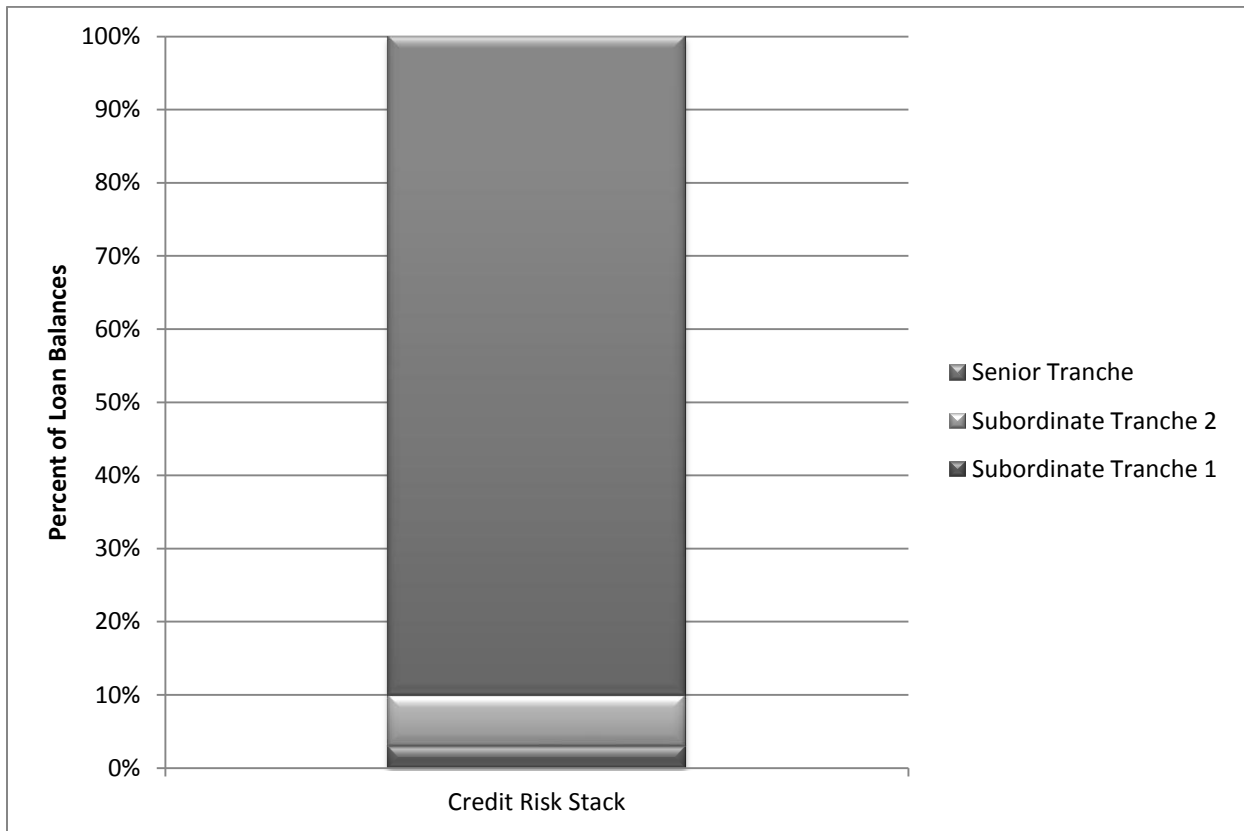


FIGURE 2

FORMS OF MORTGAGE CREDIT RISK TRANSFER

Mortgage credit risk transfer is typically done in two ways, through entities and through structured transactions. These two are not mutually exclusive, and in private securitization often both have been used. Entity-based forms of risk transfer include *mortgage insurance*, *financial guaranty (bond insurance)*, and *reinsurance*. Structured transactions include *surplus notes*, *senior/subordinated (tranching) securitization*, and *synthetic derivatives*.

ENTITY-BASED FORMS OF CREDIT RISK TRANSFER

Mortgage Insurance can be provided by government insurers (FHA, VA, RHS, PIH, Housing Finance Agencies) and by private mortgage insurers. Mortgage insurance typically covers individual loans, though it may also be used on pools of loans. Mortgage insurance is almost always in a first loss position or is used in combination with other mortgage insurance that is in a first loss position. Mortgage insurers control their risk on loan-level insurance through limited depth of coverage, which limits the severity risk but not the incidence risk. In other words, the depth of coverage limits the losses on any individual loan, but does not limit the number of loans on which losses may be paid. Losses paid on one loan do not reduce the insurer's obligation to cover the remaining loans. Pool insurance typically reverses that, covering 100% of the losses on each loan, but limiting the

total losses and, therefore, the total incidence. Once the coverage limit has been reached, remaining loans are uncovered.

Standard private insurance coverage depth today is 30% for loans with a 5% down payment, 25% for loans with 10%, and 12% for loans with 15%. FHA insurance covers 100% of the losses, although their interest reimbursement typically does not cover all of the accrued interest advanced by the servicer. VA insurance generally covers 25%. RHS insurance generally covers 90%.

Mortgage insurance generally requires that the servicer acquire title to the property through foreclosure or complete a short sale in order to file a claim. The insurer then adjusts the claim to ensure the expenses are appropriate and the loss is calculated properly. The insurer also may investigate the loan documents for evidence of fraud or misrepresentation. After the insurer has made any required adjustments and assuming they do not find fraud or misrepresentation, they pay the servicer.

Financial Guaranty (Bond Insurance) can be provided by government entities (Ginnie Mae, for example) or private financial guaranty firms. Private bond insurers, like mortgage insurers, are regulated by state insurance departments. Bond insurance is distinguished from mortgage insurance in that: it always operates at the pool level, never at the loan level; it is always placed in conjunction with a securitization transaction; it generally operates at a zero expected loss level, i.e. a remote level in which some other form of risk transfer is in the first loss position; and it covers the risk of default by the *issuer* of the mortgage-backed security, not by the individual borrowers. Because of that last factor, bond insurers begin making payments to bondholders immediately on default of the issuer. If the bond insurer later finds material fraud and misrepresentation, they must sue the issuer to recover those losses. Bond insurance generally does not have any limit on losses. This combination of features makes it very important that bond insurers place their guarantees on pools of loans that are very safe or sufficiently credit enhanced to make the bond insurer's risk very remote.

Reinsurance can be provided by government entities (e.g. TRIA for terrorism risk, FCIC for crop insurance) or by private insurers. In the private sector, there are global firms that specialize in providing reinsurance across a variety of sectors and risks. They seek to diversify across *uncorrelated risks*, so that their likelihood of facing claims on multiple exposures at the same time is minimized. Like financial guarantors, reinsurers generally operate at remote layers of risk, with some other entity (typically the entity they are reinsuring) taking the first loss position. Government reinsurance is typically used to cover true catastrophic risk such as terrorist attacks, floods, or crop failure.

Mortgage insurers and financial guarantors have similar regulatory rules that are different from other forms of insurance and from other forms of mortgage banking. The primary feature of their regulation is the capital and contingency reserve requirement. Each company must hold a minimum amount of capital, relative to the risk insured. In addition to that capital and *case based reserves*, which are specific reserves for delinquent loans, the company must hold a *contingency reserve*. The contingency reserve requirement is typically to hold 50% of earned premiums for a period of 10 years. Funds may only be released from the reserve in the event that losses exceed a significant level. As a result, mortgage insurers and bond insurers have a unique *counter cyclical capital* requirement, forcing them to accumulate claims paying resources in excess of their minimum capital requirement during profitable periods, which may be drawn upon during periods of significant stress.

Claims paying resources, or loss absorbing resources for an insurer are the sum of their capital, their reserves (including the contingency reserve) and the premium they receive from coverage renewal. These resources form the “private capital at risk” when a mortgage insurer covers a loan.

STRUCTURED FORMS OF RISK TRANSFER

Surplus Notes are a type of debt used by insurance companies to transfer risk to the debt holders. They typically involve a variable rate of interest that depends on the loss performance of the insured risk. As losses to the insurer increase, the payments to the surplus note holders decrease, offsetting the losses to the insurer.

Senior/Subordinate (Tranched) Securitization, as described earlier, strips risk from the underlying loans and transfers most of that risk to the subordinate bondholders, leaving the senior bondholders in a more risk-remote position. Like pool insurance, once the subordinate layer is used up, the remaining loans are no longer protected.

Synthetic derivatives transfer risk to investors through securities whose performance depends on the performance of a *reference pool* of loans. They are similar to surplus notes, in that they feature debt securities that provide a variable rate of return based on the performance of the reference pool. There is not an exact correlation between actual losses and the performance of the pool, however. Recent examples of this approach, like the Freddie Mac STACR transaction, transfer losses to the investors at a fixed severity level when loans reach a specified level of delinquency. As a result, investors are insulated from the consequences, both positive and negative, of loss mitigation and loss severity risk.