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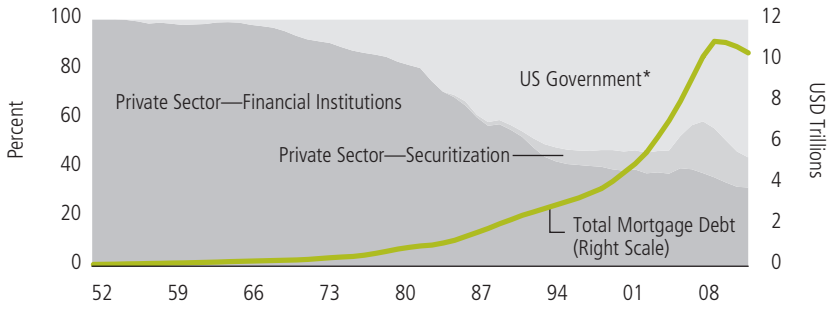
Increasing the Role of Private Capital in the Mortgage Market

The US housing market has enjoyed strong government support for decades. Through various tax incentives and the backing of government-sponsored entities (GSEs) such as Fannie Mae and Freddie Mac, the government helped achieve policy goals such as reducing mortgage rates and promoting home ownership. However, in the wake of the recent financial crisis, many of these policies are now being questioned. Following the 2008 crisis, house prices declined nationwide for the first time since the Great Depression, Fannie and Freddie were placed into conservatorship, and the supply of private capital to the housing market dried up, further expanding the government's footprint in the market (*Display*).

Today, a consensus is growing that the government's role in housing finance should be curbed and that private capital needs to play a greater part. But what are the trade-offs involved in such a policy shift? And what role, if any, should the government play in the future of housing finance?

Against this backdrop, in February 2011, the US Department of the Treasury (Treasury) and the US Department of Housing and Urban Development (HUD) issued a report to Congress: *Reforming America's Housing Finance Market*. (*continued*)

Share of US Mortgage Debt Outstanding



As of December 31, 2010
**Includes mortgage debt issued or guaranteed by GSEs and Federal Housing Administration*
Source: US Federal Reserve

IN THIS PAPER

The future role of the government and private investors in housing finance is a current subject of debate among market participants, policymakers and regulators. In our view, the government's role—while necessary—should be limited to primarily ensure market stability and to promote liquidity through the provision of catastrophic loss insurance behind meaningful private capital. By enabling private investors to provide first-loss capital on an unlevered basis, we believe that over time, the foundations can be set for a less volatile housing market, while minimizing the risk to taxpayers.

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(continued from cover) The report outlined a mortgage market with a decreased government footprint and a greater role for private capital and described three potential options for long-term reform, each having differing degrees of government and private-capital involvement.

We believe that attracting private capital into the US mortgage market is integral toward building a solid foundation to support the market's future growth. Given the size of the market ($10.4 trillion, of which $5.4 trillion is backed by the government), we believe that this transition will need to take place over a long period of time and that decisions should be based on the long-term stability and viability of the mortgage market rather than simply the shorter-term impact on mortgage rates and credit availability.

The purpose of this paper is to advance the discussion regarding how to attract private capital into the mortgage market, based on our perspective as an investor in mortgage assets. Specifically, this paper outlines: (i) our key principles regarding the role of private capital in the mortgage market; (ii) two potential market-based solutions for private capital sharing credit risk with the government; and (iii) a proposed transition path.

Our Key Principles

Our proposed market-based solutions are predicated on the following three key principles:

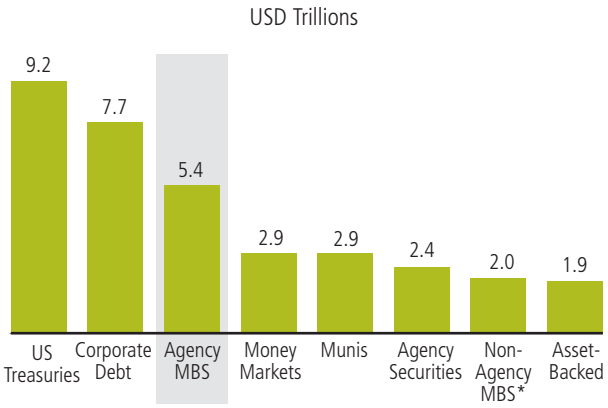
1. US government involvement in the mortgage market is necessary to ensure a stable, well-functioning market.
2. Private investors should provide first-loss capital to the mortgage market to protect taxpayers from losses.
3. Private first-loss capital should be unlevered.

Principle 1: US Government Involvement Is Necessary

While we agree that the role of the government in the housing market needs to be limited, we do not believe that a fully private model for US housing finance is a realistic option. In our view, such a model would constrain credit availability and increase housing-price volatility to an unacceptable degree.

Display 1

US Fixed-Income Market Size



As of June 30, 2011
**Includes residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities*
Source: Securities Industry and Financial Markets Association

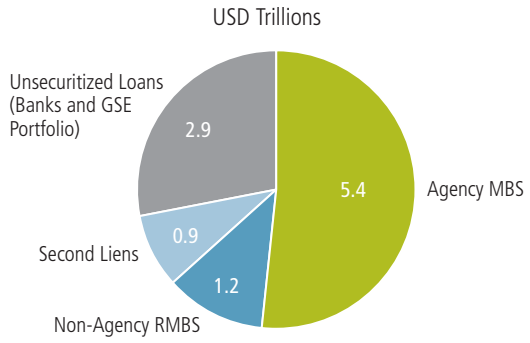
The Agency mortgage-backed securities (MBS) market is one of the largest and most liquid fixed-income markets in the world (*Display 1*).[1] Agency MBS trades primarily based on interest-rate risk and prepayment risk, as opposed to credit risk, because the securities have a government guarantee (implicit in the case of Fannie Mae and Freddie Mac, explicit in the case of Ginnie Mae). The growth of this market has been supported by a large, diverse base of global investors whose primary concerns are liquidity, diversification and incremental yield relative to US Treasuries.

In the absence of a government guarantee, we believe that it is highly unlikely that Agency MBS investors would be willing to assume credit risk. Additionally, the non-Agency market is not large enough to absorb this incremental supply. As a result, mortgage credit intermediation would shift from the capital markets to the banking system. This would increase banks' reliance on wholesale funding because there are not enough deposits in the banking system to finance the incremental asset growth. Furthermore, concentrating more mortgage risk on the balance sheets of large banks could increase systemic risk, posing a threat to financial stability. At a minimum, product

[1]In this document, we refer to the "Agencies," which include Fannie Mae, Freddie Mac and Ginnie Mae, and "Agency MBS," which include mortgage-backed securities issued or guaranteed by Fannie Mae, Freddie Mac or Ginnie Mae. We refer to Fannie Mae and Freddie Mac as the "GSEs."

Display 2

US Residential Mortgage Market



As of June 30, 2011
Source: Amherst Securities

availability would be significantly reduced, credit availability would decline, and the cost of credit would increase appreciably.

Given our view that a pure private market is not a realistic option, we believe that the government's role in housing finance should be clearly defined and that any government guarantee should be appropriately structured and priced. Specifically, we believe that the government's role should be limited to the following key functions:

Support Market Stability: The US mortgage market is approximately $10.4 trillion in size (*Display 2*). Given the mortgage market's size and linkage to the economy, disruptions can introduce volatility to credit availability, house prices and liquidity, while stressing the broader economy.

Promote Liquidity: The supply of Agency MBS supported by a government guarantee is important to the liquidity and stability of global fixed-income markets. In addition to being a core portfolio holding of most institutional fixed-income investors globally, Agency MBS is also used as collateral in the repo and derivatives markets, thereby facilitating additional liquidity, credit-formation and risk-management activities.

Advance Standardization: The GSEs have been successful in promoting standardization, an aspect of their business that should be preserved going forward. The GSEs standardized the residential mortgage loan underwriting process and credit metrics, resulting in cost savings for lenders and borrowers. Going forward, the government can leverage its role to drive further standardization in documentation, data transparency, servicing practices and stakeholder relationships—all critical aspects of the market that need to be addressed before private capital can be expected to take meaningful first-loss risk.

Standardization enabled the To Be Announced (TBA) market to evolve, which has allowed lenders to hedge their origination pipelines and borrowers to lock in mortgage rates. The vast majority of Agency MBS trades occur in the TBA market. TBA contracts are forward contracts for fixed-rate Agency MBS. Trading is based on the six generic parameters of price, issuing Agency, maturity, coupon, par amount and settlement date. The buyer does not know the specific mortgage-pool characteristics—which will also affect prepayment rates—until two days before settlement. The TBA market is made possible by the homogeneous nature of Agency mortgage pools and the absence of credit risk, thanks to a government guarantee.

Preserving the TBA market is critical because it enables mortgage lenders to more efficiently manage risk by locking in sale prices for new mortgage loans before they are funded, allowing borrowers to lock in mortgage rates. Additionally, the liquidity of the TBA market has improved mortgage credit pricing and market functioning.

Provide Catastrophic Loss Insurance Behind Private Capital: Even in a fully private market, we believe that the government will ultimately retain the tail risk of the housing market, given the market's size and systemic importance. We believe that the government should explicitly acknowledge this fact so that the risk can be appropriately priced and structured. Assuming a significant buffer of private capital in front of the government and a robust and thoughtful regulatory regime, we believe that this risk can be effectively managed.

Principle 2: Private Investors Should Provide First-Loss Capital

In order to protect taxpayers from losses, private investors should provide first-loss capital to the mortgage market in front of government catastrophic insurance. We believe that the private market—having multiple participants with different

investment perspectives and levels of risk tolerance—is better positioned than the government to price this risk. In addition, the market for private capital is global in nature, is motivated by maximizing the return on risk capital and is not clouded by national political agendas.

We believe that any private-capital solution should be fully funded in nature (*Display 3*). The leverage inherent in an unfunded structure (i.e., insurance model) could theoretically decrease the cost of mortgage credit in the short run, driven by a lower cost of capital. However, in our view, this would ultimately result in a less stable mortgage market over the long term by concentrating mortgage risk in leveraged institutions whose failure could impair overall market stability. We believe that an unfunded insurance-based structure is flawed for the following reasons:

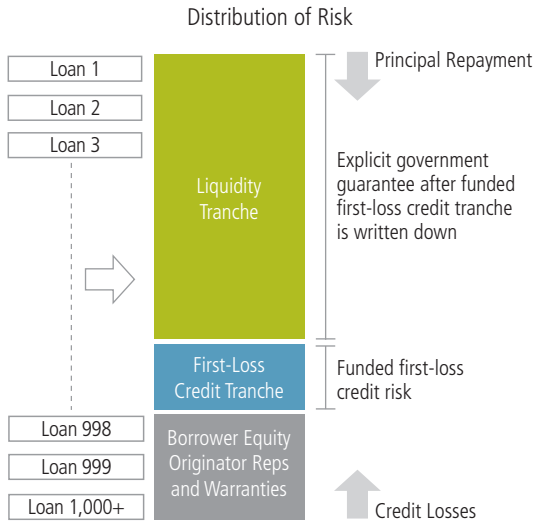
Increases Leverage and Volatility: For insurance companies, insured risk represents a significant multiple of capital (monoline mortgage insurers operate within an insured risk-to-capital ratio of 25:1), and reserves are subject to assumptions regarding loss timing, frequency and severity. This high degree of financial leverage is compounded by the undiversified and procyclical nature of a monoline mortgage-insurance model—in times of stress, losses and reserve requirements increase without the diversification benefits of other business lines, causing access to capital to decrease.

Decreases Transparency: In an unfunded insurance model, the first-loss credit risk would not be directly tradable, so the only way to estimate market pricing would be by reviewing the insurer's financial statements and by observing the price of its publicly traded equity and debt. In the absence of a market to accurately price mortgage credit risk, there would be far less transparency, which would likely increase the cost of credit.

Inconsistent Regulatory Environment: Insurance companies are subject to state-level regulation, which historically has not been strong or consistent. State regulators have a narrower mandate and less access to information and resources, compared with federal regulators. Given the inconsistency inherent in a state-level regulatory regime, the potential for regulatory arbitrage exists.

Display 3

Private-Capital Solution: Transaction Structure



Source: AllianceBernstein

Barriers to Entry: Due to factors such as state-level registration requirements and multiple policyholder relationships, an insurance model is more complex than a funded private-capital solution. This complexity may restrict the competitive landscape.

Investor Bias: Particularly in light of the recent financial crisis, investors are biased against monoline insurers due to counterparty risk and the leverage inherent in such a business model. We believe that under an unfunded insurance-based structure, this bias would reduce the existing "credit-risk-free" investor base. In addition to a smaller investor base, liquidity would likely be constrained during times of credit stress as investors lose faith in the capital adequacy of insurers.

Principle 3: Private First-Loss Capital Should Be Unlevered

In addition to a larger equity buffer in the system via borrower cash-down payments and capital-backed reps and warranties, we believe that "true" equity is needed to absorb the first-loss risk in mortgage finance (which, by definition, is already a highly levered asset). In our view, this capital should come from a stable investor base looking for attractive loss-adjusted re-

turns—for example, savings funds (e.g., pension and sovereign wealth)—as opposed to levered investors, whose demand is largely based on the risk appetite of financing counterparties.

A strict prohibition on investors' ability to leverage the first-loss piece (or similarly, on credit tranching) would transfer the benefit of the mortgage coupon to savers, as opposed to equity investors in levered financial institutions. While this would result in a higher cost of mortgage credit in the near term, we believe that the longer-term benefits of less volatility and a more stable investor base would clearly outweigh the costs. Although an unlevered buyer base would help increase the stability of the mortgage market, we believe that in times of severe market stress, the government should have the ability to increase the amount of loss insurance (i.e., adjust the insurance attachment point) to support a liquid, well-functioning market, consistent with Principle 1.

Price Stability vs. Lower Mortgage Rates

Historically, lawmakers have chosen to minimize mortgage rates through government programs and the tax code. An important part of the financing structure to achieve lower mortgage rates has been the ability to leverage and tranche first-loss credit risk—either embedded in Agency MBS, where the government underwrote 100% of the risk, or in subordinated tranches of non-Agency MBS. This leads to first-loss risk being supported by capital that is a fraction of the actual risk. In periods of escalating losses, the availability of credit becomes volatile, levered institutions become fragile, and the ultimate impact on the housing market is price volatility. While low mortgage rates are an admirable goal, if the cost is price instability in the housing market, we believe that this is too high a price to pay. We believe that the stability of housing prices over time has an outsized impact on US homeowners' store of value and ultimate savings. A slightly elevated cost of financing is a small price to pay to create long-term price stability in what is the largest store of value for the vast majority of US households.

Perspective on Private-Capital-Based Options

The role of private capital in the mortgage market needs to be assessed in the context of the entire credit spectrum, since risk is priced on a relative basis. We believe that multiple structures can be employed for the government to share mortgage risk with private capital. The nature of each structure depends primarily on the credit quality of the underlying mortgage collateral. Generally speaking, as credit risk increases (driven by such factors as a borrower's cash down-payment percentage, credit score, debt-to-income ratio and credit history), the amount of information and contractual rights required to effectively price and manage such risk will increase. Providing investors with these credit-risk-management tools will enable the government to obtain the best risk-based pricing.

One approach to sharing risk with private capital is what we refer to as the Reference Pool approach. We believe that this approach is best suited for the highest quality and most homogeneous mortgage collateral, where an actuarial-based credit underwriting approach can be used. In this structure, the GSE would essentially purchase reinsurance (likely in the form of a credit-linked note) to transfer first-loss risk to private investors based on the performance of a reference pool of mortgages. For example, the GSE could transfer the first 10% loss exposure based on the performance of 2010 vintage 4.5% coupon, 30-year fixed-rate mortgages. In exchange, the investor in the credit-linked note would earn a coupon (a reinsurance premium for taking this risk).

The advantage of this approach is that it preserves the structure of the TBA market, because it is simply a hedging transaction for the GSE to reduce loss exposure. Importantly, the price of this reinsurance would serve as a market mechanism for the pricing of GSE guarantee fees. This type of transaction is not unprecedented. In 1998, Freddie Mac issued credit-linked notes called MODERNs (Mortgage Default Recourse Notes), which transferred first-loss risk exposure on a $20 billion reference pool of mortgages.

For collateral of lower relative credit quality, where investors will likely need to review loan-level information as well as control servicing of delinquent loans, we would suggest an alternative structure that we refer to as the Cash Pool approach. In this structure, the GSE would not buy reinsurance, but would instead simply not guarantee a certain percentage of losses. For example, the GSE would issue two bonds from a securitization: a fully guaranteed TBA-eligible bond representing the top 90%

Display 4

Private-Capital Solution: Precedent Transactions

Freddie Mac MODERNs (Reference Pool)	Freddie Mac K-Series (Cash Pool)
■ In 1998, Freddie Mac issued $243 million in Mortgage Default Recourse Notes (MODERNs), which transferred first-loss exposure on a $20 billion "reference pool" of Freddie Mac mortgages originated in 1996.	■ Structure is similar to private-label (i.e., non-Agency) transactions, with the key distinction that most K-Series tranches have a guarantee for the senior part of the capital structure.
■ Deal included five junior tranches with sequential credit support. Interest on the bonds was funded by Freddie Mac's guarantee fee as well as interest generated by the cash proceeds, which were held in trust.	■ Since 2006, 21 deals have been priced, totaling $21.9 billion; 17 transactions had non-guaranteed credit tranches.
■ Each defaulted mortgage loan was treated as having suffered a loss severity of 27%; thus the deal would experience 100% principal loss once defaults reached ~3.5% (tranche thickness of 95 b.p. ÷ 27%), irrespective of severity.	■ Guarantee fee varies across transactions, depending on subordination and credit quality, and is determined by Freddie Mac.

Source: AllianceBernstein

of the capital structure, and a second non-guaranteed bond that would absorb the first 10% of losses from the loans in *that particular securitization*. There is also precedent for this type of transaction. Since 2006, Freddie Mac has completed nearly 20 transactions in its multifamily business, which included a non-guaranteed first-loss piece distributed to private investors and a guaranteed senior tranche. These issues are called the Freddie Mac K-Series.

Display 4 is a summary of the Freddie Mac MODERNs and K Series transaction structures. One aspect of the MODERNs structure that we do not believe is appropriate is credit tranching of the first-loss piece, as this would likely result in excess volatility in liquidity and prices.

Transition Process and Investor Demand

In transitioning to a mortgage market supported by private capital, multiple private-capital-based options will provide the broadest and deepest investor base and maximize the chances of success over time. While this transition will not happen overnight, certain steps can be taken immediately, beginning with relatively higher-quality, seasoned collateral. For example, the GSEs could begin with Reference Pool transactions based on seasoned collateral. As the market adjusts to the new transaction structure, the GSEs could progress down the credit spectrum using a Cash Pool structure, as well as new originations using both Reference Pool and Cash Pool structures.

We believe that there is secular demand for income-producing assets like first-loss mortgage risk, driven by such factors as an aging population, underfunded retirement liabilities and a multigenerational low-rate environment. As a result, we expect that this asset class would be very attractive for longer-term investors such as pension funds, sovereign-wealth funds and insurers with longer-duration liabilities.

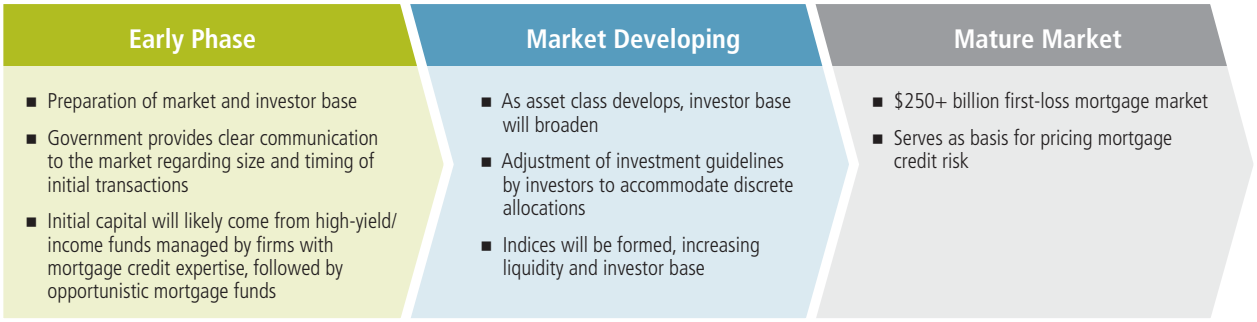
In order to gauge the potential evolution of this new market—which we believe could grow to more than $250 billion in size—it is instructive to examine the growth of the high-yield market. As new investors have entered this market, the outstanding issuance of US high-yield corporate debt has steadily grown over time, reaching some $1.2 trillion today. Additionally, growth of the high-yield market was largely supported by longer-term unlevered investors. While initial investors were largely opportunistic in nature, over time the investor base broadened and investment guidelines were adjusted to accommodate the asset class. We believe that the first-loss mortgage market could potentially evolve in a similar fashion (*Display 5, next page*).

Conclusion

In our view, the government's role in the mortgage market should be limited to supporting market stability and liquidity and to advancing standardization, while providing catastrophic loss insurance behind private capital. The role of private capital should be to price and invest in first-loss mortgage risk. This

Display 5

Private-Capital Solution: Evolution of a New Fixed-Income Sector



Source: AllianceBernstein

would provide an attractive unlevered loss-adjusted return to savers, while giving the government transparent pricing of its residual exposure to the market.

The process of bringing private capital into the mortgage market will take time, and decisions will have to be made regarding the "quality" of housing finance—which we define as longer-term price stability in housing—versus the "quantity," or level of mortgage rates. We are firmly of the view that quality should not be sacrificed for the short-term goal of greater quantity; that is to say, long-term price stability should take precedence over the goal of achieving lower mortgage rates via increased leverage in the system.

Based on precedent transactions, there are steps that the government can take now to begin to transfer risk to private capital. It is important that the government provide clear communication to the market regarding the size and timing of initial transactions in order to build investor support for the development of a new first-loss mortgage market. If these changes are well communicated and the market is structured appropriately, we believe that there is a deep investor base with longer-duration liabilities that is ideally positioned to invest in first-loss mortgage risk over the long term. Ultimately, we believe that these steps will help build a solid foundation for the future growth of this new mortgage market, while reducing volatility in housing prices and minimizing risk to taxpayers. ■

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