

Sustainable Housing Finance:

Private Sector Perspectives on Housing Finance Reform – Part IV

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Introduction

Chairman Hensarling, Ranking Member Waters, distinguished members of the Committee, it is an honor to have the opportunity to provide this testimony regarding the sustainability of housing finance.

My name is Jeff Krohn. I am a Managing Director at Guy Carpenter and have over 25 years of management consulting, financial advisory and (re)insurance experience. I have been at Guy Carpenter for 15 years, where I currently lead our Global Mortgage Credit Practice. While Guy Carpenter is not an insurer, the company occupies a unique position within the mortgage credit reinsurance market. In my role, I oversee all client relationships with our government-sponsored enterprise (GSE) clients: Fannie Mae and Freddie Mac and our private mortgage insurance clients in the United States, Australia, Europe and Canada. I am supported by a large diverse team of colleagues who bring analytical, contract, capital market and financial engineering expertise. Since the global financial crisis, Guy Carpenter has been active in providing syndicated reinsurance protection for many clients.

Guy Carpenter is a business unit of Marsh & McLennan Companies (MMC). MMC operates through four market-leading brands — Guy Carpenter, Oliver Wyman, Marsh and Mercer. MMC is a global network of more than 60,000 experts who provide advice and solutions to clients across an array of industries in the areas of risk, strategy and human capital. In particular, Guy Carpenter assist companies in identifying and mitigating key risks to their business — including risk of mortgage credit default — the risk that consumers are unable to pay their mortgages and default on their homes. MMC is the only major intermediary that is domiciled in the United States and we are proud of that.

Before sharing thoughts on the housing market, I wanted to make you aware that Guy Carpenter is very familiar with syndicating extreme tail risk and helping to reduce risk to U.S. taxpayers. We are the broker for FEMA's National Flood Insurance Program (NFIP) reinsurance program. This program was put into place at January 1, 2017 and proved a success by reducing the burden to Treasury by over USD 1 billion this past year. This placement constituted the first reinsurance program ever placed by a Federal Agency. Guy Carpenter knows how to work with the Federal Government and the global reinsurance market to structure effective risk mitigation strategies.

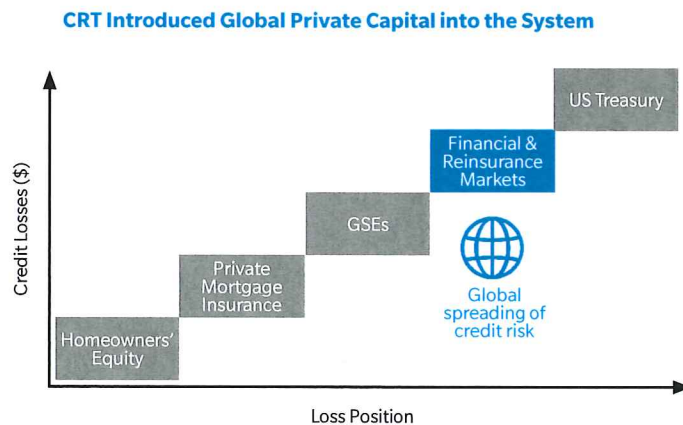
Credit Risk Transfer Background

I would like to offer a few general thoughts and then provide specific commentary on how credit risk transfer is proving to be an effective tool to reduce taxpayer exposure to credit default risk. The U.S. economy enjoys a very strong housing market. Our strong and diverse economy mitigates against any one market segment creating a major disruption in consumers' timely loan payments. However, the global financial crisis revealed a weakness in our system. We found

that there was too high a concentration of risk in a few market participants. The GSEs and private mortgage insurance companies carried all the weight of a major credit default. Several private mortgage insurers went bankrupt and the U.S. government needed to step in to help the GSEs.

In the last five years the GSEs have undergone major reform. Both Fannie Mae and Freddie Mac developed highly automated systems to verify credit scores, employment, consumer financial resources and home valuations. Because of GSE validation of loan information, originators will be able to reduce repurchase of loans that fall outside of guidelines. The massive mortgage data sets of the GSEs, once viewed as proprietary, are now publicly available, allowing investors and reinsurers to perform sophisticated analytics to better evaluate and price credit default risk. These reforms, together with increased transparency, have been vital to improving the loan manufacturing process and making credit risk transfer possible.

In 2013, the Federal Housing Finance Agency (FHFA) mandated Fannie Mae and Freddie Mac to initiate a credit risk transfer program that de-risked the GSEs and protected the U.S. taxpayer by introducing global private capital into the system.



Today, the GSEs transfer a substantial amount of the credit risk of new acquisitions in targeted loan categories to private investors and reinsurers. The programs include credit risk transfers via debt issuances, insurance and reinsurance transactions, senior subordinate securitizations and a variety of lender collateralized recourse transactions. Guy Carpenter has worked first hand with the GSEs on their (re)insurance credit risk transfer programs. We have been a part of the structural innovation and the efforts to reduce credit risk where it has been economically sensible. From the beginning of the credit risk transfer program in 2013, the GSEs have transferred a portion of the credit risk on USD 1.8 trillion of unpaid principal balance to 230 investors and (re)insurers¹. The combined risk in force transferred on these portfolios is in excess of USD 65 billion². Total limit ceded to the reinsurance market to date is USD 14 billion and approximately one quarter of the risk today is transferred programmatically to global reinsurers.

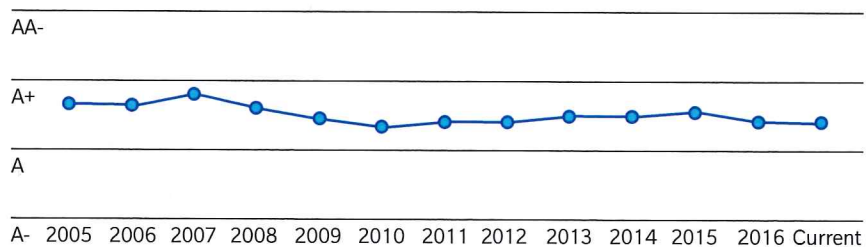
¹ Guy Carpenter, Freddie Mac and Fannie Mae for STACR, ACIS, CAS and CIRT

² AIR, RMS, KCC, CoreLogic, PCS and Guy Carpenter

Global Reinsurance Market

The reinsurance market represents a significant and attractive source of private capital for the GSEs because it bears a small amount of U.S. residential mortgage risk and its other forms of risk are not correlated to mortgage credit risk to any meaningful degree. In aggregate, the natural catastrophe events of 2017, including Hurricanes Harvey, Irma, Maria, multiple earthquakes in Mexico and California wildfires, were the worst in terms of losses in 12 years and have not impaired any reinsurer. Despite handing reinsurers an approximate USD 73 billion industry loss³, these events have not impacted the pricing or available capacity for the various GSE and mortgage insurance reinsurance placements that have transacted since. The stability of the reinsurance market has stood the test of time. The average rating of reinsurers in the Guy Carpenter Mortgage Reinsurer Composite has consistently been in the 'A' range, before, during and after the global financial crisis.

Average S&P Rating



Source: Guy Carpenter and S&P

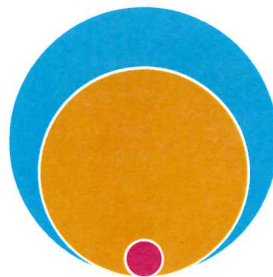
Diversification plays a key factor in the stability of capacity and pricing of the reinsurance market. Like mutual funds that invest in a diversified basket of stocks, reinsurers invest and offer protection across many classes of business and territories, many of which are completely uncorrelated. Typical classes of business written by reinsurers include homeowners, auto, casualty, marine, aviation and professional liability insurance. Reinsurers gain further diversification by writing across multiple territories. Homeowners insurance losses in the United States are generally uncorrelated with homeowners losses in Europe and less so with professional liability in Italy, for instance. Sometimes, reinsurers have aggregations of losses across lines of business in the same event and the recent flooding from Hurricane Irma caused losses across homeowners, auto and flood insurance. Reinsurers recognize these accumulations and have developed sophisticated approaches to manage the downside risk of their portfolio.

³ Guy Carpenter

Hurricane Irma highlighted one of the reasons mortgage credit risk offers an attractive opportunity to reinsurers. It simply does not have any meaningful correlation to most of the other lines of business reinsurers write. Reinsurers can also diversify within the mortgage segment – they can choose to write across the suite of credit risk transfer products including low loan to value (LTV) loans, high LTV loans, 30 year or 15 year loans. Credit risk transfer also offers reinsurers temporal diversity and the ability to assume credit risk over time. Temporal diversity is extremely valuable to reinsurers because loss propensity reduces as pools season under normal circumstances. Additionally, reinsurers appreciate the quality and richness of mortgage data because it allows them to better underwrite and manage their inforce portfolios.

More reinsurers are participating in the credit risk transfer program, reflecting strong and growing interest. Today, almost 35 global reinsurers participate in GSE credit risk transfer programs. The GSEs find these multi-line counterparties attractive because they are geographically diversified, highly-rated, offer consistent capacity, competitive pricing and coverage options not found in other markets.

When losses occur, reinsurers are required to pay claims in less than 30 days. Reinsurers also provide GSEs a valuable feedback mechanism and enforce risk disciplines when pricing and evaluating mortgage pools. The full potential of the reinsurance market has not yet been fully realized. The chart below illustrates the total insurance / reinsurance industry capital and dedicated reinsurance capital relative to the credit risk transfer reinsurance limits placed.



- Top 50 Reinsurer Capital \$727 Billion
- Dedicated Reinsurance Sector Capital \$435 Billion
- GSE CRT Reinsurance Limits \$14 Billion

Source: Guy Carpenter, AM Best, Fannie Mae and Freddie Mac

The reinsurance market will continue to be a significant and attractive source of private capital for years to come.

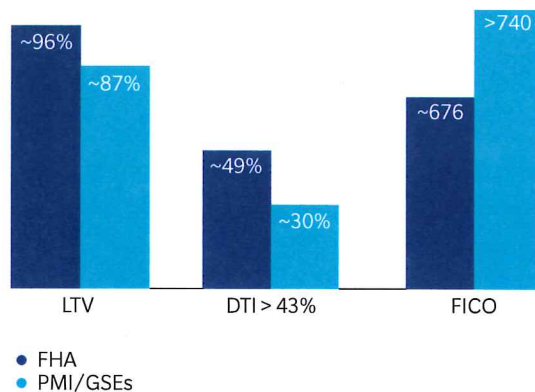
Guy Carpenter's mandate remains to develop broad and diversified reinsurance markets that reduce taxpayer risk, maintain liquidity and help to build a strong housing finance system, while providing transparency and a reasonable return for reinsurers in exchange for the transfer of credit risk.

The Federal Housing Administration and Credit Risk Transfer

The Federal Housing Administration's mission is vitally important for first-time homebuyers, low-income borrowers, and consumers with limited credit history. But, it is not a mission without risk for the U.S. taxpayer. The FHA's focus on these communities leads to an insured portfolio of loans with a credit default risk that, on average, is higher than Fannie Mae, Freddie Mac or private mortgage insurers.

Three factors account for the FHA portfolio's risk profile: higher loan-to-value LTV ratios, greater borrower debt-to-income ratios (DTIs), and lower FICO credit scores. Loans with a higher LTV have less equity to cushion a default. Loans with a greater DTI rely on a greater percentage of an individual's income to service the debt, thus job loss or illness could lead to default. Similarly, loans based on a lower FICO credit score have a higher default rate. Naturally, there are many specific instances that run counter to the broad generalization, but loans with these characteristics are proven to have a higher propensity for default risk. The chart below illustrates how the FHA's mortgage portfolio compares to portfolios for PMIs and GSEs.

FHA has higher LTVs, higher DTIs and lower FICO credit scores



Sources: Cited reports by HFPC, AEI, and HUD

In addition to these risk factors, the FHA offers deeper coverage than the PMIs, which increases its exposure to default risk. The mortgage insurance coverage provided by the FHA transfers the risk of the entire loan balance to the FHA. Whereas, private mortgage insurance, on average, covers the first 25 percent of risk and Fannie Mae and Freddie Mac retain the remainder.

As part of the recent reforms, the GSEs now require PMIs to hold almost twice the amount of capital per dollar of risk than they did before the crisis. The FHA's capital requirements to support its portfolio risk remain low. The latest actuarial report estimates the Mutual Mortgage Insurance Fund to be at 2.09 percent — barely above the 2 percent minimum threshold. This capital calculation includes future annual premium that has not yet been received.

In short, the FHA's mission leads it to provide broader coverage on a pool of loans that is riskier than those held by the PMIs and GSEs. Furthermore, the FHA lacks a risk transfer mechanism similar to the one developed by the PMIs and GSEs to help manage default risk. The question policymakers frequently grapple with is how to manage the tension between the FHA's mission and the need to protect taxpayers against FHA's potential losses.

Guy Carpenter believes the FHA should explore ways to introduce private capital to effectively manage its credit risk. Ultimately, the FHA might develop a credit risk transfer mechanism similar to the approach successfully used by the GSEs. Such a program would reduce risks to the U.S. taxpayer and enable the FHA to fulfill its mission.

Beyond using diverse sources of private capital to reduce FHA risk and losses, a credit risk transfer program would transform the FHA's understanding of its mortgage portfolio. A market-like view of risk would provide valuable feedback and insights to FHA's management and policymakers. Real time information could be incorporated into the FHA's insurance premium rates, underwriting guidelines, and loan programs.

Congress and the Administration are currently considering a number of policy options to help mitigate the loss potential to the FHA. Guy Carpenter recommends that policymakers evaluate whether a credit risk transfer program could strengthen the FHA to the benefit of homebuyers and taxpayers alike. Our experience designing similar programs for the GSEs and private mortgage insurers lead us to believe that private capital and reinsurance credit risk transfer could support the FHA, promote a more sustainable housing finance system, and insulate the program against losses, especially during macro-economic disruptions.

Thank you again for the opportunity to provide this testimony. I welcome the opportunity to answer any questions you may have.