DERISKING THE U.S. GOVERNMENT'S BALANCE SHEET:
Protecting Taxpayers, Reducing Risks, Promoting National Objectives

by

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ABSTRACT

The derisking of all federal credit, guarantee, and insurance programs on the U.S. Government's balance sheet would be good for the United States. As broader fiscal policy issues are debated this year and next, derisking should be a national priority for the Administration and Congress. Derisking federal programs by transferring risk is a tested and widely accepted risk management tool to mitigate the real world impact of potential losses. Precedents exist across the federal government that successfully utilize de-risking to limit or eliminate taxpayer exposure, provide enhanced price discovery to government administrators, and increase liquidity in certain government programs.

Derisking has three primary benefits for the U.S. economy. First, it protects taxpayers from potential losses by eliminating significant portions of risk in federal credit and insurance programs. Second, it gives the U.S. government a critical risk management tool to reduce potential losses by proactively managing and mitigating these embedded and possibly excessive risks. Third, derisking promotes national policy objectives in both the public and private sectors. The tragic impact of Hurricanes Harvey and Irma proves these three points: based on prior Congressional authorization, the Federal Emergency Management Agency (FEMA) purchased reinsurance from a panel of private reinsurers, which could generate up to $1 billion of taxpayer protection from Harvey and Irma related losses. Additionally, any losses arising from mortgage credit defaults related to Harvey and Irma will be covered by the housing GSEs for all related credit risk transactions they initiated with the private sector prior to these tragic events.

Groups such as Moody's Analytics, the Urban Institute, and the Center for Responsible Lending have acknowledged the economic benefits of derisking. Moreover, Moody's Analytics has concluded that the federal government is *not* overpaying for the cost of CRT protection to derisk the housing government-sponsored enterprises. Consequently, derisking the government's balance sheet can and should be expanded to all pertinent federal programs on a comprehensive and consistent basis where it makes economic sense to do so.

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EXECUTIVE SUMMARY

The comprehensive and consistent derisking of all federal credit, guarantee, and insurance programs on the balance sheet of the U.S. Government (USG) would be good for the United States. As broader fiscal policy issues are debated this year and next, derisking should be a national priority for the Administration and Congress. In this paper, derisking is defined as a proven risk management tool to transfer credit risk (credit risk transfer, or CRT) and other potential risks currently embedded in the federal government's loan, guarantee, and insurance programs to the private sector through a variety of structures and instruments on market-based terms and conditions.[1]

Derisking federal programs by transferring risk is a tested and widely accepted risk management tool to mitigate the real world impact of potential losses from either large-scale defaults (e.g., housing foreclosures leading to losses in otherwise benign economic conditions) or claims from extraordinary catastrophes (e.g., hurricanes, floods). Precedents already exist in housing finance, trade finance, and flood protection, which clearly establish the ability of different federal agencies to work with the private sector to manage their risks and mitigate potential losses embedded in their portfolios. The trade finance and flood protection precedents were established by Congress. The housing finance precedent was instigated by the federal regulator and conservator as a remedy to reduce the impact of any future housing finance crisis on U.S. taxpayers, especially since two of the housing government-sponsored enterprises (GSEs) will run out of capital by the end of 2017.

Derisking provides three tangible benefits for the U.S. economy:

1. **Protects taxpayers**. Derisking the federal government's ever expanding balance sheet will protect taxpayers from potential losses by eliminating significant portions of embedded risk, thereby reducing the loss impact of future defaults or claims on outstanding U.S.-backed loans, guarantees, or insurance policies. Taxpayer exposure to potential losses in the future is swapped out today to the private sector, which is better positioned to manage that risk and absorb any such losses. Reducing the government's risk profile in this way decreases the chance of any future taxpayer assistance.

2. **Reduces the USG's risk profile**. Derisking is a critical risk management tool to reduce the government's risk profile by proactively managing and mitigating embedded and possibly excessive risk in numerous agencies' portfolios.

[1] The Federal Housing Finance Agency defines credit risk transfer as: "Credit risk transfer occurs when a party exposed to credit risk transfers some or all of that risk to another party, usually accompanied by the payment of a fee for the other party's assumption of that risk." Federal Housing Finance Agency, *Credit Risk Transfer Report*, December 2016, 23; https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/CRTProgressReport_Dec2016.pdf.

a. *Advances better risk management.* Derisking advances the USG's risk management practices by giving it new tools for its risk management tool kit: enhanced transparency and improved price discovery for existing and future risks (e.g., clearer views of market bid/ask spreads); access to more and better information on the benefits and costs of government programs; continuing risk knowledge transfer; and ongoing engagement with private market participants with real-time market information.

b. *Reduces systemic risk.* Derisking has the added benefit of reducing potential systemic risks embedded in what essentially are mono-line businesses run by a variety of federal agencies with different missions and varying risk management policies and practices. Moreover, just as derisking helps to make the USG portfolio of risks more liquid and transferable, it simultaneously helps to increase liquidity in both private capital and insurance markets.

3. **Promotes national economic objectives**. Derisking makes it easier to achieve broad national objectives in both the public and private sectors.

    a. *Fulfills public mandates.* Derisking helps government officials focus on their agency's mission and fulfill their statutory mandate without having to worry daily about potential financial losses from embedded risks in their individual portfolios. Loss prevention and mitigation through better risk management enable federal programs such as affordable housing finance or flood protection to flourish where there is a predetermined societal need and statutory requirement. Moreover, derisking also attracts private capital and market expertise to support government programs.

    b. *Creates private market opportunities*. By dispersing and diversifying the federal government's risk, derisking simultaneously creates new private market opportunities and expands diversification and liquidity for asset managers, pension funds, insurance companies, reinsurers, and others through new investment instruments and insurance structures at competitive prices. The government pays a market-based fee to the private sector to transfer its embedded risks as a means to lessen potentially large losses after a future calamity, working much the same way as homeowner's insurance, for example.

Taken collectively, these three benefits should be a net positive for the U.S. economy. Groups such as Moody's Analytics, the Urban Institute, and the Center for Responsible Lending have acknowledged the economic benefits, and support the continuance and expansion of derisking as a way to attract more private capital and broader risk management expertise to both support federal programs and protect taxpayers. Moody's Analytics has concluded that the federal government is *not* overpaying for the cost of CRT protection to derisk the housing GSEs.

Moreover, Hurricanes Harvey and Irma validate each of these three benefits in real time. Based on prior Congressional authorization, the Federal Emergency Management Agency (FEMA) was able to derisk this year prior to these hurricanes; consequently, it will limit its flood-related losses from these once-in-centuries events, saving taxpayers an estimated $850 million as a result. Additionally, any losses arising from mortgage credit defaults related to Hurricanes Harvey and Irma will be covered by the housing GSEs for all related CRT transactions they initiated with the private sector prior to these tragic events.

The USG has taken preliminary steps to derisk several federal programs to capture these economic benefits. These early, *ad hoc* steps have proven the viability and importance of risk transfer as an appropriate risk management tool and its potential application to other federal programs where the government's risk can be better identified, measured, and priced, before being dispersed and diversified safely and efficiently in private markets throughout the world. Going forward, there are other logical near-term opportunities to capture these same benefits in other government programs.

Derisking the entire USG balance sheet can and should be extended to the maximum extent feasible. A path forward to derisk applicable federal programs on a comprehensive and consistent basis where it makes economic sense includes: establishing a clear national risk mandate across the federal government's entire portfolio of lending, guarantee, and insurance programs; agreeing on guiding risk management, mitigation, and transfer principles; designing viable pilot programs and actionable strategic plans tailored for each agency; and ensuring the necessary transparency, oversight, and accountability going forward.

INTRODUCTION

Derisking of the federal balance sheet is a proven concept and risk management tool initiated by a combination of Congressional and agency actions. For example, in 2013 the Federal Housing Finance Agency (FHFA) launched derisking initiatives at the two housing finance GSEs – the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). This FHFA initiative instituted the transfer of a portion of their respective mortgage credit risk to the private sector through a variety of investment, insurance, and reinsurance instruments. More recently, Congress enabled a trade finance risk sharing pilot project when it reauthorized the Export-Import Bank of the United States (EXIM Bank) in 2015.[2] Starting in 2016, the Federal Emergency Management Agency (FEMA) within the Department of Homeland Security derisked a portion of its flood insurance program through reinsurance markets.

This white paper is divided into three sections. The first section reviews the recent derisking initiatives of the GSEs, EXIM Bank, and FEMA, which collectively prove the viability and importance of derisking as a useful risk management tool. The second section examines the real potential to expand the current derisking success to other federal programs; currently, there is no

[2] The Export-Import Bank of the United States ("EXIM Bank") is the official export-credit agency of the United States. EXIM is an independent, self-sustaining executive agency and a wholly-owned U.S. government corporation.

explicit U.S. policy mandate on derisking. In the near-to-medium term, there are several immediate opportunities to expand derisking, and thus further demonstrate its universal application. The final section explores the unique opportunity that exists now to extend derisking to all other applicable federal lending, guarantee, and insurance programs on a more comprehensive, consistent, and self-sustaining basis. To achieve this worthwhile goal, the Administration and Congress should adopt a national policy to derisk all applicable federal programs as much as is economically viable. This objective can be accomplished through a series of actionable, fully transparent steps grounded in sound economic and risk analysis, competitive market mechanisms, regular public reporting, and ongoing Congressional oversight.

I. CURRENT INITIATIVES VALIDATE DERISKING BENEFITS

Derisking is defined as a proven risk management tool to transfer credit risk (credit risk transfer, or CRT) and other potential risks currently embedded in the federal government's loan, guarantee, and insurance programs to the private sector through a variety of structures and instruments on market-based terms and conditions. Potential taxpayer risk from future losses due to credit defaults or insurance claims is swapped out today to the private sector, which is better able to manage and distribute that risk to the capital, insurance, and reinsurance markets. Three recent initiatives spanning housing finance, trade finance, and flood insurance validate risk transfer and demonstrate its tangible benefits. Each of these three initiatives is reviewed in more detail below.

FHFA Housing GSE Initiative - 2013

Fannie Mae and Freddie Mac have been in conservatorship since 2008, with significant support from the U.S. Treasury. Starting in 2013, these GSEs launched their first major derisking programs to transfer a portion of their respective credit risk to the private sector through a variety of investment, insurance, and reinsurance instruments. The GSEs did so as a result of the 2012 initiative of their primary regulator, the FHFA. This first derisking initiative was based on the GSEs' existing charters and is consistent with the terms and conditions of their now almost 10-year conservatorship. The FHFA's 2012 initiative was designed purposely to reduce the GSE's existing risk profile and any future potential risk they may pose to taxpayers as long as they remain in conservatorship.[3]

As background, both Fannie Mae and Freddie Mac provide funding and liquidity to help sustain the private mortgage markets in the United States. They acquire mortgage loans from lenders, sell securities backed by those mortgages to investors (mortgage-backed securities (MBSs)), and ultimately guarantee the timely payment of principal and interest on those MBSs. In doing so, they assume the credit risk for the loans they buy and securitize. For this service, the GSEs charge a fee to cover the credit risk they assume – that is, the risk of loss that results from non-payment by the mortgage borrowers. Ultimately, without any risk management intervention such as CRT, taxpayers are exposed potentially to any and all of the credit risk on the books of Fannie Mae and Freddie Mac in the event of loss arising from defaults.

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[3] Federal Housing Finance Agency: *A Strategic Plan for Enterprise Conservatorships: The Next Chapter in a Story that Needs an Ending*, September 21, 2012; https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/20120221_StrategicPlanConservatorships_508.pdf.

The FHFA's "2014 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac" (2014 Strategic Plan) effectively codified CRT as an ongoing strategic imperative for the GSEs. The second pillar of the 2014 Strategic Plan is labelled: "REDUCE Taxpayer Risk through increasing the Role of Private Capital in the Mortgage Market." The first two core aspects of this second pillar are to deepen the CRT for single-family mortgages and continue to share credit risk with private market participants for multi-family transactions.[4]

To reduce the GSEs' credit risk, the FHFA's 2014 Strategic Plan reaffirmed its prior derisking effort in which the private sector – through a variety of investment and insurance instruments – assumes a sizeable portion of the GSEs' current credit risk in exchange for receiving a portion of the guarantee fees they charge. Moreover, the latest plan required Fannie Mae and Freddie Mac to increase or deepen the amount of CRT to the private sector through a variety of different programs and instruments as a means of further reducing any potential taxpayer exposure. The purpose of this specific part of the 2014 Strategic Plan was to enhance the prospects for a "broad, diversified, and sustainable investor base" through all parts of the business cycle.[5] As a result, the GSE's current derisking programs have become a core part of their single-family guarantee business by integrating their respective corporate strategies with their own internal enterprise-wide risk management.

To date, the GSEs collectively have removed almost $50 billion in credit risk (i.e., risk in force (RIF)) from their balance sheets while in conservatorship through CRT. By transferring risk in this way from the federal government to private financial markets, the GSEs are limiting their liability, reducing the capital they need to hold against that risk, and simultaneously reducing any potential taxpayer exposure in the future (**Exhibit 1**).[6]

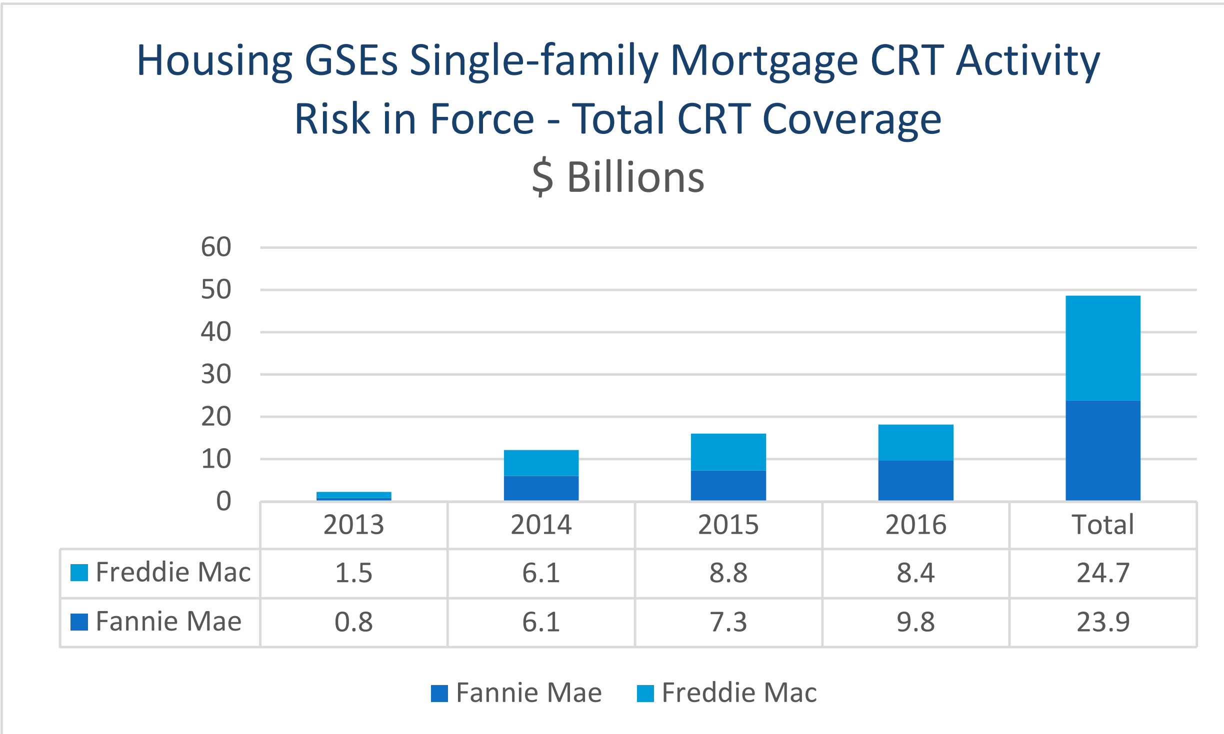
In fact, this amount of RIF represents a substantial transfer of mortgage credit risk – roughly 50 percent of the risk associated with newly-originated mortgages. Where there is meaningful mortgage credit risk, it is being transferred; where there is de minimis risk, it is not being transferred. There is little need for CRT for mortgages with loan-to-value (LTV) ratios of 50 percent, for example; even if some of these default, there is less chance of ultimate loss. Some remaining low residual risk naturally runs off over time as mortgages are paid off, so there is little need to transfer this low-risk component on the GSE's balance sheet.

Moreover, as part of their core business practices, the FHFA has a mandate that Freddie Mac and Fannie Mae transfer a meaningful portion of credit risk on at least 90 percent of the unpaid principal balance (UPB) of newly acquired single-family mortgages in targeted loan categories. For 2017, these targeted single-family loan categories for CRT include: non-HARP and non-high LTV refinance, fixed-rate mortgages with terms greater than 20 years and LTV ratios above 60 percent. For multifamily CRTs, the target is 80 percent of UPB. In addition, the FHFA requires that the housing GSEs also continue their ongoing efforts to evaluate and implement

[4] Federal Housing Finance Agency, *The 2014 Strategic Plan for the Conservatorship of Fannie Mae and Freddie Mac*, May 13, 2014; https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2014StrategicPlan05132014Final.pdf.
[5] Id.
[6] Federal Housing Finance Agency, *Credit Risk Transfer Progress Report*, December 2016, 2-3; https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/CRTProgressReport_Dec2016.pdf.

economically feasible ways to transfer credit risk on other types of newly acquired single-family and multi-family mortgages that are not included in their existing targeted loan categories.[7]

<u>Exhibit 1 – Housing GSEs Have Removed $50 Billion in Credit Risk</u>



In addition to Fannie Mae and Freddie Mac's CRT programs for both single-family and multi-family mortgages, they also have statutory requirements to have some form of credit enhancement on all mortgages they acquire with a LTV ratio higher than 80 percent. Private mortgage insurance (PMI) is the principal form of this type of credit enhancement at the front-end of the transaction prior to acquisition by the GSEs. In this case, the RIF is the amount of insurance coverage, and equals the GSEs' total risk exposure to its PMI counterparties. **Exhibit 2** shows the total PMI RIF of about $185 billion between 2013 and 2016 on roughly $731 billion in UPB.[8]

The GSE's business strategy to transfer credit risk is guided by a set of principles imposed by the FHFA (See Appendix 1). Among other things, the FHFA's second principle requires that CRT be done only in a manner that is economically sensible: that is, the cost of transferring credit risk to the private sector to protect taxpayers does not meaningfully exceed the cost to the GSEs of self-insuring the credit risk so transferred, which has been the case to date.[9] A recent Moody's

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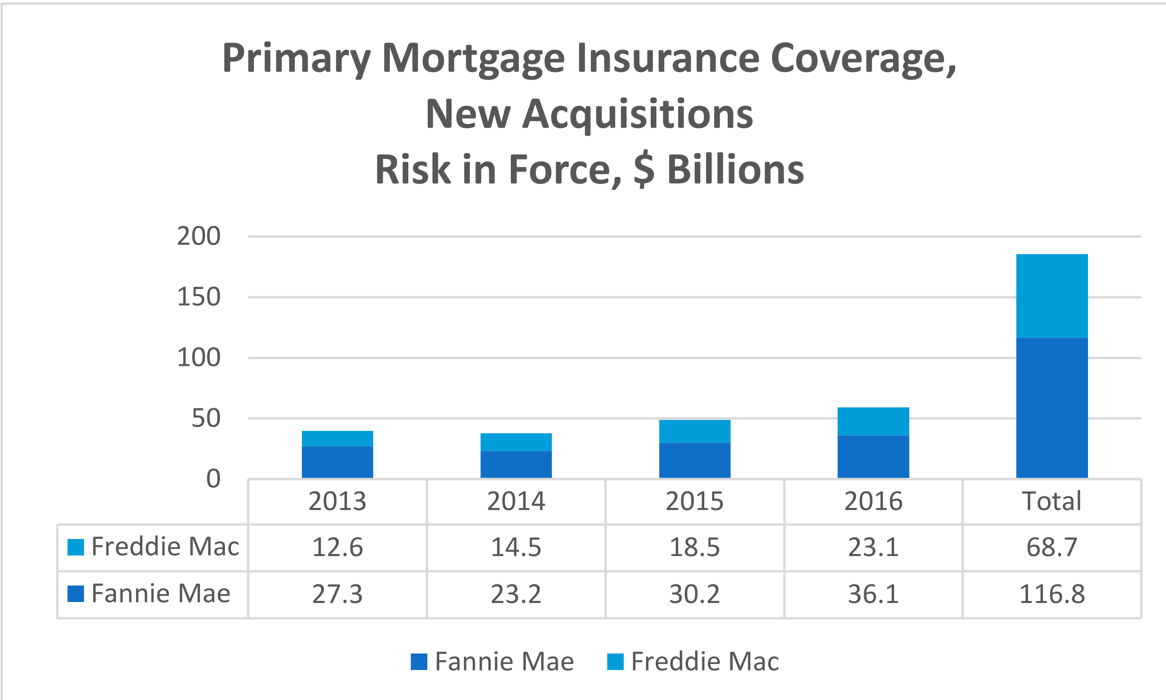
[7] Federal Housing Finance Agency, *2017 Scorecard for Freddie Mac, Fannie Mae, and Common Securitization Solutions*, December 15, 2016, 5; https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2017-Scorecard-for-Fannie-Mae-Freddie-Mac-and-CSS.pdf.

[8] Id., 15-16.

[9] Federal Housing Finance Agency, *Credit Risk Transfer Report*, December 2016, 22.

Analytics report discussed below confirms the application of this principle by both Fannie Mae and Freddie Mac.

<u>Exhibit 2 – Housing GSEs PMI Covers $185 Billion Risk in Force (2013-2016)</u>



Consequently, the GSE's CRT programs have become an integral part of their strategy to attract more private capital to the mortgage markets and their single-family credit guarantee business. Since 2012, they have fulfilled their regulatory imposed mandate to transfer their credit risk off the books of their conservatorship and into the private sector to protect taxpayers. Fannie Mae and Freddie Mac have transferred the majority of their mortgage credit risk to private investors through a variety of instruments, including: debt issuances, insurance/reinsurance transactions, senior-subordinate securitizations, and a variety of lender collateralized recourse transactions. Moreover, as detailed in the yearly Conservatorship Scorecard, the GSEs continue to explore and experiment with other instruments and structures where it is economically feasible to do so.[10]

The Urban Institute has issued a series of reports on risk sharing since the GSEs made risk transfer a core part of their business strategy. For example, in a 2016 study, the Urban Institute reviewed the GSEs progress under the FHFA's 2016 scorecard and discussed the importance and challenges of expanding the private sector investor base in CRT to attract adequate capital to the U.S. finance system. It concluded:

> Policymakers agree nearly universally that the housing finance system needs to attract more private capital…Policymakers also broadly support a future housing finance system

[10] Federal Housing Finance Agency, *2016 Scorecard Progress Report*, March 2017, 16-18; https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/2016-Scorecard-Progress-Report.pdf.

> in which the taxpayer's risk is insulated behind significant private capital…So it is important that the FHFA not only maximizes the amount of risk shared through these transactions, but that it do so in a way that increases our understanding of what kind of system we should be migrating toward. This means expanding the range of structures that appear promising and broadening and deepening the marker for them so we can test their full potential. The responsibilities that the FHFA has laid out for the GSEs in the 2016 scorecard should do precisely this.[11]

In a subsequent report issued jointly by the Urban Institute and Moody's Analytics, the authors examined several ways to improve risk sharing by the GSEs under their existing FHFA mandate. They recommended steps to improve price discovery and broaden participation by different sources of private capital, including institution-based capital such as reinsurance, lender recourse across lenders of all sizes, and catastrophic risk transfers among others. Based on their research and analysis, the authors concluded:

> The government-sponsored enterprises credit risk transfer process is one of the most important innovations in the housing finance system since the financial crisis…The credit risk transfer programs…have provided a way out of the impasse by shifting the taxpayers' risk to the private market incrementally, giving policymakers a chance to judge which approaches make the most sense as they develop. This pragmatic way of reducing taxpayer exposure in the mortgage market is not only an intelligent way to put today's system on more solid footing, but it helps lay the foundation for building the future housing finance system.[12]

During the 115th Congress, efforts have started to bring the GSEs out of conservatorship. In the U.S. Senate, Senator Mike Crapo (R-ID), chairman of the Banking, Housing, and Urban Affairs Committee, launched a series of hearings on housing finance reforms. Hon. Melvin Watt, Director of the FHFA and a former Member of Congress, was one of the first witnesses to testify on the importance of derisking, which he considered one of the important reforms initiated since the GSEs have been in conservatorship. Noting that the GSEs met their most recent goals and transferred a meaningful amount of credit risk to private investors on at least 90 percent of their targeted, fixed-rate, single-family mortgage acquisitions, Director Watt stated that the GSEs are also "developing their single-family CRT programs with the objective of cultivating a mature and robust credit risk transfer market, including by building and expanding a diverse investor base that will increase the likelihood of having a stable CRT market through different housing and economic cycles."[13]

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[11] Laurie Goodman and Jim Parrott, *A Glimpse at the Future of Risk Sharing* (Washington, DC: Urban Institute, February 2016); http://www.urban.org/research/publication/glimpse-future-risk-sharing.

[12] Laurie Goodman, Jim Parrott, Ellen Seidman, and Mark Sandi, *How to Improve Fannie and Freddie's Risk Sharing Effort* (West Chester, PA, and Washington, DC: Moody's Analytics and Urban Institute, August 2016), 2.

[13] Hon. Melvin Watt, Director, Federal Housing Finance Agency, Testimony, Senate Committee on Banking, Housing, and Urban Affairs, "The Status of the Housing Finance System after Nine Years of Conservatorship," May 11. 2017; https://www.banking.senate.gov/public/_cache/files/7d9533e9-e0dd-47ea-be79-b05de4040bbf/E1D6A0F46CD1C181D755D935748D116E.watt-testimony-5-11-17.pdf.

At a subsequent hearing to establish some basic principles for housing reform, Chairman Crapo announced one of his key principles - the need to derisk housing finance directly: "We need multiple levels of taxpayer protection standing in front of any government guarantee…"[14] Derisking was just one means of taxpayer protection to which Chairman Crapo referred.

Following Chairman Crapo's lead, all of the witnesses at the hearing affirmed the need to derisk in general and use CRT in particular as a means to do so. For example, Michael D. Calhoun, President of the Center for Responsible Lending (CRL) in Washington, D.C., testified about the direct benefits of derisking to society throughout the housing cycle:

> Utilizing credit risk transfer products, the GSEs can carry out their Congressional mandate to serve all markets and drive affordable access to housing finance, while simultaneously reducing their underlying risk, thereby protecting taxpayers from market downturns. By creating a wide variety of credit transfer products, the GSEs ensure that a sufficient number of investors will remain in the market through all phases of a housing price cycle, creating reliable liquidity and funding.[15]

Continuing his testimony, CRL President Calhoun affirmed the importance of derisking through CRT to protect taxpayers with private capital, and thereby help the housing GSEs fulfill their roles, especially while they remain in conservatorship:

> …most of the GSEs' credit risk transfer activity effectively introduces private capital to insulate taxpayers without facilitating differential pricing, which undermines access and affordability goals. By reducing the underlying risk of the GSEs, and preserving their role in the housing market as drivers of access and affordability for all markets and borrowers, credit risk transfer is a large part of how the GSEs can function in a financially sound manner, while at the same time providing access to affordable home loans, especially for communities of color and credit worthy LMI [low-to-moderate income] borrowers.[16]

Other witnesses also supported derisking federal mortgage programs. For example, former FHFA Acting Director Edward J. DeMarco, currently the President of the Housing Policy Council of the Financial Services Roundtable, voiced his support for the benefits of CRT: "The credit risk transfer market that FHFA directed Fannie and Freddie to initiate is the basis for continuing to attract private capital using multiple structures and appealing to multiple types of investors in credit risk assets."[17] Similarly, David H. Stevens, President and CEO of the

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[14] Hon. Mike Crapo, Chairman, Senate Committee on Banking, Housing, and Urban Affairs, "Hearing on Principles of Housing Reform," June 29, 2017; https://www.banking.senate.gov/public/index.cfm/hearings?ID=954C3E03-8BBB-4D17-BBE2-23910A365A20.

[15] Michael D. Calhoun, President, Center for Responsible Lending, Statement, "Hearings on Principles of Housing Reform, U.S. Senate Committee on Banking, Housing, and Urban Affairs, June 29, 2017, 17; https://www.banking.senate.gov/public/_cache/files/c0df39e1-5b58-4671-82cf-d94026c34cd9/804719FCCFA9059D08A3E3D138C754A3.calhoun-testimony-6-29-17b.pdf.

[16] Id.

[17] Edward J. DeMarco, President, Housing Policy Council, Financial Services Roundtable, Statement, "Hearings on Principles of Housing Reform, U.S. Senate Committee on Banking, Housing, and Urban Affairs, June 29, 2017, 7;

Mortgages Bankers Association, testified in favor of CRT: "Guarantors should disperse credit risk to private capital investors through a variety of credit risk transfer (CRT) mechanisms, including deeper first-loss CRTs that are transparent, scalable to all lenders, and capable of limiting taxpayer exposure to nothing more than catastrophic risk."[18]

A recent report by Moody's Analytics describes the GSE CRT program over the past several years "an unheralded success story." Moody's Analytics notes that so far Fannie Mae and Freddie Mac have transferred nearly one-fifth of the credit risk on their books to private investors, and on more recent loans that pose the biggest potential risks to taxpayers they have transferred more than one-half of that risk.[19]

More importantly, this report makes two critical findings. First, it found that if the U.S. economy was to experience another Great Recession similar to the one after the last financial crisis, then more than two-thirds of the hypothetical losses would be borne by private investors and not taxpayers due to the CRT that has already occurred. Second, the report determined that there was no indication that the GSEs were overpaying private investors to take on the credit risk embedded on their balance sheets; that is, they were not paying these investors any more than their own internal cost of continuing to assume that risk. Thus, based on the analysis conducted by Moody's Analytics, the GSEs CRT business strategy has been successful and should be expanded in the future. The authors concluded:

> Our analysis shows that while Fannie's and Freddie's capital market CRT deals are still in their infancy, we believe they offer taxpayers significant protection, particularly in times of economic stress. To be sure, if the credit risk transfer is to provide a stable source of capital through the economic cycle, it will need to expand to include more institution-based capital. That said, our analysis suggests that the risk transfer process holds significant promise as a way to achieve a well-functioning, reformed housing finance system.[20]

Finally, as this paper was being written, Representatives Ed Royce (R-CA) and Gwen Moore (D-WI) introduced a bipartisan bill, the "Taxpayer Protections and Market Access for Mortgage Finance Act of 2017" (H.R. 3556), which was referred to the House Financial Services, Ways and Means, and Agricultural Committees for further action. Their bill basically requires Freddie Mac and Fannie Mae to increase their CRT transactions with the private sector.

Specifically, this proposed legislation by two senior members of the House Financial Services Committee has two primary objectives. First, it requires the FHFA director to establish

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https://www.banking.senate.gov/public/_cache/files/ab67adb7-9ab0-4730-9e20-34644b56cc7b/4417321706FB65F8E07227CEACCE9252.demarco-testimony-6-29-17.pdf.

[18] David H. Stevens, President and CEO, Mortgage Bankers Association, Statement, "Hearings on Principles of Housing Reform, U.S. Senate Committee on Banking, Housing, and Urban Affairs, June 29, 2017, 6; https://www.banking.senate.gov/public/_cache/files/51078e45-c3ea-49cd-95a2-d37c7b6ce75f/EAAB641A837ADCBDBEDC8D07FA54B095.stevens-testimony-6-29-17.pdf.

[19] Mark Zandi, "One part of GSE reform is already working," *American Banker*, August 4, 2017; "Fannie, Freddie Shift Risk for Taxpayers to Markets," *Wall Street Journal*, August 15, 2017, 1.

[20] Mark Zandi, Gus Harris, Ruby Shi, Xinyan Hu, "Who Bears the Risk in Risk Transfers?" Moody's Analytics, August 1, 2017; https://www.economy.com/mark-zandi/documents/2017-08-02-who-bears-the-risk.pdf.

guidelines for the housing GSEs to engage in significant, increasing, and varied CRT with an emphasis on front-end transactions. Second, the GSEs would be required to establish and publish their guarantee fees, including loan level price adjustments (LLPAs), to reflect the reduced credit risk resulting from all new CRT transactions they undertake.

Upon introduction of H.R. 3556, Representative Royce stated:

> Increasing private sector involvement in the secondary housing market is the first step in preventing another bailout paid for by American taxpayers. Congress should direct Fannie and Freddie to increase the amount and the types of credit risk transfer transactions to the maximum level that is economically and commercially viable. This action will stabilize the housing market for decades to come and lays a foundation for future GSE reforms.[21]

Similarly, and underscoring bipartisan support for the concept and efficacy of CRT to promote agreed policy goals, Representative Moore affirmed: "One of the best ways we can help all American families to achieve the dream of homeownership is by ensuring their access to housing finance funding. This bipartisan bill makes such a dream a reality by providing guidelines for increased credit risk transfer transactions to make financing home ownership more accessible."[22]

EXIM Bank Initiative - 2015

As early as 2000, EXIM Bank solicited proposals to undertake an unprecedented public/private sector partnership to create a facility for the transfer or sharing of risk under its medium-term and long-term loan guarantee and medium-term insurance programs.[23] For the first time in its 65-year history, EXIM Bank approved a proposal for a private sector risk sharing arrangement in its future export guarantee portfolio. As a result of an earlier Invitation to Submit Proposals (ISP) and after competitive bids, the EXIM Bank's Board of Directors selected Citigroup, which then represented the best opportunity to establish a cost-efficient public-private partnership.[24]

In December 2015, Congress reauthorized EXIM Bank as part of the Fixing America's Surface Transportation (FAST) Act, and created three new risk-related mandates for the bank to launch as part of its general mandate to promote the financing of U.S. exports. The new law established a new position of Chief Risk Officer (CRO)[25] and created a new Risk Management Committee

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[21] Hon. Ed Royce, "Reps. Royce and Moore Introduce Bipartisan GSE Reform Bill to Stabilize Housing Market," press release, Washington, D.C., July 28, 2017; https://royce.house.gov/news/documentsingle.aspx?DocumentID=398427; H.R. 3556, "The Taxpayer Protections and Market Access for Mortgage Finance Act of 2017," U.S. House of Representatives, 115th Cong., 1st Sess., Washington, D.C.

[22] Id.

[23] http://www.exim.gov/news/export-import-bank-interested-partnering-private-capital-markets-financial-risk-sharing-for

[24] http://www.exim.gov/news/EXIM-bank-approves-proposal-for-private-sector-risk-sharing-initiative

[25] 129 STAT. 1765, Public Law 114-94, December 4, 2015; see Sec. 51005.

to facilitate better risk management at the bank.[26] It also included a new risk sharing policy mandate for a pilot project up to an aggregate amount of $10 billion of liability in any given fiscal year.[27]

In 2016, EXIM Bank's Office of the Inspector General (OIG) issued a report with a recommendation to launch the pilot "to assess the potential role of the risk sharing program in mitigating portfolio concentration risk." Management subsequently responded to the OIG's recommendation with the posting of a Sources Sought Notification on July 6, 2016, to move forward with a pilot program.[28]

Based on the new Section 51008, EXIM Bank launched its first pilot in 2017. The objective of this initial pilot was to issue a multiple award, no cost contract with a reinsurance broker and investment bank, which in turn would work with the reinsurance and capital markets to assist EXIM Bank in the creation of a pilot program for risk sharing. EXIM Bank's pilot solicited risk management analytical services regarding potential risk sharing structures to determine if there is an opportunity to economically transfer some of the risks associated with parts of EXIM Bank's portfolio to the private markets.

As part of its FY 2018 budget justification, EXIM Bank reviewed its current risk sharing practices to mitigate its portfolio risks, including its risk sharing – i.e., the transfer of some of its liability for individual transaction – with other official export credit agencies that enjoy either the explicit or implicit support of their sovereigns. As of March, 2017, $4.0 billion in credit risk related primarily to wide-body aircraft exports has been shared with these other official export credit agencies between FY2005-FY2015, which translates as 5.3 percent of $75 billion in EXIM Bank exposure. In this risk-sharing case, EXIM Bank would be fully compensated for any losses according to the agreement before sharing in any recoveries. EXIM Bank's FY 2018 budget submission also noted the existence of the risk sharing pilot program and acknowledged that it would review other risk sharing opportunities to better design a risk program for future transactions.[29]

FEMA's National Flood Insurance Program (NFIP) Reinsurance Initiative - 2016

The National Flood Insurance Program (NFIP) was authorized by Congress in 1968 to aid homeowners who were unable to buy affordable flood insurance from private insurance companies. Since then, the NFIP has provided flood insurance with subsidized rates below what the real risk in flood-prone areas of the country required. For years the NFIP was able to cover the cost of losses resulting from flooding from its accumulated pooled premiums. But that situation changed dramatically after losses arising from Hurricanes Katrina ($16.3 billion, 2005)

[26] 129 STAT. 1766, Public Law 115-94, December 4, 2015; see Sec. 51006.
[27] 129 STAT. 1766, Public Law 115-94, December 4, 2015; see Sec. 51008; 12 U.S.C. 635 note.
[28] Office of the Inspector General, Export-Import Bank of the United States, *Follow-Up Report on Portfolio Risk and Loss Reserves Allocation Policies,* OIG-EV-16-01, July 28, 2016, 47; http://www.exim.gov/sites/default/files/oig/reports/Final%20%20Follow-Up%20Risk%20Management%20Report%20(OIG-EV-16-01)%20Redacted.pdf.
[29] Export-Import Bank of the United States, *FY 2018 Congressional Budget Justification*, 17; http://www.exim.gov/sites/default/files/congressional-resources/budet-justification/FY2018%20EXIM%20CBJ%20-%20FINAL.pdf

and then Sandy ($8.3 billion, 2012). Claims from these hurricanes caused the NFIP to become $23 billion in debt to the U.S. Treasury.

Moreover, the NFIP's exposure to major flood is expected to rise in the future. According to the FEMA before the unprecedented flooding from Hurricanes Harvey and Irma hit the United States, there was a 50 percent chance that the NFIP will experience a Hurricane Sandy-sized loss within a 10-year period.[30] While it is too soon to estimate the losses from Harvey and Irma as this paper is being written, it appears that FEMA's modeling prediction unfortunately has come true by some multiple.

As a result of the prior extraordinary losses from Katrina and Sandy, Congress granted FEMA the authority to secure reinsurance from the private reinsurance and capital markets through the combination of the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12)[31] and the Homeowners Flood Insurance Affordability Act of 2014 (HFIAA).[32] In turn, FEMA took the necessary steps to manage its financial risk more proactively by launching its own reinsurance initiative. In so doing, FEMA began to diversify its risk and decrease the chance of borrowing from the U.S. Treasury in the future.

Reinsurance is a risk management tool used by insurance companies to protect themselves from future potential financial loss. Insurance providers, in this case FEMA, pay premiums to reinsurers, and in exchange the reinsurers provide insurance coverage for losses incurred by FEMA up to an agreed amount negotiated by both parties to the reinsurance contract. Thus, FEMA is able to transfer its risk of loss from unknown flooding events in the future to the private sector for a fee today, just as homeowners pay a fee to their insurance companies for protection for their residences from loss if their homes are damaged or destroyed through man-made or natural causes.

To launch this new risk management tool, FEMA first conducted a feasibility study on the use of reinsurance, to better understand the benefits of its use for flood claims and losses. In September 2016, it then launched its 2016 Reinsurance Program for the first-ever placement of reinsurance to minimize the risk of loss from flood claims. FEMA subsequently purchased reinsurance from three reinsurers: Transatlantic Reinsurance Company, Swiss Re America Corporation, and Munich Reinsurance America, Inc.[33] In fact, the global reinsurance markets currently have the capital and capacity to spread this concentrated risk in what effectively is FEMA's "mono-line" portfolio to the private markets. For example, AonBenfield estimates that there is $605 billion in global reinsurer capital to meet demand, including capital for risk transfer (**Exhibit 3**). [34] Thus, there is ample capacity to protect taxpayers from potential future losses ahead of the next natural flooding catastrophe.

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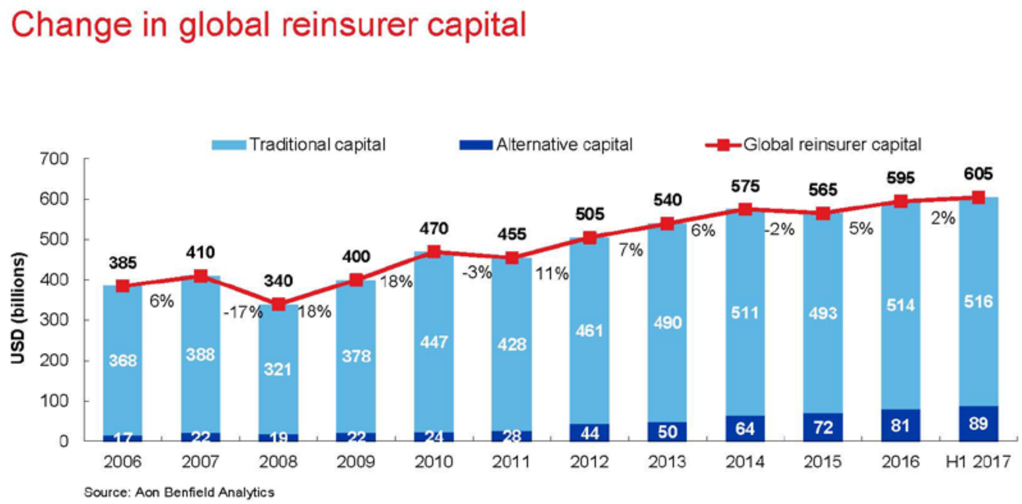
[30] https://www.fema.gov/nfip-reinsurance-program.
[31] Insert citation
[32] Insert citation
[33] Id.
[34] AonBenfield, Reinsurance Market Outlook: June and July 2017 Update, 2; http://thoughtleadership.aonbenfield.com/Documents/20170714-ab-analytics-rmo-junejuly.pdf.

Exhibit 3 – Global Reinsurer Capital to Meet Demand



In January 2017, FEMA expanded its September 2016 placement by transferring just over $1.0 billion of the NFIP's financial risk to a consortium of 25 reinsurers through January 1, 2018. The 2017 procurement of reinsurance was an agreement of indemnity between FEMA and the private reinsurance firms. FEMA will pay a reinsurance premium to transfer a portion of the NFIP's flood-risk to the counterparties (i.e., the private reinsurers). Under the agreement, reinsurers agreed to indemnify FEMA for flood claims paid during 2017 on an occurrence basis.[35]

Under this agreement, the private reinsurers will cover 26 percent of any losses between $4 billion and $8 billion that arise from a single flooding event such as another Hurricane Katrina or Sandy. In this risk transfer case, the reinsurance premium was $150 million covering the period from January 1, 2017, through January 1, 2018. Hurricanes Harvey and Irma provide a live example. Because this reinsurance policy was in place before Harvey and Irma struck, FEMA will be fully protected under its losses up to $1 billion, saving U.S. taxpayers an estimated $850 million as a result. This 2017 reinsurance placement did not result in any increase to policy holders' rates for their flood insurance. Going forward, however, if the program expands as is expected to meet future flood losses such as those expected from Hurricanes Harvey and Irma, then FEMA will need to work with the Administration and Congress to fund the costs of a larger NFIP reinsurance program in the future.[36]

Earlier this year, Roy E. Wright, Deputy Associate Administrator, Federal Insurance and Mitigation Administration (FIMA), testified before the Senate Banking Committee in favor of derisking as part of the broader flood insurance reauthorization, now temporarily extended until

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[35] Id.

[36] Id.

December 8, 2017. In his opening statement, Senate Banking Committee Chairman Crapo affirmed the need for further risk sharing by the government and the private sector with respect to flood insurance.[37] Deputy Associate Administrator Wright testified about the benefits of derisking from his unique perspective as a risk management and mitigation official. Based on the prior Congressional authorization granted to derisk FEMA's obligations, he stated: "Reinsurance is an important financial risk management tool used by private insurance companies and public entities to protect themselves from large financial losses by diversifying risk across multiple markets….This reinsurance placement stands as a first of its kind for a federal program."[38]

FEMA considers its current reinsurance program as a foundational building block of its larger risk management initiative. FEMA's reinsurance vision statement is found in Appendix 2. As this paper is being written, FEMA is gearing up for more placements with risk transfer markets in 2018 in anticipation of a multi-year reinsurance program with the private sector.[39] To further entrench better risk management practices into its strategy and operations, FEMA anticipates that it will undertake three initiatives in 2017:

- Upgrade its Reinsurance Program's vision, strategy and operations based on 2017 lessons learned to optimize a future multi-year program;
- Expand the NFIP's flood modeling capabilities; and
- Engage industry partners to incorporate best practices for risk management from the private sector.

"Securing reinsurance through the NFIP Reinsurance Program is a key step towards achieving the NFIP's long-term vision of building a stronger financial framework," FIMA Deputy Associate Administrator Wright stated at the launch of the 2017 Reinsurance Program; "This reinsurance agreement places the NFIP in a better position to manage losses incurred from major events like Hurricane Sandy."[40] If the federal government is unable to do a better job of pricing the actual risk of floods upfront, then the sharing of that risk between the government and the private sector afterwards is essential.

More recently, on June 21, 2017, the House Financial Services Committee approved H.R. 2246, the "Taxpayer Exposure Mitigation Act of 2017," introduced by Rep. Blaine Luetkemeyer (R-MO),[41] chairman of the Financial Institutions and Consumer Credit Subcommittee. A bipartisan majority of the committee voted in favor of this bill by 36 ayes to 24 nays.[42] Among other

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[37] https://www.banking.senate.gov/public/index.cfm/hearings?ID=CAFED0A5-B098-442A-946C-F4A5A2B43A1A.
[38] Testimony of Roy E. Wright, Deputy Associate Administrator, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, Department of Homeland Security, before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, Washington, D.C., March 14, 2017; https://www.banking.senate.gov/public/index.cfm/hearings?ID=CAFED0A5-B098-442A-946C-F4A5A2B43A1A.
[39] https://www.fema.gov/nfip-reinsurance-program; https://www.fema.gov/blog/2017-01-03/increasing-flood-insurance-resilience-role-reinsurance.
[40] https://www.fema.gov/news-release/2017/01/03/femas-2017-reinsurance-program-better-manages-future-flood-risk.
[41] https://financialservices.house.gov/uploadedfiles/bills-115hr2246ih.pdf.
[42] https://financialservices.house.gov/uploadedfiles/crpt-115-hmtg-ba00-fc067-20170621.pdf.

things, H.R. 2246 authorizes derisking at FEMA as part of the committee's comprehensive overhaul of federal flood insurance before it expires.[43]

Critics of Derisking

Some critics of derisking raise concerns about the potential downside of this risk management tool, but the demonstrated benefits appear to outweigh any negatives if properly managed by the government throughout the risk transfer process. Concerns about derisking fall into three categories: pace or sustainability; potential counterparty risks; and current costs versus future protection. Each concern is discussed briefly next.

First, some observers worry about the sustainability or pace of CRT during a recession or economic downturn such as another housing collapse. It is true that the current experiments with CRT have not gone through a full business cycle, but in this case a slower CRT pace is neither a lasting nor long-term problem of any significance. The federal government's CRT partners such as insurance companies and reinsurers manage their capital to survive losses from crises and live to fight another day to capture premium after a crisis. Reinsurers continue to participate throughout global markets after some of the most recent devastating natural disasters, regardless of whether they are hurricanes in the United States like Katrina, Sandy, or more recently Harvey and Irma, or earthquakes in Japan, Mexico, and elsewhere.

Unfortunately for taxpayers, there is more than enough potential credit risk on the books of the federal government to ensure that derisking is sustainable for the foreseeable future. The only downside in this instance is that less credit risk gets transferred from the federal government to the private sector during any economic downturn.

Second, some critics worry about the potential option for the private sector (e.g., counterparties) to put the risk back to the federal government in some way in the future, and thus potentially "socialize" the losses among taxpayers for risks that were supposed to have been borne by the

[43] Committee on Financial Services, U.S. House of Representatives, Markup of H.R. 2246, July 20, 2017. A Committee staff section-by-section analysis describes the bill's derisking provisions as follows:
SEC. 3 RISK TRANSFER REQUIREMENT.

No later than 18 months after bill enactment, the FEMA Administrator shall annually cede a portion of the risk of the NFIP to the private reinsurance or capital markets, as determined by the Administrator, in an amount that (i) is sufficient to maintain the ability of the program to pay claims; and (ii) manages and limits the annual exposure of the NFIP to flood losses in accordance with the probable maximum loss target established each such year. The Administrator shall establish the probable maximum loss target for the NFIP that is expected to occur such fiscal year. In establishing the probable maximum loss target, the Administrator shall consider – (i) the probable maximum loss targets for other U.S. public natural catastrophe insurance program, including State wind pools and earthquake programs; (ii) the probable maximum loss targets of other risk management organizations, including the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation; (iii) catastrophic, actuarial, and other appropriate data modeling results of the NFIP portfolio; (iv) the availability of funds in the National Flood Insurance Fund; (v) the availability of funds in the National Flood Insurance Reserve Fund; (vi) the availability of NFIP borrowing authority; (vii) the ability of the Administrator to repay outstanding debt; (viii) amounts appropriated to the Administrator to carry out the NFIP; (ix) reinsurance, capital markets, catastrophe bonds, collateralized reinsurance, resilience bonds, and other insurance-linked securities, and other risk transfer opportunities; and (x) any other factor the Administrator determines appropriate.

Gives the Administrator the ability to enter into multi-year contracts for reinsurance.

Source: https://financialservices.house.gov/uploadedfiles/hr_2246_sec-by-sec.pdf.

private sector. Yet, this situation can also be managed properly in advance. For example, the GSE contracts do not permit for rescission or denial activity for claims; the only rejections for valid claims is in the case of fraud. Moreover, the CRT precedents for the GSEs are done predominantly through the sale of debt securities, which sell a tranche of credit risk to the private sector, and that sale is irreversible.

In the case of potential future counterparty risk for reinsurance structures, for example, this risk also can be managed prudently through sound risk management by the government at the beginning of the CRT process by selecting only reputable, qualified, diversified, and well capitalized companies to be in the reinsurance pool and to do so through a competitive contracting process. FHFA frankly acknowledges potential counterparty risk, but views that risk as manageable since these transactions are partially collateralized and distributed among a variety of highly rated insurers and reinsurers, which in turn reduces counterparty, reimbursement, and correlation risks.[44]

Finally, some critics challenge the current cost of derisking versus the potential future benefits, but that is the case with regard to any protection policy to manage risk in any situation. Homeowners may not like paying the premium for their homeowners' insurance policy, but they do so to manage their unknown future risks and protect the value of their homes from potential losses, which could jeopardize their financial lives in a material way if they did not have insurance coverage. The same phenomenon is at work in derisking the federal government's balance sheet. The government enters into a contract and pays a fee to its private sector partner – investment bank, insurance company, reinsurer, or other financial partner – for protection from loss in the future for a significant asset in its portfolio today. Consequently, it is true that the government pays a price to have another tool – in this case, risk transfer – in its otherwise limited risk management tool kit.

These critics are concerned with the level of fees paid by federal government to the private sector, but that is part of the cost of doing business – in this case, the federal government's extension or guarantee of credit to homeowners, small businesses, students, farmers, and others. A robust contracting process, diligent economic assessments, and regular oversight can ensure that reasonable rates are paid to private market participants.[45]

The recent Moody's Analytics report on credit risk transfers at Freddie Mac and Fannie Mae addressed two related issues: the liquidity and transparency of the markets; and the resulting cost of protection.

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[44] Federal Housing Finance Agency, *Credit Risk Transfer Report*, December 2016, 20. FHFA also notes that reinsurers are characterized by diversified lines of business, which helps mitigate the risk that the GSEs' counterparties are correlated to housing market stress and would have potential claims at the same time that the GSEs would be under stress and require payment.

[45] See, for example, the exchange between Rep. Carolyn B. Maloney (D-NY) and House Financial Service Committee Chairman Jeb Hensarling (R-TX) during the markup of H.R. 2246, the "Taxpayer Exposure Mitigation Act of 2017." https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=402032.
See also: Committee on Financial Services, U.S. House of Representatives, Hearing, "Flood Insurance Reforms; A Taxpayer's Perspective," June 7, 2017;
https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=401937.

On the first issue, the authors reviewed all of the capital market CRTs done at the time of their report and concluded: "Liquidity in the market for CRTs is strong and continues to improve, supported by the transparency of the securities and the underlying mortgage loans. Our ability to conduct this analysis is a testimonial to this transparency."[46]

The second question examined the cost of that protection: are the housing GSEs paying investors substantially more to transfer their credit risk than they would if they continued to hold it in their portfolios? Moody's Analytics compared the annual interest cost to the GSEs of paying investors at issuance compared to their own cost of holding that same risk. The authors concluded: "There is…no evidence to suggest that the agencies are overpaying investors for taking on credit risk in the capital market CRTs."[47]

II. OPPORTINUTY EXISTS FOR MORE FEDERAL DERISKING IN THE FUTURE

Based on the proven success to date of the concept of derisking federal programs through a variety of individual initiatives at the GSEs, EXIM Bank, and FEMA, there is a significant opportunity to expand the current derisking success to *all* other applicable USG programs. Currently, however, there is no explicit over-arching national mandate to do so. In the near-to-medium term, there are several opportunities to continue derisking and thus further demonstrate its universal application to other credit, guarantee, and insurance programs of the federal government. Priority areas that are ripe to expand derisking include other parts of housing finance (e.g., FHA, Ginnie Mae, and the Federal Home Loan Banks), student/educational loans, and agricultural loans/crop insurance. In theory, all federal applicable credit, guarantee, and insurance programs would benefit from derisking tailored to meet their individual mandates and strategies to achieve their goals.

Other Housing Finance Programs

Given the success of the FHFA-mandated credit risk transfer program to date, other government-supported housing programs would be logical candidates for CRT programs of their own. For example, the Department of Housing and Urban Development's (HUD) various housing guarantee programs would be a natural starting place.

President Trump's FY 2018 Federal Credit Supplement to his budget included $405.7 billion for loan guarantee obligations for the Government National Mortgage Association (Ginnie Mae), with an average loan size of $233,000. Ginnie Mae, which has the full faith and credit of the U.S. Government, guarantees investors the timely payment of principal and interest on securities issued by private lenders, which are backed by pools of Federal Housing Administration (FHA), Veterans Affairs (VA), Rural Housing Service (RHS), and Public and Indian Housing (PIH) mortgage loans. Even though Ginnie Mae is in a last loss position, it is worth considering how CRT could be applied to this long-standing federal program as well.

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[46] Mark Zandi, Gus Harris, Ruby Shi, Xinyan Hu, "Who Bears the Risk in Risk Transfer?" Moody's Analytics, August 1, 2017, 8.
[47] Id., 7.

The President's budget also included $245.5 billion in obligations for all of the various guarantee programs of the Federal Housing Administration (FHA).[48] FHA mortgage insurance provides lenders with protection against losses as the result of homeowners defaulting on their mortgage loans. Currently, the FHA holds 100 percent of the risk on 4.8 million insured single family mortgages and 13,000 insured multifamily projects in its portfolio.[49] Building on the precedents established by the housing GSEs, other housing finance programs of the federal government such as Ginnie Mae and FHA should have their own pilot programs to determine how to apply and tailor derisking to their statutorily-mandated policies and programs.

Student Lending

Government-backed student loans would seem to be another high profile area where better risk management through derisking would protect taxpayers. Total federal student debt currently amounts to roughly $1.44 trillion, covering 44.2 million borrowers. Approximately 11.2 percent of these student loans are delinquent currently (90 days delinquent or in default).[50] The President's budget includes $166 billion in direct loan obligations for the Department of Education's Office of Federal Student Aid for FY 2018.[51] Given the current political interest in affordable education and lending to enable students to get an education of their choosing, derisking all aspects of student lending by working with the private sector makes sense.

Agricultural Credit and Guarantees

Federal agricultural lending, guarantees, insurance, and reinsurance programs have a long history as a major part of U.S. farm policy. Most farmers have to obtain crop, livestock, and other types of insurance to secure a loan, and many farmers turn to the federal government for their lending and insurance needs. All of these agricultural programs are ripe for derisking pilot projects.

Derisking at a basic level has been in place at the Federal Crop Insurance Corporation (FCIC) for some time. For example, the FCIC, operating through the Risk Management Agency, has two basic reinsurance agreements: the Standard Reinsurance Agreement (SRA), and the Livestock Price Insurance Agreement (LPRA) for farm animals. These agreements establish the terms under which the FCIC provides reinsurance on eligible crop and livestock insurance contracts sold by insurance companies in the private sector. Any insurance company doing business under either of these agreements must be in solid financial standing and in full compliance with all state laws where they are domiciled and do business.[52]

The President's FY 2018 budget request provides a starting point for the consideration of bringing better risk management to other agricultural financial and insurance programs through

[48] Executive Office of the President of the United States, Office of Management and Budget, *Federal Credit Supplement, Budget of the United States Government*, Fiscal Year 2018, 1-7; https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/cr_supp.pdf.
[49] https://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/fhahistory.
[50] Student Loan Hero, *2017 Student Loan Debt Statistics*; https://studentloanhero.com/student-loan-debt-statistics/;www.studentaid.ed.gov.
[51] Executive Office of the President of the United States, Office of Management and Budget, *Federal Credit Supplement, Budget of the United States Government*, Fiscal Year 2018, 2.
[52] https://www.rma.usda.gov/pubs/ra/.

the kind of tailored derisking in other parts of the government noted above. For example, the President's budget for the Department of Agriculture's Agricultural Credit Insurance Fund includes $1.5 billion in direct loan obligations for farm ownership, and another $1.3 billion for farm operations. It includes $3.2 billion in direct loan obligations for rural electrification and telecommunications loans. Moreover, there are $2.5 billion in loan guarantee obligations for farm ownership, and another $$1.4 billion for farm operations. Finally, there are $5.5 billion in loan guarantee obligations for Commodity Credit Corporation Export Loans.[53]

Government-wide Opportunities Exist

In summary, there is substantial opportunity to derisk applicable federal programs on the USG's balance sheet. **Appendix 3** lists the current federal direct loans and guarantee programs from the President's FY 2018 budget, which would be prime candidates for pilot derisking initiatives. These pilot programs can be tailored to meet their respective portfolios, strategic objectives, and risk management requirements.

III. ADOPTING A NATIONAL POLICY TO DERISK ALL FEDERAL PROGRAMS

Given the proven success of derisking to date, there is a unique opportunity to better manage the government's exposure to its embedded but unrealized risks by expanding derisking over time to all other pertinent federal lending, guarantee, and insurance programs. Providing all applicable federal programs with this new risk management tool would ensure that derisking is comprehensive, consistent, and self-sustaining across the U.S. government. Moving to a government-wide approach would get away from the current *ad hoc* efforts. More importantly, derisking also can be done on an individually tailored basis to meet the specific needs and requirements of different kinds of federal programs.

Derisking also should have a positive effect on the U.S. economy while protecting taxpayers. Much of the nation's embedded risk of loss can be transferred from the federal government to the private sector, where that risk can be better absorbed, dispersed, and managed more effectively should losses occur. To achieve this worthwhile goal, the Administration and Congress should adopt a national policy and strategy to derisk all federal credit, guarantee, and insurance programs as much as is economically viable.

Derisking the federal government's balance sheet in this way is even more critical as a risk management tool, since past recommendations to improve federal credit programs have largely been ignored and, frankly, are hard to enact politically. Past recommendations for reform include such changes as targeting borrowers more carefully before lending to them (i.e., using better underwriting standards and procedures), using a risk-based approach with differential pricing based on the underlying risk, utilizing risk-based discount rates, and creating uniform

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[53] Executive Office of the President of the United States, Office of Management and Budget, *Federal Credit Supplement, Budget of the United States Government*, Fiscal Year 2018, 1, 5; https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/cr_supp.pdf.

credit rules across all federal credit programs to name just a few.[54] Consequently, if it is politically difficult to improve the federal government's risk management at the front end, then there is a premium to use tools such as derisking at the back end as much as possible to manage the embedded risk in credit and insurance programs.

Recently, Federal Reserve Board Governor Jerome H. Powell, who currently serves as the Chairman of the Federal Reserve's internal Committee on Bank Supervision, underscored this point and argued for greater private sector involvement through derisking with respect to the housing GSEs. Governor Powell affirmed his support for greater use of credit risk transfer from his unique vantage point at the U.S. central bank. After making the case for greater use of private capital in general, he stated: "Greater amounts of private capital could come through a variety of sources, including through the entry of multiple private guarantors who would insure a portion of the credit risk, through risk-sharing agreements, or through expanded use of credit-risk transfers."[55]

The Way Forward

The Administration and Congress have several options for how they can move forward to derisk all applicable federal programs by enhancing their risk management in the future. By establishing a comprehensive derisking national mandate, guiding principles, and a common approach for each department, agency, or program, the government can protect taxpayers, improve federal credit risk management, facilitate the mission of each federal program, and enhance and expand private sector opportunities.

Derisking Mandate

The first step to make derisking federal programs a national policy is to gain agreement between the Administration and Congress to establish a clear and actionable mandate. In its simplest form, a new U.S. government derisking mandate would have one overriding public policy goal: *Protect U.S. taxpayers through enhanced risk management across all applicable federal programs by the transfer of as much credit, guarantee, and insurance risk as economically*

[54] Douglas J. Elliott, *Uncle Sam in Pinstripes: Evaluating U.S. Federal Credit Programs* (Washington, DC: Brookings Institution Press, 2011), 123-135; Barry P. Bosworth, Andrew Carron, and Elisabeth H. Rhyne, *The Economics of Federal Credit Programs* (Washington, D.C.: The Brookings Institution, 166-175.

[55] Hon. Jerome H. Powell, Member, Board of Governors, Federal Reserve System, "The Case for Housing Finance Reform," American Enterprise Institute, Washington, D.C., July 6, 2017. Governor Powell continued: "Although private capital must surely be part of the reform effort, there may be limits to the amount of risk that we can credibly expect the private sector to insure. It is extremely difficult to appropriately price the insurance of catastrophic risk--the risk of a severe, widespread housing crisis. Both the private-sector insurance industry and government have struggled with this, particularly with how to smooth the consistent collection of premiums with the irregular payout of potentially enormous losses that may be needed only once or twice in a century. Furthermore, losses can be correlated across asset classes and geographies in these catastrophic events, rendering risk diversification strategies ineffective. Fannie Mae and Freddie Mac have successfully transferred some credit risk to the private sector, but have thus far avoided selling off much of this catastrophic credit risk, arguing that doing so is not economical." See: https://www.federalreserve.gov/newsevents/speech/files/powell20170706a.pdf.

possible to the private sector through a variety of financial structures and instruments at competitive market prices.

Guiding Principles

Based on the experience and examples of the FHFA and FEMA, it would be appropriate to establish a set of guiding principles for derisking pertinent federal programs on a comprehensive, consistent, and sustainable basis. This could be done either at the national level for all federal programs holistically by the Office of Management and Budget, or at the program-level tailored to the specific mandate at each department or agency, or some combination of the two with both general and specific principles applied in each respective case.

While not exhaustive, an illustrative list of guiding principles could address topics such as:

- Protecting taxpayers;
- Managing credit, guarantee, and insurance risk proactively;
- Ensuring economic feasibility and scalability;
- Facilitating a federal program's core mission;
- Utilizing a variety of adaptive structures and instruments to meet market needs;
- Working effectively and efficiently with a competitive private sector; and
- Requiring transparency, accountability, and ongoing oversight by both the executive and legislative branches of government.

Approach

The approach for how to put a mandate, guiding principles, and strategy into effect can vary, and there are at least three options to consider. First, without any statutory change, each individual department and independent agency presumably could take the initiative administratively on their own to design and implement a derisking policy and risk management program. They could do so as part of their normal course of operations in the name of promoting good risk management for the programs currently under their control. This is the approach, for example, taken by the FHFA in the wake of the housing collapse and subsequent GSE conservatorships. The major downside with this option is that there is no guarantee that each department and agency would do so of its own volition without further prodding by the executive or legislative branch.

Second, President Trump alternatively could issue an executive order on derisking or direct the OMB to enhance risk management across all pertinent federal programs. Given his career in the private sector before his election, this course of action should be a natural step for him to take in the name of protecting taxpayers and promoting sound risk management, while simultaneously creating new investment and insurance opportunities in private markets. Such an executive order or OMB directive could enumerate a set of principles and mandate a report, just as President Trump did earlier in the year for the U.S. financial system.[56]

Finally, and perhaps the preferred path for future continuity, legislation could be enacted to ensure a consistent and comprehensive government-wide approach to derisking pertinent federal programs as much as possible. Such legislation should be simple and straightforward, and it should engender bipartisan support. After all, adopting a policy to enhance the risk management of federal programs in an economically sensible way while simultaneously doing a better job of protecting taxpayers from potential losses should be noncontroversial and embraced by both parties.

Such legislation could begin by including the kind of mandate and principles discussed earlier as the new U.S. policy. Legislation could require each department and agency to design a feasible pilot program, and then develop a tailored, actionable strategy. The necessary transparency, reporting, oversight, and accountability should also be included in any legislation that is introduced and considered by Congress. At a minimum, annual reports by the department and agencies through the OMB with at least yearly Congressional oversight should be required. In this way, OMB would be in a better position to help centrally and consistently manage what essentially are independent “mono-line” programs at the various agencies. Doing so would also allow OMB to do a better job of managing and mitigating any potential counterparty risks across these disparate agencies. Finally, there are any number of legislative vehicles that could institute a new U.S. derisking policy goal to protect taxpayers and better manage the federal government’s embedded risks of loss in the future.

CONCLUSION

Derisking can protect taxpayers from future losses and is a proven risk management tool. It is working today in several high profile federal programs, specifically the housing GSEs and FEMA. As noted above, Hurricanes Harvey and Irma prove the real benefits of derisking to reduce the impact of losses to the government and protect U.S. taxpayers through better USG risk management.

Risk transfer can and should be expanded to all federal credit, guarantee, and insurance programs over time, starting immediately with natural extensions to other housing finance programs, student lending, and agricultural credit. Defining a new national derisking policy mandate for all applicable federal programs, developing an appropriate set of guiding principles, and then designing pilot programs and actionable strategies comprise a path forward that the Administration and Congress should consider, debate, and then enact into law.

[56] “Presidential Executive Order on Core Principles for Regulating the United States Financial System,” February 3, 2017, https://www.whitehouse.gov/the-press-office/2017/02/03/presidential-executive-order-core-principles-regulating-united-states.

APPENDIX 1 - FHFA PRINCIPLES FOR CREDIT RISK TRANSFER

- Reduce taxpayer risk: Transactions should transfer a meaningful amount of credit risk to private investors.
- Economically sensible: The program should consist of transactions in which the cost to the Enterprise for transferring the credit risk does not meaningfully exceed the cost to the Enterprise of self-insuring the credit risk being transferred.
- Continuity of core business: Transactions should not interfere with the continued operation of the Enterprises' core business: the acquisition and securitization of mortgage loans and the guarantee of mortgage-backed securities. Transactions should also not negatively affect the efficient operation of the to-be-announced (TBA) market, which is a forward market in mortgage-backed securities, or the ability of borrowers to access credit.
- Repeatable: Whenever possible, transactions should be part of a regular program of similar transactions.
- Scalable: Transaction structures should be capable of being scaled up or down without significantly affecting the economics or management of the transaction.
- Counterparty strength: In transactions in which the credit risk being transferred is not fully collateralized, credit risk transfer counterparties to the Enterprises should be financially strong and stable companies that are consistently able to fulfill their financial commitments in the transaction even in adverse markets.
- Broad investor base: The program should include different transaction structures to attract a diversified and broad investor base, with the objective of improving pricing, increasing secondary market liquidity, and promoting market stability.
- Stability through economic and housing cycles: Transaction structures should be designed to ensure that at least some investors will remain in the market through stressful phases of the housing price cycle, including during economic downturns.
- Transparency: Whenever practical, parties to a transaction should provide public disclosure of transaction information.
- Level playing field: Credit risk transfer transactions should only reflect the cost of transferring credit risk and not favor large mortgage originators over small ones.

Source: Federal Housing Finance Agency, *2016 Scorecard Progress Report*, March 2017.

APPENDIX 2 – FEMA'S REINSURANCE VISION STATEMENT

FEMA's Reinsurance Vision

The multi-year Reinsurance Program vision is:

- *Financial Strength*: To strengthen the NFIP's financial standing by sharing financial risk with private industry at a price that is fair to the Federal Government.
- *Level of Risk*: To manage claims exposure by lessening the need to incur additional Treasury debt.
- *Stability*: To stabilize NFIP's annual expenditures in order to operate within a predictable and defensible annual budget.
- *Customer Experience*: To foster strong trust-based relationships with policyholders based on delivering consistently outstanding support during and after major floods.
- *Efficiency*: To institutionalize effective program and financial management discipline to ensure informed, data-based decision making.
- *Transparency*: To enhance the credibility of the NFIP with federal and congressional decision-makers and private sector thought leaders through the bilateral learning and sharing of detailed risk information with them and the private market

Source: https://www.fema.gov/nfip-reinsurance-program.

APPENDIX 3 – FEDERAL DIRECT LOANS AND GUARANTEES, FY 2018

Risk Category	Direct Loan Obligations	Guarantee Obligations
Agriculture Dept. • Farm Services Agency • Rural Housing Service • Rural Business Coop. Service • Rural Utilities Service	Yes	Yes
Commerce Dept. • National Oceanic and Atmospheric Admin.	Yes	No
Education Dept. • Postsecondary Education • Federal Student Aid	Yes	No
Energy Dept. • Advanced Tech. Vehicle Manufacturing Loans	N.A.	No
Health and Human Services Dept. • Facilities Renovation Loans	No	Yes
Homeland Security Dept. • FEMA (Community Disaster Loan Program)	Yes	No
Housing and Urban Development Dept. • Housing Programs (FFB Risk Sharing) • Public and Indian Housing Programs • Community Planning and Development • Housing Programs (FHA-Mutual Mortgage Insurance Fund • Government National Mortgage Association (Ginnie Mae)	Yes	Yes
Interior Department • Bureau of Indian Affairs	No	Yes
International Assistance Programs • International Security Assistance • Agency for International Development (AID) • Overseas Private Investment Corp. (OPIC)	Yes	Yes
State Department • Repatriation Loans	Yes	No
Transportation Dept. • Federal Highway Admin. • Federal Railroad Admin. • Office of the Secretary (Minority Business Loan Guarantees) • Maritime Admin.	Yes	N.A.
Treasury Dept. • Community Development Fund • Bond Guarantee Program • FHA Refi Letter of Credit	Yes	Yes
Veterans Affairs Dept. • Veterans Housing Benefits Fund • Native American Veteran Housing Loan	Yes	Yes
Environment Protection Agency • Water Infrastructure Direct Loans	Yes	No
Export-Import Bank of the United States	No	Yes
Small Business Admin. • Business Loans • Disaster Loans	Yes	Yes

Source: Executive Office of the President of the United States, Office of Management and Budget, *Federal Credit Supplement, Budget of the United States Government*, Fiscal Year 2018, 1-7; https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/cr_supp.pdf.