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By Electronic Delivery Through the FHFA Website

Federal Housing Finance Agency
Office of the Director
400 7th Street SW, 10th floor
Washington, D.C., 20219

Re: Request for Information on Climate and Natural Disaster Risk Management

Dear Sir/Madam:

Freddie Mac appreciates the opportunity to respond to the thoughtful questions raised in the Federal Housing Finance Agency's ("FHFA") Request for Information on Climate and Natural Disaster Risk Management ("RFI"). We appreciate FHFA's approach of seeking input on the risks posed to the regulated entities. We acknowledge that this is a complex area of critical importance to the economy and society at large; climate change is unquestionably a defining issue of our time. Simultaneously, our understanding of climate risk is currently evolving. It is an interdisciplinary problem that requires an interdisciplinary approach - one which warrants attention and appropriate public policy responses.

As FHFA develops a framework to oversee climate and natural disaster risk at the regulated entities, we urge FHFA to continue to work collaboratively with those experts necessary for a more thorough understanding of climate risk, including other financial regulators, climate science experts, risk management experts, and stakeholders that serve the interests of those most impacted by climate disasters. A measured, collaborative, and iterative approach to overseeing climate and natural disaster risk will help ensure that risk management is an appropriate balance of safety and soundness with the affordable housing missions of the regulated entities. As FHFA's climate risk understanding and oversight evolves, we ask that the Agency continue to partner with the Enterprises as we similarly evolve our understanding.

I. Freddie Mac's Approach to Climate and Natural Disaster Risk Management

Freddie Mac understands climate risk as the exposure to losses resulting from climate change. It is not a stand-alone risk; rather, climate change is a source of additional exposure. Climate risk incorporates both the risks from physical climate change impacts ("physical risks") and risks stemming from climate driven changes in policy, technology or consumer preferences that lead to structural changes in the economy (“transition risks”). Climate risk also impacts the entire mortgage finance ecosystem, including our borrowers, seller/servicers, property and casualty insurers, mortgage insurers, reinsurers, investors, government, and the capital markets. There are direct and indirect impacts to Freddie Mac – and all participants in the mortgage finance ecosystem - from climate change.

Freddie Mac recognizes that climate risk is broader than natural disaster risk. Natural disaster risk is one component of physical risk. Freddie Mac defines natural disaster risk as the exposure to losses resulting from perils of Mother Nature that cause a borrower to default in the terms of his or her mortgage loan or impact the value of the collateral securing those loans. These perils are typically low probability events that are difficult to predict and measure. Natural disasters can also impact Freddie Mac’s internal operations and those of our counterparties, borrowers, and business partners. These risks are reviewed at the company’s highest level of management, including our Board of Directors, and we disclose the risk of natural disaster and climate change loss in our mortgage portfolio in our securities filings.

Freddie Mac actively manages natural disaster risk through a combination of robust single-family (“SF”) and multifamily (“MF”) risk management policies and business practices. Losses to Freddie Mac from historical natural disaster events have been very small. Freddie Mac’s losses are reduced by (i) borrower hazard insurance, which for MF includes business income/rental value coverage; (ii) borrower flood and mortgage insurance, as applicable; (iii) Freddie Mac’s borrower loss mitigation activities; (iv) credit risk transfer (“CRT”). Our losses are further offset by positive governmental response in the affected areas, the geographic diversity of our SF and MF portfolios, and borrower equity.

Single-Family Natural Disaster Risk Management

Freddie Mac has successfully managed natural disaster risk in our SF business through a variety of ways, including the development of a robust mechanism to track natural disasters and their impacts at the property level. The company requires through its SF Seller-Servicer Guide (“SF Guide”) that all properties collateralizing single-family loans purchased by Freddie Mac be fully insured against all relevant hazards, including fire, wind/hail, hurricane and floods (if located in a FEMA Special Flood Hazard Area (“SFHA”)).[1] Freddie Mac’s SF Guide requires, “[f]or as long as Freddie Mac owns an interest in a Mortgage, the Seller/Servicer must ensure that the Mortgaged Premises are covered by insurance meeting the requirements in this and

[1] Earthquakes are not covered in standard homeowner insurance policies, but earthquake insurance coverage may be purchased in borrower’s discretion and subject to availability.

subsequent sections."[2] Our servicers are required to "continuously monitor the Borrower and Mortgage to ensure that adequate coverage has been obtained and remains in force."[3] Additionally, mortgage insurance is required for mortgages with a loan-to-value ("LTV") over 80 percent. Mortgage insurance may compensate for losses arising from borrower defaults, however physical damage primarily due to a natural disaster may be excluded.

Freddie Mac reviews Seller/Servicer compliance with these SF Guide requirements in several ways. First, our Quality Control ("QC") process tests samples of loans. Second, we review the controls our counterparties maintain to confirm adequate flood coverage on properties located in a SFHA, acceptable hazard insurance, and comply with our guidelines. Our Sellers and Servicers warrant that our mortgage loans are protected as required by the SF Guide and if mistakes are made which lead to losses, they have an obligation to indemnify us for those losses.

In addition, we provide relief options for borrowers affected by a natural disaster to significantly reduce the probability of default and foreclosure. Our relief options for SF borrowers affected by natural disasters include forbearance programs, loan modifications, payment deferrals, repayment plans, short sales and deeds in lieu of foreclosure.

Freddie Mac's SF CRT program transfers credit risk away from U.S. taxpayers and the program does not exclude natural disaster risk. As a result, if, after giving effect to the mitigation strategies described above, the aggregate losses from natural disaster risk were to exceed the protection provided by FEMA or other disaster mitigation programs, a portion of such natural disaster risk would be transferred to SF CRT investors.

Multifamily Natural Disaster Risk Management

Freddie Mac has successfully managed natural disaster risk in our MF portfolio in similar ways. We require all collateral securing MF loans purchased by Freddie Mac to be fully insured for all relevant perils, including fire, wind, tornadoes, hurricanes and, if located in a SFHA, floods. Insurance must be in place to cover losses for both buildings and business income associated with multifamily loans. Furthermore, we require earthquake coverage for properties in areas at elevated risk for such events. Our insurance coverage requirements are in line with those required by institutional commercial/MF real estate lenders, plus we have some of the most robust insurance requirements for hurricane and flood risk among institutional lenders. Our hurricane (Named Storm) insurance requirements default to the highest insurable value within a portfolio covered by blanket insurance limits, and our flood insurance requirements go well

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[2] SF Guide section 8202.1.
[3] SF Guide section 8202.12.

beyond coverage required under the federal mandatory purchase requirements for MF buildings.

Seller/Servicers complete borrower insurance reviews at loan origination, indicating whether borrower's insurance is compliant with our Multifamily Seller/Servicer Guide ("MF Guide") requirements, and Freddie Mac reviews the insurance as well prior to loan purchase. We also review insurance in place of loans post-purchase and prior to securitization to validate that our representations and warranties for insurance coverage are met. Seller/Servicers also report annually to Freddie Mac details of insurance compliance with the MF Guide. Freddie Mac also conducts annual reviews of Seller/Servicers to determine compliance with MF Guide requirements, including insurance requirements.

Freddie Mac MF has offered forbearance programs to borrowers impacted by recent natural disasters. This is done on a case-by-case basis, depending on the severity and distribution of loans impacted. The program has allowed borrowers impacted by these events to focus on assessing, stabilizing, and reconstructing the collateral without the immediate concern of making payments on their mortgage debt.

We also manage natural disaster risk through MF's CRT activities, through which the vast majority of credit risk is transferred to private investors. In general, this consists of issuing securities backed by pools of loans purchased specifically for sale into a securitization. More than 90 percent of new MF loan originations are intended for securitization, which results in 85-90 percent of the credit risk of these loans residing within the private market. Loan level principal losses on the underlying loans in a securitization (like the kind that might result from an under-insured commercial real estate asset during a natural disaster) are born by the trust through write downs of the most subordinate unguaranteed bond first (i.e., a subordinate bond must be written down to zero before the bond above it is written down). The 10-15 percent of risk retained by Freddie Mac via its guarantee on senior securities takes the last loss position in a securitization. It is also important to note that, in general, each securitization consists of a geographically diversified pool of loans, which decreases the pool-level impact of localized natural disasters.

Freddie Mac Portfolio as a Risk Management Tool

Our loss exposure from natural disasters is further limited by:

(i) the geographic diversity of our mortgage portfolio. This limits the impact of any single natural disaster event to the subset of loans located in the affected area.

(ii) high levels of borrower equity. Our overall single-family mortgage guarantee portfolio currently has a loan to value ("LTV") ratio of 59%, while the LTV ratio of our multifamily guarantee portfolio is 46%. These high levels of equity provide substantial incentives for borrowers to protect and maintain their properties both before and after a natural disaster event.

Freddie Mac undertakes periodic analyses of the risk imbedded within our SF and MF mortgage guarantee portfolios, using a combination of internal and external models and expertise. We leverage various third-party natural catastrophe models that estimate the physical damage arising from a range of simulated historical and potential events such as floods, hurricanes, and earthquakes. We combine the catastrophe model results with loan performance parameters and various assumptions to determine potential impact on delinquency and financial impact to our portfolios. We have also used historical data associated with areas where natural disaster events have occurred to compare physical and financial impacts to collateral. Additionally, we acknowledge that SFHA designations are out of date and accordingly we have explored our exposure to both loans in SFHA flood zones as well as loans outside SFHA flood zones where models predict a high risk of flooding.

Future Climate Risk Management

Through our natural disaster risk management practices, we have minimized losses to Freddie Mac and supported borrowers recovering from those impacts. While this has been successful in the past, Freddie Mac understands that climate risk management requires an understanding of broadly scoped and constantly changing parameters such as global temperatures, rising sea levels, and frequency and severity of storm events. We are continually working towards expanding our understanding of the science and externalities by increasing our outreach to various risk-modeling vendors, research academia, and financial risk-modeling experts. We also recognize that integration of physical and financial data routinely collected with available risk models presents additional challenges to selection and use of climate risk management approaches. Better understanding of all factors involved is crucial to avoid creating unintended consequences for the mortgage market.

There is no current agreed-upon, standardized understanding as to how the financial services industry should manage, measure, mitigate, and disclose the risks that stem from climate change. Because climate change is nonlinear and constantly evolving, the future risks it poses to the Enterprises are currently not quantified. Understanding and managing these risks requires more, and better, data about their scope, severity, and duration.

As the Enterprises continue to gain an understanding of the risks associated with climate change, it is critical that the Enterprises manage and mitigate those risks consistent with our

Charter mission. Supporting liquidity, stability and affordability of the residential mortgage markets precludes us from exiting geographies that are more severely impacted. We also know that underserved markets frequently face the largest impacts from natural disasters and are more likely to face displacement and equity erosion from natural disasters. Risk management practices need to be balanced with our mission and legal obligations to serve underserved markets.

Freddie Mac is committed to supporting the energy efficiency market as part of our goal to preserve home affordability. We currently support this market through product features and underwriting flexibilities. Examples include our SF GreenCHOICE Mortgage offering and the MF Green Advantage suite of offerings, which provide favorable credit terms for properties that have instituted environmentally sustainable practices such as energy-efficient lighting and appliances, waste recycling, and efficient stormwater management. We are also encouraging additional investor support through our MF Green Bonds which leverage our K-deal structure and are backed by MF mortgage loans that meet our green selection criteria. The proceeds of Freddie Mac's MF Green Bonds are used to finance the Green Advantage loans that serve as collateral. We are also supporting the mortgage industry through our research.[4] In 2020, we analyzed flood risk in a research note that showed the threat and reality of natural disasters can affect the perception of flood risk and property values in more ways than actual damage. We will continue to engage with our stakeholders to identify opportunities to support a more resilient mortgage ecosystem.

II. Considerations for FHFA's Future Climate Risk Management

Freddie Mac suggests that as FHFA develops a framework to oversee climate and natural disaster risk at the regulated entities, it should consider the following principles:

a. Collaborate with other climate/natural disaster risk experts

In order to provide effective oversight and ensure that the Enterprises continue to operate in a safe and sound manner, Freddie Mac recommends that FHFA continue active participation in the ongoing discussions intended to lead to a clearer, more standardized understanding of the scope of climate risk and fully engage with other financial regulators to establish appropriate risk management among affected financial institutions. FHFA has an important role to play as the regulator of the Enterprises and the Federal Home Loan Banks ("FHLBs") given the mortgage market's role in the overall economy.

[4] http://www.freddiemac.com/research/insight/20200910_unravelling_perceptions_of_flood_risk.page

b. Take a deliberate and measured approach

A rush to impose regulatory standards and requirements could lead to significant unintended consequences in the market. We believe that oversight should be measured, with a significant level of engagement at the Enterprises to understand the potential operational and market impacts of any new requirements.

c. Balance a risk-based approach with mission

Any new requirements must be balanced against the Enterprises' mission to foster the liquidity, efficiency, competitiveness, affordability and resiliency of the national housing finance markets, as well as our duty to serve low- and moderate-income families in underserved markets. Any risk oversight framework should also recognize that climate impacts vary in materiality. Given the unique nature of climate risk, that prioritization will likely evolve over time. As they do today with emerging risks, the Enterprises will need to evaluate the most material climate risks and prioritize those accordingly. In addition, we urge FHFA to allow the Enterprises to prioritize climate risk in relation to other risks facing the company using a risk-based approach.

d. Review the lessons from others

Several lessons can be taken from leaders in the industry. Europe and Asia have been operating with varying levels of legislative and regulatory oversight of climate risk in the financial sector for the past year. In Europe and Asia, risk management and reporting are largely tailored to sector and asset, leaving significant room for variability based on a specific company's unique exposures and position. Freddie Mac acknowledges that scenario analysis and stress testing are current best practices, particularly given the unknowable scope, duration and intensity of climate change impacts. This creates flexibility to manage to the known risks and around limitations on data; scenario analysis will necessarily evolve in keeping with data improvements and should be updated accordingly. This is a model that US financial services regulators should consider as well.

Sincerely,

Mark Hanson
Senior Vice President- Securitization