



June 12, 2021

Chair Gary Gensler
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

RE: response to SEC's Climate Change Disclosures RFI

Dear Chair Gensler,

Thank you for the opportunity to respond to the Securities and Exchange Commission's (SEC) March 15, 2021 Request for Input (RFI) on climate and natural hazard risk in financial disclosures. We applaud the SEC's proactive steps to inform investors of the physical and transition risks their investments face as the frequency and severity of natural hazard events increases as a result of climate change. Since 2010 the Commission has been working on this important issue, like providing guidance on existing disclosure requirements as they apply to climate change for public companies. This year's announcement of the Division of Corporation Finance's enhanced focus on climate disclosure in public filings is an important step in the evolution of disclosures.

The residential mortgage backed securities (RMBS) market presents the SEC with a novel opportunity to introduce and test climate informed physical risk assessments using metrics vetted by industry and regulators alike. This letter provides some information about those metrics and the quality controls that go into producing them. Moving beyond residential mortgage, natural hazard risk at an enterprise level can be quantified and measured with industry tested physical risk assessment tools. Knowing those risks can help industry experts and regulators understand the implications on transition risk. Steps should be taken to ensure the quality and consistency of the data and models used. In addition, frequent disclosure will be important to keep current with the latest science and identify trends. We look forward to working with the SEC, investors, and industry as climate disclosure are developed and socialized throughout the U.S. economy.

Private-Label Residential Mortgage Backed Securities

The RMBS market could be a useful testing ground for climate disclosure and we recommend beginning by ramping up loan level disclosures in RMBS securities by amending RegAB to include disclosure of natural hazard and climate risk. There are already market tested metrics in this area whose disclosure at a loan level would benefit investors. Furthermore, if these types of metrics were required disclosure, the quality of the metrics would improve over time. Once these disclosures are imbedded in the RMBS market, we believe the disclosers could be extended to other asset classes and more generally into corporate disclosures.

The SEC has a unique opportunity to shape the private-label RMBS market, putting it on the cutting-edge of climate science while comprehensively protecting investors. Through RegAB, the SEC could require the inclusion of loan level natural hazard risk scores at origination and annually updated composite risk scores collected by servicers could track changes in risks reported to the SEC and investors. Having a diverse set of securitization options will allow for a more vibrant mortgage market that can serve more potential homeowners. However, innovation should not come at the expense of safety and soundness. While the private-label securities (PLS) market for residential remains small, the SEC has the opportunity to ensure climate risk is included in disclosures without contributing to significant price adjustments. Requiring the kind of physical asset disclosures we will describe in further detail for PLS offerings will provide investors with a wholistic understanding of risk. No other industry may have as robust an understanding as the mortgage and real estate markets do when it comes to natural hazard risk. However, both government backed and private investment does not comprehensively take into account climate and natural hazard risk in the price of their securities. While certain perils are accounted for, like flood, comprehensive risk is not systematically considered. Neither is the threat of increasing frequency and severity of natural hazard caused by climate change. As the residential PLS market moves through this stage of transition, the SEC should take advantage of this opportunity to fully protect investors through comprehensive natural hazard and climate disclosure.

Quantifying and Measuring Natural Hazard and Climate Risk Beyond RMBS

The best way to measure climate risk is to use industry leading tools that are market-tested in conjunction with data, technology, and internationally recognized climate scenarios for stress testing catastrophe models. CoreLogic recommends corporate infrastructure disclosures using catastrophic risk models informed by the Intergovernmental Panel on Climate Change (IPCC). The IPCC is the leading world body for assessing the latest science related to climate change, its impacts, and potential future risks. It may not be practical or useful for investors and regulators to understand the risk of each physical asset exposed to natural hazards. However, a composite risk score of the aggregate climate risk a company's assets face can offer a readily understandable disclosure for investors. Scores that integrate IPCC climate scenarios with market tested natural hazard modeling will give investors and the SEC a clearer understanding of the risks company's face from climate change.

Traditional catastrophe risk models are based on a static climate regime consistent with the immediate past; these models can use a modified climate regime leveraging forward-looking simulations of the interaction between energy and matter in the ocean, atmosphere, and land based on levels of greenhouse gas emissions. Climate adjusted probabilistic risk models can provide insights into the riskiness of our environment given specific boundary conditions or stress pathways.

Loss forecasting for natural disasters is challenging due to the variability inherent in weather. However, natural catastrophe risk modeling has evolved in the insurance and government planning industry over the last 30 years, and catastrophe risk models have a track record of supporting a stable risk transfer market for extreme losses due to the weather perils of flooding (coastal and inland), hurricanes, severe convective storms including tornadoes and hail, and wildfires. These models support traditional insurance and reinsurance transactions as well as securitized risk transactions (catastrophe bonds). Natural catastrophe models combine historical disaster information with current demographic, building (age, type, and usage), scientific, and financial data to determine the potential cost of catastrophes for a specified geographic area. The models use these vast databases of information to simulate the physical characteristics of thousands of potential catastrophes and project their effects on both residential and commercial property. While loss forecasting may be challenging, broad and robust insurance markets have developed with the help of sophisticated modeling that allow for actuarially sound risk pricing.

The measurement of climate risk relies upon data that is a granular and accurate representation of the risk. For the SEC, the securities it regulates, and investors, a complete understanding of risk includes both enterprise wide physical asset risk assessments and an understanding of the single event aggregation of risk potential. These elements address risk factors affecting the broader localities registered companies operate in and the sustainability of those communities. Investors, registrants, and the SEC want fair, meaningful, and actionable disclosure. Property and casualty insurance markets offer a real-world example of using natural catastrophe risk modeling to price risk for a variety of market participants.

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Figure 1 – CoreLogic Average Annual Loss and Probable Maximum Loss estimates across different climate change scenarios.

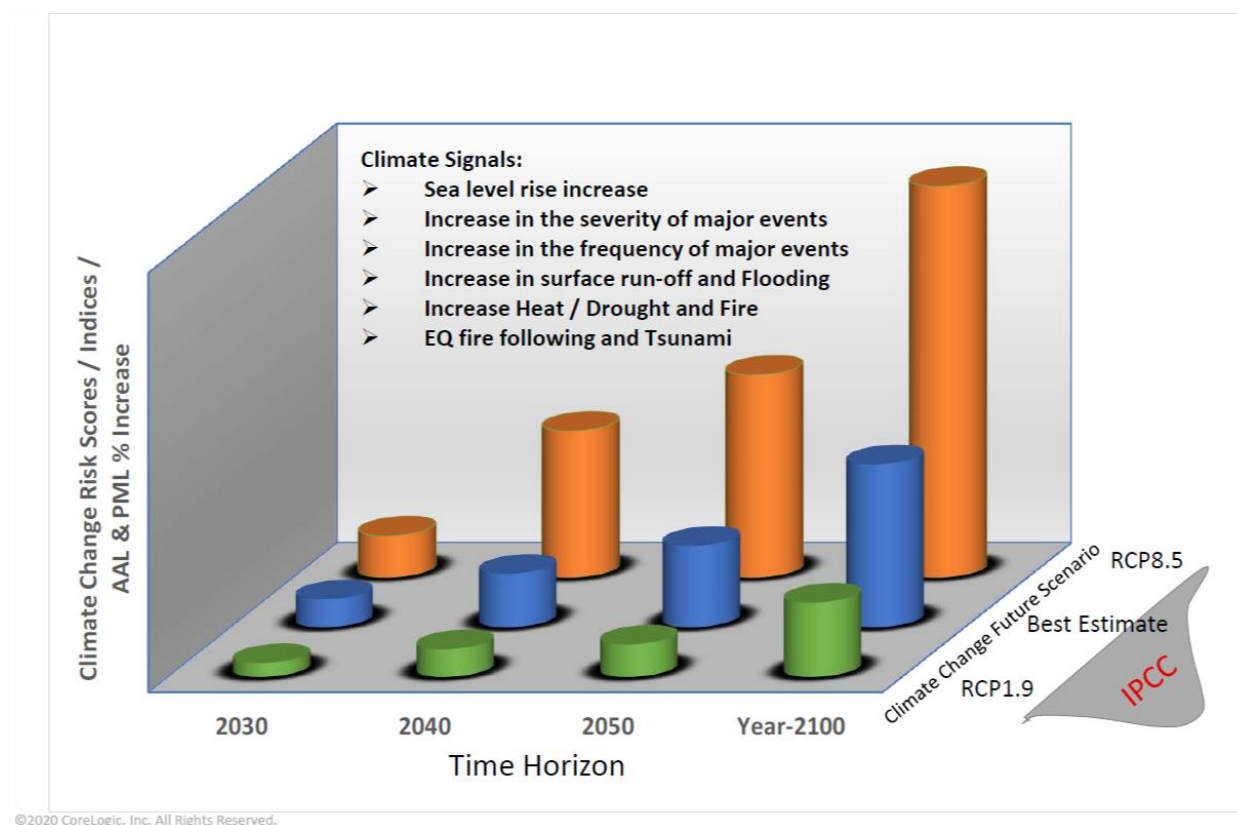


Figure 1

Understanding Physical Risks and their Implications on Transition Risk

Understanding enterprise level physical risks from climate change that companies face is important for investors to understand on its own and as a key component toward understanding transition risks companies and industries face as a whole. The Fourth National Climate Assessment notes, "...neither global efforts to mitigate the causes of climate change nor regional efforts to adapt to the impacts currently approach the scales needed to avoid substantial damages to the U.S. economy, environment, and human health and well-being over the coming decades."¹ The changing climate presents a unique challenge in terms of disclosing risk for the SEC and the publicly traded companies whose securities it regulates.

As the frequency and severity of natural hazard events increase, any company with physical assets faces the increasing possibility that their business will be interrupted by significant, serial weather and natural hazard events. These risks can manifest themselves both directly and indirectly as damage to assets and disruptions to an organization's operations, supply chain, transport needs, and employee safety. While the Covid-19 pandemic has demonstrated some industries ability to quickly and effectively transition to a work from home environment,

¹ Reidmiller et. al, "Fourth National Climate Assessment" (2018), available at <https://nca2018.globalchange.gov/>

many others have been devastated by the inability to perform core business functions away from their primary place of business. This interruption to business from the loss of physical asset use is made worse when considering natural hazard events can have severe impacts over broad geographic areas where local infrastructure or the employee base itself is affected.

The current state of natural hazard science and analytics already allows for a high degree of granularity when assessing the risk of any physical assets, infrastructure networks, or housing both single and multi-family. Improvements to the science and technology of catastrophe modeling and their increased utilization in assessing the natural hazard and climate risk companies face by regulators, investors, industry analysts, and fund managers may lead to transitions in and amongst industries and sectors. As trends in the climate and risks to locations become clear through analyses, significant changes to the value of assets and business can occur as investors account for these factors. Market preferences could be further intensified by changes in policy and mitigation efforts by local, state, and federal governments as the effects of climate change are better understood. Investors and the SEC could require publicly traded companies to disclose the material physical risks at an enterprise level in order to understand the potential impacts to investments from climate change and natural hazard events. This knowledge will inform prudent investing and will help investors, regulators, and stakeholders prepare for future trends and transitions.

Industry Tested Physical Risk Assessment Tools Are Available

The insurance industry has been using probabilistic risk modeling methods developed and tested in global and domestic property and casualty insurance markets for decades. That market tested science and analytics can help investors, fund managers, and the SEC to regulate, monitor, review, and guide climate change disclosures in a consistent, comparable, and reliable way. Catastrophe risk modeling – quantifying the frequency and severity of potential natural catastrophes – has long been a tool deployed to help manage, plan for, and mitigate the risks of such events. These same tools have been adapted to study the potential catastrophic impacts of future climate change scenarios. CoreLogic is a leader in catastrophe risk modeling and offers a number of climate-based models including our North Atlantic Hurricane Model that is certified by the Florida Commission on Hurricane Loss Projection Methodology. Models like ours allow for a consistent, comparable, and reliable understanding of risk across geographies. When combined with granular and comprehensive structure data, they can provide understandable and actionable disclosure of risk across a company's portfolio of assets, industries, and sectors.

Figure 2 – CoreLogic's Composite Risk Score, Aggregated by Zip Code

The composite risk score is comprised of Inland Flood, Hurricane Wind, Severe Convective Storm, Wildfire, Storm Surge, Earthquake, and Winter Storm Risks which can all be viewed individually.

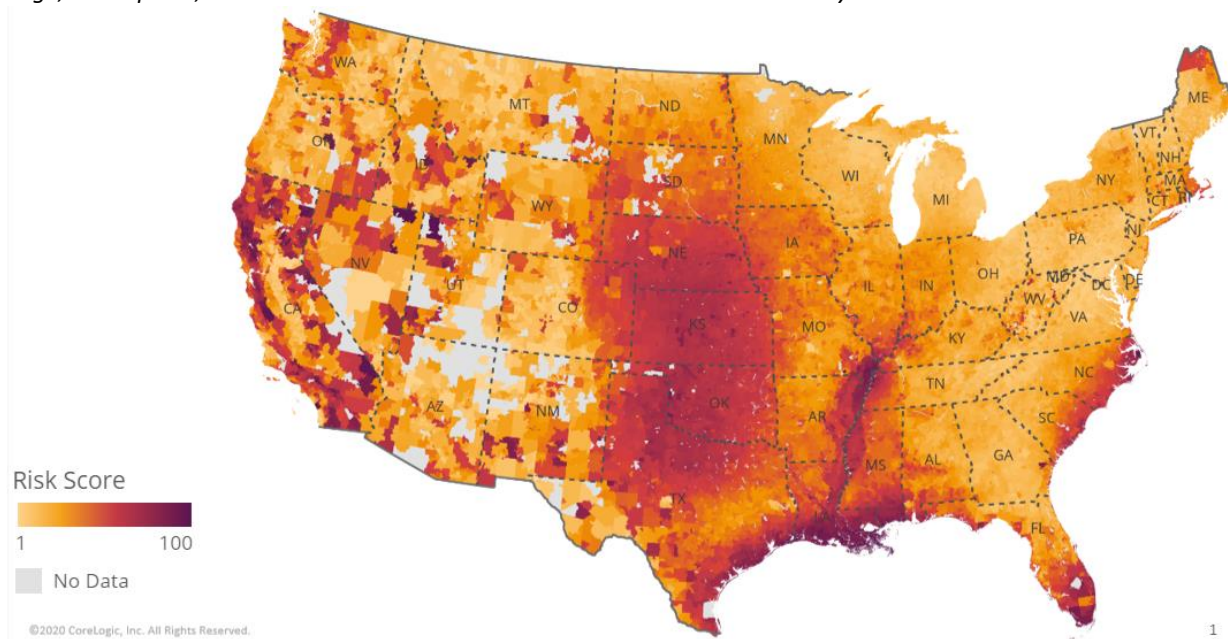


Figure 2

Data Quality and Consistency

Data quality and consistency should be at the forefront of any climate disclosures. Much of the work evaluating and testing natural hazard models, under real world conditions, has already been done by the insurance industry and government regulators. High quality catastrophe models are currently in use in places like Florida and their certification and/or recognition by state agencies and commissions is a strong indicator of model accuracy, sound modeling methodology, and trustworthiness. The SEC could establish a certification program like the Florida Commission on Hurricane Loss Projection Methodology (FCHLPM). The FCHLPM interrogates hurricane models for quality including the following standards:

Hurricane standards are categorized under six groupings: General Standards, Meteorological Standards, Statistical Standards, Vulnerability Standards, Actuarial Standards, and Computer/Information Standards.

Flood standards are categorized under seven groupings: General Flood Standards, Meteorological Flood Standards, Hydrological and Hydraulic Flood Standards, Statistical Flood Standards, Vulnerability Flood Standards, Actuarial Flood Standards, and Computer/Information Flood Standards.

The commission's composition includes:

- The state Insurance Consumer Advocate;
- A senior employee of the State Board of Administration responsible for operations of the Florida Hurricane Catastrophe Fund;

- The Executive Director of the Citizens Property Insurance Corporation;
- The Director of the Division of Emergency Management;
- The actuary member of the Florida Hurricane Catastrophe Fund Advisory Council;
- An employee of the Florida Department of Financial Services who is an actuary responsible for property insurance rate filings;
- An actuary who is employed full time by a property and casualty insurer which was responsible for at least 1 percent of the aggregate statewide direct written premium for homeowner's insurance in the calendar year preceding the member's appointment to the Commission;
- An expert in insurance finance who is a full-time member of the faculty of the State University System and who has a background in actuarial science;
- An expert in statistics who is a full-time member of the faculty of the State University System and who has a background in insurance;
- An expert in computer system design who is a full-time member of the faculty of the State University System;
- An expert in meteorology who is a full-time member of the faculty of the State University System and who specializes in hurricanes;
- A licensed professional structural engineer who is a full-time faculty member in the State University System and who has expertise in wind mitigation techniques.

While not all of these roles may be relevant or necessary for the SEC to review and approve model accuracy, this example may prove useful in understanding the expertise necessary when reviewing models that will be used for disclosure in a large marketplace. The SEC could create a similar commission internally to review models or require model methodology transparency for investors to compare to the current landscape of models in use today.

The California Earthquake Authority (CEA) is another example of an organization that performs robust hazard model examinations for earthquake insurance sold in the state. The CEA could be another informative example for the SEC to develop an inhouse vetting process or an important institution to compare models against for transparency purposes.

A second consideration for catastrophe models is the number of perils available. When considering models that evaluate a company's aggregate exposure to natural hazard risk, models should cover the following primary perils in the United States: (climate related) Inland Flood, Storm Surge, Wildfire, Hurricane Wind, Severe Convective Storm, and Winter Storm; and (non-climate related) Earthquake. Additionally, disclosures should include secondary perils, like Fire Following Earthquake and Tsunami. Models must also have the ability to model related climate signals e.g. increased frequency and severity of major hurricanes, sea level rise, increased precipitations and flooding, and increased heat waves and fires. Registrants can disclose the aggregate risk across the enterprise and the SEC may want to consider requiring per hazard risk disclosure where it rises to a material level.

For climate and natural hazard risk disclosures of physical assets that are structures like homes, apartments, and office buildings, reconstruction cost data evaluation will be a key element for investors to understand not only the risk to the asset but what it will cost the company to replace it. The most important factor to consider when choosing a data source is accuracy. Accuracy for these tools is based on the quality of local building material and labor costs, which are the basis of 'ground-up' construction for the best modeling tools available.

Enterprise Level Natural Hazard Risk Scores should be evaluated based on the same perils listed above, and also include a standardized, granular scoring methodology that is easy to understand and properly quantifies risk.

- Standardized – an easy to read composite score across a company's portfolio of physical assets.
- Granular – not only should the aggregate risk be understood across a company's physical footprint but individual scores by peril will help investors understand if a certain peril(s) pose a unique material risk to the enterprise and if it is properly insured against.

Frequent Disclosure Will be Needed to Confirm Model Accuracy and Identify Trends

The effects of climate change on companies and their securities will vary between geographies, be disassociated from historic trends for physical assets and regions, and have the potential to impose significant costs upon registrants. These are challenges that should be available for investors to consider and an efficient market will require a transparent assessment of the forward-looking climate change impacted natural peril risk to companies. The SEC should consider disclosures that account for climate risk consistently over time. Assessments, in the form of a composite risk score covering the breadth of a company's infrastructure, as well as individual scores by peril. Adding these assessments as an annual requirement for tracking and reporting purposes would ensure assessments are readily available for risk modeling and informed by the latest science.

Since climate change is dynamic and constantly evolving, annually updated composite risk scores could be used by the SEC, investors, and fund managers to track changes in risks in the near term and ensure disclosures are keeping pace with scientific advancements. As the changing climate has evolved so has the science and analytics around it. Annual disclosure of aggregate physical asset risk will ensure the latest scientific understanding of natural hazard and climate modeling are being utilized in determining a company's exposure. Figure 3 demonstrates the changes in scientific understanding of the San Andreas Fault over the course of three years. Research over that time changed the understanding of the Fault from a disintermediated series of faults to a continuous fault with connected risk from south to north.

Figure 3 – CoreLogic San Andreas Fault Rupture model updates from 2016 to 2019

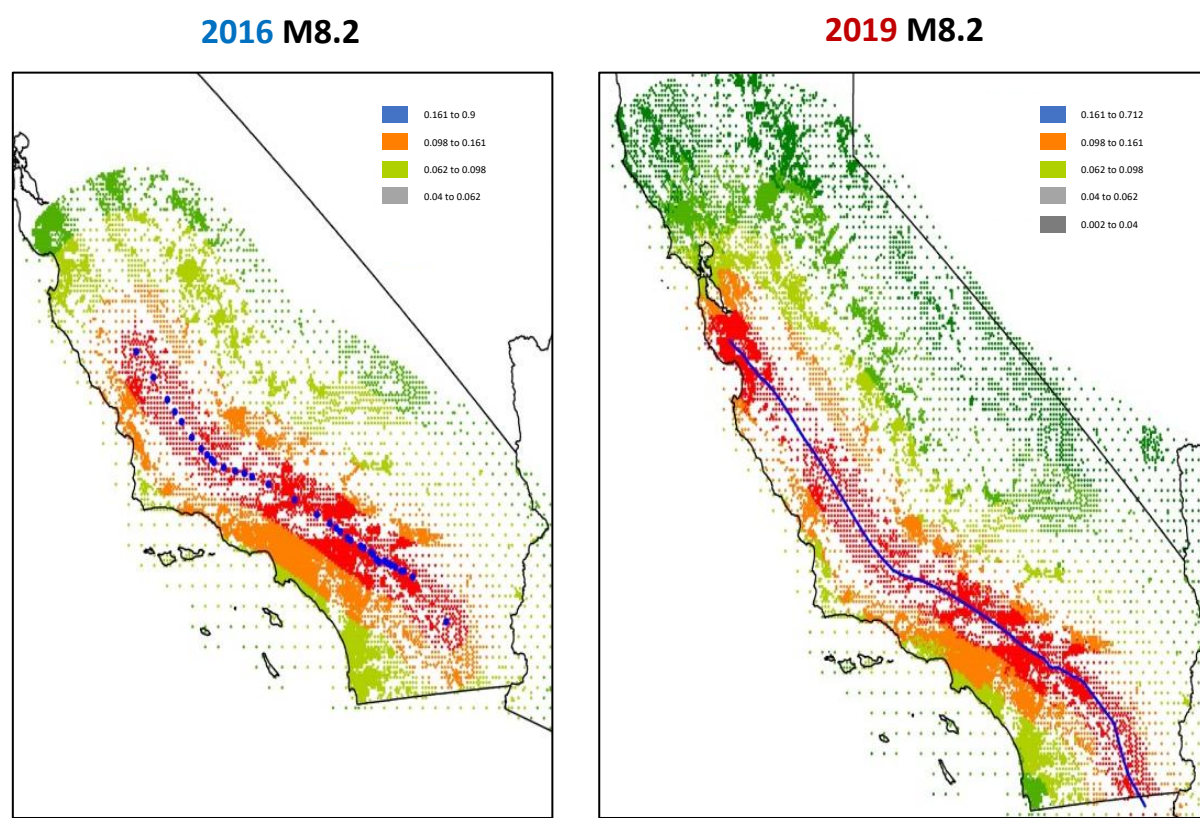


Figure 3

Corporate Governance Can Ensure the Reliability of Climate Disclosures

The risks, costs, necessary mitigation, and adequate insurance levels to properly protect a company from natural hazard and climate change are quantifiable. Enterprise level risk strategies are deployed throughout the property and casualty insurance industry using well established, proven tools. As CEO's and CFO's are required to certify their company's financial statements, the measurable aggregate risk to physical assets posed by climate and natural disaster could be certified by these officers as well. Composite and individual risk scoring combined with reconstruction cost data can quantify potential losses, especially over shorter time horizons. Paired with insurance coverage disclosure, investors can have a clear understanding of whether or not a company is reasonably accounting for risk to their corporate infrastructure.

Material Risk to Physical Assets Represents a Unique and Singular Consideration

The evolving regime of environmental, social, and governance (ESG) disclosures has the potential to change our economic life in a way that better reflects our society. However, it is important to differentiate physical risks to assets posed by the increasing frequency and severity of natural hazard events caused by climate change. The SEC recognizes the nascent

state of ESG disclosures, and the need to further develop an understanding of what rises to a material level. While those standards are developed, the unique and material role any companies' physical assets play in terms of financial risk should be given careful consideration. As the risks to those assets increases, investors need to know the exposure their investments face in a changing climate. CoreLogic supports and encourages the SEC to continue to develop requirements around ESG disclosure and contributed our first ESG report as part of our 2019-2020 reporting documents. As the SEC continues its work on those standards, the unique need for investors to understand natural hazard risk as it relates to climate change should be thoughtfully considered.

Conclusion

CoreLogic applauds the SEC's further engagement on the capabilities, complexities, and ultimate benefits of natural hazard and climate change disclosure. The SEC has taken multiple important steps toward addressing this critical problem, such as creating the Climate and ESG Task Force in the Division of Enforcement. As task force leader Acting Deputy Director of Enforcement Kelly L. Gibson said upon its creation, "Proactively addressing emerging disclosure gaps that threaten investors and the market has always been core to the SEC's mission." We could not agree more that these risks, especially risks to physical assets, can be measured, mitigated, and priced accordingly. The SEC has an opportunity through the RMBS market to introduce climate informed physical risk assessments. Beyond residential mortgage, industry tested physical risk assessment tools can quantify and measure natural hazard risk at enterprise scale, which can help inform transition risk. Quality and consistency of data and models will be important throughout the development of climate disclosures and frequent disclosure will play a key role in keeping current with the latest science and trends. We look forward to working with regulators, industry, and policy makers on developing meaningful natural hazard and climate change disclosures.

Sincerely,



Stuart K. Pratt
Global Head
Public Policy and Industry Relations