



COASTAL RISK CONSULTING

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“You Know Your Carbon Footprint, but Do You Know Your Risk Footprint?”

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For decades, Environmental, Social, and Governance (ESG) scoring of investments, and public reporting of those scores, has focused mainly on one side of a two-sided coin, namely, what a business or asset is doing to the planet -- particularly, the “Carbon Footprint” of that company measured by CO₂ greenhouse gas emissions. The other side of that coin is, of course, what the planet is doing to the same business or asset, or its physical climate risk or “Risk Footprint.”

Today, ESG sustainable investment is big business. In 2018, The U.S. Forum for Sustainable and Responsible Investments estimated that around \$12 trillion of assets in the US alone are managed under some sustainable investing strategy (<https://www.marketwatch.com/story/heres-what-you-need-to-know-about-the-12-trillion-dollar-esg-investment-world-2019-12-18>). According to S&P, the global market for ESG funds may surpass \$30 trillion (<https://www.spglobal.com/en/research-insights/articles/esg-becoming-mature-market-as-sustainable-assets-hit-30-7-trillion-in-2018>). As a result, for some time, many Real Estate Investment Trusts (REITs), Commercial Real Estate (CRE) and Private Equity (PE) firms have been tracking and reporting Environmental, Social, and Governance (ESG) issues through the CDP (<https://www.cdp.net/en>), GRESB (www.gresb.com), TCFD (<https://www.fsb-tcfd.org/>), USGBC (www.usgbc.org) and other vehicles to understand their “Carbon Footprints”

Statistics on the growth of extreme weather natural disasters over the past few years, however, indicate that understanding an asset’s “Risk Footprint” might be as important as understanding its “Carbon Footprint”. While over the past 40-years, the number of (individual) natural disasters causing financial losses in excess of \$1 billion has risen steadily, few REITs, CREs, and PE firms measure the extreme weather and climate risks to portfolio assets. Natural disaster insurance claims were the highest ever in 2017 at \$144 billion, and most of the annual losses (a total of \$337 billion) were uninsured. Wildfires in 2017 caused a record \$21 billion in losses. The rapid sequence of hurricanes Harvey, Irma, and Maria in the same year caused losses equivalent to 0.5 percent of the US GDP. Of the top ten costliest catastrophes ever recorded in the US, eight were hurricanes and four of the eight occurred in the past 8-years. According to a World Bank study, more than one-third of the world’s land area is flood prone, affecting about 82% of the world’s population. These patterns of increasing extreme weather events are widely acknowledged by science, the insurance industry and commercial real estate (<https://www.climate.gov/news-features/blogs/beyond-data/2010-2019-landmark-decade-us-billion-dollar-weather-and-climate>).

As a result of increasing extreme weather, natural disaster losses and physical climate risks, the ESG scoring entities mentioned above have begun to offer what they call “resilience modules”, as a recognition that understanding the “risk footprint” of a business or asset is as important to the investment community as understanding its “carbon footprint”. These resilience modules, however, do not actually assess or communicate specific risks to individual assets, such as an office building or a factory. Rather, they simply provide a framework process that may be used by REITs and others to conduct such physical risk assessments and communicate the results of these assessments.

“Resilient modules” providing “frameworks” are important (see, e.g., new TCFD Guidance - <https://www.unpri.org/private-equity/tcf-for-private-equity-general-partners-technical-guide/5546.article>), but, they do not give REITs, CRE owners, PE firms, or institutional real estate owners such as ARA | American Realty Advisors, an understanding of the potential capex required to mitigate existing and future flood, natural hazard, and climate risks.

A “Risk Footprint” Assessment Can Guide Mitigation Strategies

Understanding a building’s “risk footprint” can give property owners and investors a basis for specific short-term, medium, and long-range risk mitigation strategies at various cost levels.

There are few technology companies that currently offer both risk assessments for real properties and resilience-accelerating advisory services. Our company, Coastal Risk is one such company. We have found that many property owners might get a “high-level” risk analysis but have no plan of action to mitigate those risks. We do not leave our customers hanging when they ask, “OK. That’s the bad news. What do I do, next?” We partner with property owners to assure they have a step-by-step program to actually accelerate their buildings’ resilience in a changing environment.

For example, a major PE firm recently engaged our company to examine these risks at a large, historic hotel/resort in South Florida. Putting such a large property (with many buildings of different vintages, some over 100-years old) under a “risk mitigation microscope” was a challenge. Our world-class team included: climate scientists, engineers, architects, storm water and flood mitigation experts. After careful modeling tidal flooding, sea level rise, storm surge, and future extreme heat and rainfall, specific recommendations were provided to the client. These included such measures as: elevating new construction, raising seawalls, investing in new, more efficient AC chillers, installing larger roof drains to move rainwater faster off flat surfaces, installing hurricane-proof glass in some locations, doorway barriers, dry floodproofing, re-grading and stormwater controls, and greater flood protections for utilities, such as electrical, backup generators, and communications equipment.

Another company partnering with us to assess risks to properties is American Realty Advisors (ARA). Said Don Pecano, Vice President Due Diligence at ARA, “ARA has been increasingly interested in more fully understanding physical risks to our assets from floods, natural hazards and climate impacts as part of our overall Corporate Responsibility and Sustainability Program. We have worked closely with Coastal Risk to identify and dimension those risks for our existing portfolio and during the due diligence process for new investments.”

CONCLUSION

REITs, Commercial Real Estate companies and Private Equity need three elements in the area of risk assessments: (1) portfolio-level analysis for ESG/Resilience disclosure reporting; (2) an understanding of the potential capex required to mitigate existing and future flood, natural hazard, and climate risks; and, (3) an action plan to mitigate risks and accelerate their buildings' resilience in a changing environment. All three can be provided by a new hybrid of both tech and consulting offered by companies like ours, Coastal Risk. The starting point is knowing you need to analyze the other side of the coin – the “Risk Footprint.”



Hurricane Harvey, Houston, TX 2017