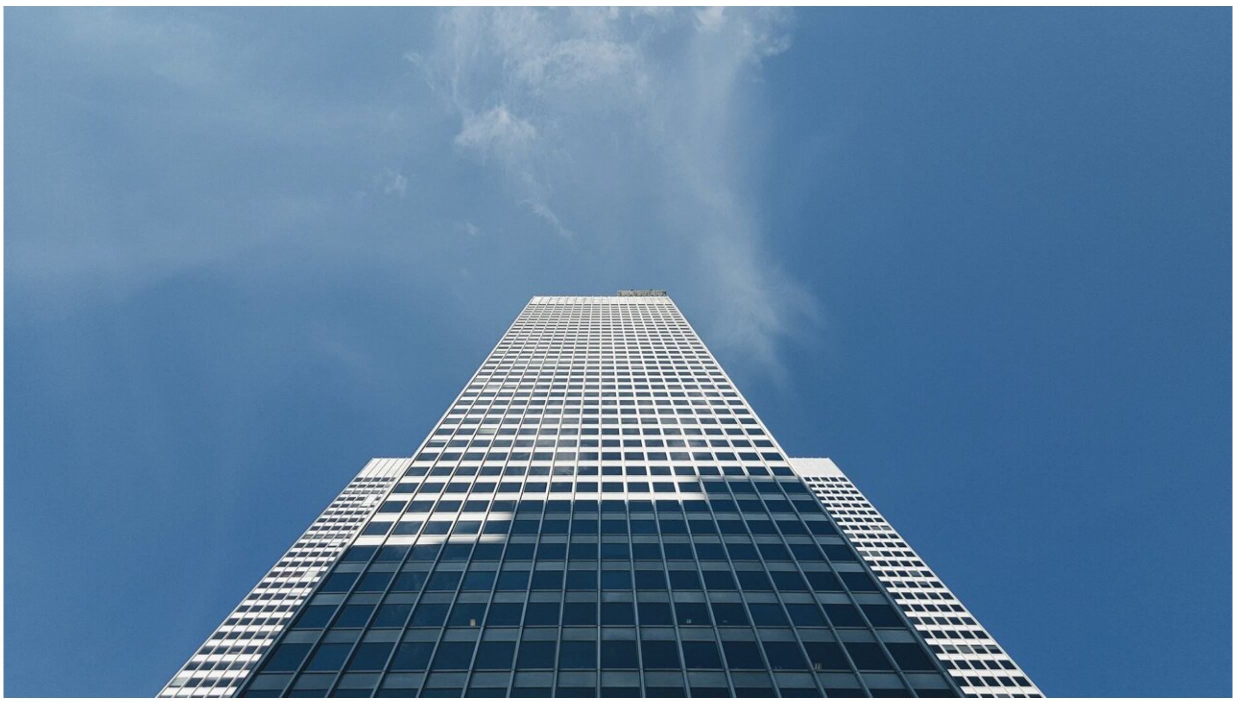
Commercial investors shift perspective of coastal properties in face of climate change

May 15 2023, by Krista Weidner



Credit: Pixabay/CC0 Public Domain

Investors in commercial real estate are rethinking the values of coastal properties exposed to flood risk—even in northern U.S. locales that haven't suffered flood damage, according to researchers. This shift in perspective has implications for investors and developers alike as they determine the value of coastal properties amid a changing climate.

Eva Steiner, associate professor of real estate and King Family Early Career Professor in Real Estate in the Penn State Smeal College of Business, and her co-authors published these findings recently in *Real Estate Economics*.

Steiner and her colleagues, motivated by the observation that commercial real estate investors and developers are increasingly worried about environmental risk exposures of assets tied to particular locations, set out to study how professional investors capitalized flood risk in commercial real estate markets after 2012's Hurricane Sandy. They looked at transaction prices of properties with varying degrees of flood risk exposure both before and after this major flood event.

The researchers found, not surprisingly, that New York commercial real estate properties in areas that sustained hurricane damage continued to trade at lower values in the years following Hurricane Sandy.

"Of course there's going to be a negative effect," Steiner said. "A lot of buildings were damaged, and in many cases tenants couldn't occupy the buildings for a while so owners lost rental income. But the more interesting question that we were after is this: If you put those immediate damages aside, did this event trigger a shift in how investors think about risks associated with coastal properties?"

That question led them to look at commercial real estate transactions after Hurricane Sandy in Boston as well as New York. Although Boston didn't sustain damage from Sandy, it is a location along the Eastern Seaboard that's considered at risk of flooding in the future. The researchers found a similar pattern of commercial properties in Boston trading at lower values—an effect that can't be attributed to actual damaged property and is likely because of changes in investors' perceptions of flood risks, they said.

To strengthen this conclusion, Steiner and her colleagues conducted a placebo test, looking at commercial properties along Lake Michigan in Chicago.

"We wanted to make sure there wasn't something else about waterfront property that changed how investors feel about these properties," Steiner said. "Here, there is zero hurricane risk because it's an inland body of water. We found no pricing effects in this area, so based on the knowledge we have, the effects we see in New York and Boston are likely due to professional investors responding to a persistent shift in perceptions of flood risk post-Sandy, even in locations spared by the disaster."

To conduct their study, the researchers used data that spanned about 10 years before Hurricane Sandy and five years after.

"Ideally, we would look at two properties, one coastal and one farther inland, that each traded before and after Sandy," Steiner said. "And we would want to see the price of the exposed property go down after Sandy relative to the price of the non-exposed property."

But because commercial real estate doesn't trade very frequently, they matched properties that were similar based on observable characteristics.

Steiner and her co-authors chose to focus on commercial real estate because it provides a clearer, more objective picture than residential real estate.

"When you buy a home, it's not just an investment," she said. "There is a consumption value—you are going to live in that home, and that may include an element of sentiment as well. And those factors may make you evaluate property risks a little differently from an investor who is just looking at this as a financial proposition, an economic calculation."

The research results can help inform decisions of both developers and investors as flood risks for coastal properties continue to increase, according to the research team. Developers' decisions about where to create new real estate assets will be affected by investors who are unwilling to pay top prices for properties that are at risk of flooding. Investors who currently hold properties that may be subject to flood risk can get a better assessment of the potential risks to the values of the assets they have in their portfolios.

"What do we do with those assets that we now know are exposed to these flood risks?" Steiner asked. "There may come a point when these assets will no longer hold much economic value, and these properties may be abandoned, or they may need significant retrofitting to make them more resilient."

More information: Jawad M. Addoum et al, Climate change and commercial real estate: Evidence from Hurricane Sandy, *Real Estate Economics* (2023). DOI: 10.1111/1540-6229.12435

Provided by Pennsylvania State University