Climate Change, Hurricanes, and Their Toll on Municipal Credit.

Analysts expect climate change, combined with the political realities of either addressing the effects of it or not, will have increasing impacts on municipal credit in the coming years.

Droughts, fires, flooding, changed temperature patterns, reduced snow cover, and higher sea levels may all come from climate change and all have the potential to impact municipal credit. At least for the near-term, hurricanes are climate change's most expensive impact on municipal governments and their communities.

Scientists say that global warming and climate change are expected to increase the number of hurricanes and how many are categorized as intense.

And hurricanes are also chiefly of interest because of their potential impact on municipal creditworthiness and bondholder protections, particularly for issuers already in difficult financial situations.

:Risks to municipal bonds include damage to key government or utility facilities, changing migration patterns, relocation of key employers, and rising insurance costs,: said John Ceffalio, senior analyst for CreditSights. "Increased vulnerability can also raise capital costs, both for resiliency ahead of disasters and rebuilding after disasters."

The National Oceanic and Atmospheric Administration's initial 2022 outlook forecasts another above-normal season. This would make it the seventh straight above-average hurricane season.

"Hurricane risk is nothing new in the Caribbean, but climate change is making those hurricanes more frequent and more severe, and raising sea levels," Ceffalio said.

Just this year, NOAA is predicting 14 to 21 named storms with six to 10 hurricanes and three to six of those will be classified as major storms.

Additionally, NOAA expects global warming will lead to more Category 4 and 5 hurricanes, the most devastating varieties, in the coming years. Climate change will add precipitation to hurricanes, potentially leading to more flood losses.

"Hurricanes account for over half of the estimated $1.7 trillion in total economic losses from severe weather events recorded since 1980," Moody's Investors Service said in a June 2019 report.

Climate change's intensification of hurricanes may already be taking place. Four out of the five costliest hurricanes in U.S. history took place in the last decade, Moody's said.

Intertwined with this impact is climate change's increase in sea levels. NOAA believes that sea levels in the U.S. rose 10 to 12 inches from 1920 to 2020 and will increase by a similar amount by 2050. According to NOAA and others this is certain to increase the impact of hurricanes and their flooding.

The lingering effects

Hurricanes are not just potential problems for public finance. Their threat of these events lowers real estate values and economic activity. In January, McKinsey Global Institute wrote regarding hurricanes and sea level rise, “In Florida, for example, estimates based on past trends suggest that losses from flooding could devalue exposed homes by $30 billion to $80 billion, or about 15% to 35%, by 2050, all else being equal.”

Some environmentalists and observers think sea level rise will force the abandonment of Miami and perhaps New Orleans, along with some less prominent cities, by 2100. Concern about sea level impacts is already having a profound impact on Miami. Real estate prices in the Little Haiti neighborhood are climbing quickly because it sits on elevated land. An academic study showed that land near Miami’s coast is valued less than it would otherwise be.

Populations can shrink after hurricanes and, as in the case with New Orleans and Hurricane Katrina, they sometimes never fully return. Government and public utility revenues can decline. Infrastructure expenses from damaged capital stock frequently soar.

The general operating environment can be marred for months, years, or even decades due to the general destruction of public infrastructure. After Hurricanes Irma and Maria devastated Puerto Rico in 2017, service was not fully restored until nearly a year later.

Ratings and creditworthiness

In a separate piece released in June 2019, Moody’s Investors Service outlined how it sees hurricanes affecting credit. In most cases hurricanes have not resulted in ratings changes, it said. However, after Hurricane Katrina in 2005, the agency downgraded more than 30 public finance issuers. Hurricane Sandy led it to downgrade fewer than 10 issuers on the East Coast. Hurricane Harvey in 2017 led to five downgrades.

The impacts on municipal bonds have already gone beyond downgrades. Entergy New Orleans (ENO), a provider of gas and electricity to New Orleans, was in financial straits before Katrina but the hurricane pushed it into bankruptcy.

In 2019 after its power lines triggered wildfires in what may have been a climate change influenced drought in California, the state’s largest utility, Pacific Gas & Electric, filed for bankruptcy. Albeit not related to hurricanes, The Wall Street Journal called it the “first climate change bankruptcy.” The utility had over $900 million of municipal bonds outstanding at the time.

How hurricanes may affect the Caribbean territories’ credit is hard to lay out, as Moody’s and S&P Global Ratings no longer rate essentially any Puerto Rico municipal bonds. S&P rates Housing Finance Authority bonds but these are federally supported.

Fitch Ratings only rates the Puerto Rico Aqueduct and Sewer Authority. In a November 2020 report, it gave the authority an ESG Relevance score of 4 for “exposure to extreme weather events,” indicating moderate importance.

When Puerto Rico’s Fiscal Agency and Financial Advisory Authority was asked how Puerto Rico’s government and its authorities were preparing for hurricanes, it responded that current plans are to deposit $130 million annually into an Emergency Reserve Fund until it reaches $1.3 billion. In cases of a disastrous hurricane, Revolving Loan Funds supported by the Federal Emergency Management Agency and other federal departments could provide liquidity.

“Finally, in the case of a federally declared natural disaster, the government can issue additional disaster recovery debt to support recovery efforts and it would not be considered as part of the debt limit threshold as set forth in the Plan of Adjustment," FAFAA said.

In October 2021 Moody's said "high exposure to physical climate risks" was one of five key credit challenges facing the U.S. Virgin Islands and its matching fund bonds, whose senior lien the agency rates Caa2. Exposure to environmental impact is also a significant factor in its rating of the islands' Water and Power Authority bonds at Caa2.

Bondholder protections

For a particular borrower's hypothetical exposure to climate change to become an actual indicator of default or distress, "the physical (and related policy) perils with which their location is threatened need to actually occur and the borrowe'?s security has to be vulnerable to those perils," noted Matt Fabian, partner at Municipal Market Analytics in a June report. "So the better and more resilient the pledged bondholder security, the more severe things will need to be on the ground for a default or impairment to follow."

In other words, strictly geographic climate risk scores and similar "need to be re-expressed or recalculated pursuant to each separate municipal security type within that area," the report said. And because every geographic region in the U.S. contains a range of municipal bond credit types, the local transformation of long-term climate change risk into an imminent credit risk is as a cascade, from the least well-secured borrowers to the best, as conditions worsen.

"It's thus useful for even high-grade, governmental lenders to consider the climate-related impairment trends occurring, or likely to occur, in the states where they specialize," Fabian wrote.

MMA found in its database 11 borrowers that entered the default and impairment database "because of (or had a pre-existing impairment worsened by) a natural disaster that itself may well have been caused or exacerbated by climate change."

"These situations highlight how: 1) competitive enterprises, single-site facilities, and growth-dependent financings are all more exposed to single or multiple environmental events; and 2) inadequate insurance coverage or a weak state policy frameworks are highly detrimental details."

Federal response

Over the last few decades federal policy has been to cover most but not all reconstruction costs after hurricanes. For major hurricanes the Congressional Budget Office estimated that federal disaster assistance between 2005 and 2015 covered 62% of the costs.

In March 2021 the Brookings Institution released "Inviting Danger." "Most [federal] policies have focused on 'building back the same,'" wrote Sadie Frank, Eric Gesick, and David Victor. "While that might have been tolerable in an era of modest impacts from natural disasters, that era is ending. An urgent national priority is creating the right incentives so that private and public sector investments reduce the future damages from climate change and make the country more resilient."

"Many government policies create incentives for people to make economically detrimental decisions, including settling and building on land exposed to hurricanes, floods, and wildfires," they wrote. "These policies already cost taxpayers tens of billions of dollars."

The Federal Emergency Management Agency is starting to try to buy out properties suffering from repeated losses, they wrote, but this approach has been quite limited.

Studies show resilience funding is much more cost effective in the long-term, said Ari Sillman in "A New Approach to Disaster Relief Funding," a paper done for a branch of Harvard Law School, and much more of the funding should be headed this way.

The Brookings study “made the point that when it comes to these [hurricane] events we should be discussing recovery versus resilience,” said John Hallacy, president of John Hallacy Consulting. “I cannot agree more. However, spending on projects that will probably reap some benefits in the future is less immediate than clearing debris and rebuilding in the aftermath of an event. At a minimum, the rebuilding should be done to a higher building code standard.”

Ceffalio said, “Generous federal disaster aid has protected bondholders from hurricanes and other natural disaster risks, but there are increasing demands on federal disaster dollars. There is no guarantee federal aid will continue to be so generous. Territories are particularly vulnerable since they have no congressional representation.”

It is possible that, “federal dollars could be increasingly used to relocate residents away from disaster-prone areas,” Ceffalio said. “This would remove property from the tax rolls and reduce tax revenues. My understanding is that Canada is increasingly taking this approach.”

Private flood and hurricane insurance is also becoming much more costly in areas prone to hurricanes. This may also encourage people to leave the areas, affecting the financial health of the governments and public utilities that serve them.

Less federal support to recover from natural disasters “is the direction where we are headed,” said Andrew Teras, Breckinridge Capital Advisors director of municipal bond research.

In 2018 the federal government adopted the Disaster Recovery Reform Act. It set asides more federal money for pre-disaster mitigation, adjusts the post-disaster cleanup to include resilience, and gives localities the authority to build to the latest building codes.

In coming years hurricanes will have the most effect on municipalities and public issuers that are already in financial distress, Teras said.

Increasingly, the federal government may focus its natural disaster resources on centers of economic activity, Teras said. This means that smaller communities may get less aid.

By Robert Slavin

BY SOURCEMEDIA | MUNICIPAL | 07/01/22 04:44 PM EDT