Stateline

Climate Change Could Make Borrowing **Costlier for States and Cities**

STATELINE ARTICLE

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A woman walks along a flooded street in Miami Beach, Florida. Miami-Dade County has been praised by analysts for its infrastructure investments focused on climate preparedness as credit ratings firms begin to focus on climate change.

Lynne Sladky/The Associated Press

Someday soon, analysts will determine that a city or county, or maybe a school district or utility, is so vulnerable to sea level rise, flooding, drought or wildfire that it is an investment risk.

To be sure, no community has yet seen its credit rating downgraded because of climate forecasting. And no one has heard of a government struggling to access capital because of its precarious geographical position.

But as ratings firms begin to focus on climate change, and investors increasingly talk about the issue, those involved in the market say now is the time for communities to make serious investments in climate resilience — or risk being punished by the financial sector in the future.

"We look not just at the vulnerability of state and local governments, but their ability to manage the impact," said Emily Raimes, vice president with Moody's Public Finance Group. "While we'll be looking at the data on rising sea levels and who may be more vulnerable, we'll also be looking at what these governments are doing to mitigate the impact."

Moody's has been especially vocal about its climate change concerns. The firm has issued numerous papers assessing climate risk, and two months ago it purchased a majority stake in Four Twenty Seven, a climate-risk data firm.

Emilie Mazzacurati, Four Twenty Seven's founder and CEO, said that the bond sector's attention to the issue should prompt local governments to make it a priority. "It creates an incentive for them to be better prepared, because it's going to cost them money if they don't."

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But some worry that punishing places for their susceptibility to climate change will just make it more difficult for them to finance the infrastructure improvements that might protect them.

"Nobody has yet been penalized for having a bad environmental policy or practice or system," said Tim Schaefer, California's deputy treasurer for public finance. "I don't know how much longer that's going to go on. I'm assuming not much longer."

Assessing Florida's Future

Governments large and small rely on the \$3.8 trillion municipal bond market for much of their infrastructure work. When officials want to build a highway or a school — or a seawall or an emergency operations center — they often issue bonds, bringing in the money needed to complete the project. Investors are repaid with interest over a period that can run for decades or more.

About two-thirds of infrastructure projects in the United States are paid for by municipal bonds, and more than 50,000 states, local governments and other authorities have issued bonds to finance their work.

Governments pay higher interest rates on those bonds when their credit ratings are low. Firms such as Moody's Investors Service and Standard & Poor's Financial Services issue the ratings assessments.

"Investors are in a position of demanding a higher return when they see greater risk." said Kurt Forsgren, managing director of S&P Global Ratings.

Municipal bonds are considered a conservative investment, with a current default rate of around 0.3%, according to Matt Fabian, a partner at Municipal Market Analytics. To date, the bond market has done little to reflect that the risk may be increasing.

"There is almost no impact on muni bond prices with respect to climate change vulnerabilities. Prices do not acknowledge the risk in climate change," he said. "Most investors believe that [climate change] is going to start affecting the market right after their own bonds mature."

As more investors and firms study the risks, however, that might change.

"We are about a year away from climate change beginning to affect the muni market — a little." Fabian said. "Changes on the investor side are going to happen first, [credit] ratings will come second, and issuer behavior will be a distant third."

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Matt Fabian, partner municipal market analytics

Some investors already have begun to factor climate change into their decisions. Eric Glass, a portfolio manager with AllianceBernstein, said his portfolio opted to steer clear of a recent three-decade bond in the Florida Keys, which is facing rising sea levels.

"What does [the Florida Keys] look like in 30 years?" Glass said. "I don't know. But I know it's not going to look like what it looks like today. That is a tough calculus to make, and we've decided not to take it."

David Jacobson, vice president of communications for Moody's Public Finance Group, called a downgrade over climate projections a "what-if type of thing." Moody's ratings are based on what its analysts expect a government's creditworthiness to be in the next 12 to 24 months, he said, even though the bonds they issue can run for decades.

"The things that are happening right now or in the next 24 months weigh a whole lot more than things we think will happen in 15 to 20 years," said Lenny Jones, a managing director at Moody's. "We're not scientists."

Credit-rating firms have always acted conservatively, said Justin Marlowe, a professor at the University of Washington who studies public finance. To some critics, that reluctance to downgrade pre-emptively is leaving the market unprepared for the onslaught of climate effects that so many local governments will face.

That's the conundrum facing the municipal bond market right now: If the market fails to be proactive about future risks, it could lead to billions in ill-fated investments in communities at the forefront of climate change. But making it more expensive for governments with environmental liabilities to borrow money could prevent them from making the improvements needed to strengthen their infrastructure.

And just because a city is likely to be struck by sea level rise or wildfire doesn't necessarily mean it will default on its bonds. Further effects like crop yields and population shifts — and their impact on a tax base — could prove even harder to project.

"It's a pretty big step from 'we have economic impacts' to 'this is going to affect their longterm ability to repay their bonds.' There's a really big difference," Mazzacurati said. "[Ratings firms'] focus is really about counties who repay their debt. That's it. There can be really important impacts that are not going to be reflected in the bond rating, and that doesn't mean the bond rating is off."

Disaster Fallout

So far, the few climate-related credit downgrades have come after specific disasters. New Orleans and Port Arthur, Texas, experienced credit downgrades after major hurricanes. And after a fire nearly destroyed Paradise, California, last year, the pool of pension obligation bonds it was a member of saw its credit downgraded.

As New Orleans rebounded, its credit improved. The city adopted a resilience strategy, bolstered its levee system and pursued other projects, such as turning green space into water reservoirs during periods of flooding. Today, the city sees its biggest climate threat as extreme rainfall, which has increased in frequency in recent years and flooded parts of the city.

Leaders in New Orleans are asking voters to approve \$500 million in new bonds, which would pay for infrastructure improvements such as the replacement of outdated pipes, as well as other goals like affordable housing. City officials say it shows New Orleans is "doubling down" on its infrastructure program.

"The environment is changing. More water's coming down in a shorter period, and we have to respond to that," said Norman White, the city's chief financial officer. "Our first responsibility is to the citizens of New Orleans. Fortunately, that lines up with investors."

Coastal cities across the country are building seawalls to stave off rising oceans. Others are elevating roadways to prepare for more frequent flooding. Some are requiring sturdier new

construction and retrofitting existing buildings to withstand severe weather events. Communities in drought-prone areas may focus on projects such as water storage, while those with flooding concerns must fortify their sewage infrastructure.

Last year, Moody's surveyed the 50 largest U.S. cities; 28 responded. Among them, they had 240 climate resilience projects, totaling \$47 billion. Some 60% of the projects were to combat flooding.

Florida's Miami-Dade County has been praised by analysts for its infrastructure investments focused on climate preparedness. Ed Marquez, the county's deputy mayor, said future financing is a "concern," but officials are trying to address that with capital plans focused on dealing with the changing climate.

"This is a many-year process as we fix our infrastructure, as we add new infrastructure, as new science comes on board," he said. "Miami is still growing. People are still coming. Investors are buying our bonds. We're telling them what the odds are, but it's odds that they're willing to play."

Statewide, Florida remains in good shape creditwise, despite the challenges many of its communities are facing. Ben Watkins, the state's director of bond finance, said that's likely to continue, even amid hurricanes and rising sea levels. Even the most devastating hurricane seasons have ended up being a "blip on the radar" in terms of Florida's credit health, he said. But concern remains for smaller governments within the state.

"People are dying to come to Florida and coming to Florida to die," he said. "Until that changes, we'll have the economic engines to be able to access credit."

Cities with climate change risks should follow Florida's lead and borrow now for local projects, said Fabian, the analytics researcher.

"As investors get smarter about climate change risk, it will become more expensive for governments with the largest need to borrow," Fabian said. "Their costs to borrow could certainly be higher. Acting earlier is almost always cheaper."

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