

The impact of extreme weather events on state credit ratings

Peter Muller, The Pew Charitable Trusts March 24, 2022

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About Pew

- The Pew Charitable Trusts is a non-partisan, nonprofit, research and policy organization.
- Pew projects provide research and technical assistance on issues pertaining to environment, health, fiscal and economic policies, and safety and justice.
- Pew projects aim to help leaders understand and address issues in a research-based, data-driven way.



About Pew

- Pew's fiscal policy teams focus on long-term fiscal stability for states, including:
 - Addressing persistent budget imbalances
 - Preparing for **economic downturns**
 - Identifying emerging fiscal risks
- Pew aims to help improve the overall fiscal health of states.



Factors that impact credit ratings

- General factors
 - Economic strength
 - Fiscal strength
 - Institutional strength
 - Debt/liabilities
- ESG factors
 - Environmental, social, and governance factors



Emerging fiscal risks: Environment

- Lower credit ratings increase the cost of borrowing for states.
- The factors that impact credit ratings also impact states' long-term fiscal health.



Physical risks posed by extreme weather events

- People, places, assets or income can suffer negative impacts caused by natural disasters or long-term weather changes.
- These can appear as short-term shocks or longer-term trends.



Physical risks posed by extreme weather events

- Spending on disasters and emergency management has increased.
 - Frequency + cost of natural disasters has increased: FEMA's Public Assistance Grant Program increased by 23% decade over decade.
- Low frequency, high-cost events can create volatility in funding needs.
- Significant support is currently being provided by the federal government



Physical risks posed by extreme weather events

- Risks to state assets and infrastructure
 - Increased costs to repair, rebuild, and strengthen
 - Shortened asset lifespans
 - Unfunded liabilities could affect credit, weaken fiscal strength in future
- Mitigation activities have shown a 6:1 return on investment.



Transition risks posed by reactions to extreme weather events

- Economic disruption
 - Disruptions to key industries or shifts in consumption patterns can impact available revenue.
 - Economic concentration can increase vulnerability.
- Population shifts
 - Temporary: Driven by disaster shocks
 - Long-term: Driven by more persistent changes, can impact long-term fiscal stability



Important questions to consider

- How and when will ratings be affected?
 - How material are these risks for state credit rating purposes at this point?
 - How does federal financial support fit into these risk considerations?
- How do these risks affect access to credit for local governments?



How are states responding?

- North Carolina: Produced a comprehensive Climate Risk Assessment Plan in 2020.
- California: Simulated the likelihood and magnitude of wildfires across the Sierra Nevada forest through 2099.
- Maryland: Commissioned a public pension risk assessment that considered different climate scenarios.



Federal activity to watch

- Recent announcement of new SEC rules on private sector ESG disclosures of both emissions and climate risk.
- MSRB is seeking input from municipal bond market participate on disclosure of ESG information.
- US Department of Treasury plans to publish a study of climate-related risk in the insurance industry at the end of this year.



Key takeaways

- Assessing and analyzing risks is key.
- Environmental risks should be part of, not separate from, broader considerations of state long-term fiscal health.
- State and local governments are beginning to take action in recognition of these risks.





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