



## TOPICS:

Credit risk

## SOURCE

Bank for International Settlements

## BIS: Incorporating Physical Climate Risks into Banks' Credit Risk Models

- This BIS paper explores **how physical climate risks** - such as floods, storms, wildfires, and heatwaves - **are being integrated into banks' credit risk models**. These risks, which are expected to intensify with climate change, pose **significant threats to the creditworthiness of borrowers and the valuation of collateral**, particularly in vulnerable sectors and regions.
- The paper emphasizes that traditional credit risk models often fail to capture the long-term and non-linear nature of climate-related events. To address this, banks and supervisors are beginning to incorporate physical risk drivers into both qualitative assessments and quantitative credit risk modelling frameworks. The paper outlines **several emerging practices**, including **scenario analysis, geospatial hazard mapping, and sectoral vulnerability assessments**. These tools aim to assess borrower exposure, estimate potential loss impacts, and adjust risk ratings or loan pricing accordingly.
- A central challenge lies in the **lack of granular, forward-looking data and the need for consistent methodologies**. Many institutions rely on third-party climate data providers and still face significant modelling uncertainty. Furthermore, translating acute and chronic physical risks into financial metrics requires bridging gaps between climate science and risk modelling disciplines.
- The paper also highlights **supervisory efforts in several jurisdictions to encourage robust integration of climate risk into credit assessments**. These include stress-testing exercises, enhanced disclosure requirements, and expectations for governance and risk management practices. While progress is being made, the report underscores that most banks are still in early stages, and model maturity remains low.

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