

The logo for 'Receipt' is displayed in a white circular area. The word 'Receipt' is written in a bold, sans-serif font. The letter 'e' is stylized with a blue and orange circular graphic element.

Receipt

POLICY BRIEF

Storytelling financial imbalance



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www.climatestorylines.eu



Main messages

- Climate extremes' impact, spanning indirect and induced financial and economic consequences, as well as their influence on insurance markets, financial systems, and investment trends, entails substantial risks. Sound risk assessment can guide investment decisions in resilient economies.
- Climate risk assessments employed in regulatory stress tests and for disclosing businesses' exposure to climate risks can be enhanced, standardized, and based on robust risk scenarios. Constructing risk scenarios based on standardized narratives promotes clarity and consistency.
- Supervisory authorities should improve climate stress tests by incorporating atmospheric processes and frequently overlooked secondary effects. Collaborations among climate modelers, risk modelers, and regulators can help to refine these scenarios and establish a shared registry.



Setting

The EU's policies, spanning economics, finance, and trade, aim to bolster stability, prosperity, and the single market. They foster integration of monetary policies, fiscal coordination, and capital market development within the Economic and Monetary Union and the Capital Markets Union.

Following past economic crises, the EU has strengthened micro- and macroprudential instruments. The European Supervisory Authorities (ESAs) regulate individual banking, securities, and insurance entities, ensuring their safety through capital requirements, risk management, and stress testing. The European Systemic Risk Board (ESRB) analyses systemic risks to financial stability and oversees macroprudential risks. Climate risks-related stress tests routinely used by supervisory authorities need to link climate risk factors and financial information to estimate sector-specific exposure. This is challenging, and the results of the first generation of stress tests are believed to underestimate the actual risk.

EU financial and non-financial disclosure policies promote transparency and market integrity, channeling capital flows into sustainable investments and support green innovation aligned with the EU's net-zero transition goals. The Task Force on Climate-related Financial Disclosures (TCFD) and the Network for Greening the Financial System (NGFS) have crafted a framework and practical guidance to inform financial disclosures. Current practice of disclosure often oversimplify the intricate nature of climate risks, leading to gaps in risk disclosures and potentially misrepresenting an entity's true climate-related exposure.



Insights from RECEIPT

RECEIPT's climate risk storylines examined diverse economic and financial pathways of risk transmission. Europe's economy and financial markets are intricately connected globally through trade and investments. Tropical cyclones in Japan, China, or the US can subtly yet significantly impact the European economy by altering international trade and investment patterns. Initial shocks might temporarily uplift some sectors of the European economy, while causing declines in others. This short-term benefit evolves into a medium to long-term economic drop due to disruptions in global value chains and increased competition from recovering economies¹.

Tropical cyclones impacting both the EU's outermost regions and simultaneous major events in mainland Europe could strain the EU Solidarity Fund and compromise its support for affected countries².

Sovereign risk pooling facilities like the Caribbean Catastrophe Risk Insurance Facility (CCRIF) mitigate indirect financial impacts of climate risks, accelerate recovery and boost economic growth. Existing pools may not fully leverage financial resilience due to suboptimal design for risk diversification and limited regional focus³.

1. Middelani et al., 'Economic Losses from Hurricanes Cannot Be Nationally Offset under Unabated Warming'.
2. Ciullo et al., 'A Framework for Building Climate Storylines Based on Downward Counterfactuals'.
3. Ciullo et al., 'Increasing Countries' Financial Resilience through Global Catastrophe Risk Pooling'.



Recommendations

Climate stress tests used by supervisory authorities could be extended to explicitly include climate extremes and to integrate contagion and secondary effects, which are frequently neglected. While prudential policies recognize indirect impacts, such as effects on local economies and supply chains, they predominantly delegate the integration of these aspects to the discretion of financial institutions.

Forming alliances between climate modelers, risk modelers, regulators and businesses can enhance climate scenarios and minimize overlooked financial vulnerabilities. Such collaborations could yield a registry of standardized climate scenarios for various stress tests. The RECEIPT storyline approach illustrates examples of common scenarios.

Indirect and induced effects of climate risks and broader environmental changes can profoundly impact economies at every scale. International disaster risk frameworks and the European civil protection mechanism often overlook these impacts, potentially underestimating the true entity of risks. The RECEIPT research contributed to improving the knowledge base about propagation of economic impacts stemming from climate risks. This knowledge can refine the strategies for EU contingency and solidarity funds.

