CLIMATE AIR TOOLBOX

Climate-Adjusted Expected Default Frequency (EDF)
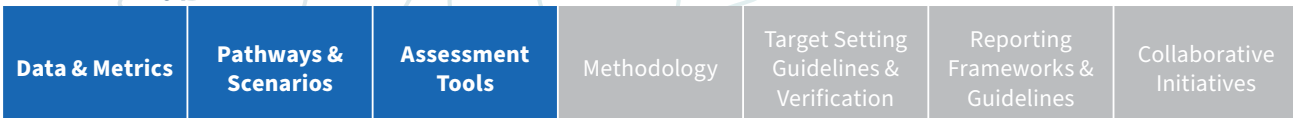
Organization
Moody's

Summary

The three key drivers of Moody's expected default frequency (EDF) model – equity, asset volatilities, and liabilities – are all affected by transition and physical risks. These risk factors can therefore change an entity's EDF (a measure assessing the probability of default) and related metrics. The concrete relationship between the firm's financial drivers and its asset value, as well as between asset value and default, allows for robust and transparent modeling of future climate conditions without historical precedence.

The EDF framework has been continually tested and enhanced over the past 25 years to fit observed patterns in financial distress and default. The long time series of historical EDF estimates available can also be leveraged for measuring the credit effects of climate change: by seeing how a company's financial drivers were affected by acute weather events in the past, one can derive robust and empirically driven forecasts of how financial drivers will be affected in a future environment where such climate damage is more prevalent. Moody's provides climate-adjusted EDF metrics for physical and transition risks across 46,000 companies worldwide, as well as for sovereigns.
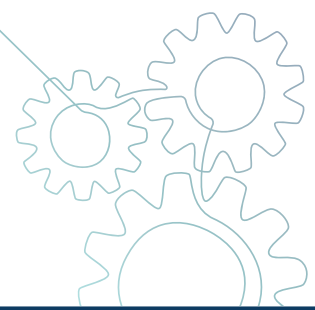
Climate Focus

Alignment	Impact	Risk

Resource Type

Data & Metrics	Pathways & Scenarios	Assessment Tools	Methodology	Target Setting Guidelines & Verification	Reporting Frameworks & Guidelines	Collaborative Initiatives

Intended Users

Banks	Investors	Insurers	Central Banks	Regulators

Backward-looking   Current Snapshot   **Forward-looking**

RMI   Center for Climate Aligned Finance

Climate-Adjusted Expected Default Frequency (EDF)

WHO	• Any users interested in conducting forecasts of company or sovereign performance against a range of physical and transition risk factors • Lenders complying with stress test requirements
WHAT	• Assess the potential credit risk driven by climate change for companies and sovereigns • Conduct scenario analysis • Perform due diligence
WHEN	• The EDF model can be used to help users conduct due diligence on companies • The model can also be used to conduct scenario analysis exercises
WHERE	Corporate or sovereign portfolios
WHY	• Risk management • Regulatory compliance
HOW	Interested users can find out more by visiting the **Moody's website**