

# MSCI Physical Risk Metrics – Issuer Level

Assess how physical risks may impact your portfolio and identify companies most exposed

## Who is at risk and by how much?

Physical risks to companies are intensifying as floods, wildfires, storms and other climate events grow more frequent, while persistent hazards like earthquakes and volcanic activity continue to threaten operations. Between 2014 and 2023, global economic losses from these events exceeded USD 2 trillion.<sup>1</sup>

MSCI's Issuer-Level Physical Risk Metrics, powered by GeoSpatial Asset Intelligence, link company assets directly to hazard data. This enables a scalable, location-aware view of exposure across 28 hazards (as of July 2025) — including both climate-related (e.g., sea-level rise, extreme heat) and non-climate-related natural events (e.g., earthquakes, volcanic ashfall).<sup>2</sup>

By combining asset-level mapping with financial impact modeling, the metrics provide a dual lens:

- Current exposure – quantifying today's risks across global operations.
- Forward-looking risk – projecting potential changes under future climate scenarios.

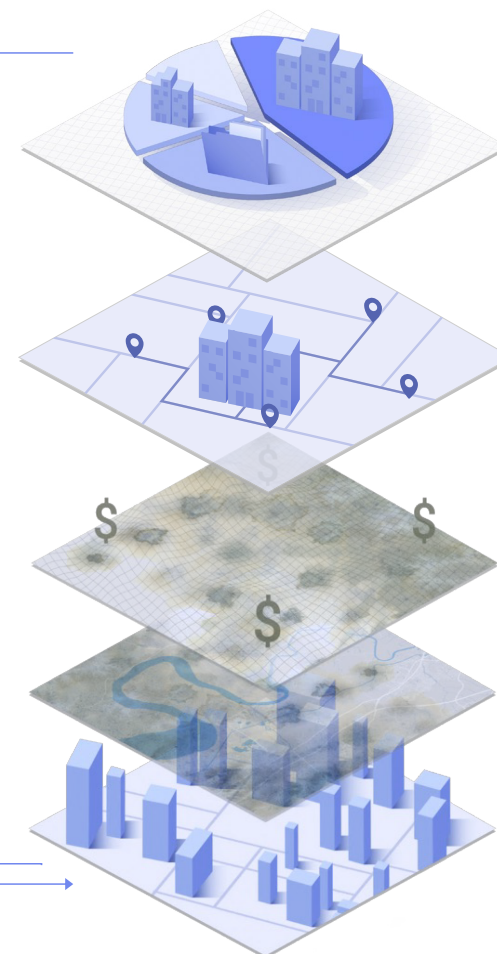
The result is a differentiated, issuer-level view of vulnerability and resilience that enhances risk management, disclosure and advisory.

<sup>1</sup> The economic cost of extreme weather events, Oxera, November 7, 2024.  
<sup>2</sup> This broad scope is enabled by our collaboration with Swiss Re, offering a fuller picture of physical risk exposure beyond climate change hazards.

## Portfolio View

## Physical Risk Metrics - Issuer Level

## Location Based Data



## Looking to enhance your investment strategies?



### Risk and portfolio management

Conduct materiality assessments, and screen portfolios and loan books for concentrations of specific hazards and loss exposure. Adjust allocations using a data-driven approach to manage physical risks across present and future scenarios. We also support the design of custom indexes and the development of new investment solutions to help build resilience to physical risks.



### Engagement and advisory

Helps create new opportunities for active ownership, engagement and advisory by identifying high-risk companies and assessing their strategies for adaptation and resilience.



### Reporting and disclosure

Designed to help clients align with mandatory and voluntary disclosure frameworks such as CSRD, OSFI and IFRS S2. These metrics also support climate stress testing capabilities, enabling firms to better address supervisory expectations.

## Who could benefit?

### Investment teams

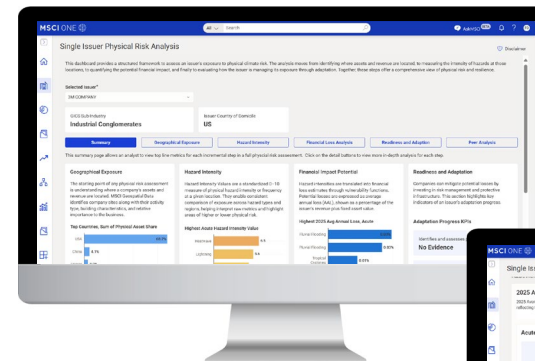
Enables creation of climate-resilient products and identify risk-adjusted return opportunities.

### Risk teams

Helps quantify hazard exposure and potential financial losses at the portfolio and issuer level.

### Advisory and engagement teams

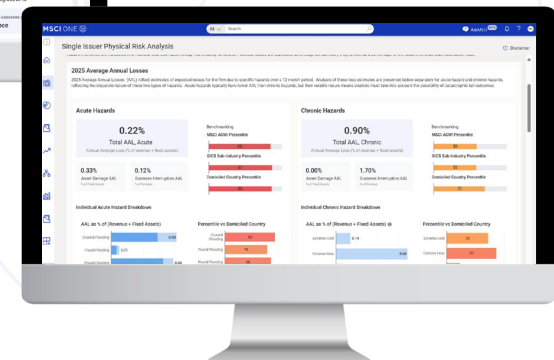
Support engagement and advisory with high-risk companies and help develop adaptation strategies.



### MSCI ONE dashboard

Visualize and explore key metrics

- Geographical Exposure and Hazard Intensity
- Financial Impact Potential
- Readiness & Adaptation
- Peer Analysis



## Why MSCI?

### Scalable intelligence

Rapid screening of systemic vulnerabilities across listed companies.

### Drill down capabilities

Pre-computed aggregation of location-specific data to issuer-level.

### Built for risk management and investment use

Enables physical risk management, resilience screening and portfolio optimization.

### A market leader in hazard coverage

28 hazards through our collaboration with Swiss Re.

### Beyond climate change risks

Covers 2 types of physical hazards: Climate-related (e.g., extreme heat) and non-climate-related (e.g., earthquake).

## Take the next step

Gain clarity on physical risks. [Contact us](#) for a demo today to discover how MSCI can help you make smarter investment decisions.

## About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit [www.msci.com](https://www.msci.com).

The information contained herein (the "Information") may not be reproduced or disseminated in whole or in part without prior written permission from MSCI ESG Research. The Information may not be used to verify or correct other data, to create any derivative works, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. MSCI ESG Research is provided by MSCI Inc.'s subsidiary, MSCI ESG Research LLC, a Registered Investment Adviser under the Investment Advisers Act of 1940. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information is intended to constitute a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on

as such, MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK). The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "INFORMATION PROVIDER") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH INFORMATION PROVIDER HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE INFORMATION PROVIDERS HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not be applicable by law be excluded or limited. Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at <https://adviserinfo.sec.gov/firm/summary/169222>.

©2025 MSCI Inc. All rights reserved | CFS0925