Investment Strategies - Integrating Global Climate Risks

Our scenario-based approach to integrating climate risks into investment portfolio analysis

May 2018

We deliver scenario-based climate risk assessment across asset classes

Your benefit of our solution at a glance

Climate risks impact financial returns *through acute and systemic long-term disruptions, with varying degree across sectors and geographies.* ***South Pole enables the integration of those risks into investment strategies****, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).*

Challenge

- Lack of sectoral and geographical **data** on physical climate risk impact
- No commonly used **metrics** available for combining climate modelling with financial analysis
- Portfolio level analysis is **time-consuming**

Our Solution

- Measure investment portfolios' **global climate risk exposure**
- Compare holdings' risk **exposure across sectors and geographies**
- Identify the least exposed and most **resilient investments** in a portfolio

Your benefit

- Apply **comparable climate risk metrics** to investment strategies and communication
- **Account for climate risks** before they become financially material
- Become a front runner in financial sector **TCFD reporting at the portfolio level**

We provide portfolio, hotspot and deep-dive analysis

Our services

Climate Change Investment Risks

Portfolio screening	Hotspot analysis	Deep-dive analysis
• Forward-looking, scenario based risk assessment • Based on sector and geography • Standardised outputs	• Tailored for sector/ geography specific analysis • Builds upon insights gained in portfolio screening • Standardised outputs	• Bespoke consultancy • Builds upon insights gained in portfolio screening/ hotspot analysis • Output tailored to specific needs
Standardized and global coverage	**Tailored, sector, and country focus**	**Detailed, sophisticated, and precise**

We suggests the basis for assessing an investment portfolio exposure to physical risks be an ***initial top-down portfolio screening,*** *which provides context on the nature of exposure (industrial sectors, geographic locations) and* ***highlights the level of risk associated with each holding.***

Our forward-looking model delivers scenario-based assessment of global climate risks at the portfolio level

Modelling Methodology

Input
Global climate models and data

- **Global Climate & Temperature Projections 2020 – 2100**, drawn from 15 leading global climate models (coupled modelling)
- **IPCC mitigation scenarios** (high mitigation RCP2.6, medium mitigation RCP4.5, business as usual RCP8.5)
- **Portfolio composition,** actual or virtual
- **Vulnerability scores** based on ND-GAIN, IPCC and OECD data

Risk Modelling
Hazard x Vulnerability x Exposure

- Modelling of **all major physical climate risks,** incl. heat waves, heavy precipitation, storm intensity and sea level rise
- Applicable **across all geographies and industries**
- Future climate change **hazards modelled from 2020 - 2100**
- **Global vulnerability database**, including country, region and sector specific vulnerability
- **Holding/ company specific exposure** based on economic, financial and geographic data

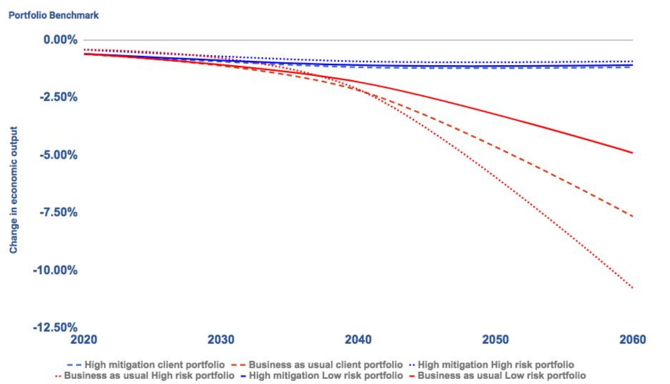
Output
Climate Risk Metric

- **One aggregated quantitative climate risk metric** for equity holdings at the portfolio level, without limitations in sectoral, geographic or time coverage, and combining all major physical climate risks
- **Scenario-based** analysis
- Portfolio risk assessment **compliant with TCFD recommendations**

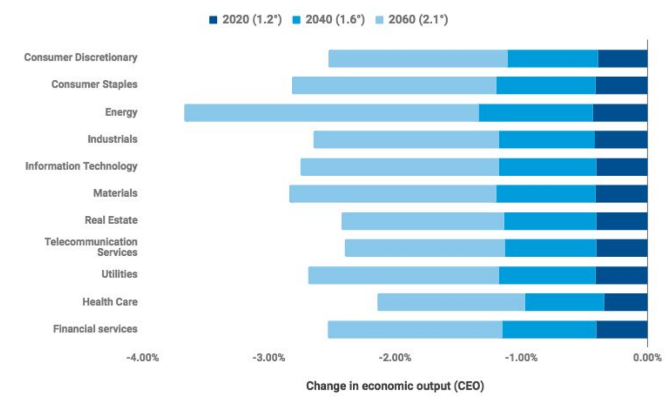
We deliver quantitative, qualitative and visual outputs for improved decision-making, reporting and communication

Outputs overview (sample)

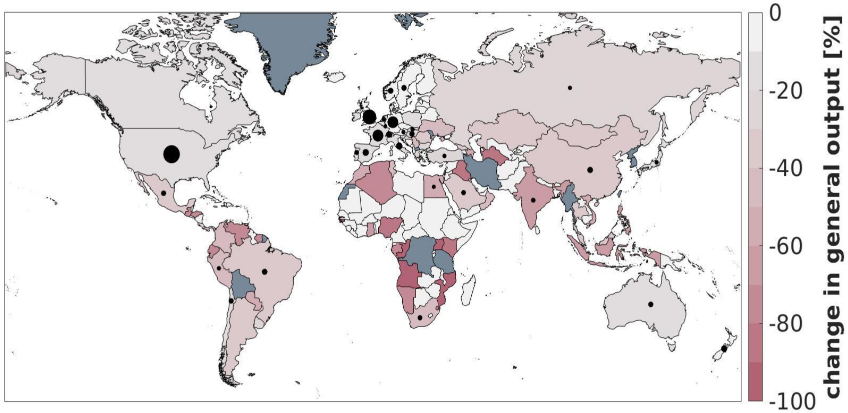
Benchmark your portfolio’s risk exposure



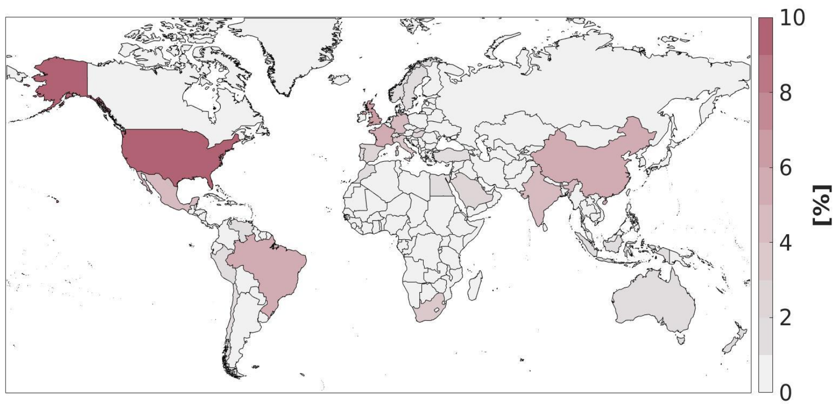
Compare risk exposure across sectors



Identify geographical distribution of portfolio risk and geographical hotspots of risk exposure



Countries contributing more than 0.5% in weight to the whole portfolio are marked with a black dot, the size of the dot representing the portfolio weight. Countries shown in dark grey are not covered by the portfolio.



The shading shows the proportion [%] of each portfolio countries’ contribution to the overall climate risk of the whole portfolio.

We help to communicate the key results to your stakeholders

In accordance with the TCFD recommendations, we assist you in the reporting on **quantitative risk metrics** and qualitative analysis **applying scenario-based analysis with global coverage**.

Potential TCFD reporting elements can include:

- description of material climate-related risks identified and assessed, including the approach applied in the process;
- description of scenarios used in the analysis;
- conclusions on portfolio resilience to climate change and possible strategic actions to be taken based on the results.

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