



The challenges and use cases of climate metrics

Guido Giese

Global Head ESG & Climate Solutions Research

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Investor questions

1

Why are there
so many different
climate metrics?

2

How to use
forward-looking
vs backward
climate metrics?

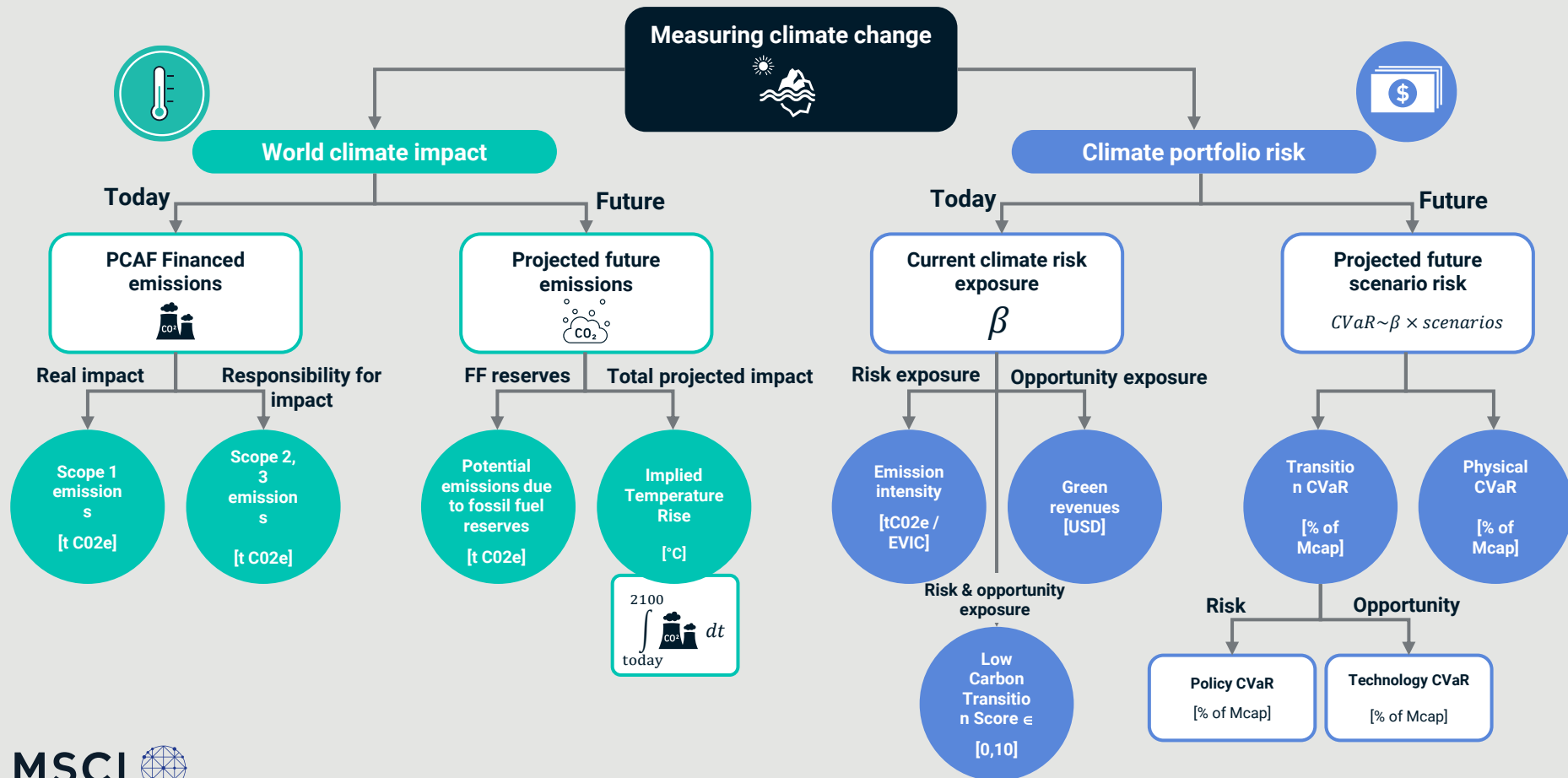
3

How to find the
“right” climate
metrics for a
specific purpose?

4

How to track
portfolios over
time?

Explaining MSCI Climate Metrics



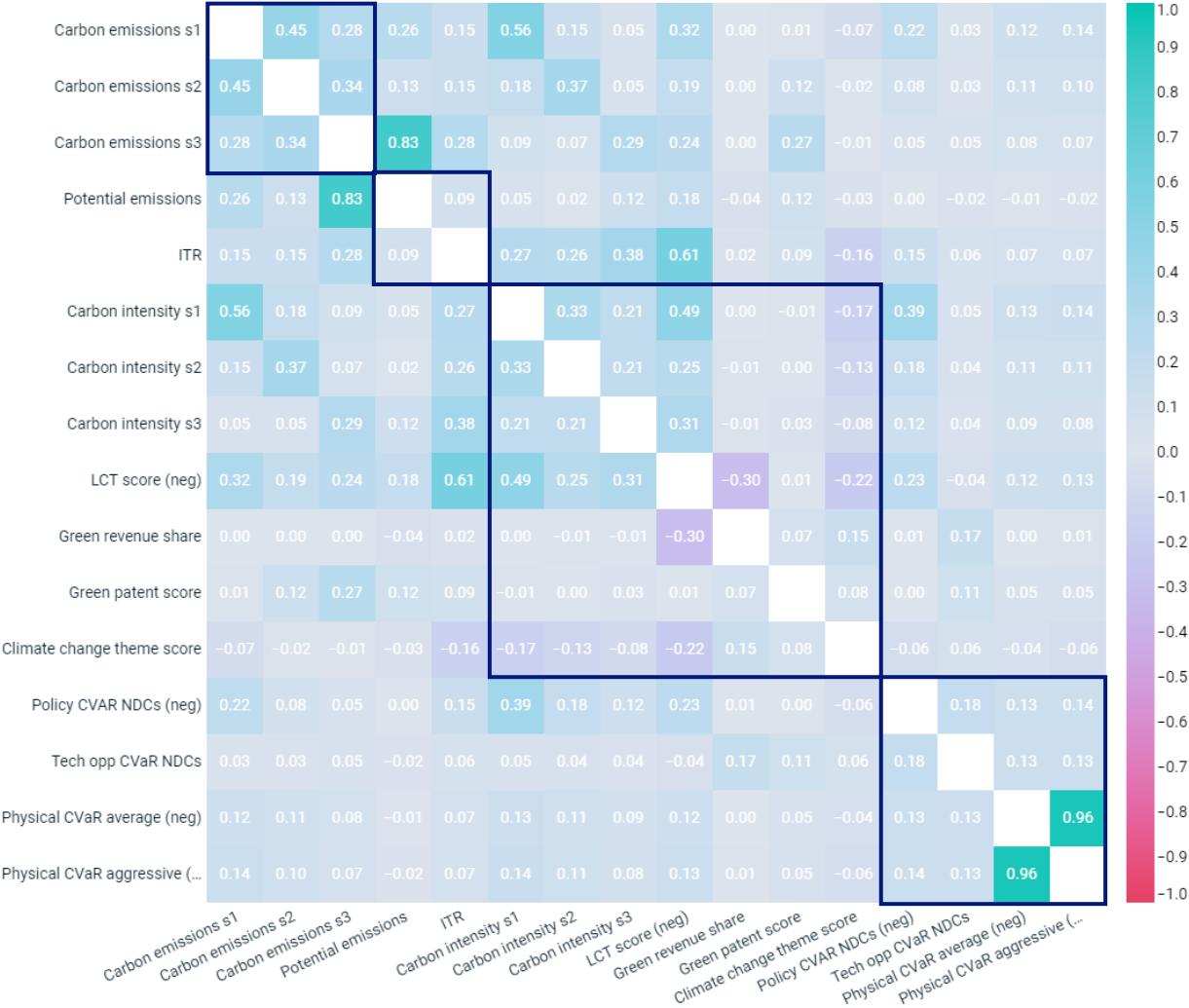
Climate Metrics Correlation

Current impact

Potential impact

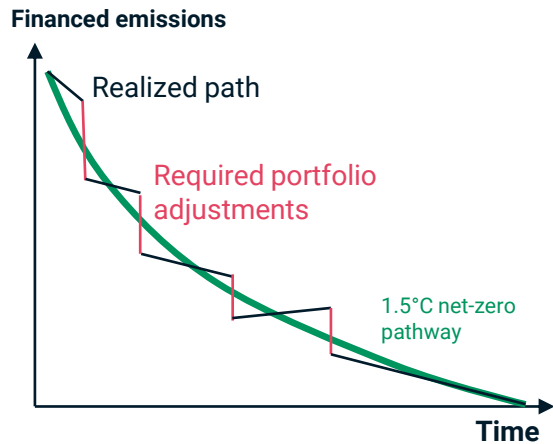
Current risk & opportunity exposure

Scenario risk



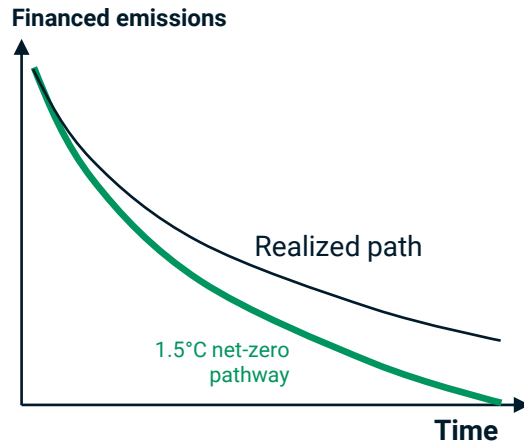
Forward-looking vs backward looking climate metrics

Net-zero implementation only using backward looking data



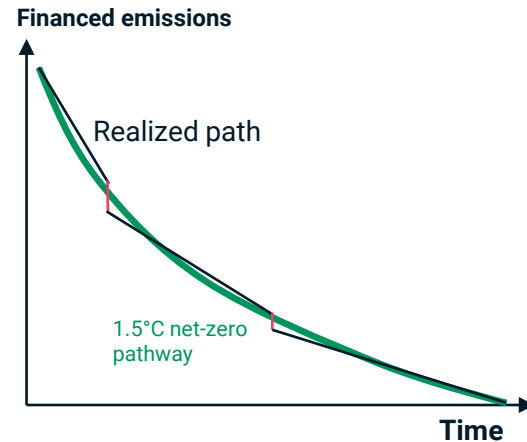
Realized path requires frequent adjustments

Net-zero implementation only using forward looking data



Realized path can drift away from target pathway because forward-looking data is not perfectly predictive of the future

Net-zero implementation using forward-looking and backward-looking data



Realized path is smoother due to steering the portfolio toward self-decarbonizing companies

What climate metrics shall I use to track my carbon footprint?

Each climate metric answers a slightly different question:

Financed emissions = emissions “owned” by the portfolio:

How much GHG emissions am I financing? [t CO₂e]

Financed emissions intensity (FEI) = weighted emissions / EVIC:

How much GHG emissions am I financing per dollar invested? [t CO₂e / USD]

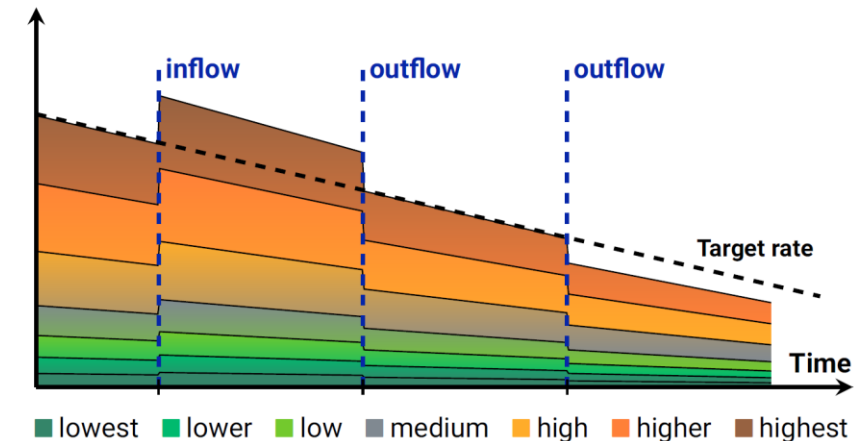
Weighted average carbon intensity (WACI) = weighted emissions / Sales:

How carbon intense are the business models of the companies that I am invested in? [t CO₂e / USD]

Tracking portfolio carbon footprint

Using financed emissions

Portfolio financed emissions

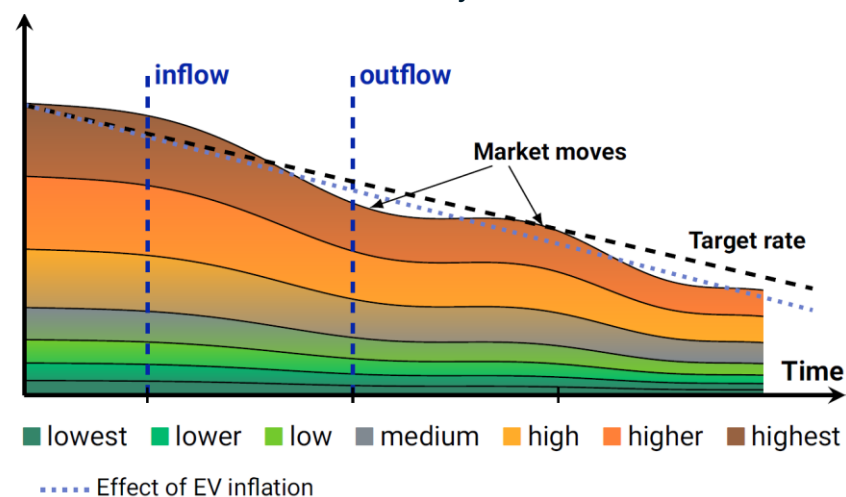


Volatility due to

- Portfolio inflows and outflows
- Changes in companies' financing structure

Using financed emissions intensity (FEI)

Portfolio financed emissions intensity



Volatility due to

- Market volatility, especially equity markets
- Changes in EVIC

Disentangling the main effects in Financed Emissions Intensities

$$\text{Financed Emissions Intensity} = \sum_{i \in \text{Universe}} \text{Weight}_i \times \frac{\text{GHG Emissions}_i}{\text{EVIC}_i}$$

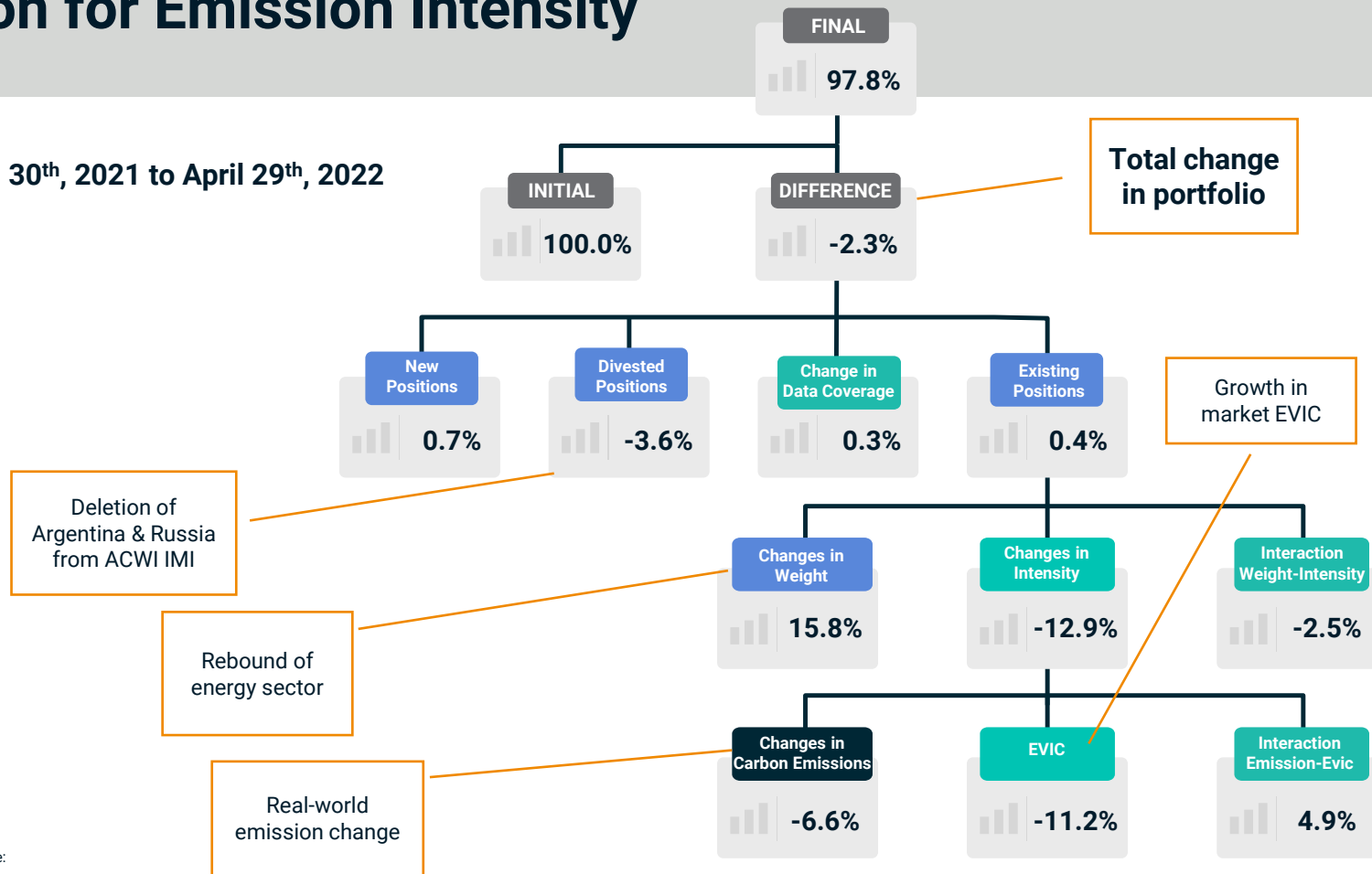
1st layer: changes in universe

2nd layer: changes in weights

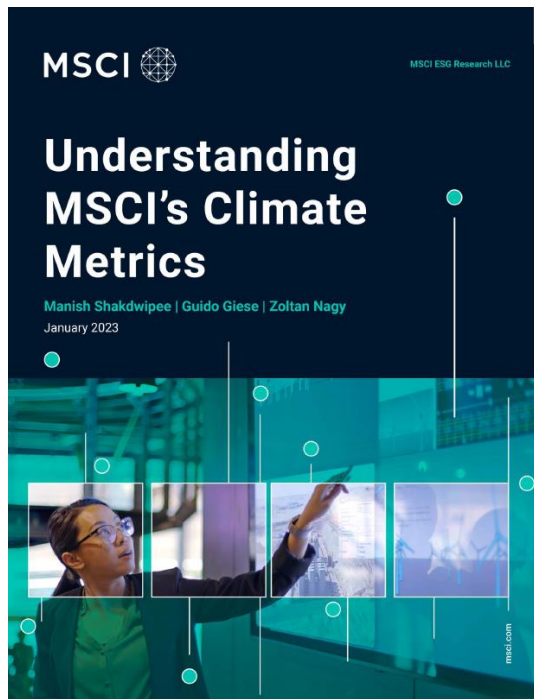
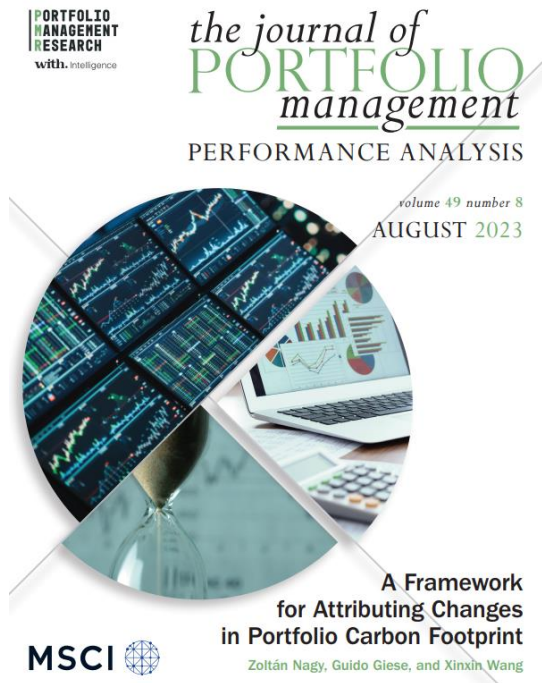
3rd layer: intensity drill-down

Attribution for Emission Intensity

Example:
ACWI IMI from April 30th, 2021 to April 29th, 2022



MSCI Publications



MSCI's Research Insight **"A Framework for Attributing Changes in Portfolio Carbon Footprint"**
Journal of Portfolio Management,
June 2023

"Understanding MSCI Climate Metrics", MSCI Research Insight,
January 2023

Questions?



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