

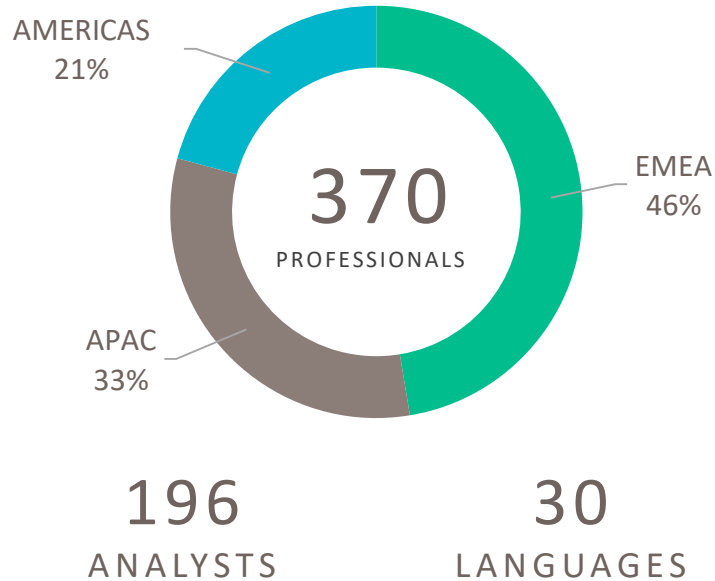


Klimarisikoanalyse
-
**Welche Herausforderungen
kommen auf
Finanzintermediäre zu?**

Viola Lutz
Vice President, Head of Investor Consulting Climate
11 December 2019, Vienna

[ISS-ESG.COM](https://www.iss-esg.com)

ESG STAFF *



26 YEARS OF CULTIVATING ESG EXPERTISE

CLIENTS

2'000+

Asset Owners & Managers
Globally for ESG & Proxy Voting

CLIMATE

€ 3 Trillion+

Investments screened
for their climate risks & impact

COVERAGE *

CLIMATE

25,000+

ISSUERS

NORM-BASED RESEARCH

23,000+

ISSUERS

ESG CORPORATE RATING

10,000+

ISSUERS

Location	Initiative	Description	Owner	Requirement	Status	Pre / Post-Paris
Global	Task force on Climate-related Financial Disclosure (TCFD)	The TCFD have developed voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors and other stakeholders.	Self governance	Voluntary	In place	Post
	Portfolio Decarbonization Coalition (PDC)	Coalition of investors committing to decarbonizing their investment portfolios	Self governance	Voluntary	In place	Pre
	Montréal Pledge	The Pledge allows investors to formalize commitment to the PDC, mobilizing investors to measure, disclose and reduce their portfolio carbon footprints.	Self governance	Voluntary	In place	Pre
	ISO 14097	Framework and principles for assessing and reporting investments and financing activities linked to climate change.	Self governance	Voluntary	Expected	Post
	Asset Owners Disclosure Project (AODP)	A ranking of the climate-related financial disclosures of the world’s largest pension funds, insurers, sovereign wealth funds and endowments.	Civil Society	Voluntary	In place	Pre
	Climate Action 100+	A five-year initiative led by investors to engage with the world’s largest corporate GHG emitters to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures	Self governance	Voluntary	In place	Post
	The Investor Agenda	The Investor Agenda has been developed for the global investor community to accelerate and scale up the actions that are critical to tackling climate change and achieving the goals of the Paris Agreement.	Self governance	Voluntary	In place	Post
Europe (EU)	Institutions for Occupational Retirement Provision (IORP) II	EU pensions directive with specific content on climate change requirements.	Regulator	Mandatory	In place	Post
	EC Action Plan	A body of experts from civil society, the finance sector and academia advising the European Commission on how to better integrate sustainability considerations in the EU's financial policy framework	Regulator	TBD	Expected	Post
France	Article 173 of the Energy Transition Law	Legislation on mandatory carbon disclosure requirements for listed companies and carbon reporting for institutional investors, defined as asset owners and investment managers.	Regulator	Mandatory	In place	Post
California	Climate Risk Carbon Initiative	Initiative to evaluate the degree to which California investors are impacted by effects of climate change on the economy.	Regulator	Mandatory	In place	Post
Sweden	National Pension (AP) funds	Co-ordination of carbon footprint reporting for investment portfolios within the AP funds.	Self governance	Voluntary	In place	Post
Switzerland	Ministry of the Environment (FOEN)	Invitation from the FOEN to Swiss pension funds and insurers to test the climate compatibility of portfolios.	Regulator	Voluntary	Expected	Post
Netherlands	Platform Carbon Accounting Financials (PCAF)	Collaboration of 12 Dutch financial institutions to develop a carbon accounting methodology for financed emissions.	Self governance	Voluntary	Expected	Post
UK	Green Finance Taskforce (GFT)	This Taskforce will work with industry to accelerate the growth of green finance, and help the UK government to deliver the investment required to meet the UK’s carbon reduction targets.	Regulator	TBD	In place	Post
Canada	CSA Staff Notice 51-354 Report on Climate change-related Disclosure Project	The CSA has developed new guidance and initiatives to educate issuers about the disclosure of climate change-related risks, opportunities and financial impacts. It also intends to consider new disclosure requirements regarding non-venture issuers’ corporate governance practices in relation to material business risks.	Regulator	Voluntary	In place	Post
China	Carbon emissions data mandated by 2020 for listed companies in China	Seven government agencies have collectively issued guidelines stating China’s intention to develop a ‘green financial system’. The roadmap will have three stages, finishing in 2020 whereby all listed companies will be required to disclose .	Regulator	Mandatory	Expected	Post
Germany	Bundesbank: The Role of Central Banks	Conference and call for papers on the role of central banks in scaling up green finance	Regulator	TBD	Expected	Post
Australia	Australian Prudential Regulatory Authority (APRA) climate disclosure action	Australia’s financial regulator has stepped-up its warning to banks, lenders and insurers, saying climate change is already impacting the global economy, and flagged the possibility of “regulatory action”.	Regulator	TBC	Expected	Post

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The screenshot shows the top portion of the PRI website. At the top is the PRI logo and the text 'Principles for Responsible Investment'. Below this is a navigation menu with categories: ASSET OWNERS, INVESTOR TOOLS, ESG ISSUES, SUSTAINABLE MARKETS, SDGS, and MORE. A secondary menu lists 'HOT TOPICS' such as Credit ratings, Climate change, Human rights, Cyber security, Tax avoidance, Fiduciary duty, Choosing managers, and Reporting. The main content area features a news article with the headline 'TCFD-based reporting to become mandatory for PRI signatories in 2020' and a sub-headline 'NEWS AND PRESS'. The article is dated '18 February 2019'.

Taking First Steps

FROM REPORTING TO INVESTING

The case for climate data





GREENHOUSE GAS ANALYSIS



OVERVIEW

DATE OF HOLDINGS	COVERAGE
30 JUN 2019	99.06%
AMOUNT INVESTED	BENCHMARK USED
990,562 EUR	Solactive ISS Prime Rated ESG Global Markets Large & Mid Cap Index PR
PORTFOLIO TYPE	
MIXED	

Solactive GBS Global Markets Large & Mid Cap USD Index PR Climate Impact Assessment

Carbon Metrics 1 of 3

Portfolio Overview

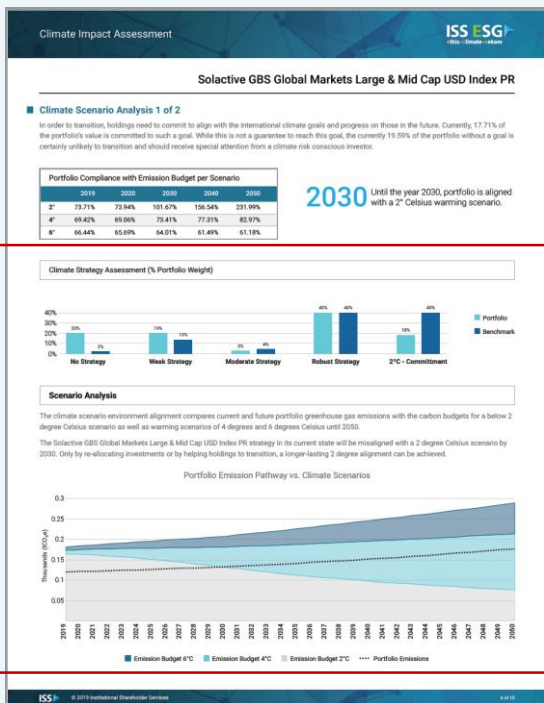
Disclosure Number/Weight	Emission Exposure tCO ₂ e		Relative Emission Exposure tCO ₂ e/Mio EUR Revenue		Climate Performance Weighted Avg		
	Share of Disclosing Holdings	Scope 1 & 2	Incl. Scope 3	Relative Carbon Footprint	Carbon Intensity	Weighted Avg Carbon Intensity	Carbon Risk Rating ¹
Portfolio	58.6% / 80.4%	146	603	147	252	265	33
Benchmark	92.7% / 98.5%	49	152	49	93	128	46
Net Performance	-34.1 p.p. / -18.1 p.p.	-198.1%	-296.1%	-198.1%	-171.3%	-106.8%	-



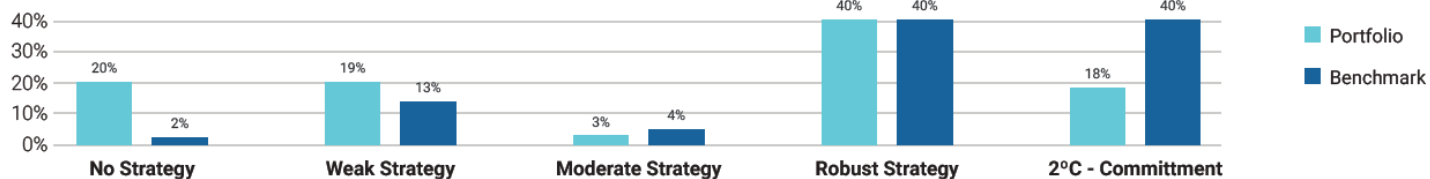
GREENHOUSE GAS (GHG) EMISSIONS provide an ex-post monitoring approach to measure greenhouse gas exposure and trends over time. GHG metrics are the basic requirement of 20+ global reporting regimes, including TCFD.



PORTFOLIO TRAJECTORY



Climate Strategy Assessment (% Portfolio Weight)

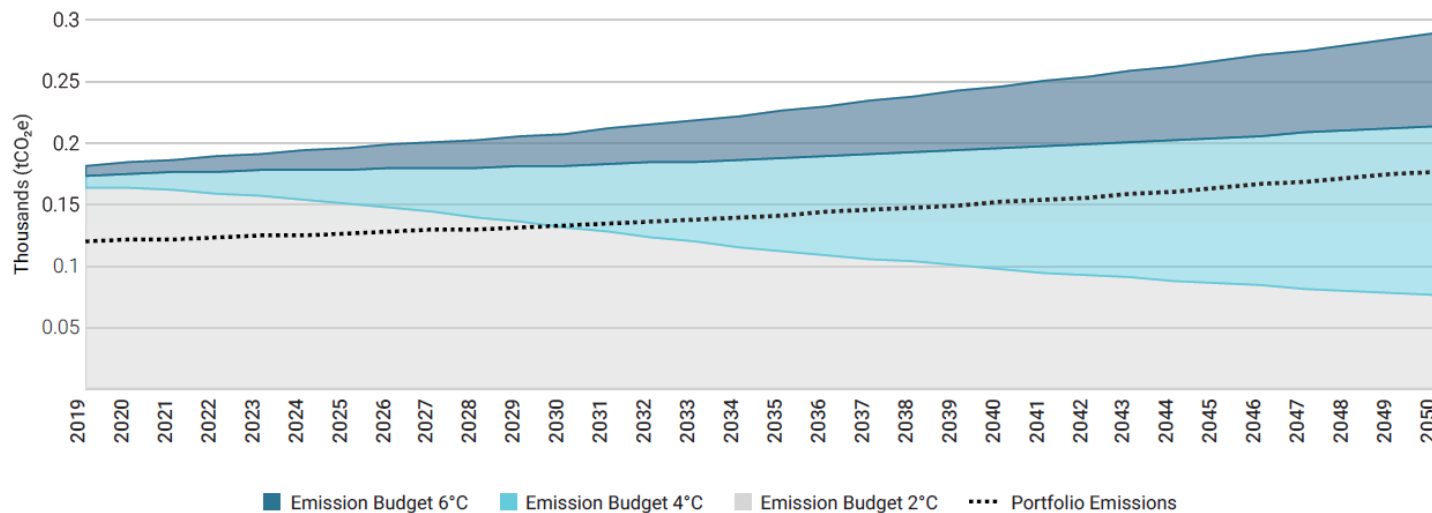


Scenario Analysis

The climate scenario environment alignment compares current and future portfolio greenhouse gas emissions with the carbon budgets for a below 2 degree Celsius scenario as well as warming scenarios of 4 degrees and 6 degrees Celsius until 2050.

The Solactive GBS Global Markets Large & Mid Cap USD Index PR strategy in its current state will be misaligned with a 2 degree Celsius scenario by 2030. Only by re-allocating investments or by helping holdings to transition, a longer-lasting 2 degree alignment can be achieved.

Portfolio Emission Pathway vs. Climate Scenarios



2°C ALIGNMENT requires reducing non-aligned holdings and/ or requires holdings to adopt a 2 degree target and transform.

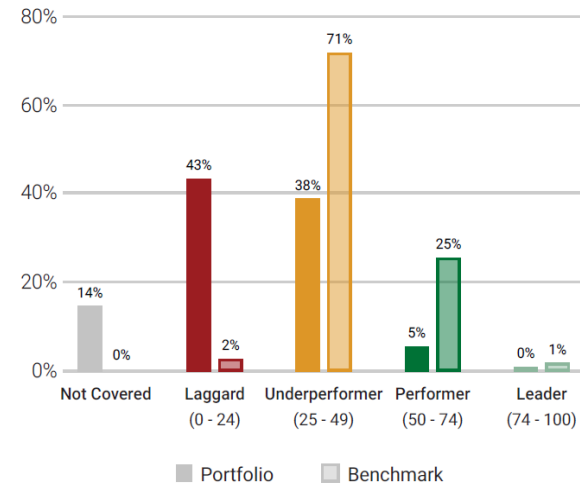


FUTURE CLIMATE RISKS

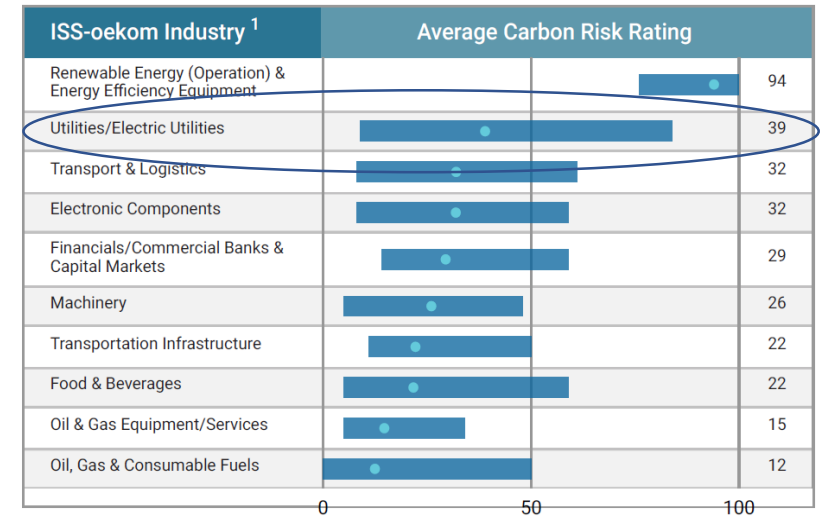
Top 10 Contributors to Portfolio Emissions

Issuer Name	Contribution to Portfolio Emission Exposure (%)	Portfolio Weight (%)	Emissions Reporting Quality	Carbon Risk Rating
RWE AG	2.63%	0.04%	Strong	Underperformer
LafargeHolcim Ltd.	2.19%	0.06%	Strong	Underperformer
Gazprom PJSC	2.09%	0.09%	Strong	Laggard
Exxon Mobil Corp.	1.95%	0.67%	Strong	Laggard
Duke Energy Corp.	1.89%	0.15%	Inconsistent	Underperformer
The Southern Co.	1.88%	0.14%	Inconsistent	Underperformer
American Electric Power Co., Inc.	1.66%	0.10%	Moderate	Underperformer
ArcelorMittal SA	1.59%	0.02%	Moderate	Underperformer
Tokyo Electric Power Co. Holdings, Inc.	1.43%	0.02%	Strong	Underperformer
ENEL SpA	1.39%	0.12%	Strong	Performer
Total for Top 10	18.70%	1.41%		

CRR Distribution Portfolio vs. Benchmark



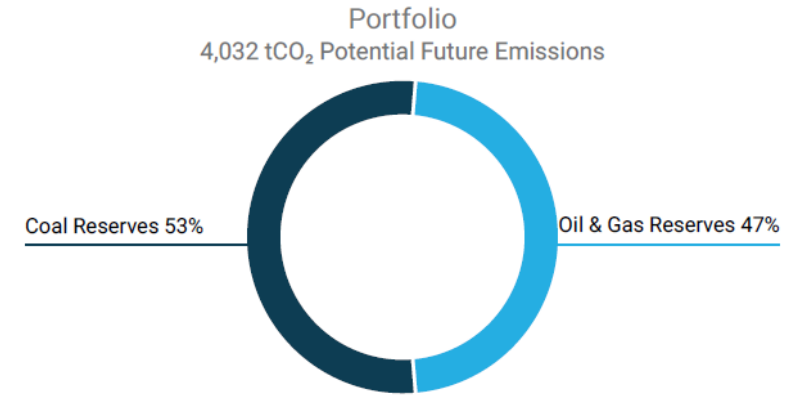
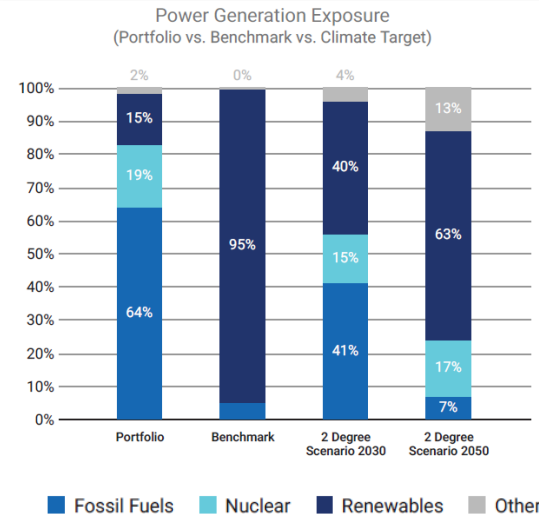
Avg Portfolio CRR and Spread for Selected ISS-oekom Industries



The ISS **CARBON RISK RATING (CRR)** enables to understand company-specific future climate risks and opportunities



TRANSITION RISKS



Exposure to the 100 Largest Oil & Gas and Coal Reserve Owning Assets

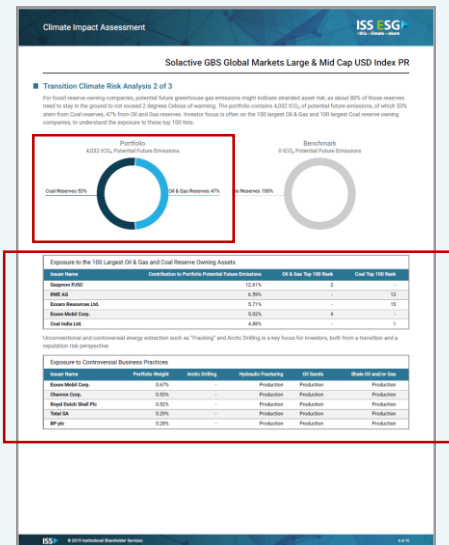
Issuer Name	Contribution to Portfolio Potential Future Emissions	Oil & Gas Top 100 Rank	Coal Top 100 Rank
Gazprom PJSC	12.61%	2	-
RWE AG	6.59%	-	13
Exxaro Resources Ltd.	5.71%	-	15
Exxon Mobil Corp.	5.02%	4	-
Coal India Ltd.	4.88%	-	1

Unconventional and controversial energy extraction such as "Fracking" and Arctic Drilling is a key focus for investors, both from a transition and a reputation risk perspective.

Exposure to Controversial Business Practices

Issuer Name	Portfolio Weight	Arctic Drilling	Hydraulic Fracturing	Oil Sands	Shale Oil and/or Gas
Exxon Mobil Corp.	0.67%	-	Production	Production	Production
Chevron Corp.	0.53%	-	Production	Production	Production
Royal Dutch Shell Plc	0.52%	-	Production	Production	Production
Total SA	0.29%	-	Production	Production	Production
BP plc	0.28%	-	Production	Production	Production

TRANSITION RISKS such as those of potential *Stranded Assets* can be measured in Green/ Brown revenue shares and potential future emissions from fossil reserves.





PHYSICAL RISKS

Climate Impact Assessment **ISS ESG**
(SRI) - Enable - Action

Solactive GBS Global Markets Large & Mid Cap USD Index PR

Physical Climate Risk Analysis

Rising temperature levels, even if limited to 2° Celsius, will result in changes of the climate system resulting in physical risks. Physical risks can be classified into long term weather changes and extreme weather events such as storms, floods, or droughts. Companies' exposure to these two types of physical risk depends on two main factors: their sector as well as the geographical region they are active in.

Sector Exposure: Chronic and Acute Physical Risk

Physical Risk: Chronic

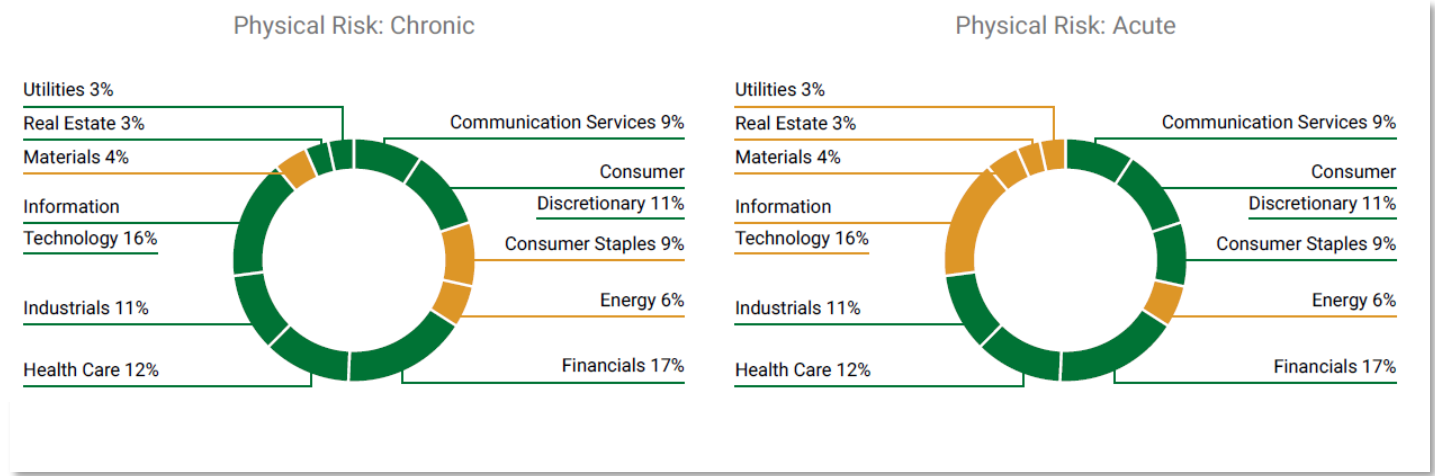
Physical Risk: Acute

Percent of Holdings Directly Exposed to Geographic & Associated Sector Risk

North America 59%
 Europe 21%
 Asia 16%
 South America 1%
 Africa 1%
 Oceania 2%

■ Low Risk ■ Medium Risk ■ High Risk

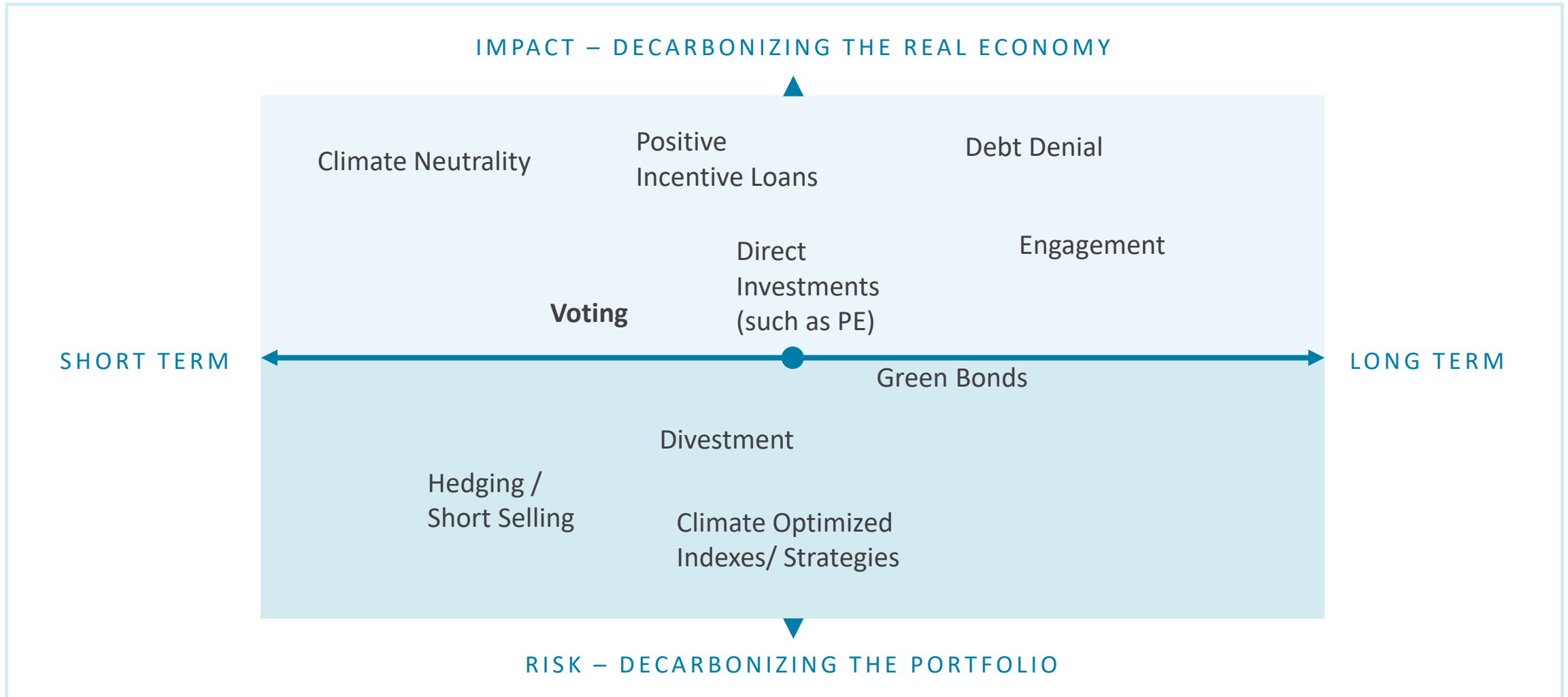
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PHYSICAL RISKS can be acute or chronic and affect different sectors differently in different geographies.

From Measuring to Acting

THE INVESTOR'S TOOLBOX



CLIMATE CHANGE IN PROXY VOTING

4 KEY INPUTS



DISCLOSURE INDICATORS, such as the 200+ ISS climate-linked data and analysis factors



PERFORMANCE INDICATORS, including existing ISS climate ratings and scores such as the Carbon Risk Ratings (CRR)



GHG EMISSIONS DATA, (absolute, intensity, source, etc.) by industry, sector



NORM-BASED RESEARCH, climate-related cases

Climate Disclosure

CLIMATE RISK DISCLOSURE

Climate Disclosure Pillars	Disclosure Alignment
Governance	MEETS STANDARD
Strategy	DOES NOT MEET STANDARD
Risk Management	EXEMPLIFIES STANDARD
Metrics & Targets	PARTIALLY MEETS STANDARD

Climate Performance

CURRENT CLIMATE PERFORMANCE

Greenhouse Gas Emissions	Total
Total Emissions (Scope 1 & 2)	2,345,678 tCO ₂ e
Total Emissions (Scope 3)	12,345,678 tCO ₂ e
Emission Intensity (Scope 1 & 2/m\$ Revenue)	2 tCO ₂ e
Avg Peer Emission Intensity (Scope 1 & 2/m\$ Revenue)	1.5 tCO ₂ e

FUTURE CLIMATE PERFORMANCE

Greenhouse Gas Emissions	Total
Climate Rating	Laggard
Climate Rating Grade (0-100)	12

Climate Risk Exposure

SECTOR CLIMATE RISK EXPOSURE

Sector Risk Level	HIGH
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INCIDENT-BASED RISK EXPOSURE

Norms Violation	SEVERE
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THANK YOU



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Questions?