

Welcome to the
Climate &
Resilience
(EX) Task
Force:
Climate
Disclosure
Workstream₃

OUR MEETING WILL BEGIN SHORTLY

NAIC Confidential

- ✓ All audio will be muted upon entry
- ✓ Prior to speaking, unmute both **Webex** and your **cell phone**
- ✓ If you have joined by phone, to mute and unmute your line, press*6
- ✓ Enter with video on or off (your choice)
- ✓ Use the “Chat” feature for questions, comments or assistance from moderators
- ✓ For any technical challenges please contact the NAIC Technical Support Team at MeetingTechHelp@naic.org or 866-874-4905
- ✓ The meeting is being recorded
- ✓ Task Force members, please post in Chat that you are present

Date: 5/26/21

Virtual Meeting

**CLIMATE AND RESILIENCY (EX) TASK FORCE
CLIMATE RISK DISCLOSURE WORKSTREAM**

Wednesday, June 9, 2021

2:00 – 3:15 p.m. ET / 1:00 – 2:15 p.m. CT / 12:00 – 1:15 p.m. MT / 11:00 a.m. – 12:15 p.m. PT

ROLL CALL

Andrew R. Stolfi, Vice Chair	Oregon	Yue (Nina) Chen	New York
Mike Peterson	California	Elizabeth Kelleher Dwyer	Rhode Island
George Bradner	Connecticut	David Combs	Tennessee
Peter Brickwedde	Minnesota	Mike Kreidler	Washington

NAIC Support Staff: Anne Obersteadt/Jennifer Gardner

AGENDA

1. Hear a Presentation from Morgan Stanley Capital International (MSCI) on ESG Investments, Climate Solutions and Insurer Activity in this Space
— *Helen Droz, Patric Kellerman and Xiaoshu Wang (MSCI)* Attachment A
2. Discuss Domestic and International Activities Related to Climate Disclosure
—*Brooke Stringer and Gita Timmerman (NAIC)*
3. Discuss Responses Received on the *Questions to Determine Objectives of NAIC Climate Disclosures*—*Commissioner Andrew R. Stolfi (OR)* Attachment B
4. Discuss Any Other Matters—*Commissioner Andrew R. Stolfi (OR)*

w:\national meetings\2021\spring\tf\climate\climate risk disclosure\6-9 Climate Risk Disclosure Agenda.docx

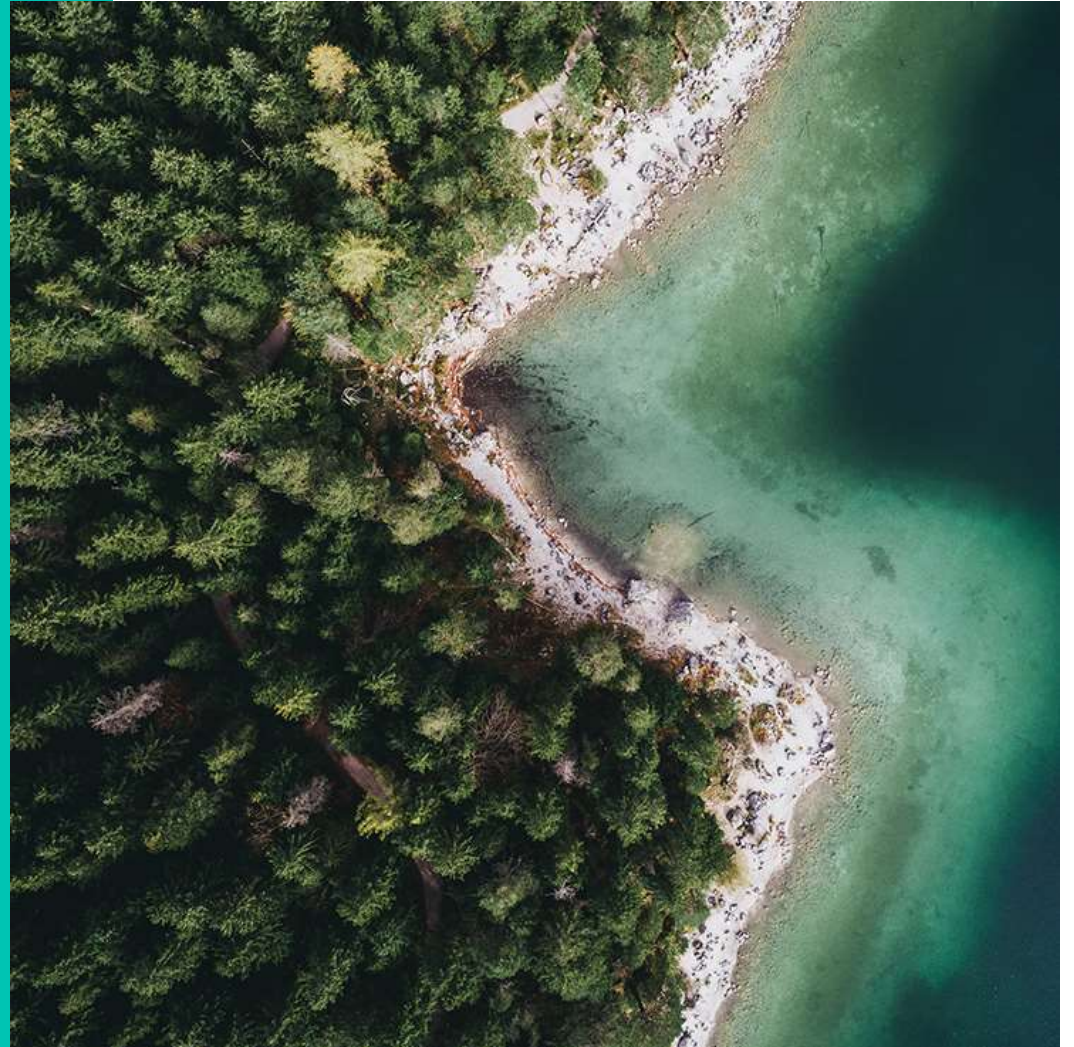
Hear a Presentation from MSCI on ESG Investments, Climate Solutions and Insurer Activity in this Space

— Helen Droz, Patric Kellerman and Xiaoshu Wang (MSCI)



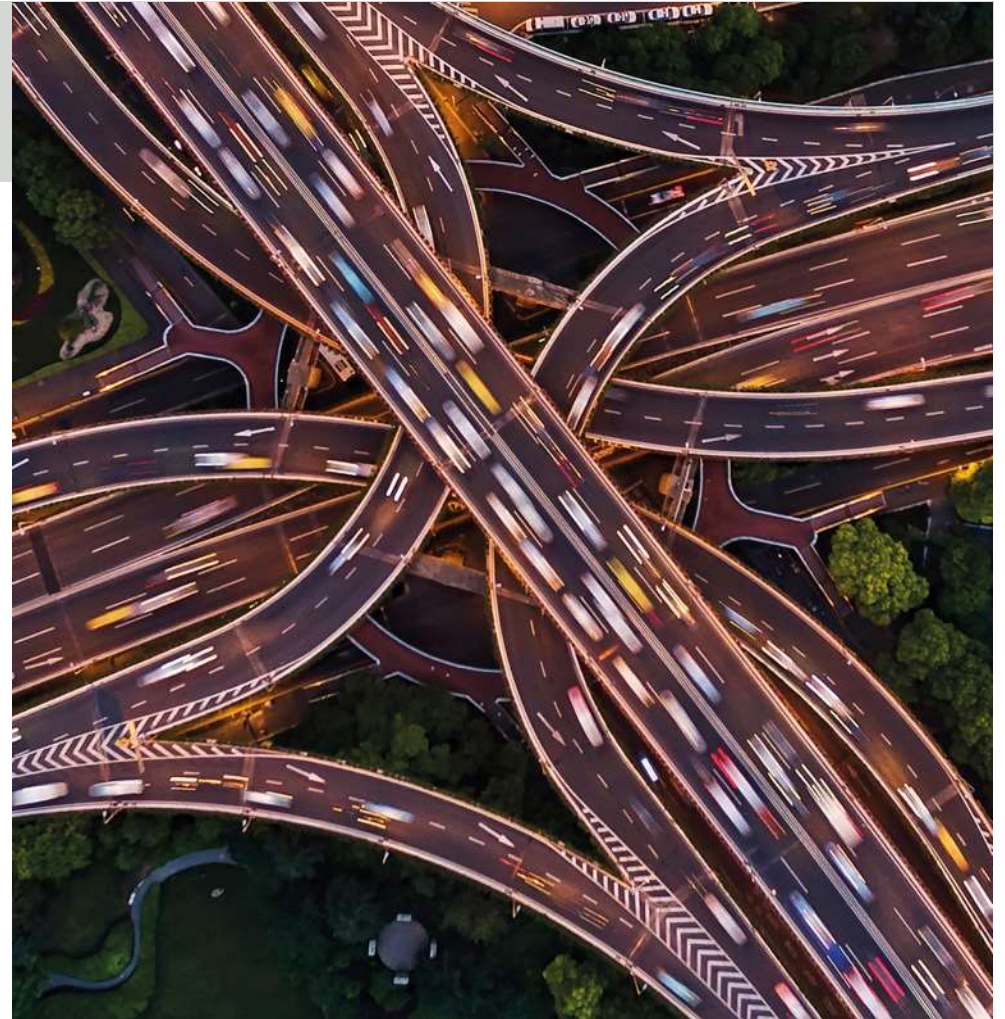
An Overview of MSCI Climate Change Solutions

MSCI ESG Research, June 2021



Agenda

- 1 Introduction
- 2 Physical Risks & Opportunities
- 3 Transition Risks Management
- 4 Assess Insurance Companies on Climate Change Risk Management
- 5 Q&A



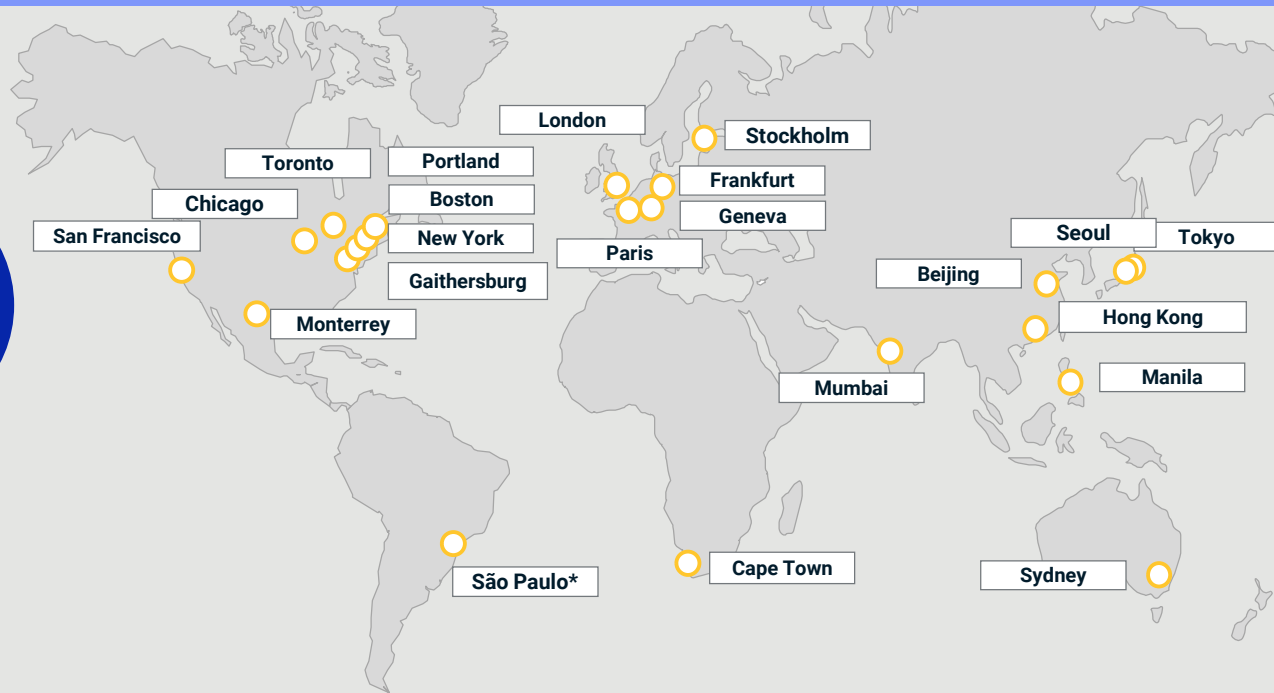
Introducing MSCI ESG Research

First ESG provider to assess companies based on industry financial materiality¹

270+
ESG
analysts²
(~400 FTE)

1700+
clients

1500+
ESG equity &
fixed income
indices use MSCI
ESG Research
ratings and data



¹ Through our legacy companies KLD, Innovest, IRRIC, and GMI Ratings. ESG Ratings dating back to 1999.

² Source: MSCI ESG Research as of March 2021. Includes full time employees, employees of foreign affiliates providing investment advisory services to MSCI ESG Research LLC, and global allocated staff performing non-investment advisory tasks.
* Representative office for business development.



MSCI

IRI SURVEY 2019

The Independent Research in Responsible Investment Survey

MSCI voted **Best Firm for SRI Research, Corporate Governance and Sustainability Indexes** for the fourth consecutive year

2015
2016
2017
2018/19

WINNER

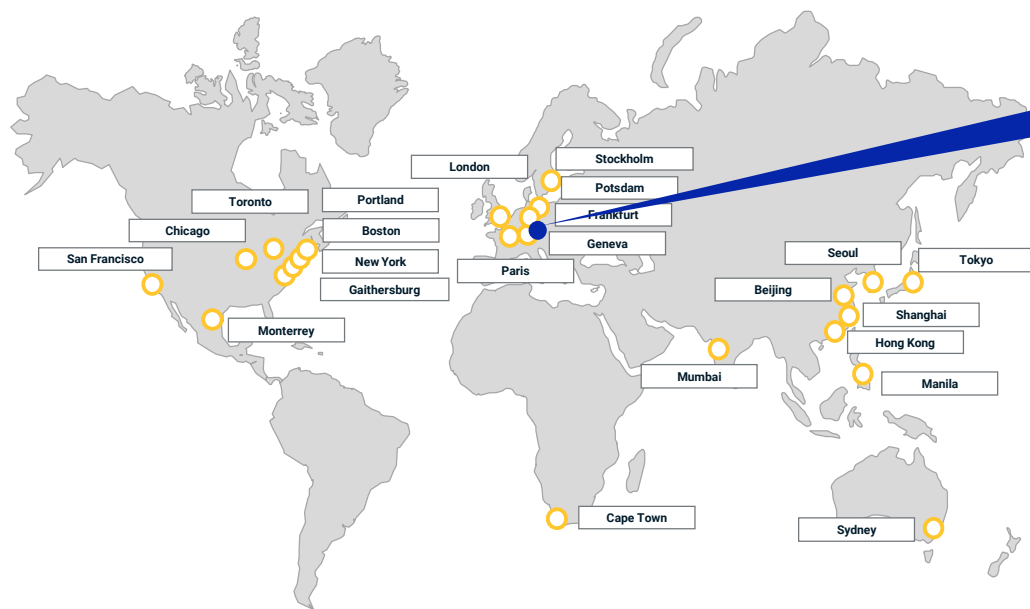
MSCI

2020 ESG Trends project: What are the big challenges for the new decade?


2020 PRI AWARD

ESG research named #1 in the world


The MSCI Climate Risk Center in Zurich



A 40+ TEAM OF CLIMATE SPECIALISTS working on modelling, methodology development, companies' data analysis and client support.



Dr. Oliver Marchand
Global Head of ESG Research & Development



Dr. Elke Schaper
Head of Climate Risk Software Engineering

- Founded in 2015
- Launched Climate VaR in 2017*
- Acquired by MSCI 2019
- MSCI Climate VaR launched in Feb 2020
- Climate VaR data in ESG Manager 2020
- Climate VaR key input for MSCI Climate Paris Aligned Index in 2020

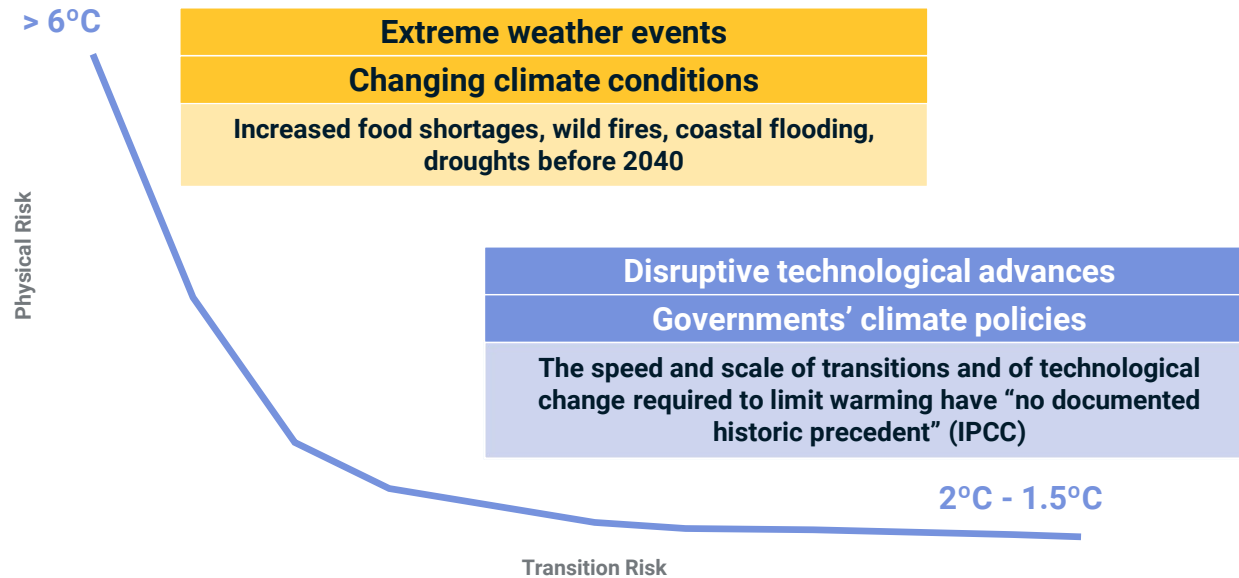


*MSCI Climate VaR is a product of MSCI ESG Research.

Information Classification: GENERAL

Climate change scenarios

In June 2017, the Financial Stability Board’s Task Force on Climate-Related Financial Disclosures (TCFD) identified Climate Change as a major systemic risk to investment that can alter the risk return profile of organizations exposed to climate-related risk.



Source: TCFD Technical Supplement Scenario Analysis
 Warren, R. et al., 2018: Risks associated with global warming of 1.5 or 2C. Tyndall briefing note. Tyndall 26 Centre for Climate Change Research, UK
 Hsiang, S. et al., 2017: Estimating economic damage from climate change in the United States.

Information Classification: GENERAL

The MSCI Climate Value-at-Risk building blocks

Transition Risks & Opportunities



Policy

- 1.5°C-Scenario
- 2°C-Scenario
- 3°C-Scenario / NDC

✓ 10 x Policy Scenarios

+



Technology

- 1.5°C-Scenario
- 2°C-Scenario
- 3°C-Scenario / NDC

✓ 10 x Tech Scenarios

+

Physical Risks & Opportunities



Physical

- Average Scenario
- Worst Case Scenario

✓ 2 x Physical Scenarios
(on 10 physical hazards)

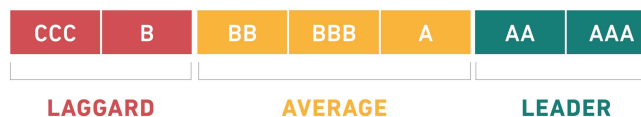
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**Aggregated
Climate VaR**

MSCI's approach to ESG Ratings

MSCI ESG Ratings assess the extent to which companies are positioned to manage the risks and take advantage of the opportunities emerging from a rapidly changing world



Forward-looking financial materiality: We monitor emerging risks & opportunities and focus on the issues that are most relevant to a company's core business model.



Alternative data & models: Alternative data helps minimize reliance on voluntary disclosure to deliver key insights.

Robust models transform unstructured data into meaningful signals.



Tech-enabled human insights: We use technology and artificial intelligence (AI) to increase the timeliness and precision of data collection and analysis, and to check and validate data.

Our 200+ strong team of analysts vet, validate and transform the data into meaningful insights

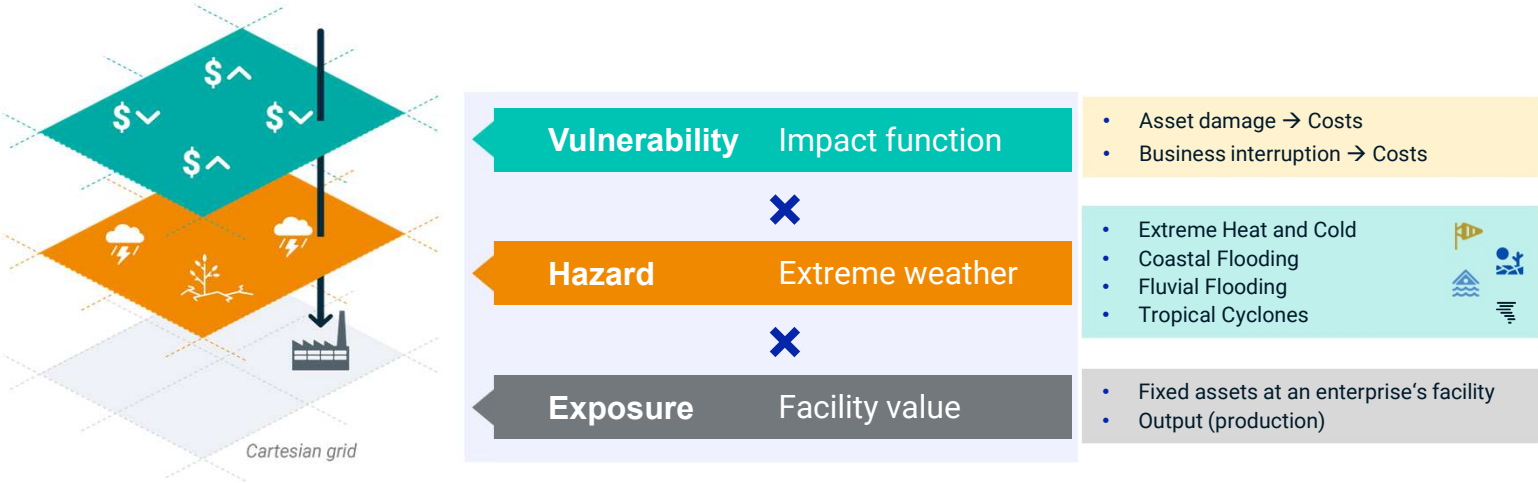


MSCI Climate Solutions



Physical Risks & Opportunities

Physical Risk Modeling framework

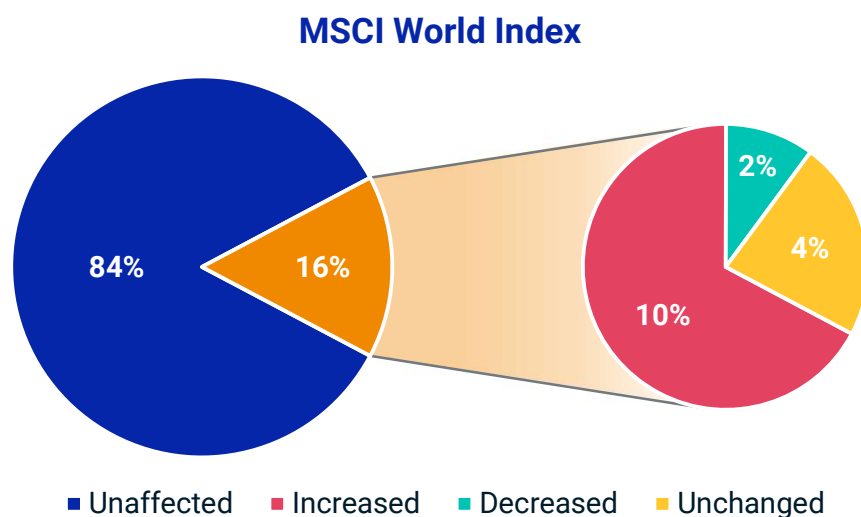


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Understanding climate change impacts

Showcase: Impact of climate change on fluvial flood risk at facilities of constituents of the MSCI World Index



- ➔ Climate change can either increase or decrease local risk
- ➔ Most facilities are subject to an increase in fluvial flood risk
- ➔ Locations with minimal impact from climate change may still be exposed to significant flood risk

Physical Climate Risk Scenarios

MSCI's climate scenarios apply to **physical aspects of the climate system** showing how they respond to increasing greenhouse gases, including variables such as temperature, sea level rise, and changes to the frequency and severity of extreme weather events.

MSCI ESG Research utilises different Relative Concentration Pathways (RCP) to analyse different potential future trends in climate variables and related changes in the frequency and severity of hazardous natural events.

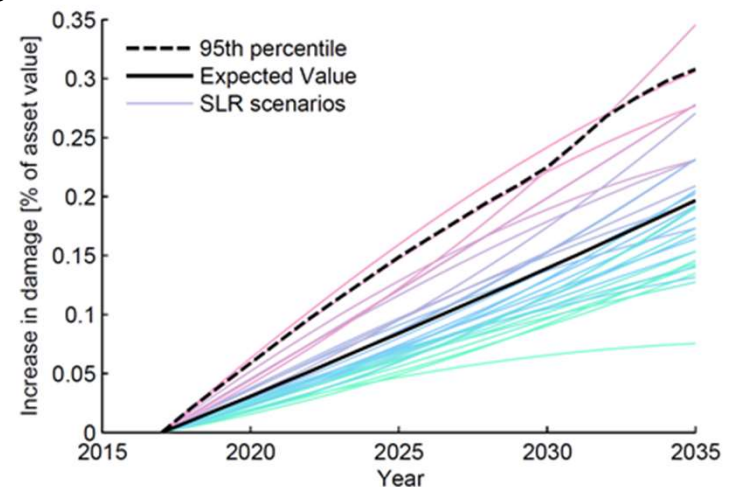
We take two views on physical climate risk:

- The **Average Scenario** considers the most likely impact of climate change over the modelled period (21st century).
 - Mathematically it refers to the expected value of the cost distribution.
- The **Aggressive Scenario** explores the severe downside risk within the distribution of physical risk and extreme weather costs.
 - It relates to the 95th percentile of the cost distribution. As the variance of the cost distribution is driven by uncertainty from the climate system and other modelling uncertainty, the aggressive scenario can be considered as a worst case scenario.









Information Classification: GENERAL

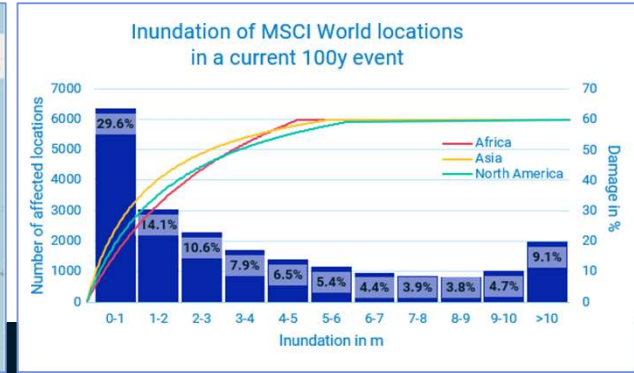
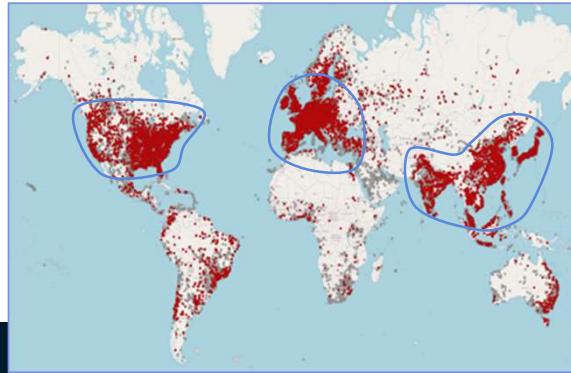
Coastal flooding under Sea Level Rise for an example location



Covered hazards

Chronic Risks (0.5° global grid)	 Extreme Heat <i>(Re-Analysis)</i>	 Extreme Cold <i>(Re-Analysis)</i>	 Wind Gusts <i>(Re-Analysis)</i>	 Heavy Snowfall <i>(Re-Analysis)</i>	 Heavy Precipitation <i>(Re-Analysis)</i>
	 Tropical Cyclones <i>(Probabilistic Model)</i>	 Coastal Flooding <i>(Climate Models)</i>	 Fluvial Flooding <i>(Climate Models)</i>	 River Low Flow <i>(Climate Models)</i>	 Wildfires <i>(Climate Models)</i>

Drivers of physical risk – Example: Fluvial Flooding



1 Hazard

- Hazard levels extremely dependent on local orography
- High resolution required to reflect spatial variability of flood risk

2 Exposure

- Hotspots of fluvial flood risk in Asia, Europe, and North America
- Asset characteristics of substantial importance for loss

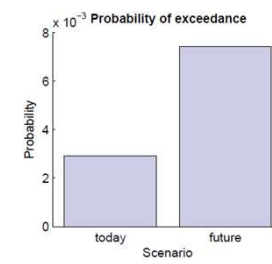
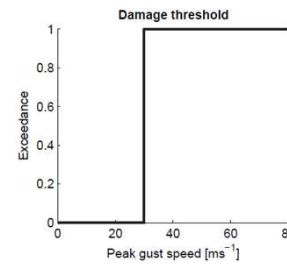
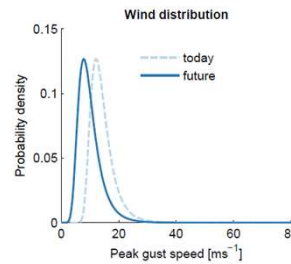
3 Vulnerability

- Damage functions are used to translate hazard levels to cost
- Example gives a schematic view on damage functions for fluvial flooding

Vulnerability: Variable Modelling Approach

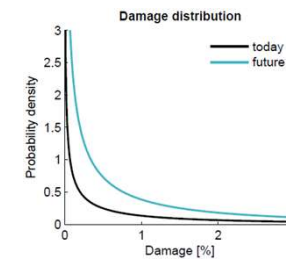
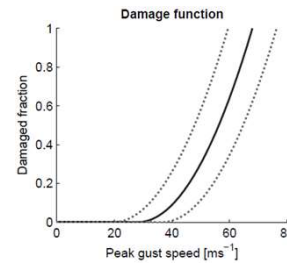
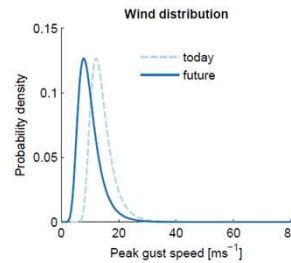
Business interruption

- Threshold approach for heat & cold, snowfall, precipitation, wind gusts, wildfire



Asset damage

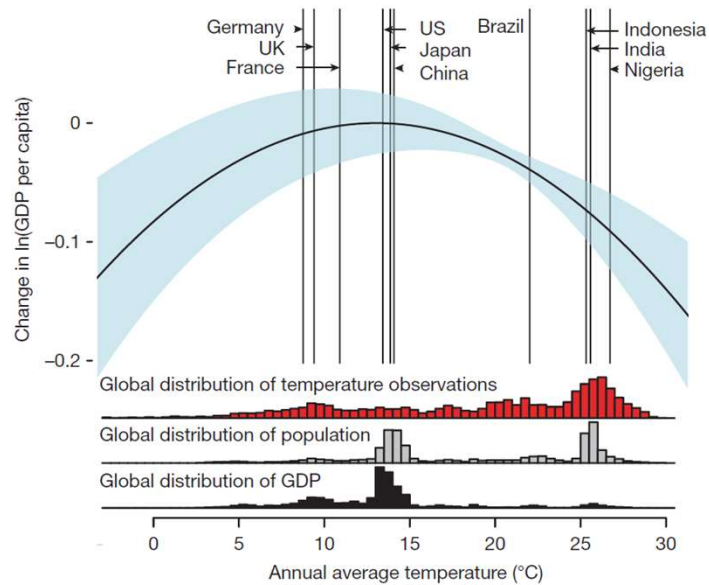
- Damage function for flooding and hurricane risks



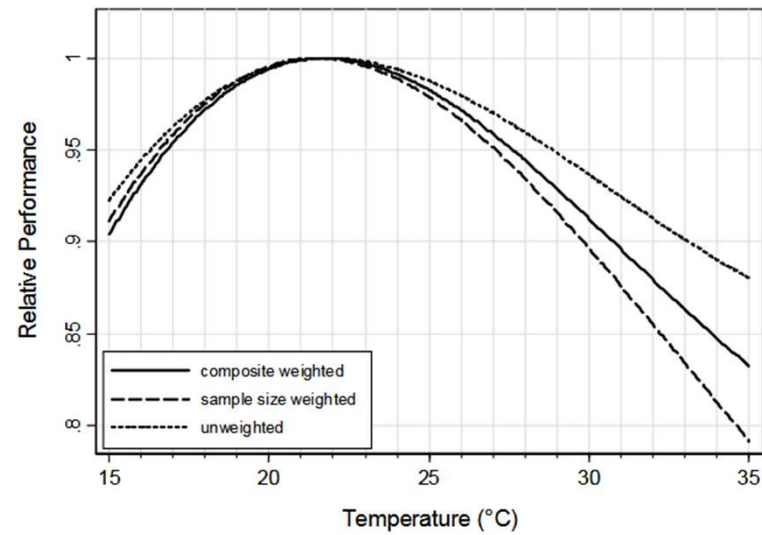
low complexity

high complexity

Example: Productivity Loss from Heat Stress

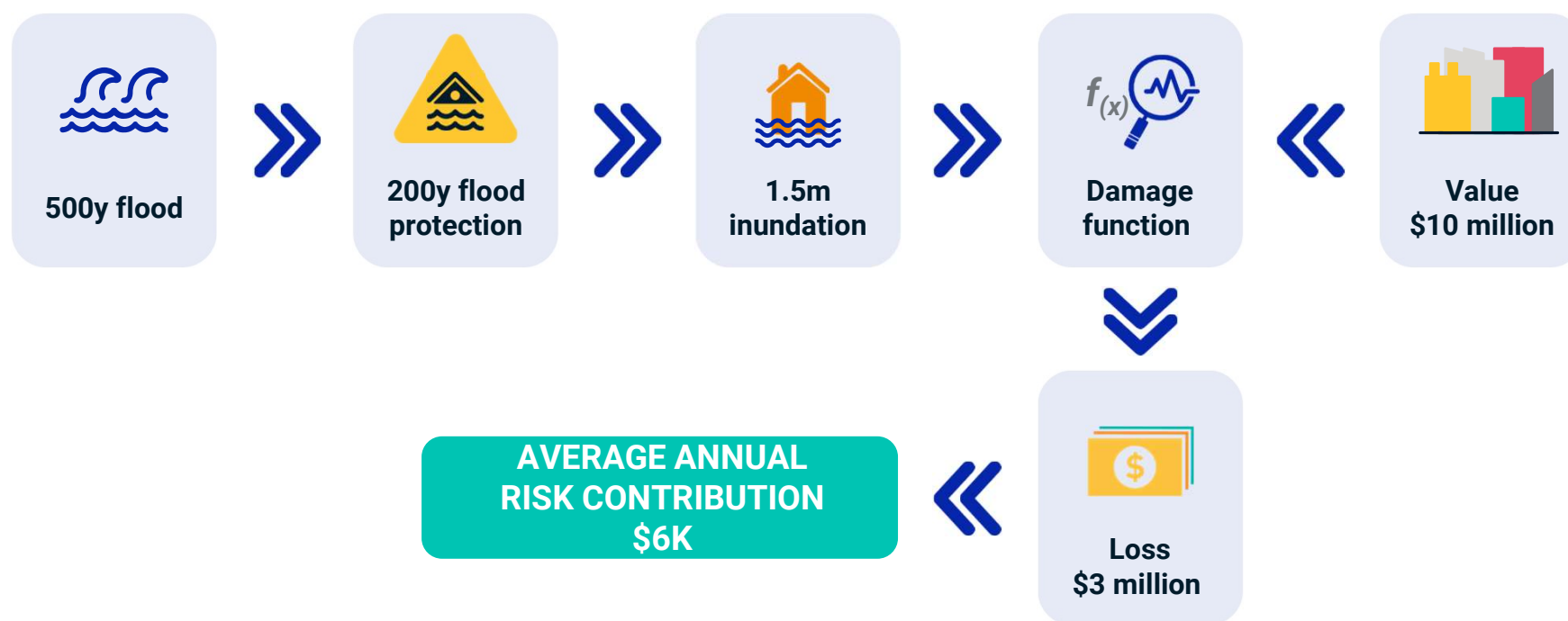


Burke, Hsiang, and Miguel
(Nature, 2015)



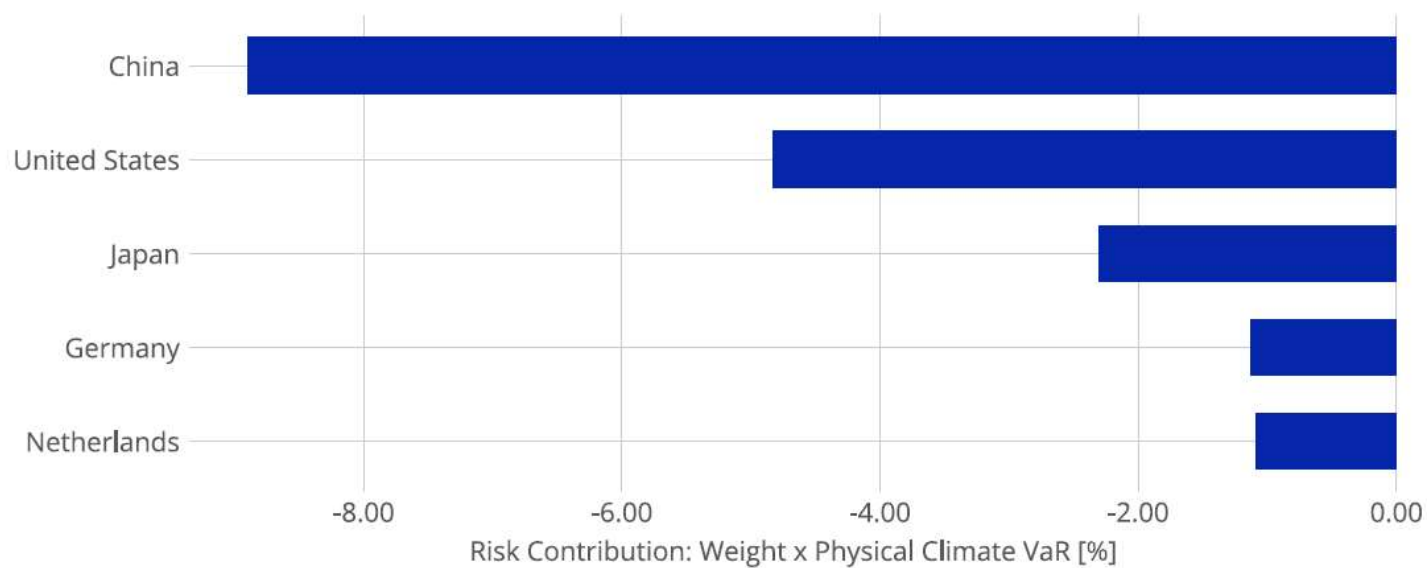
Seppänen, Fisk, and Lei (2006)

Example calculation for a single event and asset



Physical Risks – Main Countries

PHYSICAL RISKS PER COUNTRY



Physical Risks – most exposed companies

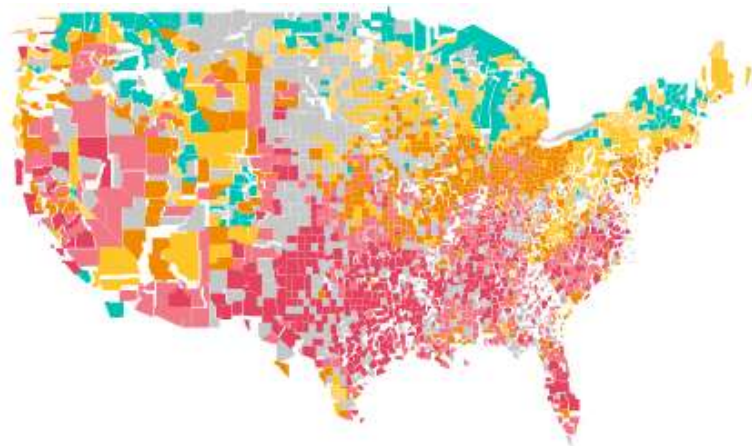
TOP MOST EXPOSED COMPANIES

The table below provides detailed information on the most exposed company facilities from physical risk exposure, including location, risk type, costs, and relative contribution under the chosen physical climate scenario.

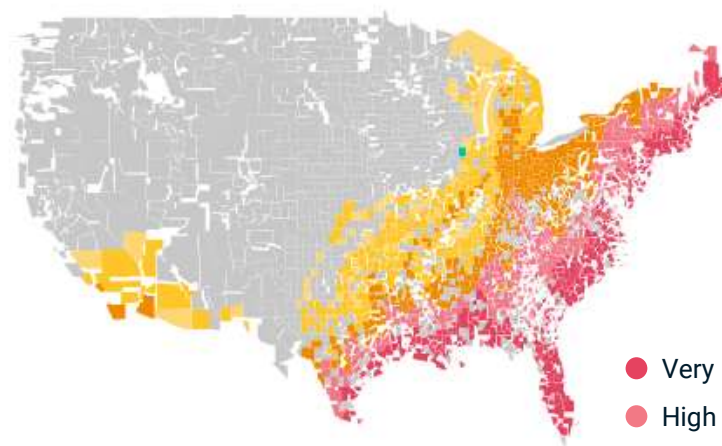
#	Company Name	Main / Highest Risk Type	Most vulnerable location	Total discounted cost in mUSD	Physical Risk Climate VaR Contribution
1	Guangzhou Automobile Group Co., Ltd	 Coastal Flooding	Guangzhou City, China	-7,453.15	-1.70%
2	NISSAN MOTOR CO.,LTD.	 Coastal Flooding	Yokohama, Japan	-7,926.36	-1.48%
3	SAIC Motor Corporation Limited	 Coastal Flooding	Jing'an, China	-16,447.50	-1.48%
4	RENAULT SA	 Coastal Flooding	Haarlemmermeer, Netherlands	-3,113.55	-1.44%
5	BAIC MOTOR Corporation Limited	 Extreme Heat	北京, China	-1,412.52	-1.30%
6	Mazda Motor Corporation	 Extreme Heat	England, United Kingdom	-1,659.16	-1.29%
7	BYD COMPANY LIMITED	 Coastal Flooding	Songjiang, China	-8,163.89	-1.21%

Geographical relevance: Example Emerging Hot Spots for Physical Climate Risks in the US

Aggregated Physical Climate Risk Score



Tropical Cyclone Risk Score



- Very High Risk Increase
- High Risk Increase
- Medium Risk Increase
- Low Risk Increase
- Very Low Risk Increase
- No Change / No Score
- Risk Reduction

Physical climate risk aggregate for the US based on MSCI ACWI IMI based on the cost delta between today and 2035. The bottom map shows the estimated risk for cyclone risk. Results are aggregated to US country level. Data as of July 2020.

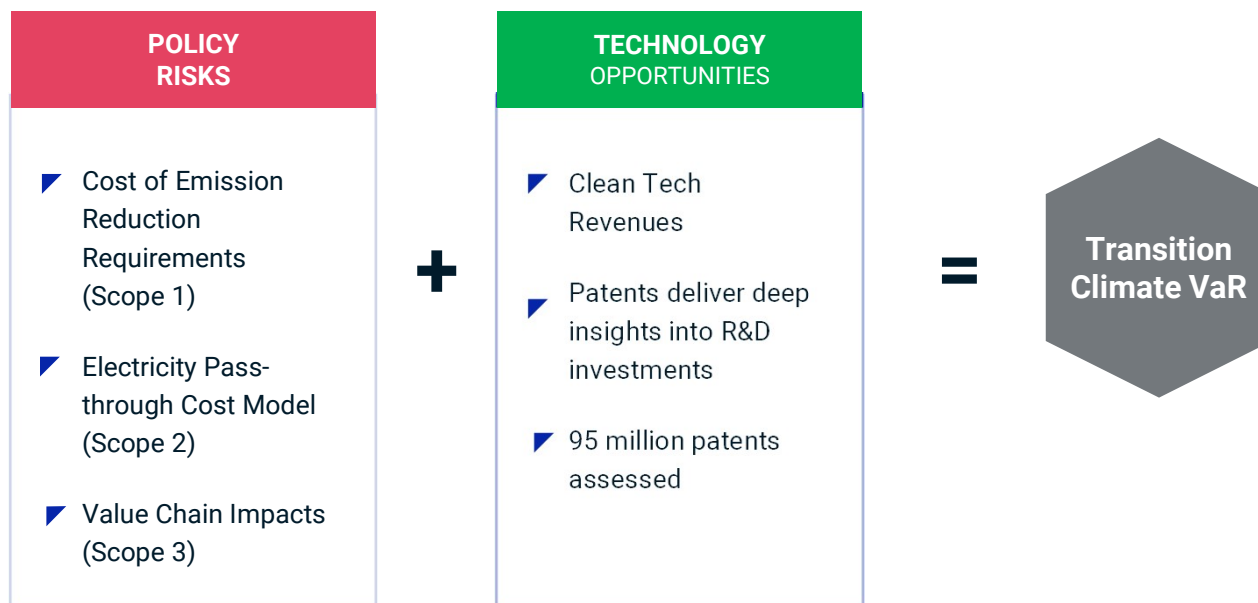
<https://www.msci.com/www/blog-posts/identifying-emerging-hot-spots/02078951551>



Transition Risk Management

Transition Value-at-Risk building blocks

Transition Risks & Opportunities



15 Scenarios based on:

- Integrated Assessment Models (IAMs): AIM-CGE, IMAGE, GCAM, REMIND
- Socio-Economic Pathways SSP1, SSP2, SSP4 and SSP5

Emissions risk: What are the different scopes



Scope 1 emissions → Direct emissions risk



Scope 2 emissions → Electricity Use risk (indirect)



Scope 3 emissions → Value Chain risk (indirect)

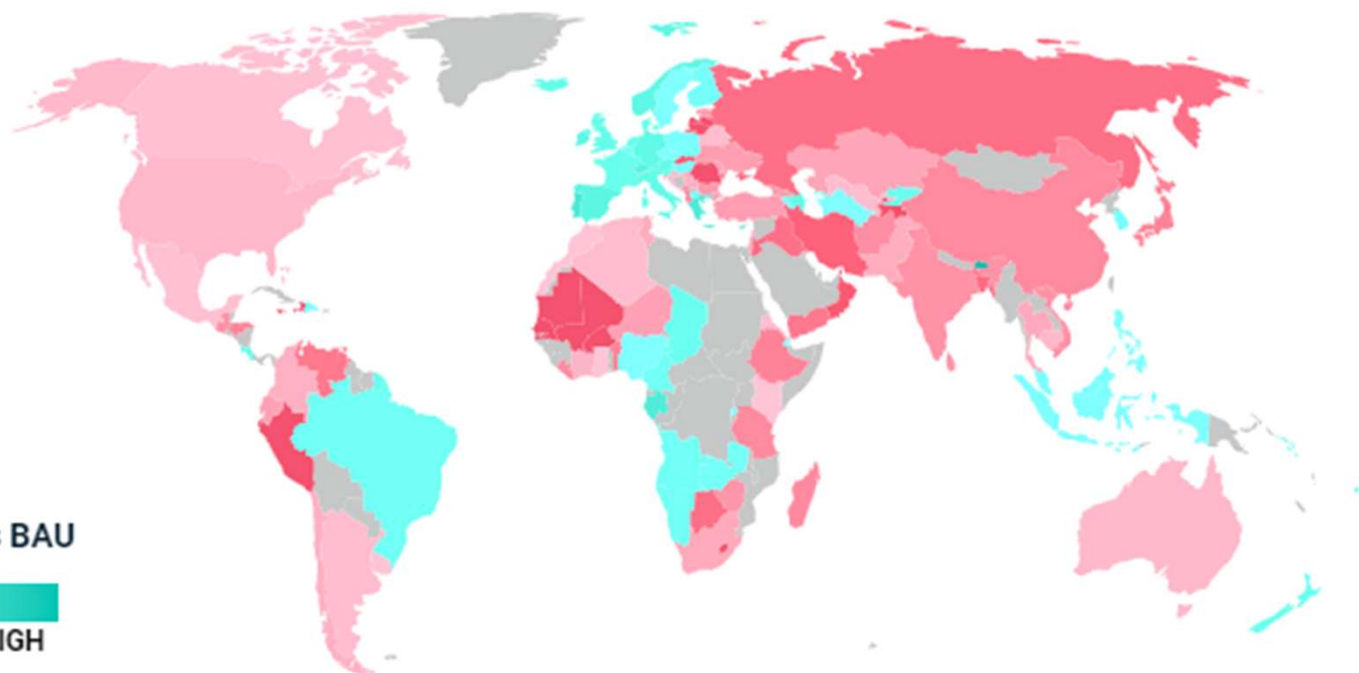


Avoided emissions → Technology Opportunities

Climate policies as climate transition risk driver

Relative ambition level of current Nationally Determined Contribution (NDCs) per region

Ambition of NDC pledges vs BAU

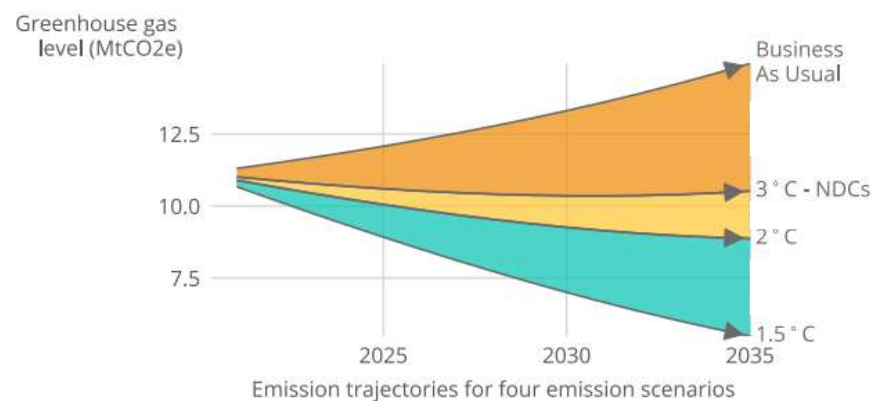
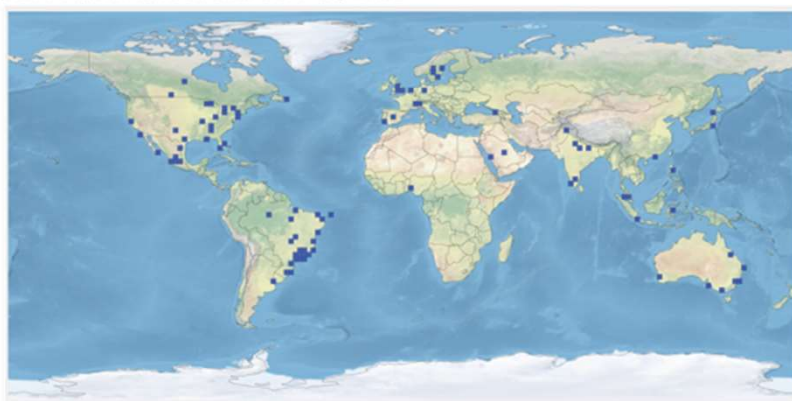


Direct GHG emissions example: Vale S.A. (1/2)

Step 1: Translate climate policies into different policy scenarios and derive emission reduction requirements for operations of company

MAP OF COMPANY FACILITIES

The infrastructure map displays all of the company facilities that MSCI ESG Research maintains in its global database. These locations include production sites, sales offices and other assets that are owned by VALE S.A.

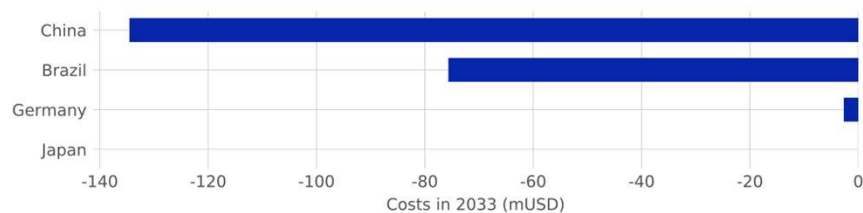


Direct GHG emissions example: Vale S.A. (2/2)

Step 2: Translate reduction requirements into costs and compute the Transition Value-at-Risk

ANNUAL GHG REDUCTION COSTS IN MAIN COUNTRIES OF ACTIVITY - 3°C SCENARIO

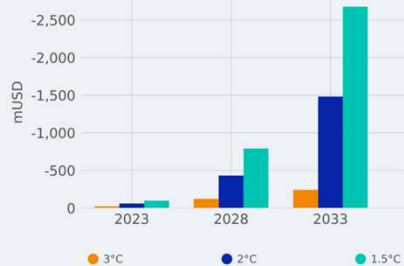
The below bar chart provides a snapshot view of VALE S.A.'s cumulative GHG mitigation costs out to 2030, when the NDCs should be fully implemented, in its main countries of activity. If the NDCs are fully implemented, they would correspond to a 3°C global temperature scenario.



	3°C Scenario	2°C Scenario	1.5°C Scenario
Total Discounted Costs	-1.02 bUSD	-7.25 bUSD	-14.82 bUSD
Enterprise Value (Equity + Debt)	103,577.95 mUSD		
Direct Emission VaR	-0.99%	-7%	-14.31%

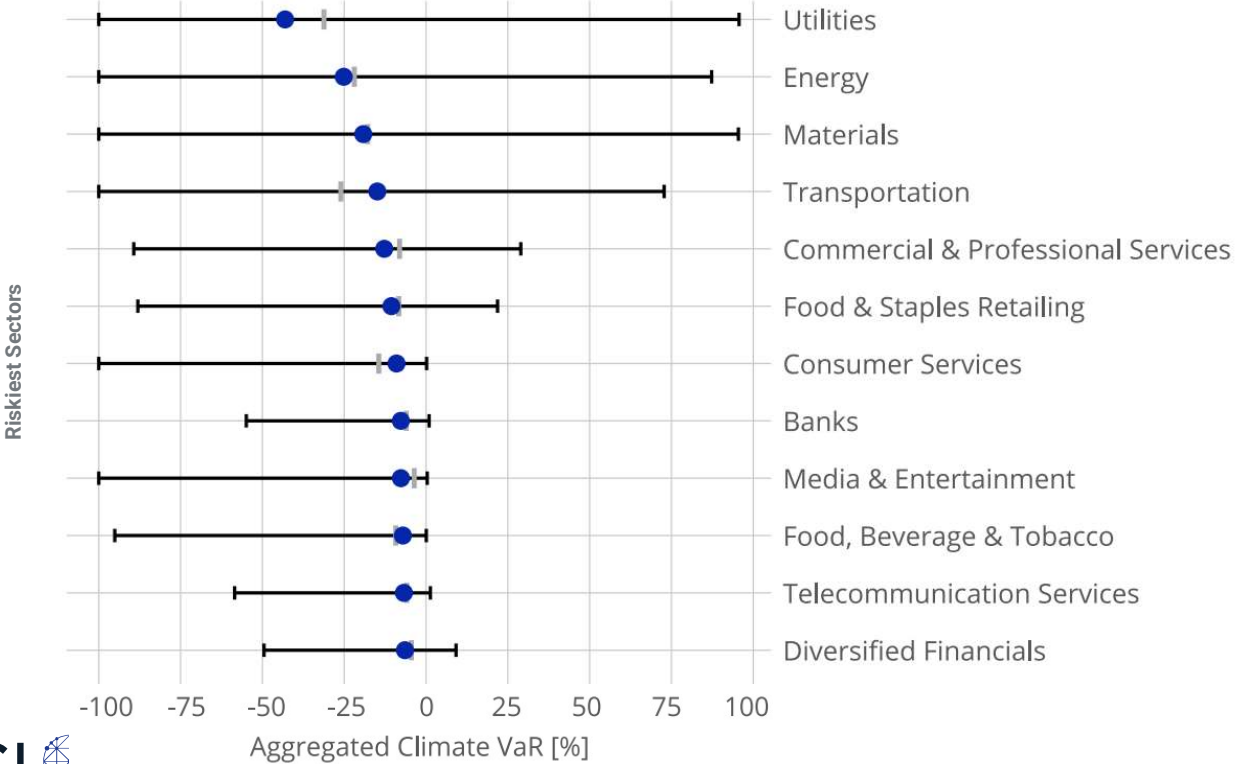
ANNUAL GHG REDUCTION COSTS OVER TIME

As climate policy commitments are designed to grow more ambitious over time, mitigation costs increase accordingly. The following bar chart displays the evolution of VALE S.A.'s annual GHG mitigation costs across MSCI ESG Research's different policy risk scenarios, in order for emission levels to become aligned with a 3°C, 2°C and 1.5°C global temperature scenario.



Climate Risk Contribution

Climate VaR Spread by Primary Sectors of Activity

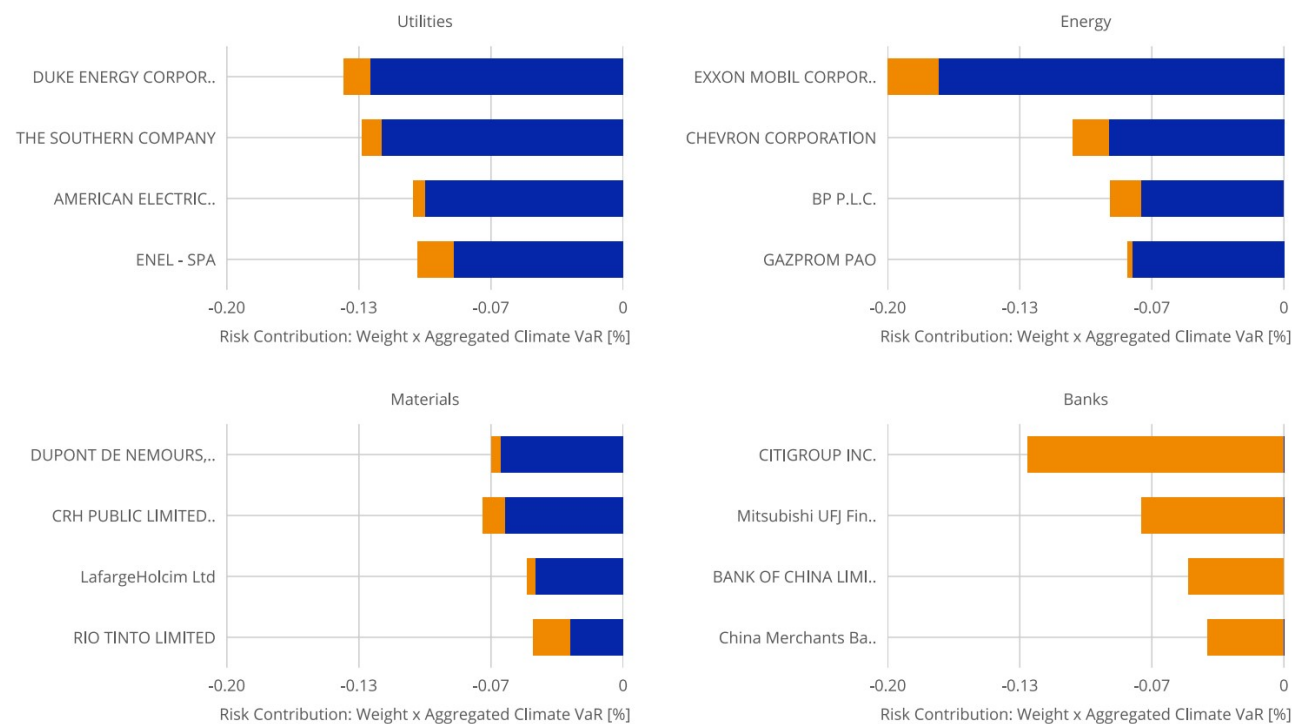


Identify high risk sectors

- Weighted Average aggregated CVaR in sector
- Arithmetic Average aggregated CVaR in sector
- Spread between the highest and lowest aggregated CVaR in each sector



High-Risk Climate Sectors



- Transition risks
- Physical risks

Identify high companies



Information Classification: GENERAL



MSCI ESG

















Solutions, Experience and
Leadership





Assess Insurance Companies on Climate Change Risk Management

ESG key issues – multiline insurance

KEY ISSUES	MAIN ISSUES ADDRESSED
 Climate Change Vulnerability	 How does the insurer mitigate Climate Change risks?
 Insuring Health & Demographic Risk	 How does the insurer mitigate emerging risks?
 Responsible Investment	 Does the insurer capitalize on ESG integration?
 Human Capital Development	 What is the ability to attract and retain talents?
 Privacy and Data Security	 How does it manage cyber-security risks?
 Access to Finance	 Does the insurer capitalize on ATF opportunities?
 Corporate Governance	 How effective is the Governance structure?
 Corporate Behavior	 How does the insurer manage business ethics issues

Assessing risk exposure

CLIMATE CHANGE VULNERABILITY



GEOGRAPHIC DATA: estimated population and assets of countries exposed to extreme weather events.

BUSINESS ACTIVITY: Do companies in this segment insure property, assets, and individuals as part of their core business? (yes, no, non-core)

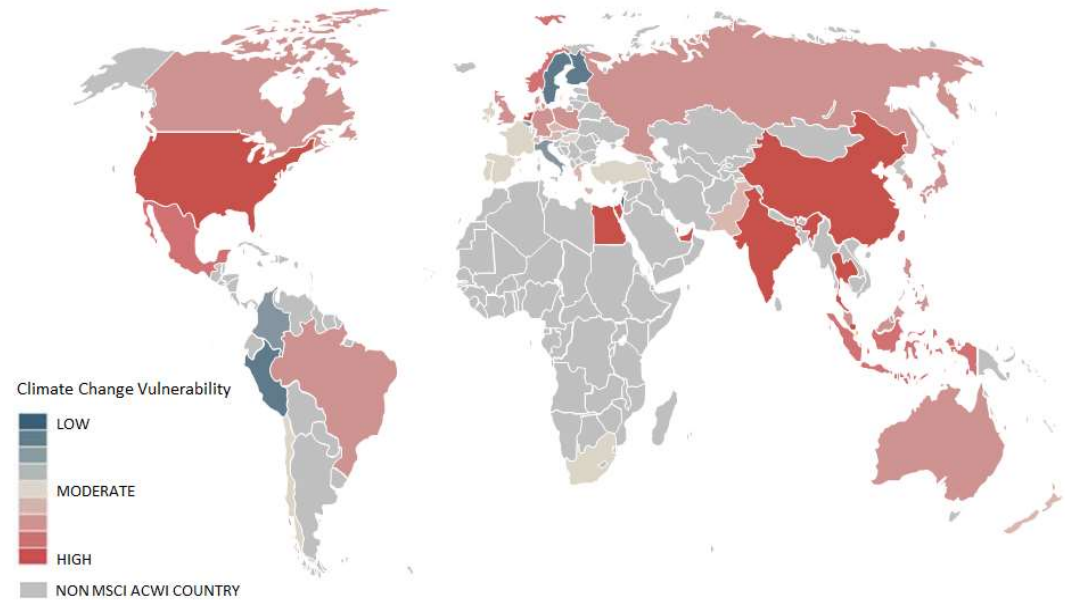
**0-10
Exposure Score**

Assessing risk exposure



Climate Change Risks In MSCI ACWI Markets

Business Activities	Exposure to Climate change risks
LIFE INSURANCE	Medium
ACCIDENT AND HEALTH INSURANCE	Medium
FIRE, MARINE, AND CASUALTY INSURANCE	High
INSURANCE AGENTS, BROKERS, AND SERVICE	Medium
PENSION PLANS	Low
HOSPITAL AND MEDICAL SERVICE PLANS	Low



Source: NatCatSERVICE, OECD, MSCI ESG Research as of December 2020

Information Classification: GENERAL

Assessing risk management

CLIMATE CHANGE VULNERABILITY

BUSINESS RISK

Does the company recognize climate change as a major **business risk**?

Does the company develop specific statistical model to incorporate climate change into the **actuarial model**?

RESEARCH

Does the company develop internal research to study the impact of climate change?

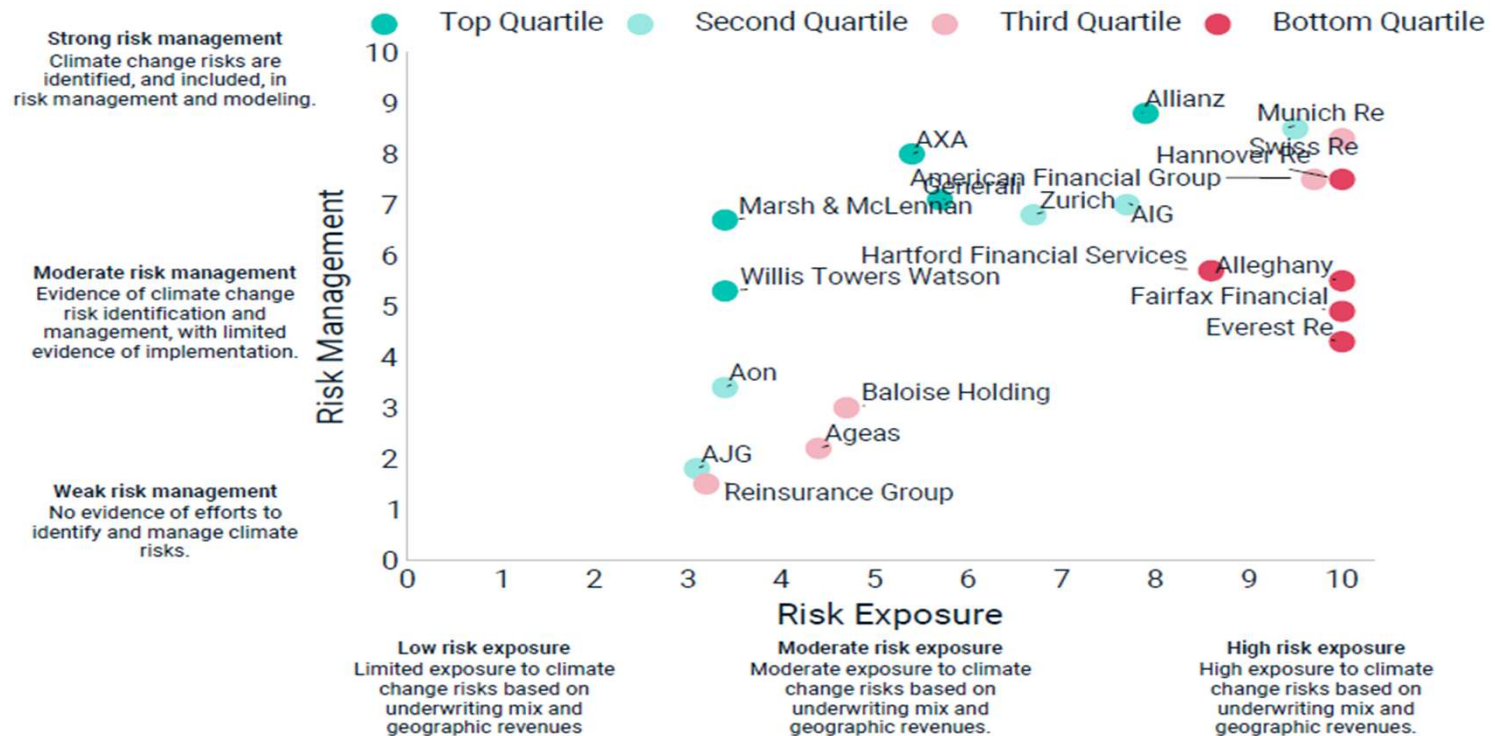
Is it involved into partnership with external organizations to study the impact of climate change?

PRODUCTS & PERFORMANCE

Does the company develop any products to incentivize customers to have environmentally-friendly practices?

Does the combined ratio maintain at a stable level in the last five years?

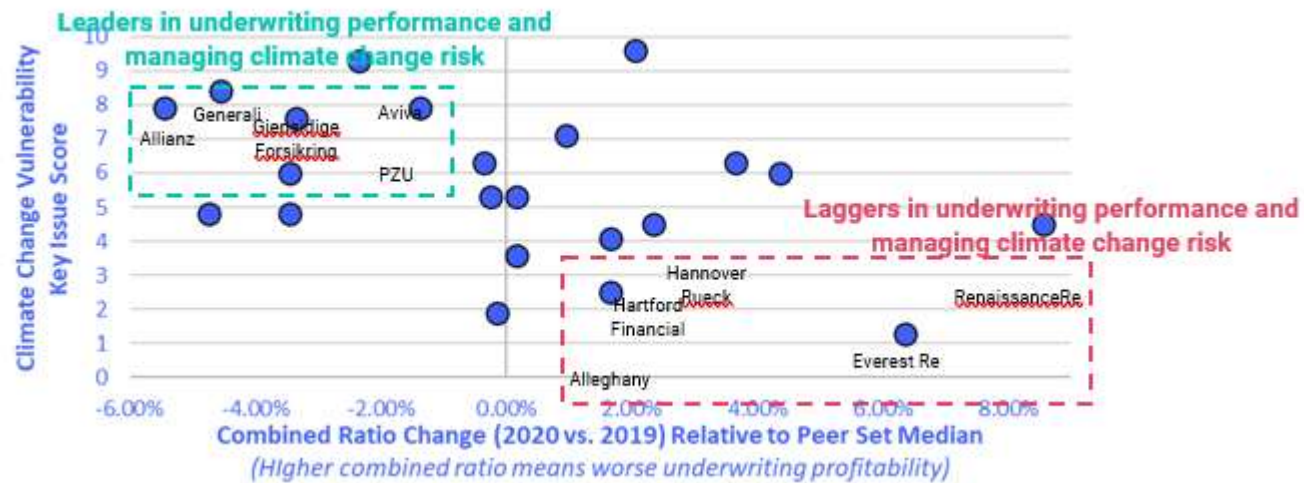
Multiline Insurance Performance Overview on Climate Change Vulnerability



Source: MSCI ESG Research as of May 19, 2021.

Information Classification: GENERAL

Multiline Insurance Performance Overview on Climate Change Vulnerability



Source: MSCI ESG Research as of May 17, 2021



MSCI's ESG Transparency Resources

NOV 2019

Made public the MSCI ESG Ratings of over 2,800 issuers in our [ESG Corporate Ratings search tool](#)

[Launched provisional climate indexes](#) designed to meet the minimum standards for the "EU Climate Transition benchmark" (CTB) and "EU Paris-aligned benchmark" (PAB) in order to help clients evaluate and test them

JAN 2020

Published [the MSCI Principles of Sustainable Investing](#), a framework outlining best practices for ESG integration by investors globally

May 2020

Made public the MSCI ESG Fund Ratings for 36,000 multi-asset class mutual funds and ETFs in our [ESG Fund Ratings search tool](#)

Made public ESG metrics for all MSCI indexes covered by the European Union (EU) Benchmark Regulation (BMR) in our [Index Profile search tool](#)

Nov 2020

Launch of [Sustainable Finance resource page](#) on msci.com

Launch of the [MSCI ESG Industry Materiality Map](#) which aims to offer a window in the MSCI ESG Ratings model

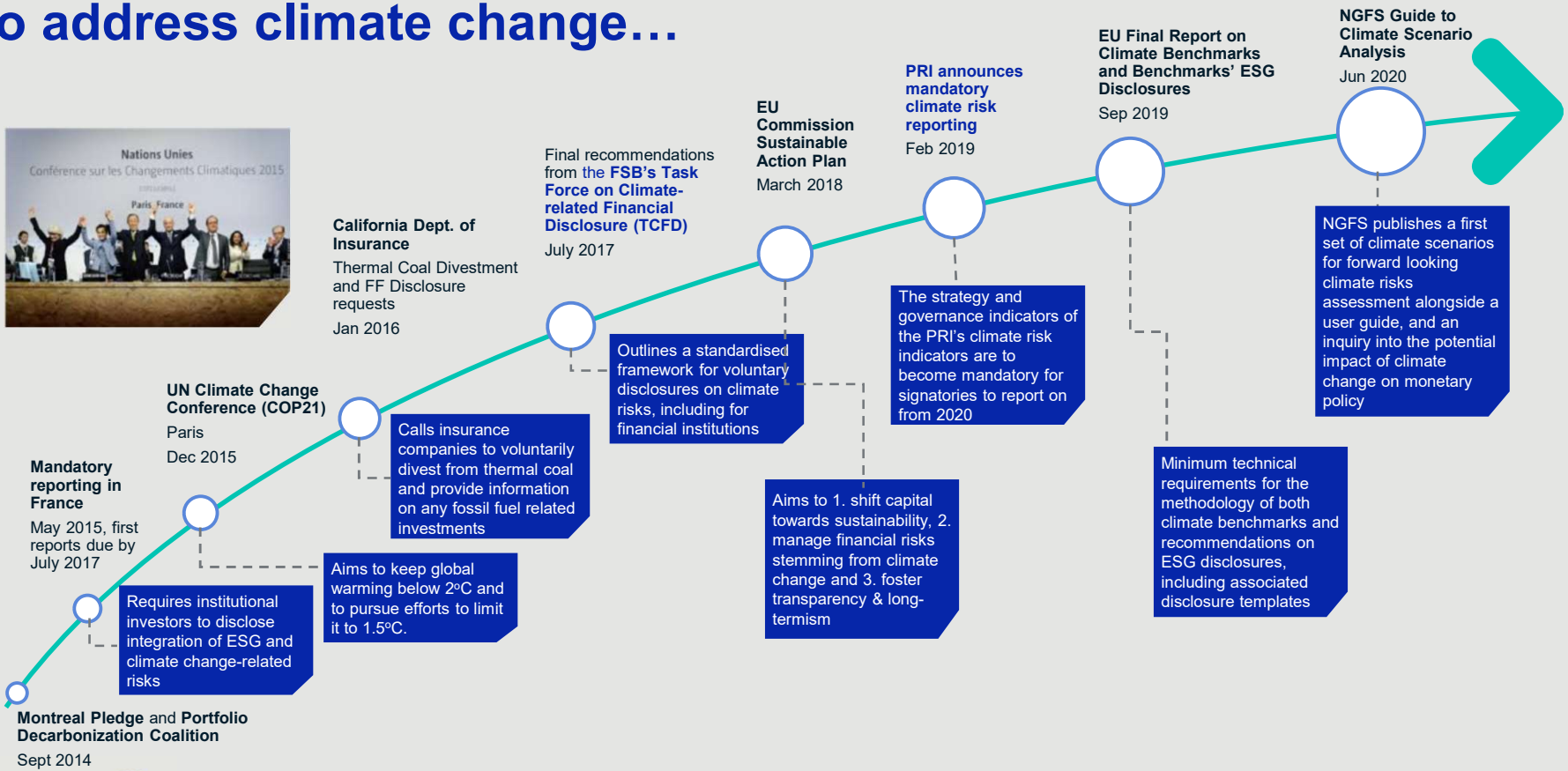




Appendix

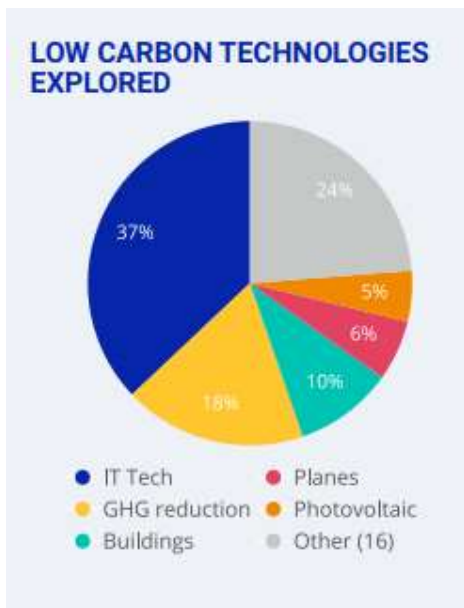


Growing pressure for institutional investors to address climate change...



Patents for Amazon

Step 1: Analyze Amazon's Low Carbon Patents



Step 2: Project future green revenue and profit from low carbon patents and current clean technology revenue

FUTURE GREEN REVENUE AND PROFIT UNDER 2°C SCENARIO



Information Classification: GENERAL

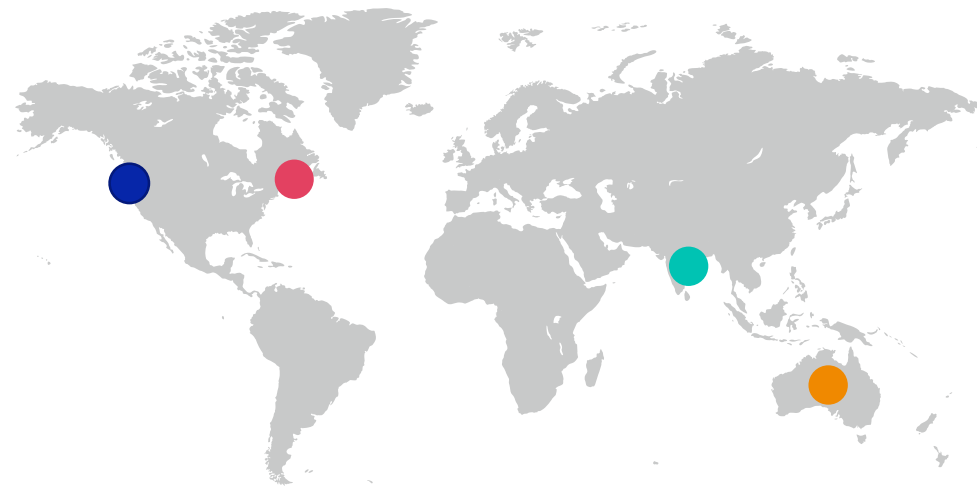
Climate change

A key risk for institutional investors

Climate change may pose a systemic risk to the financial sector, whilst also producing new investment opportunities.

Managing these risks and capturing new opportunities can be crucial to protecting investment and optimizing performance while at the same time reaching sustainability goals.

Climate-related financial impacts



California – Clean Energy Act of 2015
US solar installation companies saw their revenues soar between 2013 and 2017.^[1]

Massachusetts – tidal flooding
Since 2005, the local real estate market has collectively lost about \$273 million of coastal property value due to flooding from sea level rise.^[2]

India – electric vehicles
According to government plans, every car sold in India from 2030 will be electric.^[3]

Australia – Wildfires 2019
Insurers have received claims worth of \$480.8million as of January 8, and they expect the number will grow significantly.^[4]

Scalable Climate Portfolio reporting via Managed Service

Sophisticated Climate Analytics across 700,000 multi-asset class securities

- Streamline climate risk management processes within existing workflows using high volume climate reporting
- Asset-level climate data to identify exposure to carbon value at risk, and strength of management
- Roll up to portfolio level carbon footprint for attribution analysis
- Measure against indexes and long-term goals

Climate TCFD report

The screenshot displays the MSCI Climate Risk Dashboard for a sample portfolio. It includes a 'Climate' header, a 'Report date: October 1, 2019', and a 'PORTFOLIO: Sample Portfolio' label. The dashboard is divided into several sections:

- Carbon Footprint (Page 4):**

	Portfolio	Benchmark	Active
Carbon Emissions	95.84	135.07	-40.92
Carbon Intensity	159.70	104.31	-13.54
Weighted Average Carbon Intensity	159.70	104.31	-13.54
Weighted Average S3 Downstream Intensity	0.94	1.93	-108.02
- Low Carbon Transition Risk (Page 6):**

	Portfolio	Benchmark	Active
Exposure to companies classified as:			
Low Carbon Solutions	3.94	2.79	1.15
Low Carbon Transition Risk	13.09	16.04	-2.75
- Green & Brown Revenue Exposure (Page 7):**

	Portfolio	Benchmark	Active
Green / Brown Ratio	1.54	0.84	0.70
Green revenue Exposure	4.74	3.46	1.20
Brown revenue Exposure	-3.00	4.14	-1.06
Thermal Coal Extraction	0.22	1.31	-1.09
Unconventional O&G	1.05	3.10	-1.25
Conventional O&G	2.59	4.09	-1.50
O&G Refining	1.93	2.95	-1.02
Generation of Thermal Coal	4.07	4.76	-0.66
- Energy sector & power generation Exposure (Page 10):**

	Portfolio	Benchmark	Active
Potential emissions from fossil fuel reserves	1,710.32	3,317.99	-92.67
Thermal coal exposure	1.11	4.73	-42.13
Oil & Gas exposure	8.00	10.40	-19.92
Exposure to Power Generation:			
Thermal Coal	30.63	31.90	-4.40
Renewables	11.92	7.37	39.82
- Adaptive Capacity to Climate Change (Page 9):**

	Portfolio	Benchmark	Active
Companies with GHG emissions reduction targets	0.93	0.93	
Executive oversight of environmental strategy and performance	0.93	0.93	
Companies with top quartile carbon management score	65.57	69.54	-11.70
- MSCI Climate Scenario Analysis (Page 8):**

	Portfolio	Benchmark	Active
Aggregate 2C Climate Value at Risk (VaR)	0.46	-0.04	0.50
Policy 2C Climate VaR	-1.58	-2.70	-1.20
Technology Opportunities 2C Climate VaR	7.67	3.51	-0.84
Physical Risk Climate VaR	-0.63	-0.77	-0.14

The dashboard also features the MSCI logo and a 'SAMPLE ONLY' watermark.



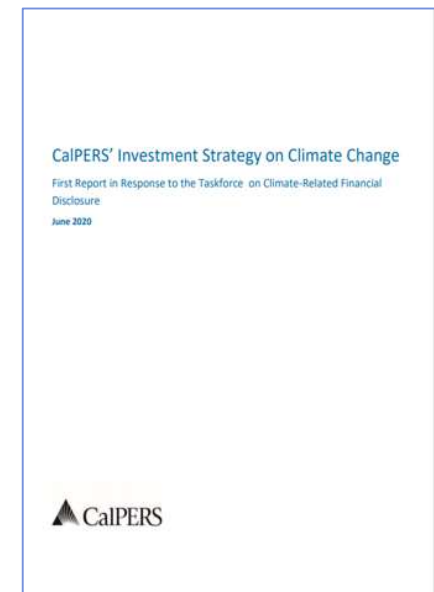
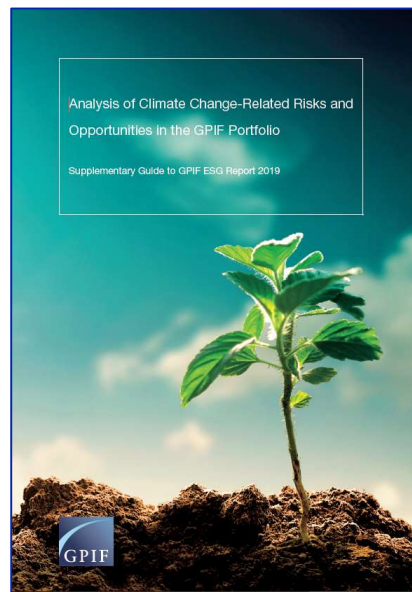
Example for illustration purposes only

Information Classification: GENERAL

Climate Value-at-Risk Portfolio Analysis

SCENARIO	CLIMATE VAR CONTRIBUTION	MONETARY RISK CONTRIBUTION	COVERAGE
Low Carbon Transition Risk Scenarios <i>Selected Model: AIM-CGE 2°C SSP2</i>	-3.40%	-3.40 mUSD	
Policy Risk Direct Emissions (Scope 1)	-3.19%	-3.19 mUSD	99.84%
Policy Risk Electricity Use (Scope 2)	-1.17%	-1.17 mUSD	99.84%
Policy Risk Value Chain (Scope 3)	-1.55%	-1.55 mUSD	99.87%
Technology Opportunities	+2.51%	2.51 mUSD	99.87%
Physical Climate Scenarios <i>Selected Model: Aggressive</i>	-3.03%	-3.03 mUSD	
Extreme Cold	+0.16%	0.16 mUSD	99.16%
Extreme Heat	-1.13%	-1.13 mUSD	99.16%
Precipitation	+0.05%	0.05 mUSD	99.16%
Extreme Snowfall	+0.00%	0.00 mUSD	99.16%
Extreme Wind	-0.01%	-0.01 mUSD	99.16%
Coastal Flooding	-2.06%	-2.06 mUSD	99.16%
Fluvial Flooding	-0.04%	-0.04 mUSD	99.16%
Tropical Cyclones	-0.03%	-0.03 mUSD	99.16%
Aggregated Climate VaR	-6.43%	-6.43 mUSD	

TCFD Reporting Projects



Sources: Axa: <https://www.axa.com/en/press/publications/2020-climate-report>
 Aviva: <https://www.aviva.com/social-purpose/climate-related-financial-disclosure/>;
 GPIF: https://www.gpif.go.jp/en/investment/esg/gpif_publishes_the_analysis_of_climatechange-related_risks_and_opportunitiesin_the_gpif_portfolio.html
 CalPERS: https://www.calpers.ca.gov/docs/board-agendas/202006/invest/item08c-01_a.pdf

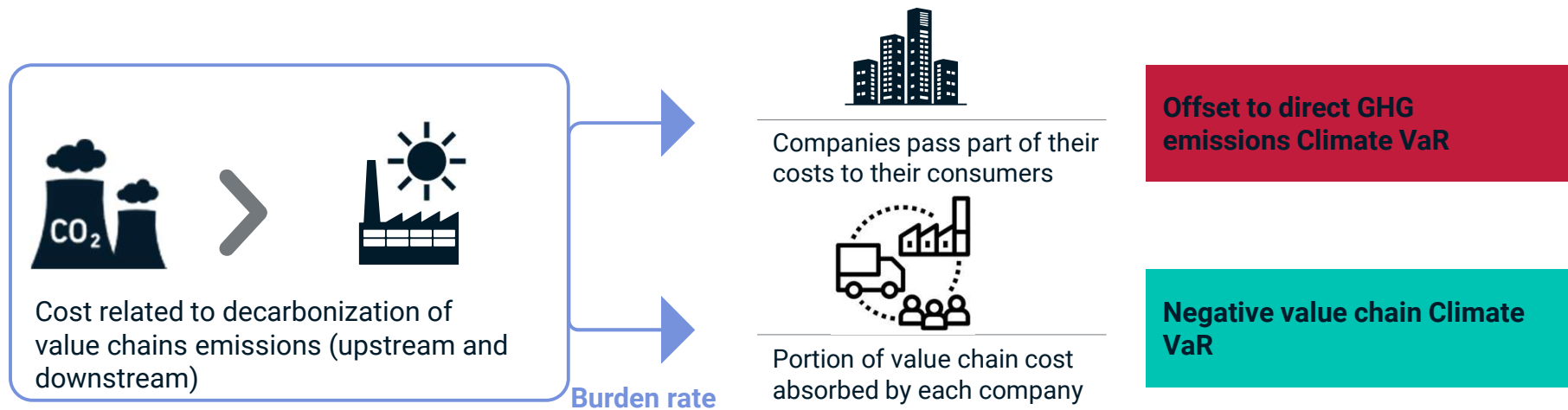


Information Classification: GENERAL

Physical Risk Model Resolution

	Chronic Risks from Heat, Cold, Rainfall, Snowfall, Wind	Acute Risks from Tropical Cyclones	Acute Risks from Coastal Flooding	Acute Risks from Fluvial Flooding
Climate model resolution (<i>Input</i>)	0.5 degree	< 0.1 degree	1 degree for SLR; > 10,000 coastal strips for sea level statistics	approx 0.5 degree, hydrodynamical modelling at 0.005 degree
Impact model resolution (<i>Output</i>)	0.5 degree	0.1 degree	3 arcsecond (< 0.001 degree)	3 arcsecond (< 0.001 degree)
Output spatial resolution in km	56km x 56km at equator 56km x 42km at 40°N	11km x 11km at equator 11km x 9km at 40°N	90m x 90m at equator 90m x 70m at 40°N	90m x 90m at equator 90m x 70m at 40°N

Policy Risk from Value Chain Climate VaR



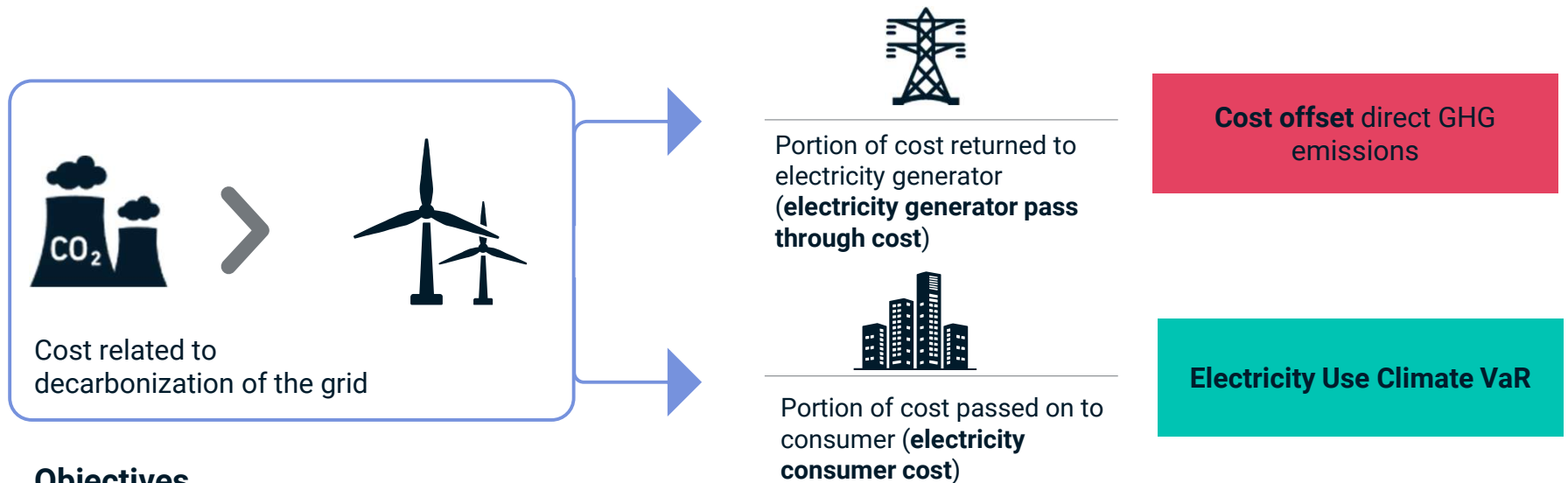
Burden rate

- Expresses how much a company will be impacted by its value chain in a transition scenario
- **Upstream burden rate** is the share of costs which are passed on to the company from upstream companies in the value chain
- **Downstream burden rate** is the share of costs which a company needs to absorb because of impacts on the marketability or market share of the company's product
- Burden rates are specific to each scope 3 category



• Source: See MSCI's "Climate VaR methodology part 2: Policy risk"
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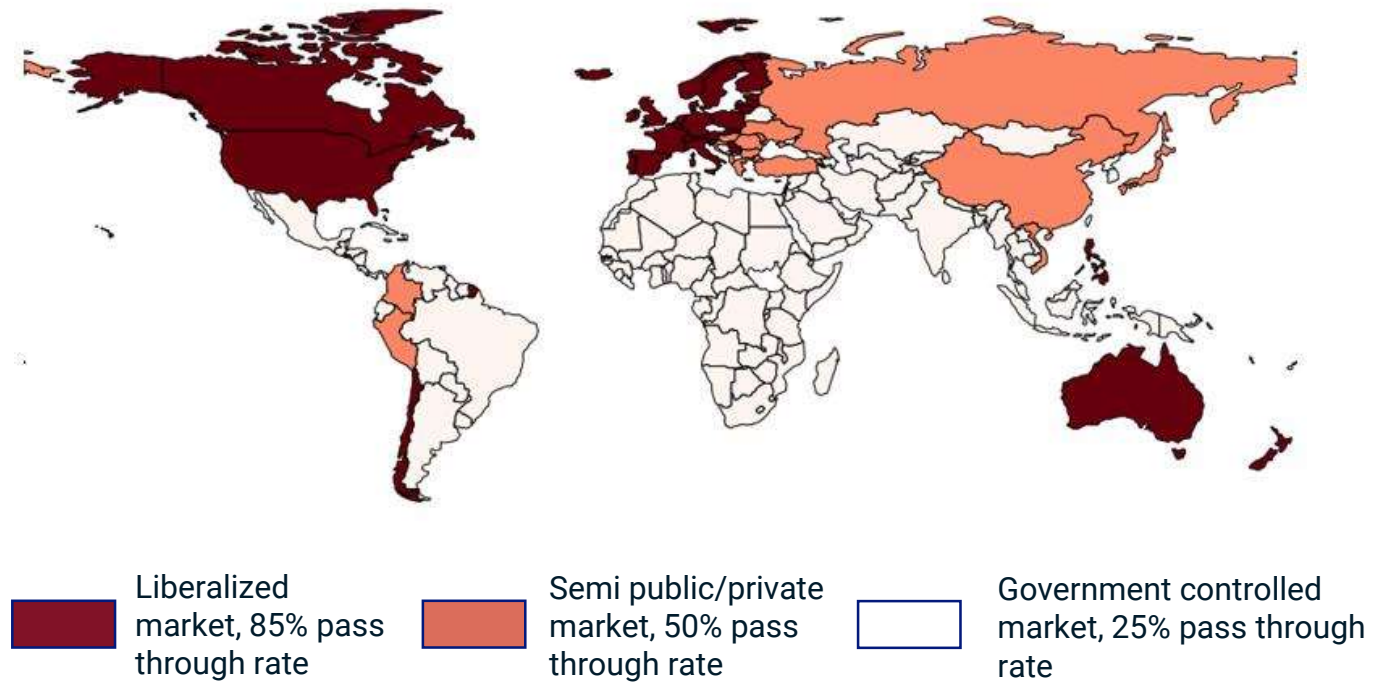
Policy Risk from Electricity use Climate VaR (Scope 2)



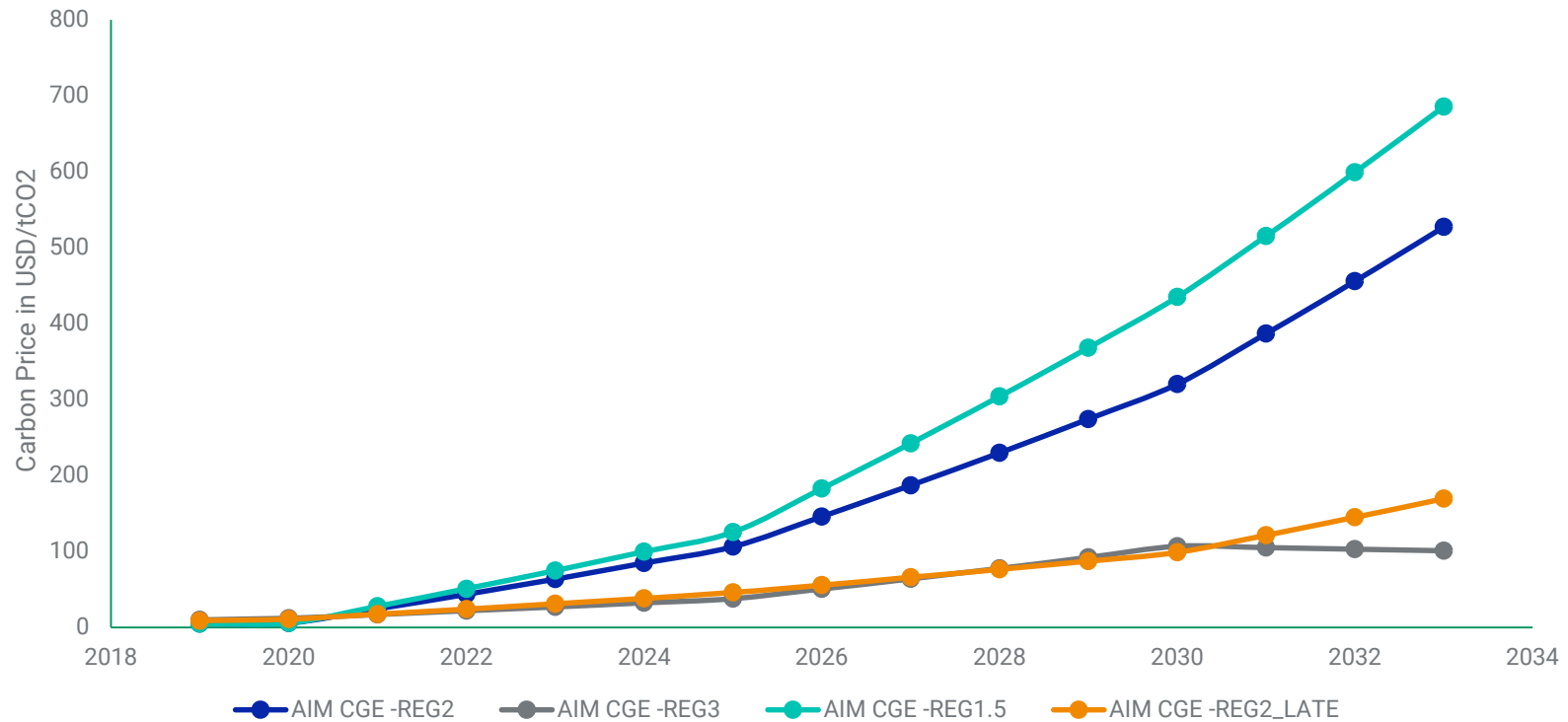
Objectives

- Calculate the extra cost electricity users would have to pay in a transition scenario based on their demand for electricity
- Calculate the costs which electricity generators can **pass through** to final users

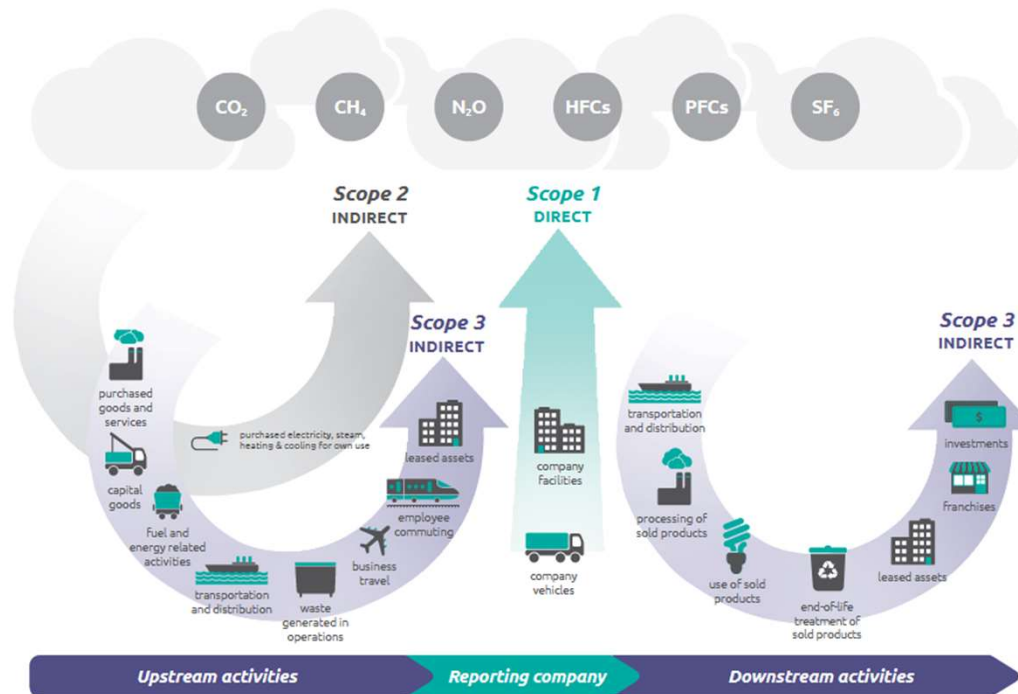
Country pass through rates for electricity costs



Calculating cost impact with carbon prices over 15 years



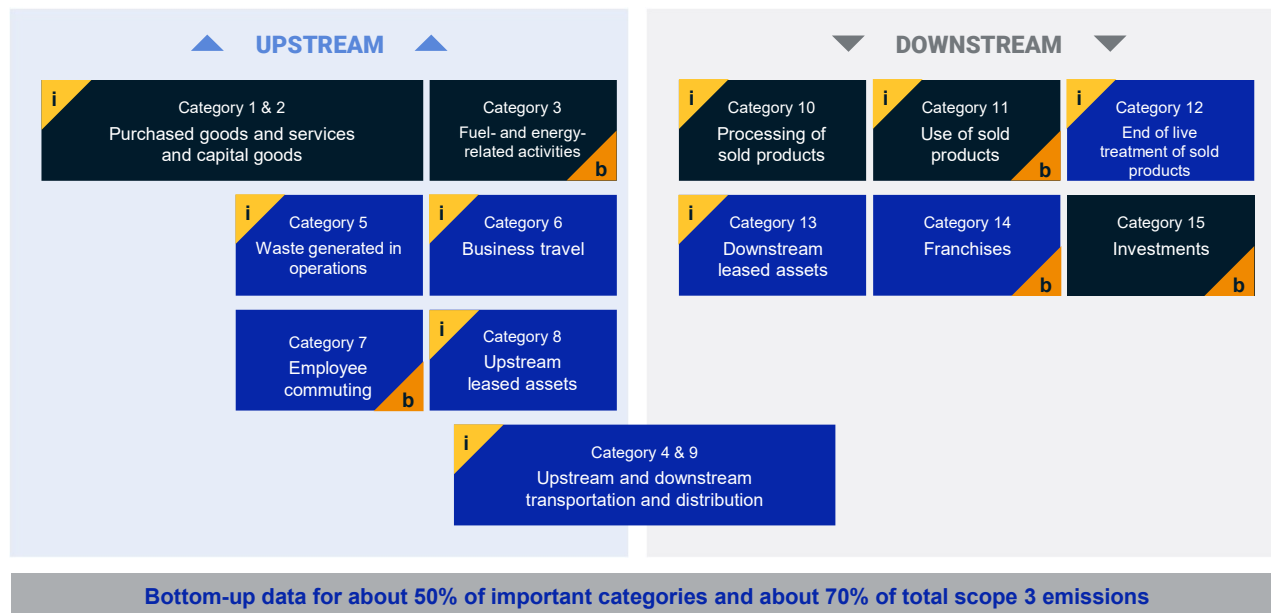
The Greenhouse Gas Protocol framework



* The Greenhouse Gas protocol standard for scope 3 emission accounting (<http://ghgprotocol.org/standards/scope-3-standard>)

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Scope 3 category overview



Legend:

Largest contributing categories

Bottom up

Top down



An "I" indicates a model that bases on sectoral intensities that were computed based on category-specific models and a "b" is showing that we compute this category with company-specific bottom-up data

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Q&A

Discuss Domestic and International Activities Related to Climate Disclosure

*—Brooke Stringer and Gita Timmerman
(NAIC)*

Q&A

Discuss Responses Received on the Questions to Determine Objectives of NAIC Climate Disclosures

—*Commissioner Andrew R. Stolfi (OR)*

3) What report framework should be used?

a) TCFD?

Comment	Submitter	Resolution
The <u>TCFD</u> is a framework designed for use across financial and non-financial industries. It was developed by financial professionals and takes a corporate governance approach to climate risk. Its risk focus is consistent with how insurance regulators examine insurers. It is also consistent with how insurance regulators approached data security in the NAIC Insurance Data Security Model Law.	LA	
Filing a report based on the TCFD framework, as now, should continue to be permitted.	APCIA	
We recommend using the <u>TCFD</u> as it has become the global standard for corporate climate risk disclosure. It provides the information the financial community requires to integrate climate risks into their decision making. The TCFD also has widespread global corporate, investor and government support (1,700+ companies from 77 countries, including 265 American companies.)	Ceres	
<u>TCFD</u> . We strongly advocate a full transition to a mandatory TCFD. The 8 questions were simply lifted from CDP survey ca. 2008. CDP survey has moved on so these questions are not exactly as written back then. IAIS, and SIF, both of which NAIC is a member have endorsed TCFD. TCFD is the future – not just of the insurance industry, but for all industries.	WA	
The <u>TCFD</u> framework should be followed but it is very high-level and typically results in reports that are not standardized and therefore hard to compare. Thus, while TCFD reports contain good information, one company’s TCFD report may be very different from that of another.	NY	

3) What report framework should be used?

b) NAIC Climate Disclosure Survey?

Comment	Submitter	Resolution
The CIPR study found that the NAIC survey was developed in 2009 and not updated since. It has been criticized by some. There are other frameworks available that have been more widely adopted. Use of another framework (TCFD or CDP) would provide some useful comparisons to other financial sectors and to the non-financial sectors that purchase insurance.	LA	
For non-TCFD filers, the current survey at the current levels of participation should be continued.	APCIA	
<u>Until we pivot to TCFD fully, don’t jettison survey questions.</u>	WA	
The current survey contains questions that are similar to those in TCFD, but they need to be updated.	NY	

**3) What report framework should be used?
c) Another framework (such as CDP)?**

Comment	Submitter	Resolution
Given that the <u>CDP</u> incorporates the TCFD and provides a capability to add further questions, it would be a good model for developing insurance specific questions in addition to the TCFD.	LA	
We do not oppose additional options being permitted, so long as the current two options are permitted. However, we also need to be mindful of the proliferation of approaches making reporting and necessary comparisons more difficult.	APCIA	
<u>CDP</u> has tuned its whole survey to align with TCFD (as have GRI, Dow Jones Sustainability Index and others) because they acknowledge TCFD is the future. So we should go straight to TCFD, not something else.	WA	
CDP is not a different framework from TCFD. Its questionnaire, which is aligned with TCFD, merely provides companies with a standard set of questions so that they can disclose details beyond what is required by the high-level TCFD framework. CDP also provides a central location for the disclosures to be stored and viewed. CDP does not, however, have an insurance-specific questionnaire. While it is possible to create an <u>insurance-specific TCFD-aligned survey based on CDP's questions</u> , that could give rise to intellectual property issues.	NY	

3) What report framework should be used?
d) Some combination?

Comment	Submitter	Resolution
We do not support new reporting mandates from combinations. Some companies have invested many resources to comply with the current options and adding more costs to them would not be beneficial.	APCIA	
We believe there is convergence in climate financial disclosure frameworks and we support our colleague’s comments on how to improve those financial disclosures. Our comments are focused on <u>insurer-specific disclosures</u> , which should start as part of – or be – the NAIC Climate Risk Disclosure and the NAIC should work with the IAIS to make these insurer-specific climate disclosures an international standard.	CEJ	
In the absence of an existing framework that adequately reveals the full extent of an insurer’s climate exposure and plans for addressing it, we recommend that the NAIC <u>combine the existing requirements from several frameworks to assemble a new framework</u> . By combining existing frameworks, the NAIC could make it possible for insurers to use the NAIC survey answers to meet their other reporting obligations, limiting the reporting burden.	Insure Our Future	
A growing number of jurisdictions globally are mandating TCFD-based climate disclosure over the next five years. Therefore, the more NAIC can align with the TCFD recommendations the less incremental burden companies will face in responding to multiple surveys. By implementing the <u>TCFD Recommendations, combined with using the climate-risk metrics in the SASB Insurance Industry Standard</u> , companies will have a cost-effective way to provide insight into how effectively they are mitigating existing challenges and adapting their business model and operations in the face of climate risks. SASB metrics are among the most referenced tools cited by TCFD for implementing its recommendations. Using the SASB Standards will enhance the comparability of the reported information across companies and therefore the usefulness to decision-makers, and it will ensure that insurers can use common tools (TCFD and SASB) for reporting to both regulators and investors.	SASB	
The report framework should tailor the TCFD framework to the insurance industry and contain more specific questions. Ideally, given its expertise in this area, we would <u>ask CDP to develop an insurance-specific questionnaire</u> , but it would cost insurers money to respond.	NY	

1) Who is the audience and what do they wish to glean from the results?

Comment	Submitter	Resolution
<p><u>Regulators</u>—who want to determine how insurers are addressing climate risk; the nature and extent of the risk to the industry; and how insurance compares to other industries.</p> <p><u>Rating Agencies</u>—who need information similar to regulators to evaluate insurers.</p> <p><u>Investors</u>—anyone involved in the financing of insurance enterprises; anyone interested in other than purely financial information for investments.</p> <p><u>Public</u>—various groups with an interest in climate issues.</p>	LA	
<p>Public climate disclosures are for the company to discuss its policies and should reflect an insurer’s unique business model and risk profile which is driven by materiality and the other factors that govern public reporting. In contrast, the objectives of regulatory reporting are providing policyholder protection while concurrently preserving the solvency condition of the insurer. Therefore, for regulator mandated reporting, the audience should be <u>solely state regulators</u> with respect to their responsibility to oversee insurer solvency and consumer protection, with confidentiality protection particularly for forward looking disclosures.</p>	APCIA	
<p>The NAIC Climate Risk Disclosure and other climate risk disclosures, such as the TCFD, focus on the financial implications of climate on the reporting companies and are targeted for use by <u>investors, investment analysts and financial regulators</u>.</p> <p><u>Disclosures related to insurers' offerings in the face of a changing climate should be added so</u> consumers can better assess which insurer they want to do business with and policymakers can better craft public policy as insurers prepare to leave certain markets or dramatically modify product offerings and price.</p>	CEJ	
<p>Sustainability disclosure has attracted the interest of a broad range of stakeholders, including <u>investors, companies, and regulators</u>. There is a growing belief that capital markets can only deliver long-term value to shareholders if companies and investors understand their sustainability-related risk exposures, benchmark and compare performance among peers, and efficiently price the risks and opportunities associated with environmental, social, and governance factors, including climate change.</p>	SASB	

1) Who is the audience and what do they wish to glean from the results?

Comment	Submitter	Resolution
<p>For <u>regulators</u>, the information helps them understand how well positioned insurers are for the growing climate risks and opportunities they face. Survey responses will help regulators discuss climate risks with companies and other stakeholders, resulting in companies improving their climate strategies and positively affecting affordability and availability of insurance.</p> <p><u>Policyholders</u> have increased expectations for companies to help more in the fight against the climate crisis, and others want to purchase insurance products and services that provide climate benefits.</p> <p><u>Investors</u> struggle to get the information they need from voluntary climate risk disclosure by insurers, so regulator requirements for disclosure of that information are absolutely vital.</p> <p>At <u>insurance companies</u>, senior management and directors find value in the process of assessing and disclosing climate risks. Management and directors also need this information to guide the company's climate strategy and assure safety and soundness for all stakeholders.</p>	<p>Insure Our Future</p>	
<p>The audience includes <u>insurers, activists, regulators, and researchers</u> who want to make judgments about which companies are doing the most to get us to a low-carbon economy. This includes best practices, what most companies are doing, laggards and new ideas for insurers.</p>	<p>WA</p>	
<p>The primary audience should be <u>regulators and the public</u>. From a regulator's perspective, <u>DFS would like to use the responses for risk evaluation and solvency regulation</u>. For the public, the survey responses could be used by <u>consumers</u> to assess whether an insurer is well-managed and whether its business conduct is aligned with their value. They may also help consumers decide which insurers they want to do business with based on the likelihood that the insurer will remain in the market. Finally, comprehensive disclosures would enable consumer advocates and representatives to analyze the landscape of current business practices and promote successful climate strategies.</p> <p>Although investors may also find the responses useful, the SEC is better placed than the NAIC to dictate what climate-related reporting is needed to ensure that investors' interests are protected.</p>	<p>NY</p>	

**1) Who is the audience and what do they wish to glean from the results?
a) What qualitative and quantitative metrics do they need?**

Comment	Submitter	Resolution
<p><u>Qualitative</u>—Should be focused on corporate governance of and climate risk to the insurer—corporate strategy, planning, resources, and goals.</p> <p><u>Quantitative</u>—Should have the information necessary to review and evaluate solvency, quantitative evaluations of risk, and portfolio investments.</p>	LA	
<p>The following questions should be added:</p> <p>1) What models or type of <u>modeling</u> do you utilize for assessing the impact of climate change on the products you are willing to offer and business strategy?</p> <p>2) What are the <u>key assumptions</u> regarding the magnitude of climate change you utilize <u>in your climate modeling</u>?</p> <p>3) Over the past five years, what changes affecting the availability and affordability of your products and coverage in the markets you serve – in terms of geography, types of insurance, perils insured and rate change – have you made as a result of climate change impacts?</p> <p>4) Based on your current assessment of climate risk, what <u>impacts</u> do you currently anticipate <u>on the availability and affordability</u> of products and coverage in the markets you serve – in terms of geography, types of insurance, perils insured and rate change – as a result of climate change?</p> <p>5) If (provide metric for climate impact, e.g. 2 degree temperature rise), <u>what impacts do you anticipate on the availability and affordability or products and coverage</u> in the market you serve – in terms of geography, types of insurance, perils insured and rate change?</p> <p>6) Based on your current assessment of climate risk, <u>what actions are you taking</u> to be able continue serving the markets you currently serve for the next 10 years?</p>	CEJ	
<p>While some questions and answers must be qualitative, it is important to include <u>quantitative</u> measures of climate impact against which the insurers can describe their response. We also suggest that <u>identification of specific geographic areas at a state and county level with the associated insured perils</u> and insurer response is needed and we consider those to be quantitative responses. Another area for quantitative question and response is for <u>anticipated price / rate change</u>. For example, when and where does the insurer anticipate rate changes of 15%, 30%, 50% and 100% due to climate risk?</p>	CEJ	

1) Who is the audience and what do they wish to glean from the results?
a) What qualitative and quantitative metrics do they need?

Comment	Submitter	Resolution
<p>These audiences wish to glean information about climate change preparedness, governance, risk management, and strategy, which are qualitative factors that are aligned with the TCFD climate disclosure recommendations.</p> <p>Looking forward to future years, we recommend that the NAIC begin pilot testing additional metrics, by immediately setting up a group of insurers willing to work with the NAIC on this project. For pilot testing, we recommend you <u>consider the insurance-specific metrics provided in the Climate Risk Financial Forum’s Climate Financial Risk Forum Guide 2020: Disclosure Chapter (June 2020).</u></p>	Ceres	
<p>All <u>investments by an insurer in fossil fuel related entities</u> and should be disclosed. These investments are at high risk of declining in value and ultimately becoming stranded assets as the world transitions to a low-carbon economy.</p> <p>All <u>fossil fuel-related entities that the insurer underwrites</u> or otherwise insures, as well as the total premium from those projects should be disclosed. The resulting potential litigation could pose a solvency concern.</p> <p>In the <u>future</u>, disclosures should include investments and underwriting for <u>other high-emissions activities</u>, as their risk profiles will increasingly resemble those of fossil fuels.</p>	Insure Our Future	
<p>Should be driven by what is asked by current standards; that is, what is asked by TCFD, or the current Climate Risk Disclosure Survey questions as written. To the degree that we call for more comparability, or granularity, or decision-level information (as PRI suggested) we need to be able to defend why we need it and what we’ll be using it for. Otherwise, we should expect to get pushback from respondents.</p>	WA	
<p>We strongly believe that any additional mandatory reporting should be confidential and be solely provided to regulators for regulatory purposes. If reporting is to exceed current mandates, <u>only qualitative</u> reporting, similar to that required in the current survey, should be required. Any quantitative reporting should remain at the carrier’s discretion to encourage reporting practices and metrics in this nascent area to evolve and mature over time.</p>	APCIA	

1) Who is the audience and what do they wish to glean from the results?

a) What qualitative and quantitative metrics do they need?

Comment	Submitter	Resolution
<p>The following metrics should be captured through a combination of single-select multiple-choice questions, multi-select checkboxes, numerical questions, yes/no questions, and open-ended narrative textboxes:</p> <p><u>On Risk Culture and Governance</u></p> <p>*Which board member(s) or committee(s) is responsible for managing the financial risks from climate change (“climate risks”)? (multiple choice)</p> <p>*How often are climate risks discussed at board meetings? (multiple choice)</p> <p>*Which senior management function(s) is responsible for climate risks? (multiple choice)</p> <p>*Describe board members’ experience and/or expertise related to climate risks (open-ended)</p> <p>*Has the company implemented any remuneration policies to incentivize the management of climate risks? (Y/N) If yes, please describe the targets and incentives (open-ended)</p> <p>*Do you have a committee focused on climate risks that cuts across business lines and/or functions? (Y/N) If yes, please briefly describe (open-ended)</p> <p>*How do you acquire climate risk expertise? (multiple choice)</p>	<p>NY</p>	
<p><u>Business Strategies</u></p> <p>*Which segments of the company’s customers and investees would be affected by climate change and how? How big are these segments (revenue, investment amount) for the company? (multiple choice + short narrative descriptions)</p> <p>*How does the company define materiality when assessing climate risks? (multiple choice)</p> <p>*What products and services does your company offer on the underwriting side that contribute to climate mitigation and adaptation? (short narrative descriptions and numerical metrics such as premium amount)</p> <p>*What investments does your company make that contribute to climate mitigation and adaptation? (short narrative descriptions and numerical metrics such as investment amount)</p>	<p>NY</p>	

1) Who is the audience and what do they wish to glean from the results?
a) What qualitative and quantitative metrics do they need?

Comment	Submitter	Resolution
<p><u>Risk Management Framework</u></p> <p>1) Description of risk management framework (open-ended);</p> <p>2) Control functions involved (e.g., risk mgmt, info technology, compliance, internal audit, actuarial) (checkboxes and short narrative descriptions on what each function does and how the functions work together)</p> <p>3) Metrics insurers use to assess and monitor climate risks, such as amount of exposure to business lines, sectors, and geographies vulnerable to climate change (absolute amounts and percentages), alignment with climate scenarios, 1 in 100 years probable maximum loss, Climate VaR, carbon intensity, and amount of financed carbon</p>	<p>NY</p>	
<p><u>Risk Management</u></p> <p>*Climate-related targets (checkboxes and numerical answers)</p> <p>*How does climate change impact existing risk factors (checkboxes and open-ended questions)?</p> <p>*What is the company’s exposure on the underwriting and investment side to sectors and geographies sensitive to physical risks (e.g., hurricanes, flood, drought)? (numerical answers, such as the absolute amount and percentage of total premium or investments)</p> <p>*What is the company’s exposure on the underwriting and investment side to:</p> <p>1) sectors sensitive to transition risks (i.e., high-carbon sectors like fossil fuel production, electric utility, automotive, aviation, shipping, cement, steel) and</p> <p>2) high- and low-carbon technologies within those sectors (e.g., coal, oil, and gas power generation vs. renewable power generation, internal combustion engine cars vs. electric vehicles or hybrid cars)? (numerical answers, such as the absolute amount and percentage of total premium or investments)</p> <p>*What is the company’s exposure on the underwriting and investment side to climate solutions? (numerical answers, such as the absolute amount and percentage of total premium or investments)</p>	<p>NY</p>	

1) Who is the audience and what do they wish to glean from the results?
a) What qualitative and quantitative metrics do they need?

Comment	Submitter	Resolution
<p><u>Scenario Analysis</u></p> <p>*Does the company utilize climate scenarios on the asset and/or liability side? (Y/N) If yes, what types of scenarios are used? (checkboxes + short, open-ended descriptions) [Types of scenarios could be: 1) Top down– GHG emission based 2) Bottom up– technology pathway based]</p> <p>*What time frames are considered for each scenario? (checkboxes)</p> <p>*How has the company used the outputs from the scenario analysis to inform decision making? (open-ended)</p> <p>*How does the company plan to use the outputs from the scenario analysis to inform decision making in the future? (open-ended)</p> <p>*If the company does not currently use scenario analysis, what is its expected time frame for developing and implementing scenario analysis (multiple choice, such as 1yr, 2yr, 3yr+)</p>	<p>NY</p>	
<p><u>Incorporation of ESG into investments:</u></p> <p>*Total invested assets, by industry and asset class (quantitative); *Description of approach to ESG factors in investment management processes and strategies (qualitative)</p> <p><u>Policies Designed to Incentivize Responsible Behavior:</u></p> <p>*Net premiums written related to energy efficiency and low carbon technology (quantitative); *Discussion of products and/or product features that incentivize health, safety, and/or environmentally responsible actions and/or behaviors (qualitative)</p> <p><u>Environmental Risk Exposure:</u></p> <p>*Probable Maximum Loss (PML) of insured products from weather-related natural catastrophes (quantitative); *Total amount of monetary losses attributable to insurance payouts from (1) modeled natural catastrophes and (2) non-modeled natural catastrophes, by type of event and geographic segment (net and gross of reinsurance) (quantitative); *Description of approach to incorporation of environmental risks into (1) the underwriting process for individual contracts and (2) the management of firm-level risks and capital adequacy (qualitative)</p>	<p>SASB</p>	

1) Who is the audience and what do they wish to glean from the results?
 1b) How should the information in the survey be formatted to be useful?

Comment	Submitter	Resolution
<p><u>Qualitative Information</u>—Should provide sufficient <u>narrative</u> detail to be useful in understanding how the insurer incorporates climate risk in its business strategy and operations. Format should address the specific areas of the requested disclosures.</p> <p><u>Quantitative</u>—Should rely on generally accepted practices for presenting financial, actuarial, and investment information. The disclosures should not create new forms of reporting. Quantitative information is often better understood when presented in some type of <u>graphical summary</u>.</p>	LA	
We find the <u>current</u> survey formatting, along with the option to file reports based on the TCFD framework, to be <u>sufficient</u> .	APCIA	
We suggest a <u>tabular</u> presentation with column for location, climate impact metric (e.g. 1, 1.5 and 2 degree temperature rise), time frame (5, 10, 15, 20 years), relevant peril, relevant product(s) and anticipated action.	CEJ	
I acknowledge the call from CIPR and AAA to change the format slightly. However, <u>format revisions should be contingent on a demonstrated case for how they will do more for encouraging and understanding a low-carbon economy</u> . There should also be a commitment to continue analyzing responses.	WA	
The information should be a <u>combination of single-select multiple-choice questions, multi-select checkboxes, numerical questions, yes/no questions, and open-ended narrative textboxes</u> so as to make the responses easily comparable across insurers and across time.	NY	

1) Who is the audience and what do they wish to glean from the results?
 c) What information not already being provided in the survey would be useful?

Comment	Submitter	Resolution
<p><u>Questions</u> and sub-questions already in the survey but are <u>not being answered</u> by most insurers should be <u>converted from open-ended questions and sub-questions to close-ended questions</u> to the extent possible and made mandatory. The current survey allows too much flexibility in terms of how the questions are answered, and therefore makes the responses hard to compare and evaluate.</p> <p>Questions and sub-questions not currently in the survey are addressed in 1a.</p>	NY	
We are not aware of any.	APCIA	

2) Who should report?
a) What is the threshold?

Comment	Submitter	Resolution
<p>The threshold should be large enough in terms of premium and capital and surplus that <u>large insurers file the report</u>. Smaller insurers, especially the very smallest, may not be able to devote the resources to respond adequately. They also may not have climate impact from operations or investments sufficient to contribute to an understanding of the climate impact of the insurance industry.</p>	LA	
<p>The current threshold and definitions <u>should not be changed</u> to include more companies, as most of the industry is already included. The notion of materiality should also be reflected in whether a company must file and if so, in what detail.</p>	APCIA	
<p>We recommend lowering the size of insurance company premiums required to answer the survey, from \$100 million to <u>\$50 million in premiums</u>. This would be valuable because it would provide a fuller picture of U.S. insurers' responses to climate change, by capturing around 90% of the entire U.S. insurance market compared to about 70% at present.</p>	Ceres	
<p>All companies <u>currently</u> captured by the reporting requirement, <u>plus companies with \$50 mm in one line</u>.</p>	WA	

2) Who should report?
a) What is the threshold?

Comment	Submitter	Resolution
<p><u>All insurers should report</u> because the impacts of climate change impact every type of peril insured throughout the country, it's good corporate governance, enables policymakers to better work with insurers to craft partnerships for resilience and mitigation to promote availability and affordability, and allows insurance consumers to assess their insurer's approach to and planned responses to climate risk.</p>	CEJ	
<p><u>Companies of all sizes</u> are under increasing pressure to provide certain climate-related risk information to other businesses, in particular if they are suppliers to large companies. In addition, financial institutions are increasingly likely to request certain climate risk information from companies to whom they provide financial capital. In this respect, companies that do not provide climate risk (and opportunity) information may experience a negative impact on their commercial opportunities or on their access to or cost of capital.</p>	SASB	
<p><u>All insurers except for those in insolvency proceedings.</u> The proportionality principle should be applied in evaluating the survey responses and in taking supervisory action. Each insurer to take a proportionate approach to managing climate risks that reflects its exposure to climate risks and the nature, scale, and complexity of its business.</p> <p>DFS recognizes that not all insurers have the same level of resources to devote to managing climate risks and that some insurers will take longer than others to develop and implement appropriate practices. However, all insurers, regardless of size, are expected to analyze their climate risks on both the underwriting and investment sides of their balance sheets. Small insurers are not necessarily less exposed to climate risks because they may have concentrated business lines or geographies that are highly exposed to climate risks without the benefit of diversification available to larger insurers.</p> <p>As an insurer's expertise and understanding of climate risks develop, the insurer's approach to managing these risks to mature. Over time, an insurer's analysis of climate risks and assessment of their materiality for its business should shift from a qualitative approach to a quantitative approach.</p>	NY	

2) Who should report?
b) Should it be compulsory?

Comment	Submitter	Resolution
<u>No</u> , especially if it is to be public. Any meaningful disclosure would require information that would be confidential under most states' examination laws. If it is compulsory, then any public disclosures should be redacted or edited. Any compulsory disclosure should be a requirement of the domestic regulator. Louisiana would not participate in a compulsory disclosure requirement.	LA	
The current survey and TCFD are currently mandated, and we see <u>no reason to increase or change the mandate</u> .	APCIA	
It should <u>remain compulsory</u> because the NAIC annual information request is the most widely used source of information about insurers' responses to the climate risks they face. While excellent information is provided in some voluntary disclosures, only mandatory disclosure can result in the comparable, consistent reporting investors need. We recommend that all states, DC and territories consider participating in the survey. For the survey being released in July 2021, we hope that the members of the task force will consider participating.	Ceres	
<u>\$50 mm and up mandatory</u> , strongly encouraged for all others. We should aim for total NAIC participation after having just 6 states participate in recent years.	WA	
<u>Yes</u> . While all insurers should be required to respond (except for those in insolvency proceedings), the standard can be "comply or explain" for the first few years to give insurers time to build their capacity to manage climate risks and respond to the survey. If they cannot comply, they should provide a plan on how they will comply in the future. The "comply or explain" approach is used in the UK, France, and New Zealand for their climate-related reporting.	NY	

7) How should the results be made available?

a) Only to regulators?

b) Publicly available (as it is today)?

c) Combination of public and regulator-only?

Comment	Submitter	Resolution
Any meaningful disclosure would require information that would be <u>confidential</u> under most states' examination laws. Any <u>public disclosures should be redacted</u> or edited to protect such information.	LA	
The <u>current survey</u> and answers should <u>remain public</u> . However, if there are major changes and expansion, the <u>additional mandatory reporting should be only to regulators</u> with adequate confidentiality. Regulatory and public reporting should be separate. Regulator mandated reporting, such as stress tests, scenario analyses, ORSAs and forward-looking information should be protected and available to regulators only.	APCIA	
Results should be <u>public</u> . Regulator-only information should be requested by examiners and analysts as part of the exam and audit process. NAIC should update its Financial Condition Examiners Handbook and its Financial Analysis Handbook to include such questions.	NY	
We strongly support efforts to enhance climate risk disclosures by insurers and strongly encourage the NAIC to consider establishing standard climate risk disclosures, beginning with greenhouse gas emissions, including standardized, <u>publicly available</u> data and methodologies for insurers to use in meeting those disclosures.	CAP	
Speaking for the insurance-specific disclosures we suggest, it is foundational that such disclosures be <u>public</u> information.	CEJ	
We recommend the survey responses continue to be made available to the <u>public</u> . Transparency is important both for accountability to regulators, investors and the public, and for ensuring a process that companies find valuable.	Ceres	
The NAIC should continue making survey results <u>publicly</u> available, even as they become more detailed. Insurance regulators are charged with protecting the public interest, and nothing can be more in the public interest than monitoring contributions to and exposure to climate catastrophes.	Insure Our Future	
<u>Publicly</u> available (as it is today) This is a MUST KEEP STATUS QUO item. Having the data be publicly available is why it is so valuable and useful to other companies, researchers, individuals, climate activists, etc.	WA	
Sustainability information, including climate-related disclosure, should be <u>publicly</u> available to facilitate transparency and accountability.	SASB	

4) How should the questions be designed?
a) Multiple choice?
b) Open-ended?
c) Close-ended (rating scale, dropdown, ranking, etc.)?

Comment	Submitter	Resolution
Questions should incorporate features of <u>all format types</u> . Once the desired questions are drafted, an expert in developing surveys should be consulted to create different forms of queries and offer guidance on how to best use different survey methods.	LA	
We urge the NAIC to proceed with caution before implementing multiple choice questions. The <u>multiple-choice format is not conducive</u> to the type of nuanced answers that are often required for climate disclosures.	APCIA	
The answers to the questions should be provided in a <u>tabular format</u> . While more structured questions (multiple choice or close-ended) answers might be developed over time, we suggest initially framing the insurance-specific questions as set out above.	CEJ	
<p>We recommend the TCFD framework this year, using multiple choice and close-ended questions, while retaining some open-ended questions from the framework. The TCFD framework as designed solicits a great deal of narrative disclosure. Much of the TCFD framework has been slightly altered into a more decision friendly, multiple choice/close-ended format by CDP, the UN PRI and others. The TCFD was also designed for disclosure of metrics and targets using the work of ESG standard setters.</p> <p>Therefore, <u>we recommend the NAIC use the TCFD questionnaire but add metrics, where appropriate, and convert text to multiple choice questions and checkboxes, similar to the changes that CDP and UN PRI made when they integrated the TCFD into their annual questionnaires.</u> These changes will provide improved comparability of data compared to the TCFD alone or the current NAIC questionnaire. It may also improve the quality of responses because of the specificity required.</p>	Ceres	

4) How should the questions be designed?
a) Multiple choice?
b) Open-ended?
c) Close-ended (rating scale, dropdown, ranking, etc.)?

Comment	Submitter	Resolution
Disclosures should be designed to be material over the short, medium, and long term; comparable across companies (especially within an industry); consistent across time periods; reliable; connected to information in the financial statements; <u>industry-specific ; quantitative and metrics-based, with qualitative information to provide context</u> about governance, strategy, risk management, and performance; and comprehensively used for reporting across an investible universe. Thus, climate-risk disclosure should enhance a company’s external disclosures and serve as a useful tool for management and board decision-making and investor assessment of that decision-making.	SASB	
Multiple choice, open-ended and close-ended questions should be used, depending on the question. For example, <u>multiple choice</u> for the question “Which senior management function is responsible for climate risks?” A) CEO, B) CRO, C) CIO, D) CMO and E) CSO. For example, <u>closed-end</u> for the question “What are the main barriers for your company to consider climate change’s impact on your investments?” Rank the following set of answer choices. <u>Open ended</u> for an "Others" option, as follows: “If you selected Other(s), please specify” in the textbox.	NY	

4) How should the questions be designed?
d) Should insurers be able to respond to narrative responses by referencing an attachment or linked disclosure (such as TCFD)?

Comment	Submitter	Resolution
<u>Yes</u> . Some companies already reference certain sections in their annual reports or sustainability reports when providing disclosures that are aligned with TCFD. At the same time, insurers should still be required to respond to the multiple-choice and close-ended questions, even if responses to those questions can be found in other reports. This will ensure the comparability of the responses without requiring too much additional work by the respondents.	NY	
We would <u>support this</u> additional flexibility, so long as TCFD reports would continue to be an option.	APCIA	

4) How should the questions be designed?
e) Should questions be tailored to size of company or logic added to meet companies where they are?

Comment	Submitter	Resolution
The questions should <u>not</u> be tailored to the size of the company, <u>but</u> the evaluation of the responses should according to the <u>proportionality</u> principle. For example, a response indicating inaction by a small company in a particular area could be deemed acceptable from a risk perspective by a regulator, although as stated earlier, small insurers are not necessarily less exposed to climate risks because they may have concentrated business lines or geographies that are highly exposed to climate risks without the benefit of diversification available to larger insurers.	NY	
If the regulatory reporting is to become more resource intensive, we strongly support a <u>proportional</u> approach.	APCIA	

6) Where should climate disclosures be reported?
a) Continue to make it available through California’s website?
b) Build an NAIC repository?
c) Directed to the domestic state?

Comment	Submitter	Resolution
To the <u>domestic state</u> with a <u>possible NAIC repository</u> similar to financial reporting.	LA	
For efficiency, there should be a <u>single national site</u> for reporting and for public access, though the two need not be the same. The site for public access must be accountable to the public, which puts the NAIC at a disadvantage.	CEJ	
For the survey being sent in July 2021, we recommend continuing to make responses available through the California website. For future surveys, we recommend that the NAIC and California build an <u>NAIC repository</u> , because of the efficiency of providing the information in one location that makes it easy for regulators, the public and investors to find.	Ceres	
Build an <u>NAIC repository</u> . Repository should be as widely accessible as possible. Perhaps several places – NAIC, III, maybe offer all insurance departments to have links to it. Perhaps add that participating insurers should have a link to the database on their individual websites. Also on IAIS website, SIF website.	WA	
The information should be maintained in a central location. The California DOI has been most generous to host the disclosures for the past 12 years. In the long-term, it would make more sense for the <u>NAIC</u> to be the <u>repository</u> , depending on how long it would take for the NAIC to build the repository and what it would look like.	NY	
Depending on the best guarantee of confidentiality of sensitive information, we are comfortable with continuing to have it on the <u>California website</u> , at the NAIC or in the <u>domestic state</u> .	APCIA	

5) How should a transition from the current survey to a successor be managed?

a) What should be the effective date of the changes?

b) What should be the timing of information reported?

Comment	Submitter	Resolution
<p>Annually or when any major changes occur in the opinion of the insurer. There should be a consistent reporting date.</p>	LA	
<p>We do not believe that changes are necessary. But depending on the type of change, if any, a year to reprogram would be appreciated along with an additional year to report. Reporting should be in the second half of the year.</p>	APCIA	
<p>We suggest an initial report for the insurance-specific disclosures about <u>six months following the adoption of the new questions</u>. We also suggest <u>quarterly</u> disclosures. In many instances, such quarterly updates will simply be “no change,” but any change that is reported should be provided more timely than an annual submission. This is particularly relevant given insurers’ history of “discovering” risk following catastrophic events, despite the use of catastrophe models, with insurers making major changes in product offerings and price.</p>	CEJ	
<p>We recommend that the NAIC change to the TCFD framework as of July 2021, since the annual questionnaire is typically sent out each July. While we realize this is a short timeframe to also add metrics, multiple choice questions, and checkboxes based on the TCFD, we hope that some of that work could be completed by July 2021. In terms of when the information should be reported, we <u>do not recommend any changes from previous surveys</u>. Finally, we are aware that large and small companies have very different resources, in terms of staffing and financial resources, to devote to climate risk data collection and disclosure. Therefore, we <u>support a phase-in period for smaller companies</u>.</p>	Ceres	
<p>No earlier than mid-spring to be mindful of corporate timelines on gather information internally. Right now, deadline is <u>Aug. 31 every year</u>. No reason to change.</p>	WA	
<p>Insurers should all respond to the new survey. They can be given more time, such as an <u>additional month or two, to respond to the new survey in the first year</u>. Insurers that have not previously responded to the current survey (for example, because they did not meet the current threshold) should be given plenty of advance notice to familiarize themselves with the questions and prepare their responses.</p>	NY	
<p>a) The effective date should be whenever the new survey is finalized.</p> <p>b) Insurers’ annual statements are submitted by March 1 every year. To ensure that the data in the survey responses is up to date, the responses should be due close to that time, such as <u>April 1</u>. The survey can be sent out on February 1 of each year. This can start in <u>2023 but would ideally start in 2022</u> if the new survey can be finalized well in advance of February 1, 2022.</p>	NY	

8) What can be done to help companies recognize climate-related risks and how they should be disclosed.

Comment	Submitter	Resolution
<p>NAIC and regulators can provide <u>seminars and trainings for insurers</u>. As a first step, regulators themselves need to be educated on the issue and need to start talking to their regulated insurers about climate risks. NAIC already has a course on Climate Change and Risk-Focused Examinations but it is unclear how widely it has been taken.</p> <p>Trade associations are also able to organize workshops and trainings for their members.</p>	<p>NY</p>	
<p>Major issues for companies include how to understand and report transition risks, how to handle potential liability for forward-looking statements beyond traditional time horizons and with high uncertainty, time to comply, and reporting at the group versus legal entity levels. A major challenge in assessing risks and making consistent public disclosures is the lack of available and reliable climate related data from customers and investee companies. The availability of good quality and reliable data is largely outside insurers' control and is a shared responsibility of the wider economy.</p> <p><u>Supervisors should focus on supporting appropriate policy actions and help develop appropriate solutions that do not force insurers to rely on third-party data providers to obtain data at the asset level such as emission data and targets. Quantitative reporting also requires data on the risks that investee companies and customers face that is not yet readily available and standardized.</u></p>	<p>APCIA</p>	

9) What support is necessary to assist companies in filling out the survey?

Comment	Submitter	Resolution
<p>If companies have questions regarding the survey, they should be able to contact <u>NAIC</u> staff, who can then forward the question the Disclosure Workstream. The Workstream can then respond to the insurer and post the answer in an FAQ page on the NAIC website.</p>	<p>NY</p>	
<p>If the disclosure methodology remains as is, little additional help is needed. But if the mandate expands, <u>additional help on the issues mentioned above will be important.</u></p>	<p>APCIA</p>	

Q&A

Any Other Matters

—Commissioner Andrew R. Stolfi (OR)