

Climate Change – The Future of Investing

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Climate Change – The Future of Investing

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Are you concerned about climate change generally?

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Are you concerned about climate change in your investment?

The Sustainable Development Goals (SDGs)

In September 2015, **139 countries** around the world adopted the SDGs. The SDGs are a set of 17 goals to end poverty, reduce inequality & tackle climate change **by 2030**.

SUSTAINABLE DEVELOPMENT GOALS



Source: United Nations, <http://www.un.org/sustainabledevelopment/>

SDGs – Targets, Challenges and Opportunities



Affordable and Clean Energy

Ensure universal access to affordable, reliable and modern energy services

Increase substantially the share of renewable energy in the global energy mix

Double the global rate of improvement in energy efficiency



Climate Action

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Integrate climate change measures into national policies, strategies and planning.

Mobilize US\$100bn annually by 2020 for the implementation and operationalization of the Green Climate Fund

Source: United Nations, <http://www.un.org/sustainabledevelopment/>

Is divestment the answer?



**What is
divestment?**

Negative screening: Excluding certain companies from investment consideration based on their characterization as being a fossil fuel company

**How do you
know what to
divest from?**

Carbon Tracker 200: Top 100 public coal companies globally and the top 100 public oil and gas companies globally.

**Does it make
sense?**

Does it fit with your investment policy and fiduciary responsibility?
What happens to stranded assets if carbon capture technology advances to meet commercial scale?

565 gigatons: the amount of carbon that would get the Earth to above the 2 degree Celsius level, a dangerous threshold¹.

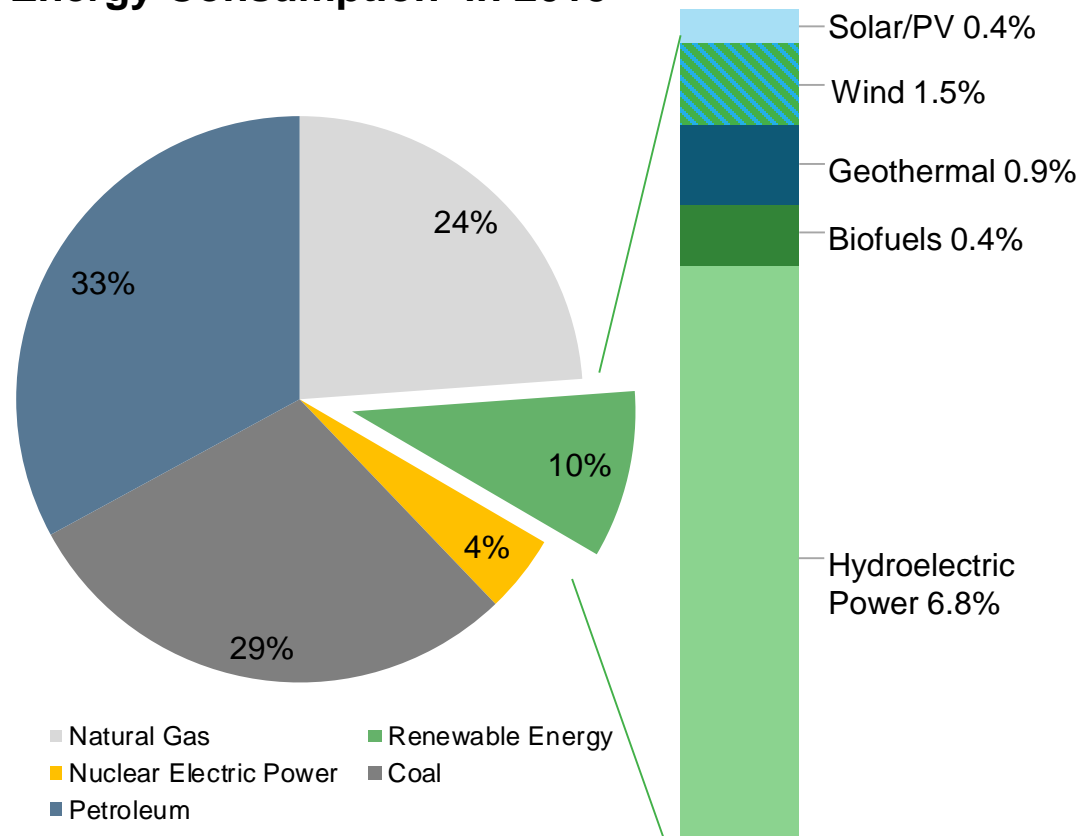
2795 gigaton: the carbon reserves estimated to be held by energy companies².

1. Data Source: Why Global Warming Will Cross a Dangerous Threshold in 2036, Scientific American™. March 2014..

2. Data Source: Institutional Investor, 4/15/14.

The Slow Transition to Low-Carbon Economy

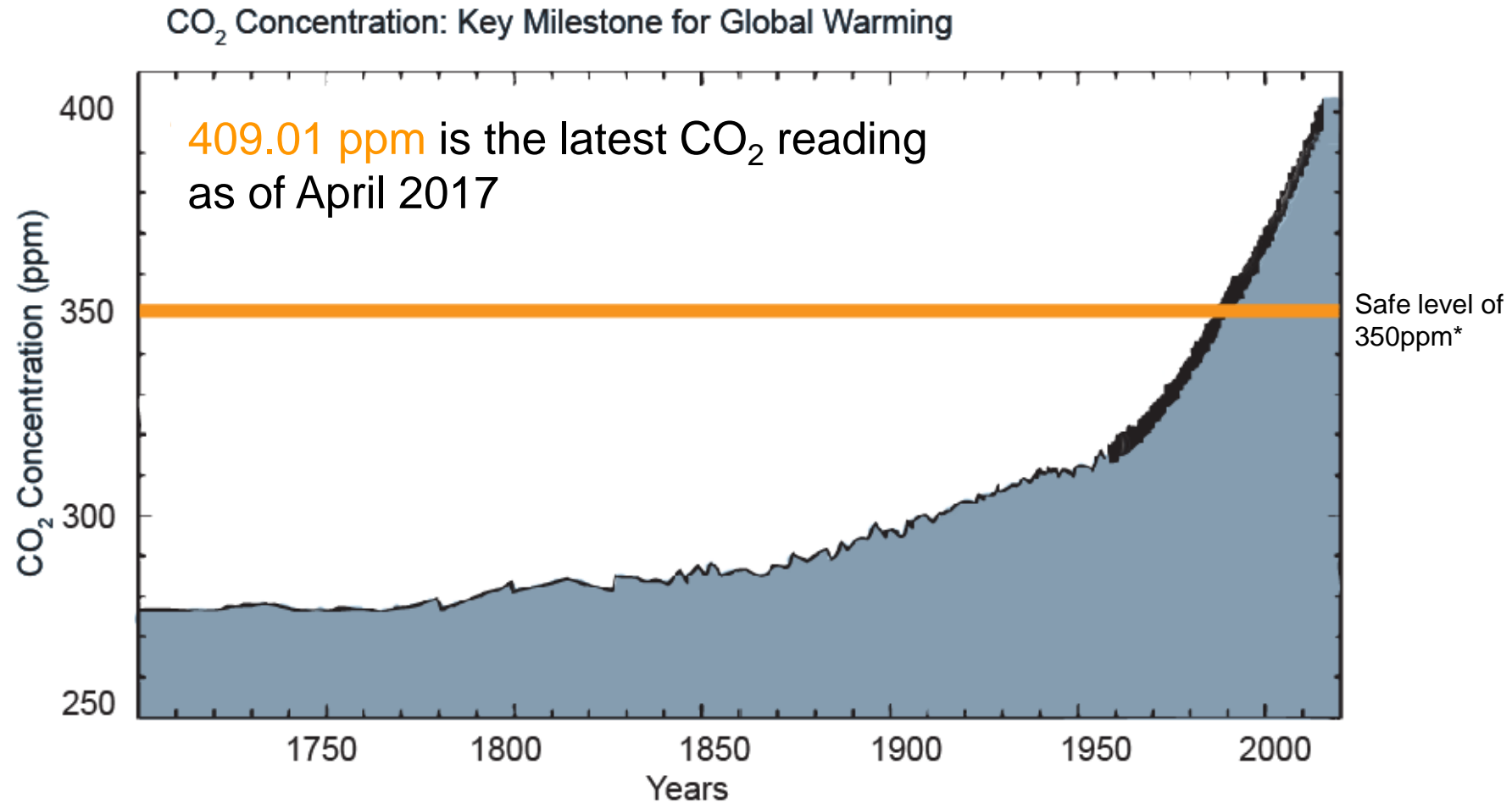
Relative Contributions of Energy Sources to Global Energy Consumption¹ in 2015



An immediate wholesale shift away from fossil fuels and the technologies that use them would have a massive—many would say unacceptable—economic impact.

Source: BP: 'Statistical review of world energy', June 2016

Climate Change – the Scope of the Challenge



Source: Wired: 'Global CO₂ Levels Reach Record Monthly High', 2016. Ppm = Parts per million

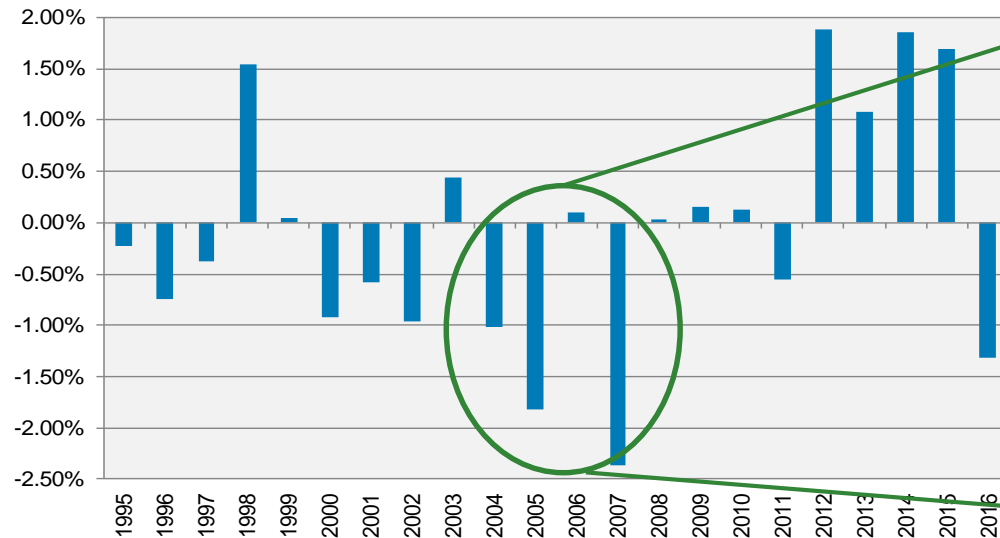
Investment Risk of Divestment

- Higher sector risk
- Less diversification
- Impractical and often overwhelming for many adopters

MSCI ACWI ex Energy
Tracking Error as of 12/31/16
Ex-ante = 0.98%
Ex-post = 1.16%

Annual Return Impact from Energy Divestment: 1995 to 2016

Performance shown represents the difference in the annual return of the MSCI ACWI Index vs. the MSCI ACWI Index with energy sector excluded



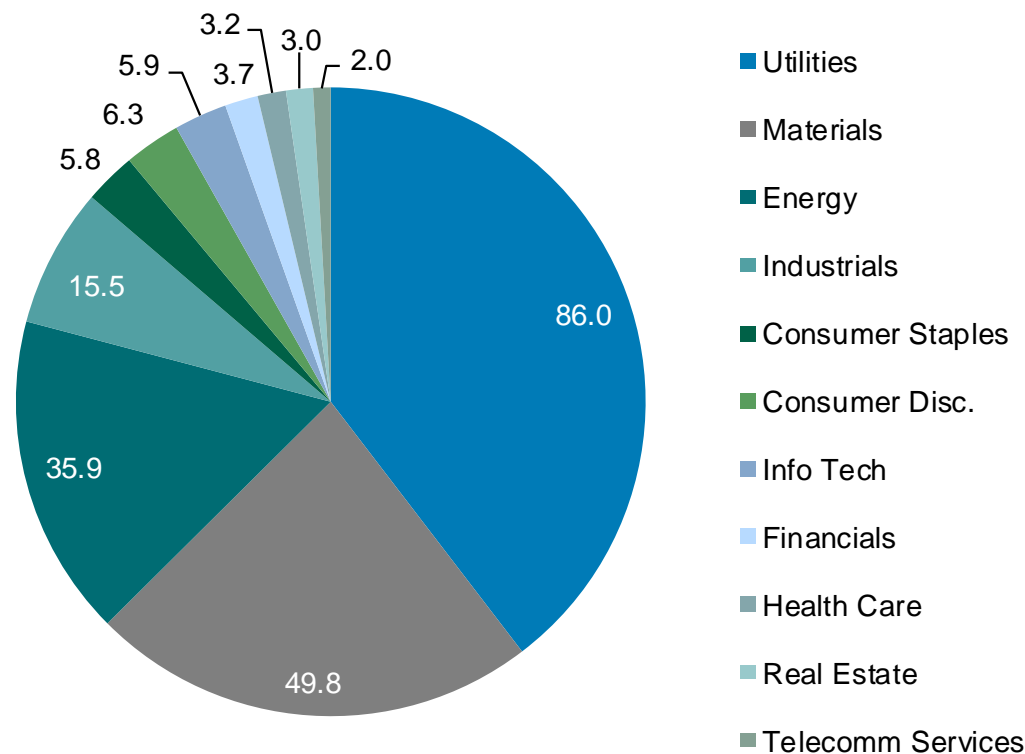
Source: Mellon Capital and MSCI.
PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS

Reviewing Exposures

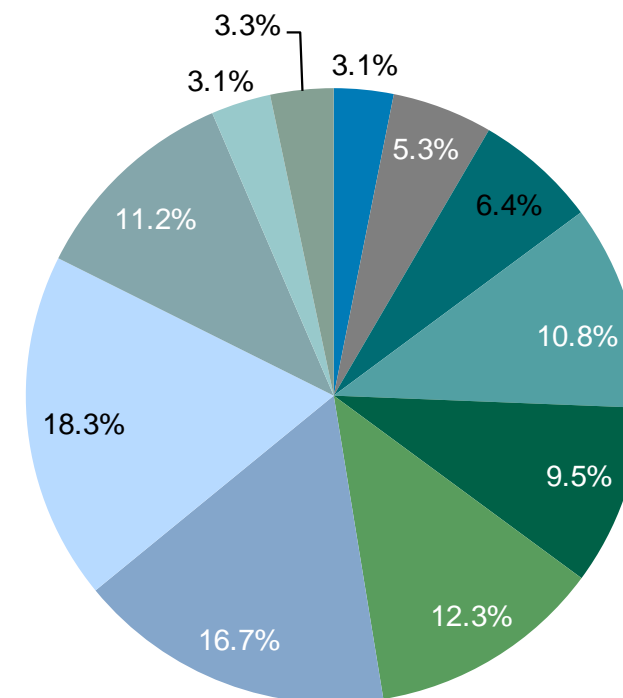
Carbon Intensity¹ and MSCI ACWI Index Weight

As of April 30, 2017

Emissions Exposure: Carbon Intensity



Economic Exposure: Index Weight



1. Carbon intensity represents the greenhouse gas emissions normalized by revenue. Carbon Intensity of the Index is a weighted average number of each individual company's carbon intensity measure (t CO₂/mm USD).
Sources: Mellon Capital and MSCI ESG Research.

Looking Beyond Climate Change

- Climate change is not an independent issue. It's in an interconnected and interdependent system where fixing one problem can often create unexpected consequences elsewhere.
- Climate change is a very complex issue, and presents risks and opportunities in many related environmental areas.

Key Examples



Water stress



**Financial
sector**



Sea water



**Green
opportunities**

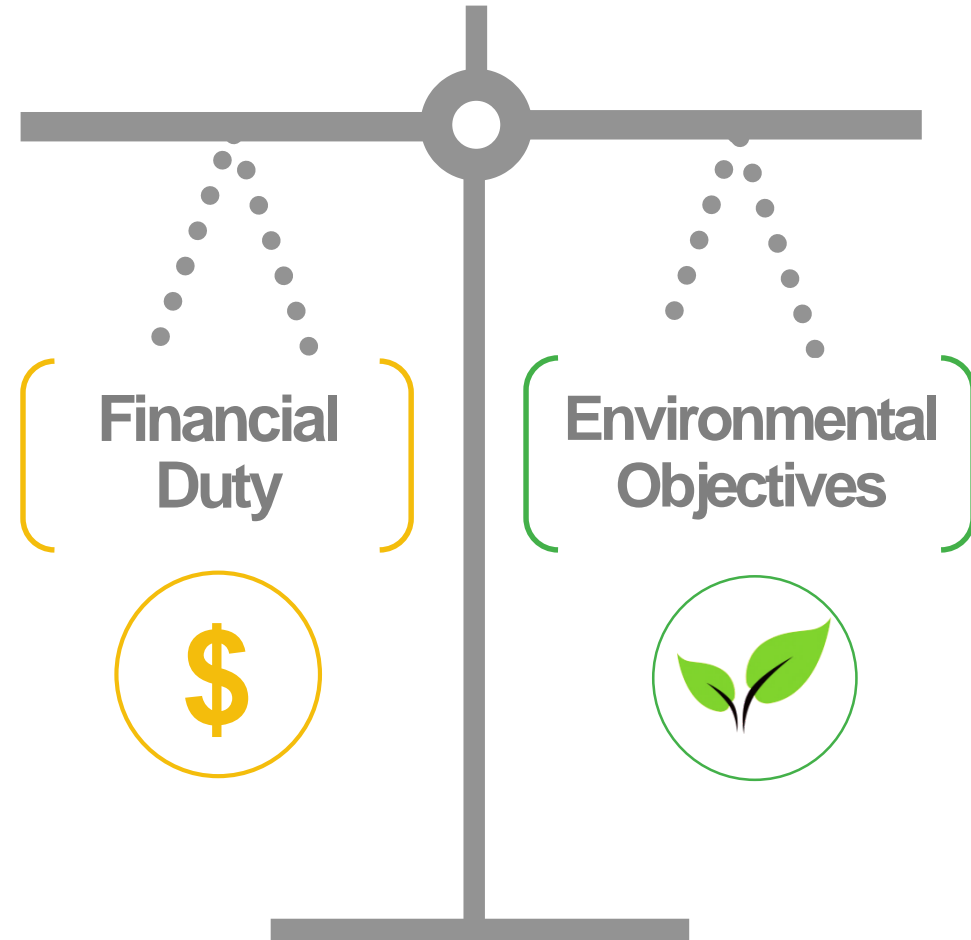
Finding Balance – Carbon Efficiency Investing

Measuring Impact

- It's more than beliefs, consider outcomes
- How do you put your dollars to work?

Challenges

- Adopters want to go from nothing to everything
- Finding the stepping stone to go from nothing to something



Making Strides Through Engagement

Why Engage?

Most firms, especially mid and small capitalization companies, do not report carbon emissions

The challenges of “non-reporters”

Opportunity

- By divesting, we give up influence over companies that can be attained through proxy votes
- By remaining shareholders, we have the ability to provide awareness / conscience to the board

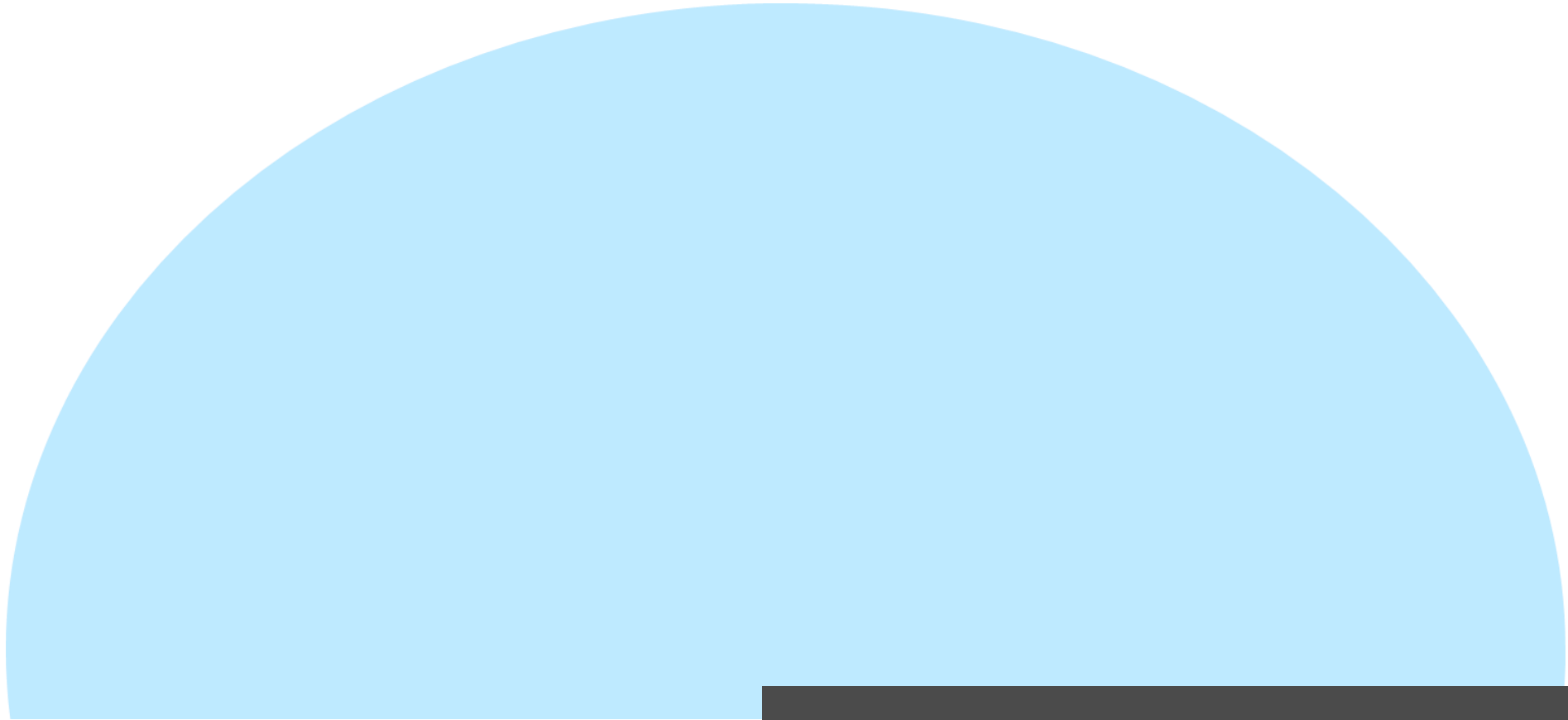
Responsible Ownership

- Attempt to positively influence corporate behavior by initiating conversation with company management on issues of sustainability and governance
- Engage with the companies to encourage acceptable gains over time

Engagement in Action – Task Force on Climate-related Financial Disclosures (TCFD)

The goal	To develop a set of disclosure recommendations for use by companies in providing information to investors, lenders and insurance underwriters about their climate-related financial risks .
The four recommendation themes	<ul style="list-style-type: none">• Governance• Strategy• Risk Management• Metrics and Targets
Next steps:	<ul style="list-style-type: none">• Final recommendations were presented to the G20 Leaders Summit in July 2017.• Stakeholders – including investors – to engage with companies to take up the TCFD recommendations.

Source: TCFD - <https://www.fsb-tcf.org/>



Where do YOU go from here?

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