

Climate change and SAA

Best practises for scenario analysis

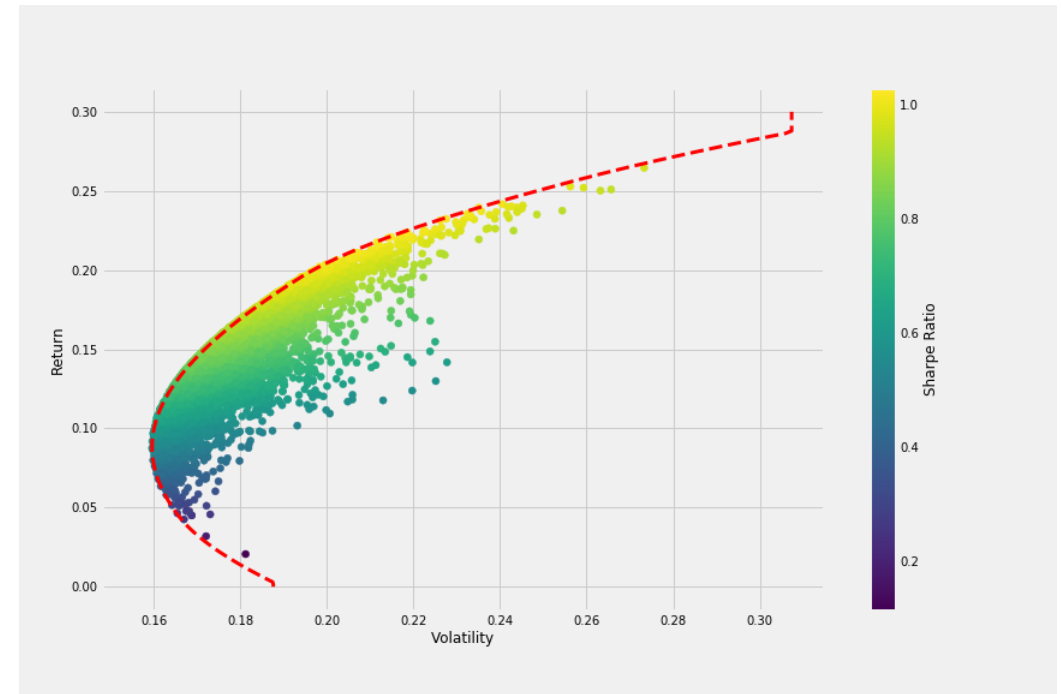
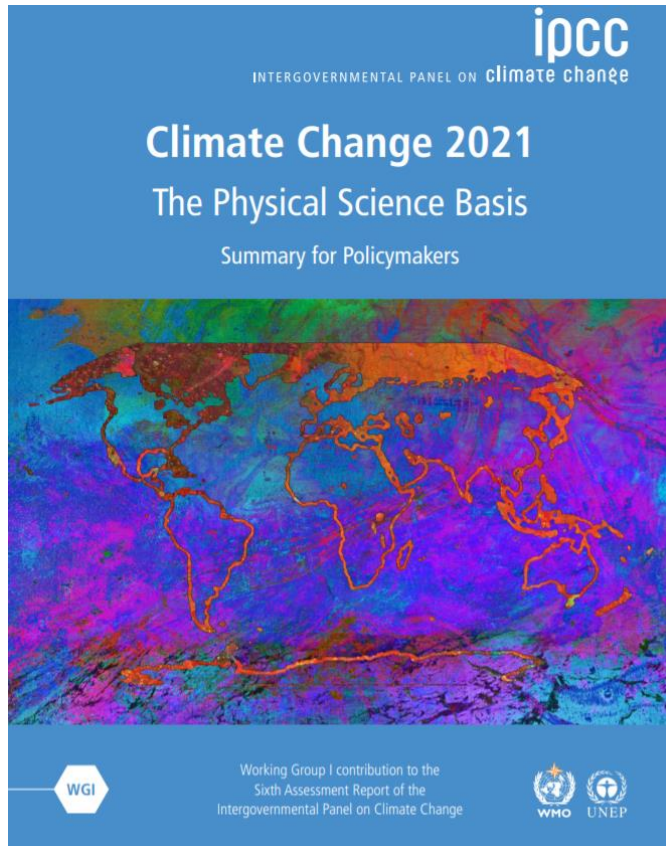
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Climate change & SAA

New challenges?



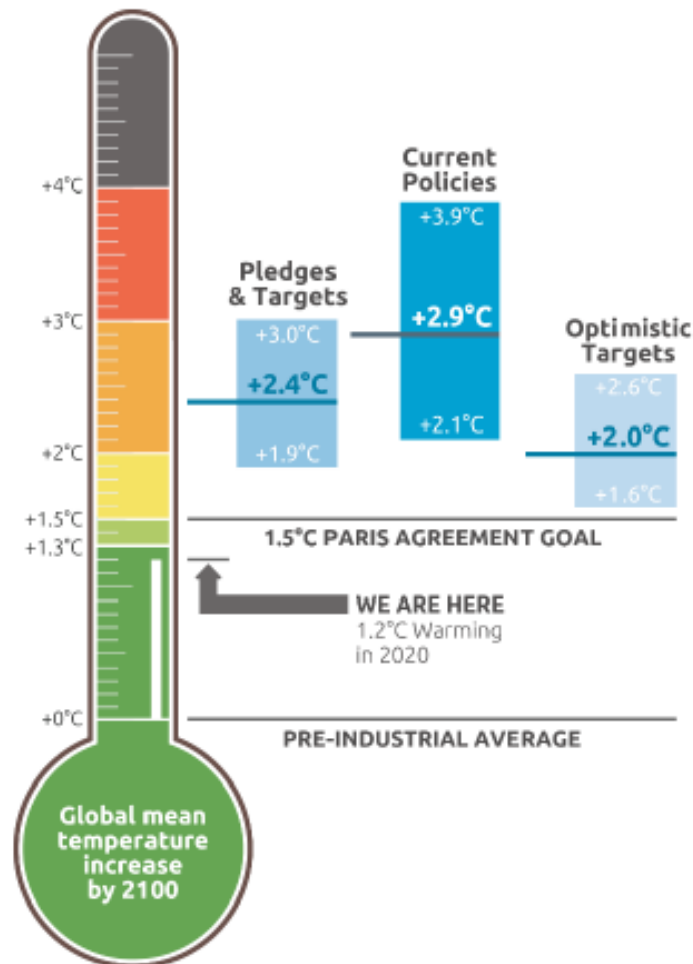
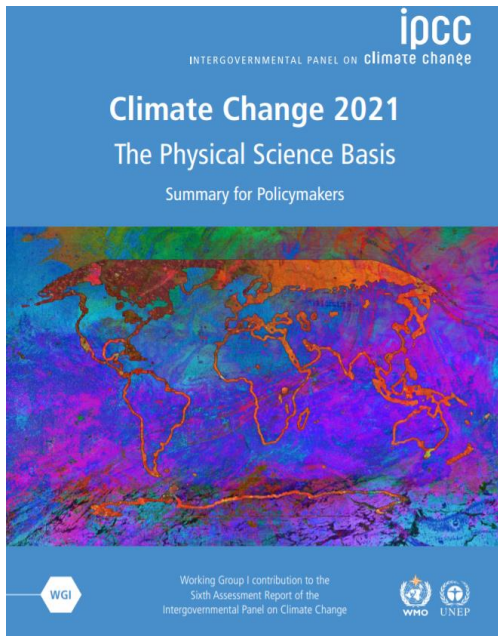
Top of Mind Climate Questions for Investors

Double materiality:

How to align my portfolio to meet climate goals while managing my climate informed financial risks?



Climate Change scenario analysis



Climate Scenario analysis:

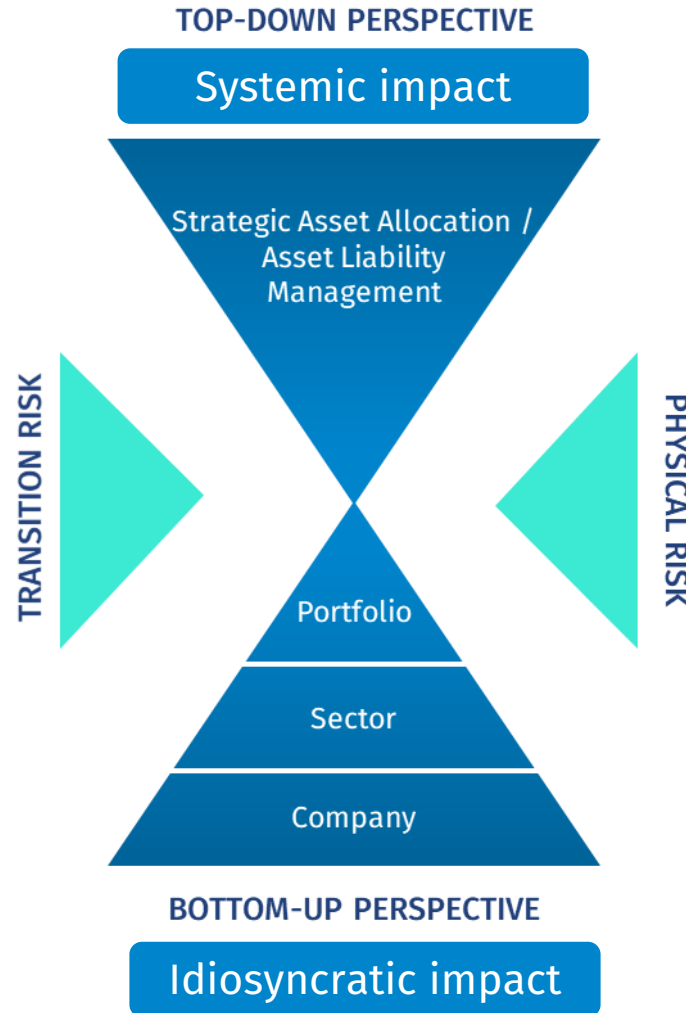
- How robust is your SAA for different global warming scenarios?
- What are the main climate risk drivers per asset class/scenario?
- How to improve the robustness?

Source: Climate Action Tracker (<http://climateactiontracker.org/>) -last updated May 2021.

Improve the robustness of your SAA for climate change

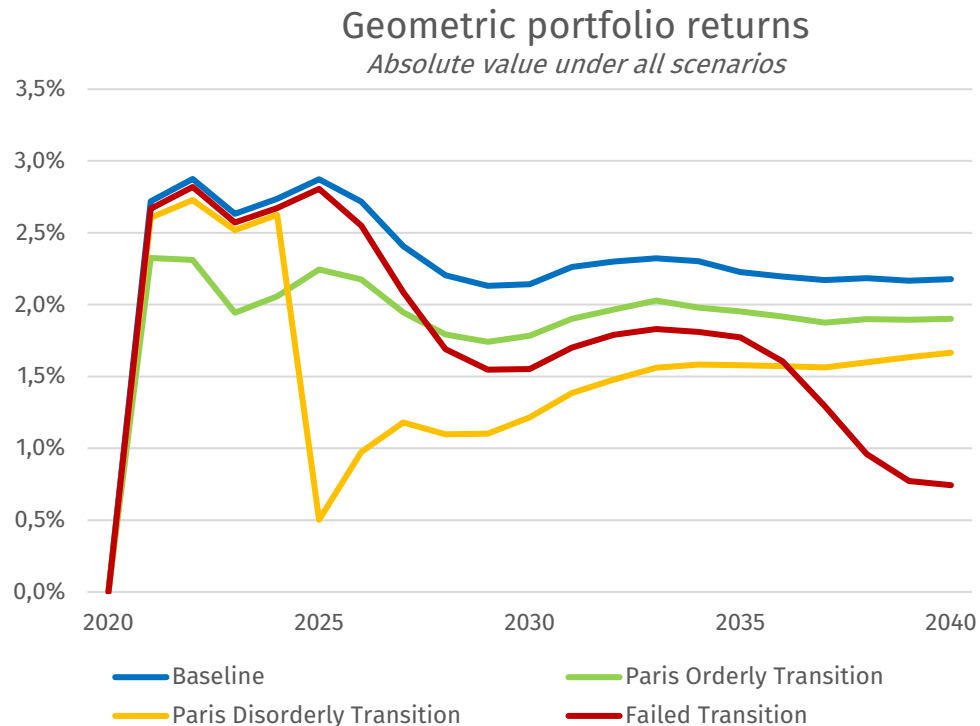
What are the required policy levers per climate change scenario? And what is the impact on the expected asset class risk and returns?

- Carbon tax
- Feed-in tariffs for renewables
- Investment subsidies for carbon capture & storage
- Biofuel blending requirements
- Policies supporting take up of EVs
- Investments in energy efficiency



Climate change will have an impact on gradual physical risks and extreme weather events – what is the impact on expected asset class risk and returns per climate change scenario?

Climate change: the impact on expected return (SAA)



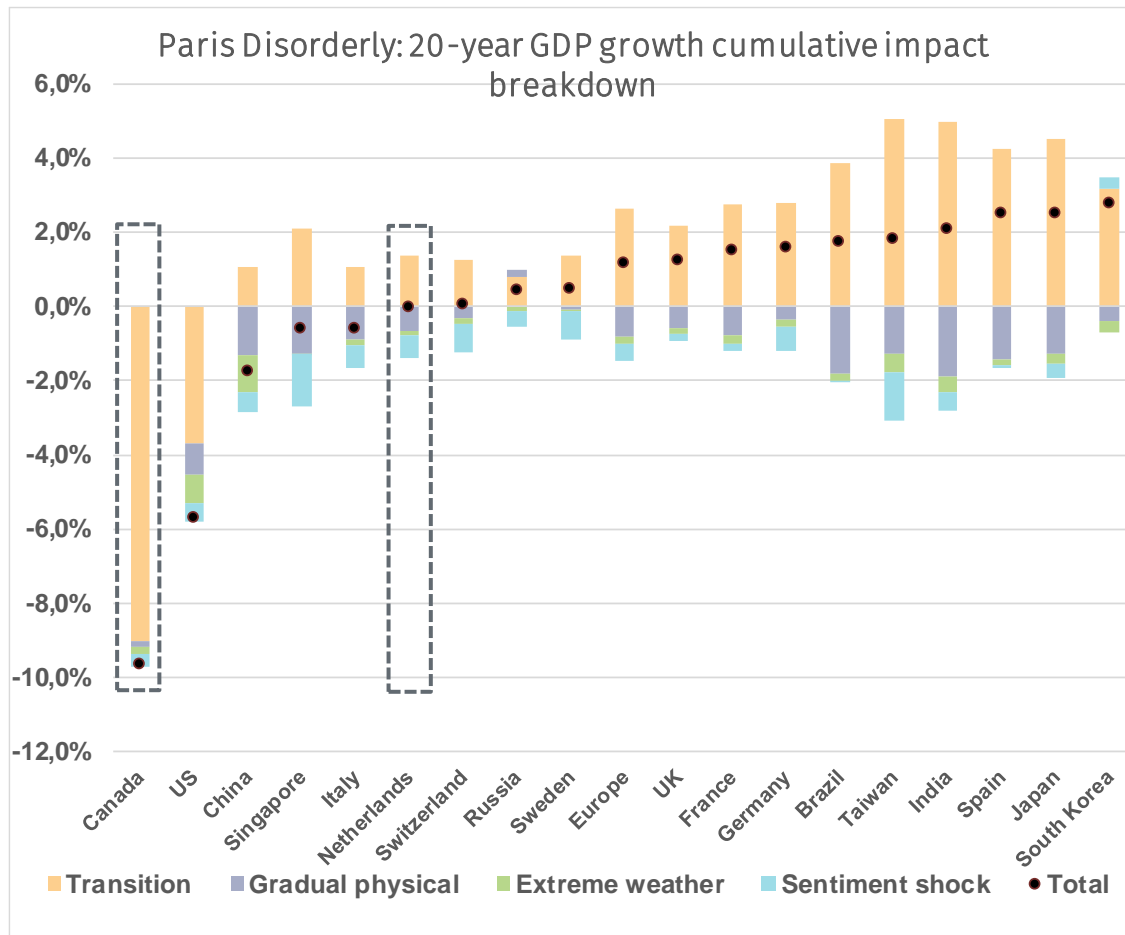
- Are expected returns for different climate paths still aligned with required return?
- The **Failed Transition Pathway** mirrors the climate-uninformed baseline closely for first few years but as it becomes obvious the transition is not occurring, **markets start pricing-in physical risks in their expected returns.**
- The **Paris Disorderly Transition Pathway**, indicates a sharp decrease in return in 2025 followed by a quick recovery.
- The **Paris Orderly Transition pathway** underperforms the Baseline to the extent that it factors in already locked-in physical risks associated with 1.5°C of global warming.

Note: these are results based on a fictive demo set-up.

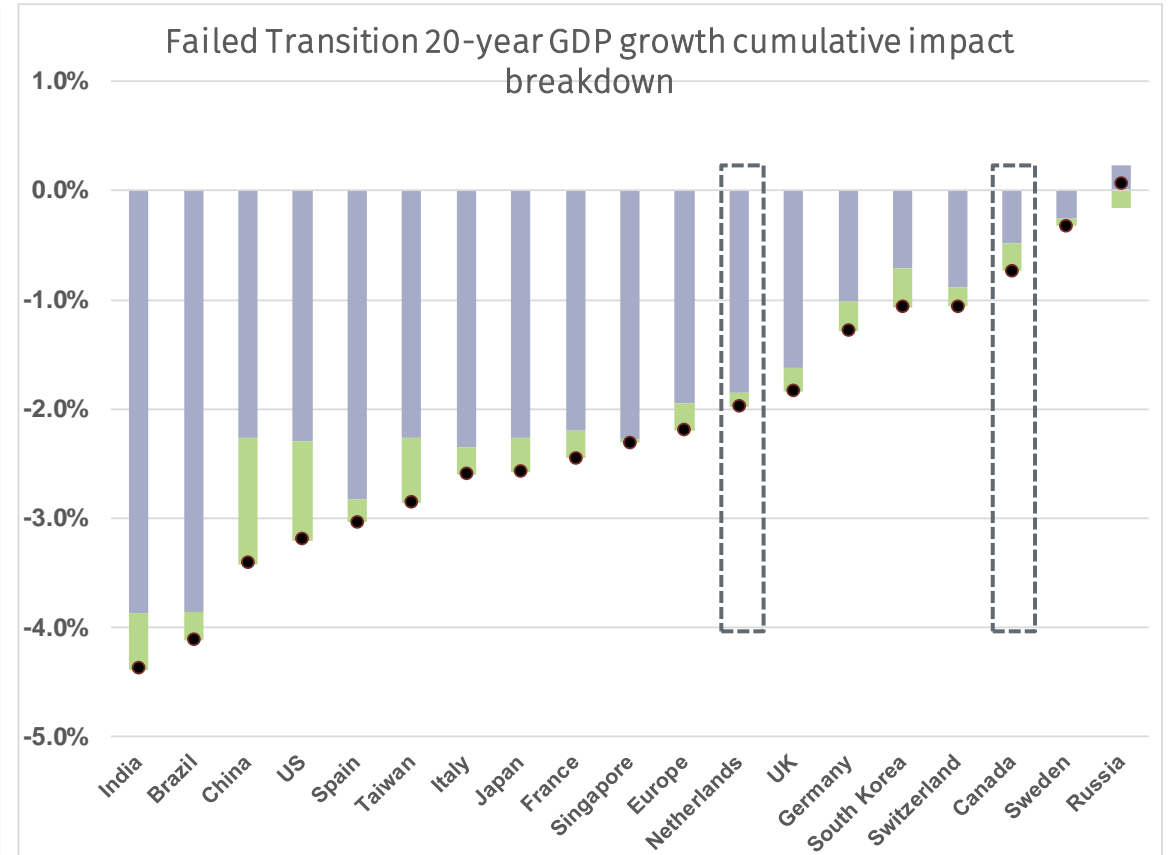
Climate change: the impact on GDP - regional differences

Impact of climate change on GDP per climate scenario

Paris Disorderly scenario



Failed Transition scenario



Climate change: the impact on return on equity per sector

Paris Disorderly Transition Pathway:

Cumulative return (difference to baseline) heat map – Public equities – 10 years

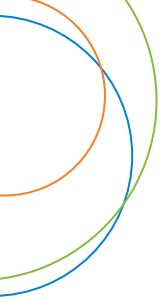
10Y	Total	Oil & Gas	Other Energy	Low Carbon Electric.	High Carbon Utilities	Water Supply	Forestry	Materials	Public Admin.	Industrials	Consumer Disc.	Consumer Staples	Health	Financials	IT	Telecom	Real Estate
World	-12.2%	-32.6%	-26.2%	41.1%	-80.2%	-12.0%	-12.6%	-10.9%	-15.2%	-9.6%	-13.5%	-12.7%	-13.0%	-12.0%	-10.3%	-11.9%	-12.1%
DM	-13.7%	-41.4%	-25.9%	102.6%	-77.4%	-13.2%	-13.8%	-13.1%	-18.3%	-11.8%	-13.9%	-11.4%	-14.2%	-13.5%	-12.2%	-13.6%	-14.1%
Europe	-13.2%	-44.6%	-33.7%	8.0%	-78.0%	-9.8%	-12.1%	-11.4%	-13.6%	-10.4%	-13.4%	-11.0%	-13.1%	-12.5%	-9.5%	-10.7%	-12.3%

Failed Transition Pathway:

Cumulative return (difference to baseline) heat map – Public equities – 20 years

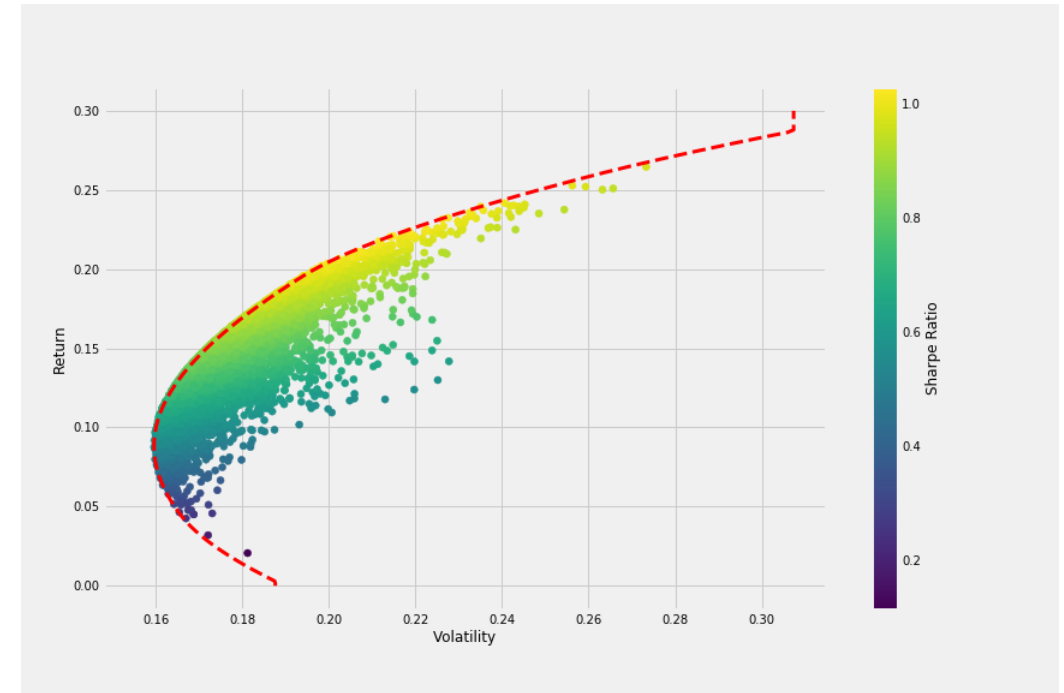
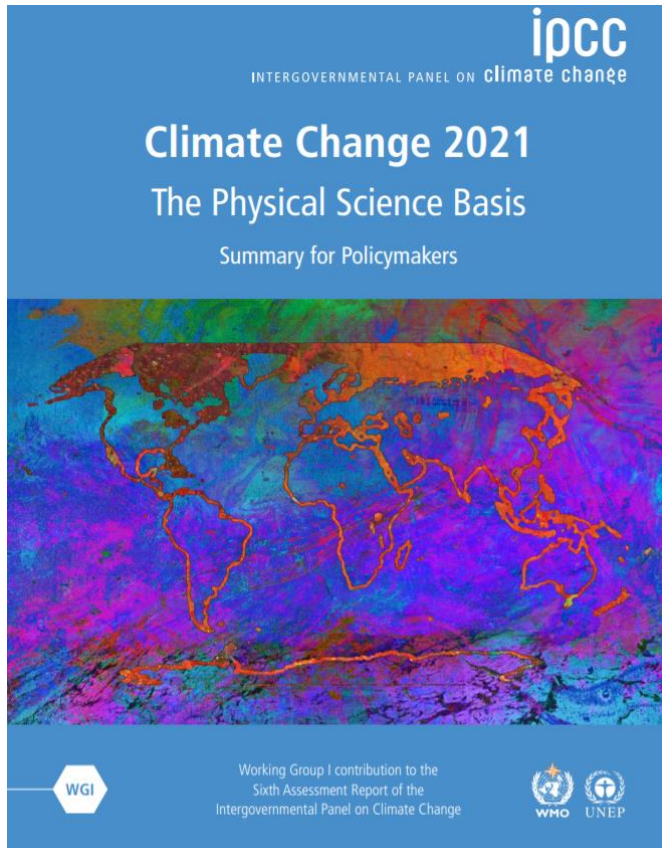
20Y	Total	Oil & Gas	Other Energy	Low Carbon Electric.	High Carbon Utilities	Water Supply	Forestry	Materials	Public Admin.	Industrials	Consumer Disc.	Consumer Staples	Health	Financials	IT	Telecom	Real Estate
World	-36.3%	-36.2%	-36.3%	-36.3%	-36.1%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%	-36.3%
DM	-34.9%	-34.0%	-34.1%	-32.1%	-31.9%	-32.4%	-34.5%	-35.2%	-31.9%	-36.4%	-36.3%	-34.2%	-31.9%	-33.7%	-34.0%	-33.1%	-32.7%
Europe	-24.1%	-23.8%	-23.9%	-18.5%	-17.7%	-18.5%	-23.5%	-27.4%	-17.6%	-31.4%	-30.6%	-23.0%	-17.6%	-23.1%	-24.5%	-21.9%	-20.1%

*Note: these are results based on a fictive demo set-up.
Available sector granularity is broader*



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New challenges!



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