Mercer

Zero Places to Hide

Introduction

*"It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere **have** occurred."* [1]

That was a killer start to the **Climate Change 2021: The Physical Science Basis,** the Sixth Assessment Report **(AR6).** The Intergovernmental Panel on Climate Change (IPPC) scientists analyzed evidence looking back thousands of years and found the scale of the impact is unprecedented.[2] No country or region is exempt.

This article is not just about what we believe will happen, but what climate scientists demonstrate has already happened and how climate change is already impacting our environment. It speaks of urgency and the need for scale but also gives hope – we can stabilise the climate if we respond.

We summarise the key predictions and discuss what these mean for capital markets, companies, assets and investor portfolios. And importantly, the key actions investors can take to move towards net zero.

Net zero is crucial

AR6[3] is the result of more than 200 scientists collating more than 14,000 peer-reviewed scientific studies from 66 countries. Its presents its findings in an eye-popping Interactive Atlas.

The AR6 Summary for Policymakers (a more digestible version of the 4,000-page report) was unanimously approved by the governments of the 195 country members of the UN Convention on Climate Change and will form the basis of decision-making at the upcoming COP26 meetings

[1] A1SMP. 5 IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press

[2] A2, SMP9. Ibid

[3] Op cit, 2021Working Group 1's contribution to the Sixth Assessment Report by the United Nations' Intergovernmental Panel on Climate Change (IPCC)

in November. Two further studies prepared by other Intergovernmental Panel on Climate Change (IPCC) working groups will be released in 2022.

This AR6 report does not tell us how to act, only that we must. It makes it clear that immediate greenhouse gas (GHG) emissions reductions are vital for us to help achieve the target of net-zero emissions by 2050, and thereby preserve both climate and financial stability. Key takeaways are:

- ***The world is continuing to warm.***
  Global surface temperatures were on average 1.1°C higher in 2011-2020 compared to the pre-industrial levels of 1850-1900, with larger increases over land than sea [4]. Surface temperatures will continue to increase – it will get worse before it gets better – in the short term due to past emissions. Even with action, global warming of 1.5°C and 2°C may be exceeded during the 21st century and, without change to the emissions trajectory, during the next decade.[5]
- ***Weather extremes and climate change are attributable to human activity.***
  Heatwaves, heavy precipitation, droughts, and tropical cyclones[6] are becoming more extreme and the connection to human influence is “unequivocal”, which is a stronger statement than in the previous report (AR5, 2014).
- ***The water cycle is being disrupted.***
  Melting ice sheets and global sea level rises[7] are evidence that the global water cycle is intensifying. This can be observed in the cycle’s variability, global monsoon precipitation rates and the severity of wet and dry events.[8]
- ***Many changes are irreversible, potentially for centuries or even millennia.***
  Unabated GHGs have created and will create changes in the ocean, ice sheets and global sea level that cannot be reversed.[9]

[4] Ob cit, 2021Working Group 1’s contribution to the Sixth Assessment Report by the United Nations’ Intergovernmental Panel on Climate Change (IPCC)

[5] Ob Cit

[6] B2, SMP10 Ibid

[7] B4, SMP27 Ibid

[8] B3, SMP 25

[9] B5, SMP 28

- ***Climate impacts are more widespread at 2°C than 1.5°C.*** Global warming results in multiple climate impacts that are more widespread and/or pronounced above 1.5°C higher warming levels, and therefore every fraction of a degree counts.[10]
- ***Climate science is more robust than before.***
  Global temperature measurement methodology has become more sophisticated. The new datasets draw on improved recordings of global sea surface temperatures; this shows the Arctic is the fastest warming region on the planet. Better data allows scientists to more accurately measure how the climate responds to increases in CO_2. A doubling of CO_2 on pre-industrial levels is now estimated to result in a 3°C increase, within a "likely" range of 2.5°C and 4°C. This range was previously much wider.

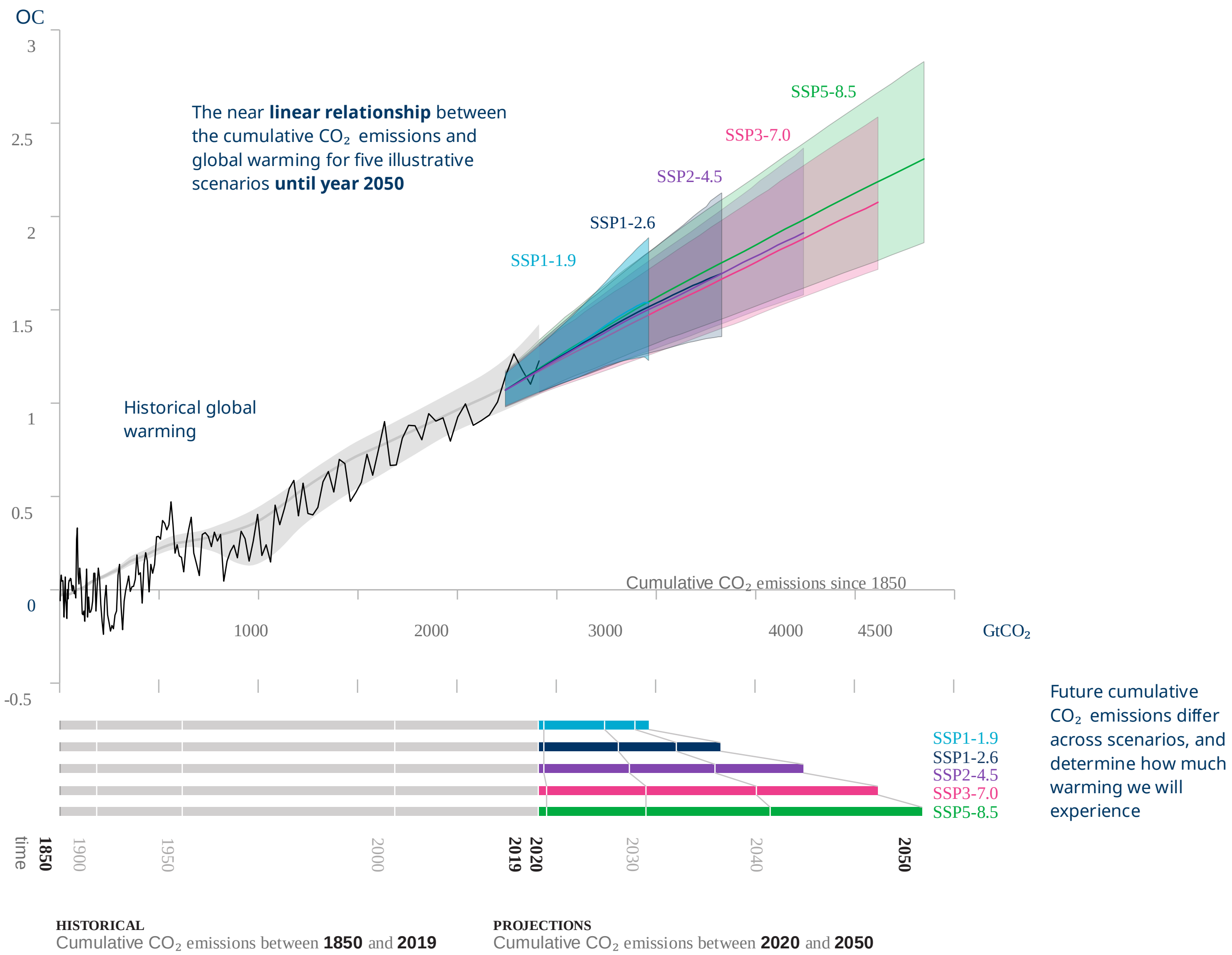
- ***GHGs include more than CO_2 so methane and others need to be counted.***
  The report does not focus solely on CO_2, it calls for strong reductions in other GHGs. In particular, a "strong, rapid and sustained" reduction in methane[11] is needed as it represents 15% of GHGs. Significant Methane sources include natural gas leakage, agriculture and landfill waste. Methane and nitrous oxide concentrations are now higher than at any point than in the last 800,000 years.

[10] C2, SPM32

[11] IPCC Briefing

Figure 1: Every tonne₂ emission adds to global warming

Global Surface temperature increase since 1850 – 1900 (ºC) as a function of cumulative CO_2 emissions ($GtCO_2$)



Source: SMP 37 https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

Net zero is possible – Time to act

There is good news. The IPCC authors tell us that net zero is achievable – but only **if we act now**. Rapid emissions reductions matter greatly, and we can, through climate action, achieve a low level of warming and therefore a more stable economic outcome. The report's very low emissions scenario involves only a temporary overshoot to 1.6°C.[12] The strengthening quest for climate stability gives hope for the Paris Agreement goal of limiting the rise in global average temperatures to 1.5°C. This scenario is clearly in the best interest of long-term investors.

The 1.5°C scenario means assets are less exposed to the risk of physical damage from climate change related events, compared to scenarios with greater warming. Risks in the short term are concentrated in sectors disrupted by climate transition; high-carbon utilities and energy companies lose out if assets become 'stranded', particularly in the low warming scenario where emissions have already peaked. Companies focused on achieving the 1.5°C scenario will also present investment opportunities over the next 10 years.

Global momentum to achieve the 1.5°C scenario is also growing via government policy and regulation. Over 1,600 pieces of legislation support the Paris Agreement. This momentum is captured by the UN's 'Race to Zero' campaign, which tracks commitments across government, industry and investors. It states that 70% of the world's economies have made net-zero commitments, over varying timescales[13].

Technological tipping points and pricing shifts – such as the costs of renewable energy and storage, the development and uptake in energy efficiency, greener grids, and electrifying new sectors – are changing whole supply chains. While not all countries are on the same trajectory, with China and the US[14] still dominating global emissions, capital markets are moving to support the low-carbon economy.

Net zero needs action – how to act now?

Advice and Analysis

We have been providing our clients with advice and analysis to address climate change for over a decade. We published our seminal Climate Change and Strategic Asset Allocation report in 2011 and subsequently Investing in a Time of Climate Change reports (2015 and 2019) based on climate scenario analysis. Scenario analysis, as demonstrated in the AR6 and supported by the

[12] B1, SMP17

[13] https://racetozero.unfccc.int/climate-repair-three-things-we-must-do-now-to-stabilise-the-planet/

[14] https://ourworldindata.org/fossil-fuels and https://www.climatewatchdata.org/ghg-emissions?end_year=2018&start_year=1990

Task Force on Climate-related Financial Disclosures (TCFD), is a key tool for investors to anticipate the range of potential portfolio implications that may transpire. We continue to evolve our climate modelling and will present an update later this year.

Tools

Our scenario analysis confirms that a 1.5°C scenario is an imperative for long-term investors. It is therefore in investors' best interests to support this outcome, not simply hope it happens. This is where Mercer's Analytics for Climate Transition (ACT) advice and portfolio analysis comes in.

ACT is a step-by-step process that helps investors set their pathway to support the lowest IPCC climate scenario and achieve a net-zero portfolio outcome. It allows investors to rank companies and portfolios by their capacity to support annual emissions reductions (transition capacity), prioritize active ownership of companies, and allocate to transition solutions.

Integration with Investment Solutions

For clients that invest with Mercer's Investment Solutions portfolios – all assets in the Pacific and for all discretionary assets in Europe, Asia, Middle East and Africa – we have set a target of net zero by 2050 and are aiming for at least a 45% reduction by 2030 on absolute portfolio carbon emissions, scope 1 & 2. This covers more than $80 billion of global assets under management to-date[15.] Our CIOs and portfolio managers are actively working with appointed investment managers and implementing changes on the behalf of clients.

Teams in other regions are in the process of undertaking their own analysis and setting governance processes.

"We believe investors will get most traction and be best rewarded on their net-zero outcomes by focusing on four key portfolio activities, guided by agreed investment beliefs, policies, process and portfolio implementation to frame their decisions in response to AR6. Managing strategic climate risk in any portfolio is now a priority for all investors."[16]

The following summarizes four areas where investors can act. Note that reporting should not just cover emission reduction figures, but also for active ownership and solution allocations:

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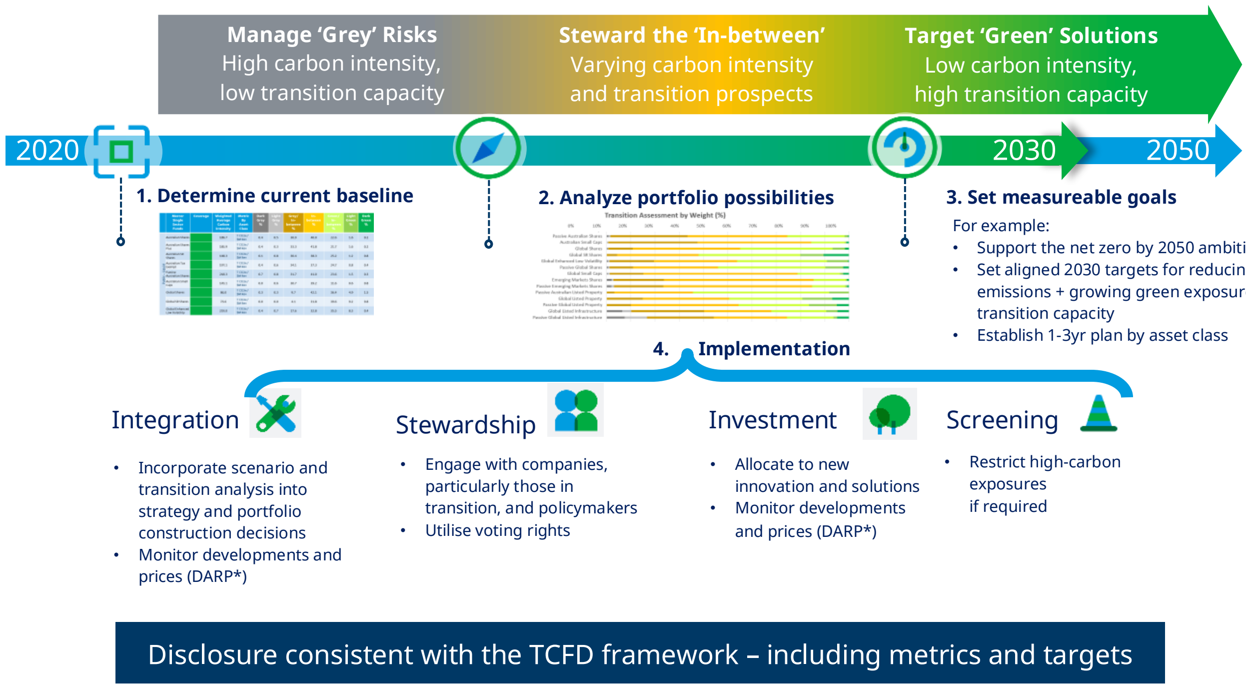
[15] https://www.mercer.com.au/newsroom/Mercer-commits-to-achieving-net zero-absolute-carbon-emissions-by-2050.html – Australian asset as of 12/31/2020
https://www.mercer.co.nz/newsroom/Mercer-New-Zealand-commits-to-net zero.html - NZ asset as of 5/31/2021
https://www.uk.mercer.com/newsroom/mercer-accelerates-steps-to-deliver-discretionary-investment-portfolios-with-net zero-absolute-carbon-emissions-by-2050-as-part-of-its-global-investment-solution-roadmap.html.html - UK assets as of 12/31/2020

[16] Statement by author of this article Helga Birgden as of 8/30/2021

Figure 2: Mercer Climate Transition Framework



(*DARP - Decarbonisation at the Right Price)

1. Integration:

- When setting targets, establish and report on the baseline starting point date. Define the scope of emissions captured – whether only CO_2 emissions or also methane/other GHGs – and prioritize absolute emissions, not just carbon intensity.
- Integrate climate metrics within portfolio asset allocation, asset class construction, and sector and company exposures to achieve annual and rolling progress on short- and long-term milestones.
- Measure against climate transition benchmarks by setting a year-over-year carbon reduction target, with tolerance ranges to facilitate dynamic portfolio management, and utilize a climate transition/Paris aligned index where possible.

2. Active Ownership or Stewardship:

- Demonstrate how voting and engagement has resulted in investee companies making appropriate strategic business changes to build transition capacity and progress against science-based targets. Consult the Climate Action 100+ Net Zero Company Benchmark[17] for more information on expectations for the world's highest emitting companies.

- Escalate active ownership measures with companies that do not reduce emissions by real-world measures and build appropriate transition capacity within three years e.g. escalate via voting decisions on director appointment or remuneration resolutions and/or consider screening out the company (see below).
- Engage with policymakers, directly or collaboratively, as well as other market participants as this will remain key to setting the context that all investors and companies work within.

3. Thematic Investing:

- Invest in transition solutions that provide opportunities for investment returns. Certain companies and asset classes will also positively impact the transition capacity of other companies in the portfolio. Ideally set significant green revenue targets that are increased year-on-year.
- Provide evidence for any 'net' counting, stating how emissions removal works in the portfolio, e.g. nature-based solutions. Note that AR6 does not consider carbon emissions removal technology to be 'the answer' in the foreseeable future[18].

4. Screening:

- Identify all high carbon and low transition capacity companies or assets, especially those with fossil fuel reserves. Particularly when active ownership strategies have failed, set policies for thresholds on expansion, new investments, and timeframes for when certain companies or sectors should be sold.

AR6 reinforces the urgency for action and the scale at which change needs to occur. The scientific evidence is unequivocal. To address climate damage, already done and to come, there are clear methodologies for capital markets, companies and investors to play a role in creating a net-zero economy and achieving climate stability.

A wide range of public and private sector actors are responding to the science and this is moving money; when money talks, markets listen. Investors have risks that need to be managed

[17] https://www.climateaction100.org/progress/net-zero-company-benchmark/

[18] D1, SMP 39

and opportunities to pursue. Investors have many levers to pull and actions to take in addressing short- and long-term risk-return questions while pursuing a net-zero portfolio. The future holds many uncertainties, but one thing *is* certain, there are zero places to hide.

Learn more about sustainable investing at Mercer:

- Sustainable Investment
- Investing in a Time of Transition
- Podcast: "Critical Thinking, Critical Issues℠" – "Net zero or fake zero?", August 2020

Useful links and articles on IPPC:

- The full AR6 WGI Report
- Or, the Summary for Policymakers provides a concise synopsis of AR6.
- The Interactive Atlas is a different way of looking at the output.
- In-depth Q&A: The IPCC's Sixth Assessment Report on Climate Science

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