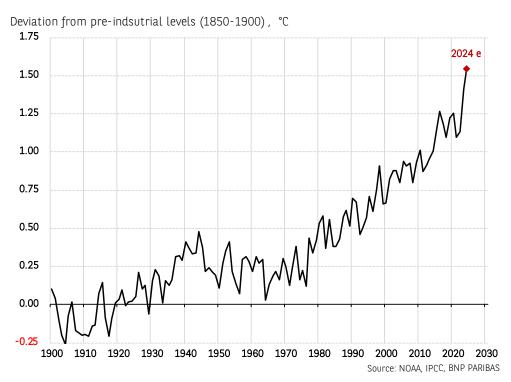
# **CHART OF THE WEEK**

#### 30 October 2024

#### IN 2024, THE 1.5°C GLOBAL-WARMING THRESHOLD HAS BEEN BREACHED Jean-Luc Proutat

#### AVERAGE GLOBAL MEAN TEMPERATURE



After Katrina in 2005, Hurricane Helene, which hit the south-east of the United States at the end of September, was one of the most destructive climate events ever seen across the Atlantic (with more than 200 deaths and approximately USD 50 billion in property damage to date). Symbolically, the National Oceanic and Atmospheric Administration (NOAA) was one of the collateral victims of the disaster. As a result, its temperature readings, which are referenced across the world, temporarily stopped being published.

Despite the US thermometer being out of action momentarily, climate change has been continuing nevertheless, with 55 billion tonnes of CO2 equivalent emitted every year. These NOAA statistics, which are now once again available, show that global warming is now exceeding the threshold of 1.5°C above pre-industrial levels (by convention, the period 1850-1900, see chart). Admittedly, 2024, which will see the end of the El Niño episode, may seem atypical, but the underlying trend is no less worrying. Based on the current policies implemented, global temperatures are set to rise by +3.1°C by 2100, according to a report by the United Nations Environment Programme (UNEP, 2024<sup>1</sup>).

This scenario would come at a major potential cost, with the National Bureau of Economic Research (NBER, 2024<sup>2</sup>) estimating that such costs would stand at nearly fifty cumulative points of GDP (by 2100 and compared to a scenario with no additional global warming) in a widely discussed article. The "social cost" of CO2 emissions (the present discounted value of the losses that they cause) is estimated to stand at just over USD 1,000 per ton. At this price, which is far higher than the cost of investing in decarbonization as estimated by the International Energy Agency (IEA), the opportunity to switch from fossil-fuels to alternative energies is no longer under discussion.

1 UNEP (2024), "No more hot air ..., please!", Emissions Gap Report, October. 2 Bilal A., Kanzig D.R. (2024), The macroeconomic impact of climate change: global vs local temperature, NBER Working Paper 32450, May.





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jean-luc.proutat@bnpparibas.com



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Head office: 16 boulevard des Italiens - 75009 Paris France / Phone : +33 (0) 1.42.98.12.34 Internet: group.bnpparibas - **www.economic-research.bnpparibas.com** 

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