

Comment on “The Enhancement and Standardization of Climate-Related Disclosures for Investors”

Securities and Exchange Commission

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This proposed rule is poorly thought-out climate policy masquerading as corporate risk disclosure. While more than doubling the total paper-work compliance costs to public corporations, this rule threatens to distract managers, misinform investors, and reduce income.

The supposed justification for this rule is worsening climate change brought on by greenhouse-gas emissions. The supposed financial impacts come from two general areas. First, the physical impacts of rising sea levels, heatwaves, and extreme weather events. The second builds off of the first—the impact of government policies to address climate change, the transition risks.

The proposed rulemaking thoroughly misrepresents or misunderstands the physical impacts of climate change and its financial impacts. There is no hope that an agency guided by such faulty understanding of actual climate change and its minor impact on financial assets could improve information flow and the efficiency of capital allocation.

To be very clear, this comment is not challenging the consensus science. The average world temperature has increased by about a degree Celsius over the past century or so and a significant portion of that warming was caused by anthropogenic greenhouse gas emissions. Though considerable evidence may go farther than this (addressed below), the consensus does not. The consensus does not cover whether climate change is a serious risk or how costly it is or will become. Nor does the consensus argue for mitigation or address the costs of mitigation.

Two official U.S. government websites describe the consensus and list statements by various scientific societies.<sup>1</sup> There is variation in the positions taken by the societies, with some

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<sup>1</sup> See National Aeronautics and Space Administration, “Scientific Consensus: Earth's Climate Is Warming,” Global Climate Change: Vital Signs of the Planet. <https://climate.nasa.gov/scientific-consensus/> (Accessed June 15, 2022). Also see, Climate.gov, “Isn't there a lot of disagreement among climate scientists about global warming?” <https://www.climate.gov/news-features/climate-qa/isnt-there-lot-disagreement-among-climate-scientists-about-global-warming#:~:text=In%202016%2C%20a%20review%20paper,greater%20than%2099%2Dpercent%20consensus.> (Accessed June 15, 2022)

claiming that climate change is serious and costly, but the part on which they agree (the consensus) is much more limited.

The much referenced “97 percent of scientists” consensus is even more bland. The original source for this number is a 2013 paper by Cook et al.<sup>2</sup> The consensus is simply that human activity contributes to global warming. There is no 97 percent consensus that the warming is dangerous or even primarily human caused.

Of course, there can be strong arguments for action even in the absence of consensus, but that is not the case for climate risk disclosure.

This proposed rulemaking confuses weather with climate and confuses increasing wealth with increasingly dangerous climate change. For example, Footnote 10 states, “In 2020 alone, a record 22 separate climate-related disasters with at least \$1 billion in damages struck across the United States, surpassing the previous annual highs of 16 such events set in 2011 and 2017.”

Before addressing the reason for the increase in billion-dollar events, it is worth reviewing the trends in extreme weather events.<sup>3</sup>

As was found in the previous five Assessment Reports, the UN’s Intergovernmental Panel on Climate Change’s 6<sup>th</sup> Assessment Report (AR6) found no increasing trends in Floods, tropical cyclones (hurricanes and typhoons), tornadoes, or in hydrological or meteorological droughts. As with the previous reports it found a trend in intense rainfall events and heatwaves. Research elsewhere has shown that the increasing heatwaves are due to average temperature increases and not due to increasingly variable weather.<sup>4</sup> That is, the weather is not getting weirder. Nor is there a rising long-run trend in wildfires, which are more sensitive to forest and grassland management than they are to global warming.<sup>5</sup>

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<sup>2</sup> John Cook, Sara Green, Peter Jacobs, Dana Nuccitelli, Rob Painting, Mark Richardson, Andrew Skuce, Robert Way and Barbel Winkler, “Quantifying the consensus on anthropogenic global warming in the scientific literature,” *Environmental Research Letters*, Letters 8:2 (May 2013), <http://iopscience.iop.org/article/10.1088/1748-9326/8/2/024024> (Accessed June 15, 2022).

<sup>3</sup> For a more extended explanation see David Kreutzer, “Climate Policy: The Case for a New Perspective,” Institute for Energy Research, June 9, 2021, <https://www.instituteforenergyresearch.org/wp-content/uploads/2021/06/The-Case-for-a-New-Perspective.pdf> and David Kreutzer, “What to Make of AR6?” Institute for Energy Research, September 1, 2021, <https://www.instituteforenergyresearch.org/climate-change/what-to-make-of-ar6/>.

<sup>4</sup> Zeke Hausfather, “More temperature variability in a warming world? Not so.” Yale Climate Connections, June 11, 2014, <https://yaleclimateconnections.org/2014/06/more-temperature-variability-in-a-warming-world-not-so/> (Accessed June 16, 2022).

<sup>5</sup> See David W. Kreutzer, “It’s Not About Climate Change,” RealClear Energy, September 22, 2020, [https://www.realclearenergy.org/articles/2020/09/22/its\\_not\\_about\\_climate\\_change\\_578188.html](https://www.realclearenergy.org/articles/2020/09/22/its_not_about_climate_change_578188.html) (Accessed June 16, 2022). Note: The National Interagency Fire Center website linked in this paper was edited to eliminate wildfire data before 1983. The change is discussed here: Anthony Watts, “CAUGHT: ‘Inconvenient’ U.S. Wildfire Data Has Been ‘Disappeared’ by National Interagency Fire Center @NIFC\_Fire,” WattsUpWithThat, May 13, 2021,

AR6 did assert that there is a human impact is detectable in tropical cyclones. One claimed bit of evidence is the ratio of intense storms to overall storms. This ratio is misleading since there is no increasing trend in intense storms. In essence, overall tropical cyclone frequency is dropping faster than the frequency of intense cyclones.

In addition, AR6 cites studies that use synthesized storm histories to make attributions of human influence. Ross McKittrick has since found a fatal flaw in the attribution studies.<sup>6</sup> In any event, the actual counts of intense cyclones is not rising—a fact that attribution studies cannot change. Ryan Maue provides excellent on-going coverage of tropical cyclone frequency.<sup>7</sup> His data show clearly that while the frequency is variable, there is no increasing trend in all cyclones or in intense cyclones.

It would be bizarre if the increase in costly weather events were caused by events whose frequency and intensity are not increasing. Not surprisingly, there is a clear and sensible explanation. We are getting much richer.

The trend in the dollar-value of hurricane damage has been increasing. This is due to the increasing value of the assets in hurricane prone areas. Roger Pielke, Jr. and coauthors show this in peer-reviewed research.<sup>8</sup> They superimpose the known paths of a century's worth of hurricanes on a fixed map of assets. That is, they test how much damage would each hurricane have done were real estate and other assets fixed in value. There is no increasing trend in damages in this exercise. In short, it is not changes in hurricanes that cause the increasing hurricane damage, but, instead, the rising damages are due to increases in the value of exposed assets.

Other research shows that overall weather-related losses have been declining as a fraction of GDP.<sup>9</sup>

Historical trends in extreme weather offer little support for climate risk disclosure mandates, but the proposed rulemaking asserts that the future will be much worse. Footnote 790 presents one set of results from a Swiss Re study showing a GDP loss in North America of 3.1

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[https://wattsupwiththat.com/2021/05/13/caught-inconvenient-u-s-wildfire-data-has-been-disappeared-by-national-interagency-fire-center-nifc\\_fire/](https://wattsupwiththat.com/2021/05/13/caught-inconvenient-u-s-wildfire-data-has-been-disappeared-by-national-interagency-fire-center-nifc_fire/) (Accessed June 16, 2022).

<sup>6</sup> Ross McKittrick, "Checking for model consistency in optimal fingerprinting: a comment," *Climate Dynamics*, August 10, 2021, <https://link.springer.com/article/10.1007/s00382-021-05913-7> (Accessed June 16, 2022).

<sup>7</sup> Ryan N. Maue, "Global Tropical Cyclone Activity," <https://climatlas.com/tropical/> (Accessed June 16, 2022).

<sup>8</sup> See Roger Pielke, Jr., et al., "Normalized Hurricane Damage in the United States: 1900–2005," *Natural Hazards Review*, February 2008, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.207.4983&rep=rep1&type=pdf> (Accessed June 16, 2022). For an updated on this analysis, see Jessica Weinkle, et al., "Normalized hurricane damage in the continental United States 1900–2017," *Nature Sustainability*, November 26, 2018, <https://www.nature.com/articles/s41893-018-0165-2> (Accessed June 16, 2022).

<sup>9</sup> Giuseppe Formetta and Luc Feyen, "Empirical evidence of declining global vulnerability to climate-related hazards," *Global Environmental Change*, July 2019, <https://www.sciencedirect.com/science/article/pii/S0959378019300378> (Accessed June 16, 2022).

percent to 9.5 percent later this century.<sup>10</sup> The modeling done in this study uses Representative Concentration Pathway 8.5 (RCP8.5) as its baseline (or business-as-usual) scenario. Using RCP8.5 as a baseline is widely discredited and generates implausibly high temperature increases.<sup>11</sup> The Swiss Re study then multiplies its already too-high projected costs by a factor of 10 to get the 3.1 percent to 9.5 percent estimates.

Also cited in Footnote 790 is a study by Jeremy Martinich and Allison Crimmins that also uses RCP8.5 as a baseline to get projected GDP climate losses of \$520 billion per year in 2100.<sup>12</sup> Even this likely overstatement would be on the order of one percent of projected US GDP.

William Nordhaus, winner of a Nobel Prize in economics for his work on climate change, published a chart, with Paul Sztorc, comparing world per-capita consumption under a baseline scenario to the per-capita consumption under various policy alternatives. The plotted curves are virtually indistinguishable until the end of the century, at which point there are small differences.<sup>13</sup>

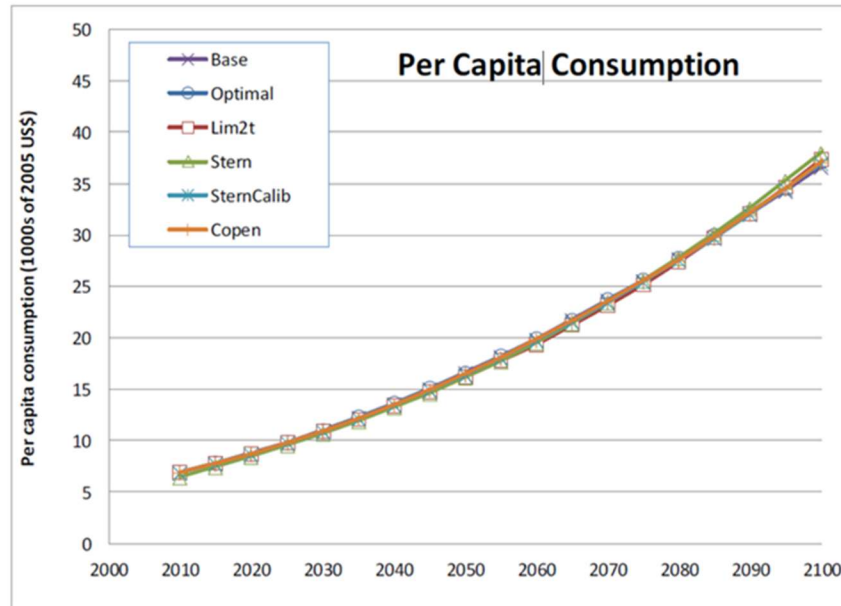
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<sup>10</sup> Swiss Re Institute, “The economics of climate change: no action not an option,” April 2021, <https://www.swissre.com/dam/jcr:e73ee7c3-7f83-4c17-a2b8-8ef23a8d3312/swiss-re-institute-expertise-publication-economics-of-climate-change.pdf> (Accessed June 15, 2022).

<sup>11</sup> For instance, see Justin Ritchie and Hadi Dowlatabadi, “Why do climate change scenarios return to coal?” *Energy*, Volume 140, Part 1, December 1, 2017, Pages 1276-1291, <https://www.sciencedirect.com/science/article/abs/pii/S0360544217314597> (accessed June 15, 2022); and Zeke Hausfather, “The high-emissions ‘RCP8.5’ global warming scenario,” *Carbon Brief Explainer*, August 21, 2019, <https://www.carbonbrief.org/explainer-the-high-emissions-rcp8-5-global-warming-scenario/> (Accessed June 15, 2022); and Roger Pielke, Jr., “Quick Links to My Recent RCP8.5 Series of Articles,” RogerPielkeJr.com, January 27, 2020, <https://rogerpielkejr.com/2020/01/27/quick-links-to-my-recent-rcp8-5-series-of-articles/> (Accessed June 15, 2022).

<sup>12</sup> Jeremy Martinich and Allison Crimmins, “Climate Damages and Adaptation Potential Across Diverse Sectors of the United States,” *Nature Climate Change*, 9, pp. 397–404, April 8, 2019, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6483104/#SD1> (Accessed June 15, 2022).

<sup>13</sup> William Nordhaus and Paul Sztorc, *DICE 2013R: Introduction and User’s Manual*, October 2013, [http://www.econ.yale.edu/~nordhaus/homepage/homepage/documents/DICE\\_Manual\\_100413r1.pdf](http://www.econ.yale.edu/~nordhaus/homepage/homepage/documents/DICE_Manual_100413r1.pdf) (Accessed June 15, 2022).



**Figure 4. Per capita consumption 2010-2100 under alternative policies, DICE-2013R model**

[http://www.econ.yale.edu/~nordhaus/homepage/homepage/documents/DICE\\_Manual\\_100413r1.pdf](http://www.econ.yale.edu/~nordhaus/homepage/homepage/documents/DICE_Manual_100413r1.pdf)

### Summary of Physical Risks

There are no long-run worsening trends in tropical cyclones, tornadoes, floods, hydrological or meteorological droughts, or wildfires. The damage from extreme weather events has been decreasing as a fraction of GDP. In the absence of implausible modeling assumptions (i.e., using RCP8.5 as the business-as-usual scenario), the projected trajectory of extreme weather damage relative to GDP is undramatic at least until the end of this century. None of this argues for costly reporting mandates specific to climate change.

The second justification for climate risk disclosure is the possible impacts of climate policies. The argument, apparently, is that the lack of need for climate policies is no guarantee that there will not be costly climate policies. Indeed, though the compliance with international climate agreements is seriously lagging, and though major climate legislation has faltered in the U.S., regulatory power in the U.S. and abroad has been used to thwart fossil-fuel development and production. Just since Inauguration Day 2021, the Biden Administration implemented scores of new regulations that limited access to our abundant energy reserves, stopped a nearly completed petroleum pipeline, added unnecessary costs to refineries and delayed natural gas

projects.<sup>14</sup> What risks, not reasonably well-known to investors might these actions have caused?

As of this writing, the impact of the regulations to restrict fossil energy is a contribution to record or near-record high prices of gasoline and other energy. Ironically, the proposed rulemaking asserts that greenhouse gas emissions are a “commonly used metric to assess a registrant’s exposure” to climate-related risks. Today, greenhouse gas emissions seem to be a stronger measure of economic vitality than risk exposure. By comparison, the electric vehicle companies, Fisker, Rivian, Lucid, Lordstown Motors, and Canoo, which should have a much lower climate-related risk, have suffered market-capitalization losses of one-half to two-thirds since the start of the year.<sup>15</sup> Though it still remains the most valuable auto manufacturer, Tesla has lost about half of its market capitalization this year. The EV manufacturers’ losses may not be due to climate policy, but, if not, they illustrate how large other risks can be relative to climate risks.

## Summary

The risk disclosure proposed in this rulemaking is fundamentally flawed. By confusing weather with climate, the proposed rulemaking imagines large risks where little show up in the data. It ascribes increasing damages from extreme weather to climate change, even when there is no increasing trend in the extreme weather events that caused the damage. That is, evidence of increasing wealth is offered as proof of risk from climate change.

The proposed rulemaking makes projections of increased exposure that depend on flawed modeling. Recent experience with a pandemic, unexpected inflation, and international conflict simply highlight the insignificance of climate financial risk within the panoply of all financial risks. Further, the flawed analysis displayed by the SEC in the proposed rulemaking gives little confidence that, were climate change a significant financial risk, the SEC would be the best institution to manage the risk. This proposed rulemaking should be scrapped in its entirety.

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<sup>14</sup>See American Energy Alliance, “100 Ways Biden and the Democrats Have Made it Harder to Produce Oil & Gas,” Energy Town Hall, May 26, 2022, <https://www.americanenergyalliance.org/2022/05/100-ways-biden-and-the-democrats-have-made-it-harder-to-produce-oil-gas/>; and James Danly, “Commissioner James Danly Letter to The Honorable Cathy McMorris Rodgers and Fred Upton,” Letter, March 23, 2022, <https://www.ferc.gov/news-events/news/commissioner-james-danly-letter-honorable-cathy-mcmorris-rodgers-and-fred-upton> (Accessed June 16, 2022).

<sup>15</sup> George Downs, “Rivian, Lucid, Lordstown, Canoo, Fisker: EV Startups’ Fight to Survive,” *Wall Street Journal Online*, June 16, 2022, [https://www.wsj.com/video/series/george-downs/rivian-lucid-lordstown-canoo-fisker-ev-startups-fight-to-survive/CCE1192C-9888-4203-B64A-87CD5660933B?mod=Searchresults\\_pos1&page=1](https://www.wsj.com/video/series/george-downs/rivian-lucid-lordstown-canoo-fisker-ev-startups-fight-to-survive/CCE1192C-9888-4203-B64A-87CD5660933B?mod=Searchresults_pos1&page=1) (Accessed June 16, 2022).