

Four months ago, we reviewed research on the economic cost of climate change, highlighting the need for proactive investment in resilience (see [here](#)). Recently, two thought-provoking pieces have caught our attention, examining climate change from a macro perspective: First, we are rapidly approaching a world where insurers are unwilling to underwrite certain risks, with far-reaching implications. Second, economic damage may be substantially worse than previously modeled (with average estimates suggesting a concerning 40% GDP reduction in high-emission scenarios). These developments coincide with Canada ending its carbon pricing for consumers on April 1st and the EU Parliament approving the Commission's request to delay implementation of sustainability reporting and due diligence regulations on April 3rd.

Today: Uninsurable risk

In a piece published in The Guardian on April 3rd, Damian Carrington gives an overview of the insurance industry's struggles with climate change. In a piece that looks at major insurers' press releases and interviews experts from the London School of Economics, the UN, and Allianz' former CEO, Mr. Carrington reports that climate change related risks are fast approaching a level that can no longer be insured, in particular for real estate, infrastructure, and agriculture. The strong wording of the first paragraph "The climate crisis is on track to destroy capitalism" derives from spinning further what happens if assets can no longer be insured: If assets are subject to meaningful total loss risk while it is impossible to obtain insurance against them, banks will be unable to provide loan against this asset. As ex-Allianz CEO puts it "This is a climate-induced credit crunch." With the possibility of loans to fund investments disappearing while the value of existing assets falls (or they disappear), the fundamental basis of capitalism indeed crumbles.¹

This is not merely theoretical—we've already witnessed major reinsurers like Swiss Re and Munich Re reducing their exposure to climate-vulnerable regions, effectively passing risks back to primary insurers who then restrict coverage for end consumers. Early indicators of this process include property insurance premiums skyrocketing or becoming unavailable in climate-vulnerable regions like Florida, California, and coastal Australia, forcing governments to step in as insurers of last resort. The scale of climate change related

¹ Simply speaking: People with saved money provide it against a return to entities with productive use of capital, and people who need capital to smooth consumption expenditure over time. Banks intermediate the process and diversify idiosyncratic risk while insurers provide cover for exogenous factor.

destructions in a 3°C world would, however, also be too much to shoulder for governments.

Read the full article here: <https://www.theguardian.com/environment/2025/apr/03/climate-crisis-on-track-to-destroy-capitalism-warns-allianz-insurer>

Tomorrow: Economic contraction

Researchers from the University of New South Wales recently published findings at the intersection of climate science and econometrics. While most economic models of climate impact assess how GDP in a specific location responds to climate changes in that location, Neal, Newell, and Pitman developed a model accounting for simultaneous worldwide effects. This approach yields significantly larger impacts: Historically, when severe weather reduced production in one region, other regions could compensate, limiting overall scarcity and price fluctuations. Climate change, however, presents systemic risk affecting all regions simultaneously, similar to the insurance dilemma mentioned above.

The researchers tested their model with various reaction functions and found an average 40% decrease in global GDP, compared to just 11% when considering only localized weather effects. For context, the Great Financial Crisis caused a 1% global GDP decline in 2009, while the COVID-19 pandemic resulted in a 2.9% reduction. Consequently, their analysis places the "welfare-optimal level of climate change" (the warming associated with lowest monetary costs) at 1.7°C rather than 2.7°C, aligning with the Paris Agreement's "well below 2°C" goal. Concerningly, 2024 already breached the 1.5°C target threshold, leaving minimal room for adjustment. It should be noted that models may still underestimate total costs, thinking about issues like tipping points and biodiversity loss. Implications extend beyond GDP measurements and will also be influenced by second order effects like food security, mass migration, and political stability—factors that traditional economic models struggle to fully quantify but which could dramatically amplify the human and financial costs of climate inaction.

Full study published in Environmental Research Letters and available here: <https://iopscience.iop.org/article/10.1088/1748-9326/adbd58>