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Towards Evaluating the Financial Responsibility of Carbon Majors for Climate-Related Damages

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In light of the global energy crisis and escalating climate change impacts, the liability of major fossil fuel companies is receiving heightened scrutiny, particularly in the context of climate litigation. This study initially establishes the feasibility of attributing climate damages to these companies. Utilizing the social cost of carbon methodology, we evaluate the damages inflicted by the top 25 oil and gas emitters from 1985 to 2018, comparing these to their financial profits. Our central estimate suggests partial damages of approximately 20 trillion USD, with the companies' financial gains surpassing this by 50%, totaling around 30 trillion USD. This indicates the potential of carbon majors to cover their attributed damages while maintaining significant profits. In our analysis, we also explore how varying approaches to assigning responsibility and handling uncertainties in climate damages can markedly influence these findings. Additionally, we explore the role of sovereign wealth funds in perpetuating fossil-fuel derived wealth and the ensuing liability questions.