

# POSTGRADUATE SEMINAR SERIES

## Research Findings Seminar

**Topic Title :** **Measuring Climate Risk's Contribution to U.S. Insurers' Systemic Risk: a  $\Delta$ climate CoVaR Approach**

**Presenter :** **Mr. LIU Jiarui**  
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**Abstract :** Climate change poses substantial systemic risks to financial stability. We propose a novel systemic risk measure,  $\Delta$ climate CoVaR, which isolates the specific component of systemic risk attributable to climate-related factors. After validating  $\Delta$ climate CoVaR through VAR analysis, we use this measure to examine how major climate events, public climate sentiment, and insurers' climate-related disclosure impact U.S. insurers' climate-induced systemic risk. First, climate-induced systemic risk increases significantly following billion-dollar natural disasters and major green transition events, while it declines after brown transition-risk events. Second, climate-induced systemic risk is positively associated with public climate change concern, encompassing both physical and transition risk dimensions. Furthermore, we find that insurers' proactive disclosure through earnings calls effectively mitigates climate-induced systemic risk, consistent with the view that such communication reduces information asymmetry between insurers and investors. In contrast, insurers adopting TCFD frameworks experience a significant incremental increase in systemic risk relative to non-adopters, potentially because TCFD disclosures remain largely superficial and compliance-driven. In this context, the expected benefits of reduced information uncertainty are eclipsed by a heightened market perception of insurers' climate risk exposure. These results remain robust across a series of sensitivity analyses and alternative specifications.

**Date :** **20 March 2026 ,Friday**

**Time :** **14:30-16:00**

**Venue :** **SEK210, 2/F, Simon & Eleanor Kwok Building**

**Language :** **English**

\*\*\* All are Welcome \*\*\*