# Climate Risk and Financial Stability: A Systemic Risk Perspective from Thailand

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**Abstract**

The systemic implications of climate risks for financial stability remain underexplored in emerging markets, despite their acute vulnerability to climate shocks. This study bridges this gap by developing a novel framework that integrates transition risk and physical risk into a systemic risk assessment for Thailand's banking sector. Using conditional value-at-risk (CoVaR) to gauge systemic risk among Thai banks, we find that transition risk significantly heightens systemic vulnerability. While flood exposure exacerbates instability, drought conditions show negligible impact—likely due to banks' limited agricultural exposure. This asymmetry in physical risks underscores the nonlinear transmission of climate shocks. Our results highlight the necessity of integrating both transition and physical risk indicators into regulatory and supervisory frameworks. These findings can guide financial institutions and regulators in conducting climate stress tests and devising more effective climate risk management strategies.

**Keywords:** climate risk, systemic risk, Thailand, banking sector, BMG, SPEI, CoVAR

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