

A Study on the Impact of Public Data Openness on Regional Economic Tail Risk

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Abstract

Against the backdrop of accelerating digital transformation and increasingly interconnected regional economies, the cross-city resonance of tail risks under extreme shocks has become a major threat to regional economic stability. Whether public data openness, as a core institutional arrangement for the market-based allocation of data as a factor of production, can curb such tail risk resonance is a frontier issue at the intersection of digital governance and risk management. Taking 287 prefecture-level cities in China from 2010 to 2022 as the research sample and treating the staggered launch of public data platforms as a quasi-natural experiment, this paper empirically investigates the impact and mechanisms of public data openness on regional economic tail risk resonance. The findings reveal that public data openness significantly curbs this resonance, and this conclusion holds after a series of robustness checks. Heterogeneity analysis shows that the inhibitory effect is more pronounced in non-mountainous cities, non-resource-based cities, central cities, and regions with low market segmentation. Mechanism tests demonstrate that public data openness mitigates tail risk resonance mainly through two pathways: enhancing fiscal transparency and regulating digital finance development while curbing its excessive bubble tendency. The latter “de-bubbling” pathway constitutes a unique mechanism discovery that departs from conventional understanding. Further spatial analysis indicates that public data openness exerts a significant local risk governance effect but yields no statistically significant positive spatial spillover. This paper provides empirical evidence and policy implications for effectively alleviating regional economic tail risks, optimizing public data openness policy design, and advancing cross-regional collaborative governance in the new development stage.

Keywords

Public Data Openness, Regional Economies, Tail Risk, Resonance