The Impact of Proximity to Large-Scale Demand Markets on Industry Chain Risks

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This study investigates how geographic proximity to large-scale demand markets affects industrial chain risks from both the demand and supply sides while identifying the underlying mechanisms of this relationship. The analysis utilizes a multi-dimensional panel dataset constructed from the OECD-ICIO 2023 database, covering 74 countries and 45 sectors over the period from 2000 to 2020. Methodologically, the research employs multi-dimensional fixed-effects models and instrumental variable (IV) methods to address endogeneity, while applying a "shock method" to perform a refined decomposition of industrial chain risks into simple and complex activities based on the Leontief inverse matrix. The novelty of this research is demonstrated through three primary contributions: first, it pioneers the inclusion of the geographic dimension of proximity to demand markets to explain global industrial chain risk ; second, it provides a refined decomposition distinguishing supply-side and demand-side risks alongside simple versus complex activities ; and third, it systematically verifies the dual mechanisms of global value chain (GVC) restructuringâ€”specifically GVC embedding and positioningâ€”and the reshaping of industrial geography through industrial transfer. Findings indicate that proximity to large-scale demand markets significantly reduces industrial chain risks, though this effect is amplified by regional trade agreement depth and geopolitical risks. Consequently, governments should actively cultivate market demand potential while promoting the development of resilient, regionalized, and diversified global supply chain layouts to enhance overall industrial security.