Domestic Enterprises as Pioneers, Foreign Enterprises as Followers: A Quantitative model of interregional industry relocation distinguishing between domestic and foreign firms and its empirical application in China

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This study investigates the heterogeneous patterns and interactive dynamics of interregional industry relocation between domestic and foreign enterprises in China, addressing a critical gap in understanding ownership-specific behaviors within the context of the "dual circulation" development strategy. The research primarily asks: What are the distinct characteristics of domestic and foreign firms in China's interregional industry relocation, and do domestic firms play a leading role in shaping the subsequent relocation decisions of foreign firms?

To answer these questions, we develop a novel measurement framework that distinguishes firm ownership by constructing an interregional industry relocation model based on input-output tables. This model improves upon existing methodologies by ensuring the "zero-sum" property of relocation value, thereby providing a more accurate depiction of production capacity shifts across regions. Using a panel dataset constructed from China's interregional input-output tables distinguishing firm ownership (IPIO-DHF) for the years 2002, 2007, 2012, and 2017, we systematically trace the evolution of relocation patterns. Subsequently, we employ a fixed effects econometric model with high-dimensional fixed effects (province-industry, province-time, and industry-time) to empirically identify the leading effect of domestic enterprises on foreign enterprises' relocation decisions and explore the underlying mechanisms.

The novelty of this research is threefold. First, in terms of model construction, we propose an interregional industry relocation measurement model that explicitly accounts for ownership heterogeneity. By refining the value measurement approach to maintain zero-sum consistency, the model provides macro-level evidence to identify the distinct roles of domestic and foreign firms in China's regional industrial restructuring. Second, regarding theoretical mechanisms, we systematically uncover a significant "domestic-first, foreign-following" dynamic in host regions. We demonstrate that the early entry of domestic enterprises enhances regional industrial agglomeration, which in turn reduces entry costs and uncertainties for foreign firms, creating a positive interaction chain in interregional relocation. Third, from a policy perspective, by identifying the catalytic role of domestic firms, this study reveals the linkage mechanisms in location choices across ownership types. These findings enrich the theoretical framework for understanding relocation behavior and offer valuable insights for designing industrial policies aimed at attracting foreign firms to participate more deeply in the domestic economic cycle.