

Limited Spatial Arbitrage in Retail Egg Markets: A Threshold Price Transmission Approach

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Summary

Amid growing international concern about the food supply chain, retail egg prices in Japan, which have long been regarded as a “Bukka no Yu-tosei,” a model of price stability, for their nominal price stability, have risen sharply in recent years. This study examines whether these price surges reflect low resilience in Japan’s retail egg markets. Specifically, we analyze interregional price transmission using threshold models, focusing on the role of horizontal food supply chains. Our empirical analyses reveal numerous cases of interregional price transmission inconsistent with smooth spatial arbitrage, including regional pairs with no stable long-run relationship, negative transmission, and adjustments that deviate from stationary relationships following shocks. Our findings indicate that efficient interregional arbitrage is limited. Accordingly, in-region transactions dominate Japan’s retail egg markets, where in-region transactions predominate, exhibit low resilience to large supply shocks, because smooth interregional demand–supply adjustments are constrained.

Key words: Egg, Market Integration, Vector Autoregression, Vector Error Correction Model, Local Projection