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Spatial Analysis of Asian Stock Market Linkages

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Abstract

This study examines the transmission mechanism driving Asian stock market linkages by employing spatial econometric techniques. In the context of financial markets, defining a weighted distance matric is not a simple matter. Besides the geographical distance, economic channels such as exchange rate volatility and bilateral trade also provide the stock market linkages. The empirical analysis is based on the Asian stock market over a period from 1980 to 2019. The Spatial Durbin Model is used because it captures the spatial effects in returns and from explanatory variables. Otherwise, the estimation through OLS will produce biased and inconsistent parameters due to ignorance of spatial dependence. Results show that among the three integration measures (exchange rate volatility, bilateral trade, and geographical distance), the important link is bilateral trade, while the geographical distance is least in explaining the impact on stock returns. Fundamental variables that included in the model, impact the stock return and among the most influential variables are GDP growth and interest rate. In investment decisions, investors should not ignore the market dependence structure of the region; otherwise, ignoring these spillover effects would underestimate the results.

Keywords: Economic integration, Spatial Econometrics, Direct and Indirect effect.
JEL Classification: C23, G01, G15.

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