

Cointegration Dynamics in Asian Stock Markets: Implications for Long-Term Portfolio Management

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Abstract : This study conducts a detailed examination of Asian stock markets over the period from 2008 to 2023, with a focus on the dynamics of cointegration and their relevance for long-term investment strategies. Specifically, we assess the co-movement and potential for pairs trading—a strategy where investors take opposing positions on two stocks, indices, or financial instruments that historically move together. For example, we explore the relationship between the Nikkei 225 (N225), Japan's benchmark stock index, and the Straits Times Index (STI) of Singapore, as well as the relationship between the Korea Composite Stock Price Index (KS11) and the STI. The methodology includes tests for normality, stationarity, cointegration, and the application of Vector Error Correction Modeling (VECM). Our findings reveal significant long-term relationships between these pairs, indicating opportunities for pairs trading strategies. Furthermore, the research underscores the challenges posed by model instability and the influence of major global incidents, which are identified as structural breaks. These findings pave the way for further exploration into the intricacies of financial market dynamics.

Keywords : normality tests, stationarity, cointegration, VECM, pairs trading

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