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**Measuring the Common Component of Stock Market
Fluctuations in the Asia-Pacific Region**

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Abstract

This paper fits generalized auto-regressive conditional heteroskedasticity (GARCH) models to daily closing stock market indices of Australia, China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines, Singapore, and Taiwan to compute for time-varying weights associated with the volatilities of individual indices. These weights and the returns of the various indices are then used to determine the common component of stock market returns. The results suggest that a common component of the Asia-Pacific stock market returns exists, which significantly explains the individual country's stock market returns. It is also established that stock markets of Korea and Hong Kong are the two most sensitive to changes in the common component stock returns, while China's stock market is the least sensitive.

Key Phrases: *Common Component, Volatility, GARCH models*