

STOCK RETURNS AND VOLATILITY CROSS-SPILLOVER EFFECT BETWEEN SRI LANKA AND ASIAN STOCK MARKETS

Balasuriya, B.M.K.S. ^{1*} and Anuradha, P.A.N.S.A. ²

¹Faculty of Computing, Kotelawala Defence University, Ratmalana, Sri Lanka

² Department of Finance, Faculty of Management Studies and Commerce, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

*arfoc@kdu.ac.lk

Sri Lanka, a pivotal player in the Indian Ocean, maintains robust economic, diplomatic, historical, trade, financial, and regional ties with various Asian nations. This paper seeks to investigate the financial connections and stock market dynamics between Sri Lanka and other Asian countries and employs a two-way analysis of stock returns and cross-volatility spillover between Sri Lanka and Asian stock markets, including India, China, Pakistan, and Japan. It also incorporates a structural break analysis to assess changes in the Colombo Stock Exchange (CSE) concerning other Asian stock markets before and after the Covid-19 outbreak. The study utilized daily stock price data from Bloomberg.com, a trusted data source. This data was used to calculate the daily stock returns for each of the Asian stock markets. The analysis employed the EGARCH (1,1) model to conduct both the two-way analysis and the sub-analysis and focused on a timeframe spanning from 2015 to 2021. The findings reveal negative return spillovers from India to Sri Lanka and cross-volatility spillovers from India, China, Pakistan, and Japan to Sri Lanka. Moreover, the study indicates that adverse news from India, Pakistan, and Japan has a more pronounced impact on the CSE than positive news, while positive news from China helps alleviate CSE volatility more effectively than negative news. Conversely, negative stock return spillovers from Sri Lanka to India and Pakistan are identified, along with cross-volatility spillovers from Sri Lanka to China and Japan. Notably, adverse news from the CSE affects China and Japan more than positive news, while the CSE's positive news offsets volatility in India more effectively than its negative news. The study also underscores the symmetry in the impacts of both good and bad news from the CSE on Pakistan. In the sub-analysis, the study highlights structural breaks in the relationships between these countries and the CSE, particularly before and after the December 2019 COVID-19 surge. Consequently, the study's results offer valuable insights to make informed financial decisions and adapt to these complex financial dynamics.

Keywords: *Stock return spillover, cross-volatility spillover, Asian stock markets, EGARCH model, structural breaks*