Measuring Asymmetric Volatility and Stock Returns in the Philippine Stock Market

Daniel S. Hofileña¹,* and Maria Francesca D. Tomaliwan¹,**
¹De La Salle University-Manila
*Corresponding Authors: daniel.hofilena@dlsu.edu.ph; maria.francesca.tomaliwan@dlsu.edu.ph

Abstract: This paper aims to study the relationship between expected stock market returns and conditional volatility in the Philippine stock market index (PSEï). It also aims to investigate the presence of asymmetric effects of good and bad news on conditional volatility. The paper also aims to put to the test the significance of the risk-return trade-off prescribed by traditional finance theory. In contrast to past literature, there are an increasing number of empirical evidence on developed markets claiming a negative relationship between stock market returns and volatility. However, only a few studies were made on emerging markets such as the Philippines. By applying an asymmetric volatility model such as the Exponential GARCH-In-Mean (EGARCH-M) and GJR GARCH (Threshold GARCH) models to the weekly Wednesday returns of the Philippine Stock Exchange Composite Index over the period of January 5, 1994 to December 26, 2012, we found the existence of a negative relationship, although insignificant, between stock market returns and conditional volatility. Our results also showed that conditional volatility reacts to good and bad news asymmetrically. That is, the arrival of bad news was found to have a greater impact on conditional volatility than the arrival of good news. Since the study was conducted on a market-wide level, the researchers surmised that asymmetric volatility may be the result of a down-market effect. We recommend that given the presence of asymmetric volatility, policy makers should continue regulating the financial market to ensure a smooth integration of the Philippine stock market to the world economy.

Key Words: Asymmetric volatility, Risk-returns trade-off, EGARCH-M model, Threshold-GARCH model, the Philippines