MARKET VOLATILITY: A STUDY OF EQUITY MARKETS OF USA, CANADA, GERMANY AND CHINA

Burhan F. Yavas, California State University, Dominguez Hills
Fahimeh Rezayat, California State University, Dominguez Hills

dx.doi.org/10.18374/JIFE-13-4.12

ABSTRACT

If equity markets are integrated, an unexpected event in one market may influence not only returns but also volatility in the other markets. The analysis of volatility is particularly important because of the information it provides for the riskiness of assets. This paper studies relationships among the volatilities of the four different equity markets: USA and Canada from North America; Germany from Europe and China from Asia. This study uses data for the period of January 2008-December 2010. Multivariate Autoregressive Moving Average (MARMA) method was applied to three month rolling daily volatilities, which were calculated using extended logarithmic Garman-Klass formula. The results indicate that the US market volatility had the most marked effect on the volatilities of the other markets. While both Canadian and German market volatilities seem important to explain the volatilities in other markets (US and to a lesser extend China), spillovers seem to become more pronounced as we moved from 2008 to 2010.

Keywords: *Equity market volatility, Global market integration and correlations, Volatility spillovers, Portfolio diversification, Hedging, Exchange-Traded Funds*