HONG RIM

John L Grove College of Business, Shippensburg University, United States

ROBERT SETAPUTRA

John L Grove College of Business, Shippensburg University, United States

STUDY ON THE CO-MOVEMENT BETWEEN STOCK MARKETS IN ASIA, EUROPE AND THE NORTH AMERICA

Abstract:

This study examined impacts of two--the US and Greek--crises of differing causes and scales on stock markets. The US crisis (or the Great Recession) broke out in 2008 in a developed economy due to sub-prime mortgage loans in a private sector. The Greek crisis was triggered by mounting sovereign debts in the public sector (government) in a developing economy. This study used the Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model to analyze volatility spillovers and co-movements among 11 stock markets in Asia, Europe, and the North America. Some of notable findings are: 1) Stock markets in these regions had not been fully integrated; 2) the US market became more integrated with stock markets in Europe but less with those markets in Asia and Greece after the two crises; 3) after the US crisis, the US market had been dominant in European markets but not in Asian markets; 4) decreasing intra-continental correlations support that stock markets in Asia and Europe had been less integrated; 5) decreasing inter-continental correlations support that the markets in Asia and Europe became less integrated in the post-crisis period; 6) increasing inter-continental correlations between the US and Asian markets and between the US and European markets support more integration; 7) after the US crisis, European markets adjusted faster to innovations (shocks) by the US crisis but Asian markets adjustment slowed; 8) the significance of ARCH terms supports strong financial contagion from the US market to other financial markets; 9) significant GARCH terms support strong volatility spillovers from the US and Greek markets to other markets; and 10) the (developed) US market had much more significant impacts on other markets than did the developing Greek market. In sum, the overall results suggest that stock markets in these regions had not been fully integrated, and there still exist potential diversification benefits to be exploited by investors.

Keywords:

Co-movement; adjustment speed; financial contagion; GARCH; and volatility spillover.

JEL Classification: G01, G15, G14