

DOCTORAL THESIS

Essays on the nexus among international financial markets: a causality perspective

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Abstract

This study consists of three essays of causal relations between international financial markets. The first essay investigates the impact stock exchange mergers on indices co-movement and international portfolio management. The long run cointegration and causal relations between a group Nordic and Baltic stock Exchanges (Norway, Denmark, Sweden, Finland, Estonia, Latvia and Lithuania) that composed the OMX and NASDAQ stock exchange are tested. Employing GARCH model to test the heteroskedastic cointegration between these indexes during 2003 to 2012, I find that the integration of Nordic and Baltic stock markets increased due to the merger. Based on the linear and nonlinear causality test, the results show that the NASDAQ index has a stronger predictive power on OMX indexes after the merger.

The second essay explores the causal relations oil markets and financial markets. Using daily data of WTI crude oil prices and Shanghai Stock Exchange index for a period from January 1, 2001, to November 2, 2015, I propose a two-step nonlinear quantile causality test approach to investigate the bidirectional relationship between oil price return and China's stock price return. This study provide some evidence of the existence of relation between international oil markets and financial markets of emerging countries, and suggest that insignificant results in previous studies is due to the unsuitable regression models.

Last essay links international financial network with international trade network. Based on the bilateral data from year 2001 to 2011, I construct international trade and financial networks, defined as a weighted graph where nodes are countries and edges are trade and capital flow linkages, respectively. To get a deeper insight of the network characteristics, we adopt turning parameter to combine the node degree and strength within the weighted network. And moreover, we construct a new indicator, partner quality centrality, to identify the quality of neighbors. Within the panel co-integration framework, we provide the existence of positive long run equilibrium between the trade and financial networks as constructed. In addition, we employ a panel causality test to investigate the short run dynamics, indicating that the international capital flow network has predictive power on the trade network from the short run perspective, but not the vice versa.

Keywords: financial markets; merger of stock exchanges; oil markets; international trade network

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