The correlation dynamics between stock market index and FX rate: Evidences from Asian major countries

Young K. Park[*]

Suk-Joong Kim[†]

Ki Beom Binh[‡]

Abstract

In this paper, we examine the correlation dynamics between stock market index and FX rate per USD within country using Engle's (2002) dynamic conditional correlation (DCC) model. We collect FX rate and stock market index under daily basis from datastream for Asian major 8 countries, Japan, China, Korea, Malaysia, Taiwan, Philippine, India, and Thai. The estimation results for each country show that the time-varying correlation turns to be negative overall except for Japan. Similarly, the unconditional correlations are also negative except but Japan. In Korea, Many participants and policymakers in stock market have believed the positive correlation between stock market and FX rate related to the price competitiveness in export. Korea is a typical export-driven economy. However, our findings contradict to the conventional wisdom concerning the correlation direction.

The major cause of the negative correlation is the free capital mobility through on-and-off shore. That is, the force of capital in-and-out flow seems to surpass the force by price condition in exports. In particular, we find that the negativity of the unconditional and conditional correlation would be more lessened, a country opens the capital market more widespread. In this perspective, we should consider that the cause of the positivity in Japan should be the openness as well as the soundness of domestic demand of Japanese economy

Keywords: DCC model, correlation, capital in-and-out flow, stock market index, FX rate

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[*] Professor, Business School, Sungkyunkwan University

[†] Associate Professor, Business School , University of Sydney

[‡] Associate Professor, Department of Economics, Myongji University, bink1@mju.ac.kr