

Dynamic linkages between stock markets: the effects of crises and globalization

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Abstract This paper investigates changes in the dynamics of linkages between selected national stock markets during the period 1995–2009. The analysis focuses on the possible effects of globalization and differences between crisis and non-crisis periods. We model the dynamics of dependencies between the series of daily returns on selected stock indices over different time periods, and compare strength of the linkages. Our tools are dynamic copula models and a formal sequential testing procedure based on the model confidence set methodology. We consider two types of dependencies: regular dependence measured by means of the conditional Spearman's rho, and dependencies in extremes quantified by the conditional tail dependence coefficients. The main result consists of a collection of rankings created for the considered subperiods, which show how the mean level of strength of the dependencies have been changing in time. The rankings obtained for Spearman's rho and tail dependencies differ, which allows us to distinguish between the results of crises and the effect of globalization.

Keywords Globalization · Crisis · Stock index · Co-movement · Spearman's rho · Tail dependence · Copula · Model confidence set

JEL Classifications G15 · G01 · C58 · C32

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