Did the BRICS institutionalization boost their stock market interconnectedness?

Angi Rösch*/ Harald Schmidbauer†/ Erhan Uluceviz‡

Abstract

BRICS, the acronym for an association of the states Brazil, Russia, India, China and South Africa, is an invented concept. Nevertheless, the member states have institutionalized, to some extent, their economic and political cooperation and thus gained more influence worldwide as an entity. The main purpose of the present paper is to investigate how the interconnectedness of the BRICS stock markets has evolved in the wake of intensifying links between the BRICS states. To that end, we construct a network with the stock markets of the five BRICS members (each represented by a stock index) as nodes and daily return-to-volatility spillovers defining edge weights. Daily stock market interconnectedness is then operationalized as the average share of volatility in a node (stock market) originating from the other nodes. As a methodological innovation, we show how to measure the concentration of the power to spread news and create volatility in the network. Using a similar network of stock markets of five systemically important economies (the "Systemic Five": USA, UK, euro area, China, Japan) as benchmark, we find that the interconnectedness of the BRICS stock markets has increased from 2002 through 2008 and mostly stayed on a high level since then. "Power concentration" has tended to decline among the BRICS stock markets, making them more equal in this respect; this is in contrast to the "Systemic Five".

Keywords: BRICS; "Systemic Five"; stock markets; propagation value; Gini coefficient

*FOM University of Applied Sciences, Munich, Germany; e-mail: angi@angi-stat.com
†**affiliation to be announced**; e-mail: harald@hs-stat.com
‡Gebze Technical University, Kocaeli, Turkey; e-mail: erhan@uluceviz.com