

Interlinkages and Causal Relationships : An Empirical Study of BRICS and SAARC

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Abstract

This paper analyzes dynamics of stock indices inter-linkages between two regional integrations namely, BRICS and SAARC. These regional integrations are taken mainly as India is a member in these Regional Integrations. For analysis purpose, time series data of stock indices for a period ranging from April 2011 to March 2019 were taken. Johnson Co-integration test exhibits no long-run relationships between regional integrations resulting in non-existent of price discovery. To understand the short-term dynamics between these Regional Integrations VAR has been employed. Long-term equilibrium relationship is not confirmed between regional integrations. VAR results clearly indicates the dominance of BRICS over SAARC in the short-run. Further, Granger Causality results display uni-directional linkages flowing from BRICS to SAARC, due to the existence of more influential member countries in BRICS.

I. Introduction

IN REGIONAL INTEGRATIONS, two or more countries or nations reach an agreement to work closely and co-operate with each other to achieve stability, peace, and wealth. Regional economic integration is one of the forms of regional integrations. Under these agreements, member countries located in same geographic region agrees to reduce and gradually remove non-tariff and tariff restrictions to facilitate unrestricted flow of services, goods, and factors of production among them. The different stages of regional economic integration from the slightest integrated to the utmost integrated form are, custom unions, free-trade agreements, common market, political union and economic union.

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we need to conduct Johansen's Cointegration Test on the sample indices. Thus, we conduct ADF and Phillip-Perron test to check the non-stationarity of time series being the pre-requisite for cointegration test. We find that indices of BRICS and SAARC are non-stationary, and stationary at level 1. Long-run co-integration relationship is not confirmed between regional integrations of BRICS and SAARC. This explore the possibility of portfolio diversification in case of international investors, consequently earning long-run investment benefits. Since short-run relations are produced out of long-run inter-relationships between the indices, we conduct VAR test to evaluate those short-run interlinkages. VAR results clearly indicates the dominance of BRICS over SAARC in the short-run, as member countries of the latter regional integration are not much developed as compared to the former. Further, Granger Causality results display uni-directional linkages flowing from BRICS to SAARC, due to the existence of more influential member countries in BRICS.

The empirical analysis offers numerous applied finance perceptions on co-integration between indices of BRICS and SAARC. Short-run co-integration between regional integrations is supported by the empirical results of the study. From the view point of policy makers, varying monetary and fiscal policy initiatives can be taken depending upon the nature of interlinkages between short-run and long-run. Investors may indulge in portfolio diversification and get advantage from arbitrage process in the long-run.

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