

The Dynamic Interrelationship Between Industrial Indices of the BRICs

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ABSTRACT

The purpose of this paper is to examine the dynamic interrelationship between stocks indices of the BRICs from the perspective of industrial indices. Daily data from September 15, 2008 to July 31, 2012 is used with total observations of 2157. All of the data are obtained from Datastream. The data are divided into ten types of industrial indices in accordance with the codes of the industries in Level 2 of Datastream. We apply unit root test, Johansen cointegration test, Granger causality tests, impulse response, and variance decomposition to analyze the dynamic interrelationship between industrial indices of the BRICs. The empirical results indicate as follows: First of all, the unit root test finds that all variables are not stationary, but I (1) time series. According to the results of Johansen cointegration test, only half types of them exist cointegration relationship, and the other half don't. Therefore, investors need to select the industrial indices carefully in order to diversify and reduce risk while investing in the BRICs stock markets. Secondly, the Granger causality test finds the ten industrial indices have feedback relationship. At the same time, the impulse response finds that the industrial indices without cointegration relationship have obvious short-term dynamic interrelationship. On the other hand, industrial indices with cointegration relationship have the positive long run equilibrium. From the above, the industrial indices of the BRICs exist significant dynamic relationship. Finally, the variance decomposition indicates that Brazil has the most impact on the other countries. Russia and India are second-class and China is the worst one. In conclusion, there is intense dynamic interrelationship among the industrial indices of BRICs. Brazil owns the largest influence in all types of industrial indices, and is hardly influenced by the other countries. Russia and India have second-class influence among them. Investors can adjust the strategies of investment in Russia, India and China by observing the variation of the industrial indices in Brazil.

Keywords : BRICs、 Industrial Indices、 Dynamic Interrelationship

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