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An investigation into the interdependence of global water indices: a VAR analysis

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ABSTRACT

We investigate the extent and manner of equity price interdependence among four water indices – World Water Index, S-Network Global Water index (S-Net), S&P Global Water Index (S&P) and MSCI ACWI Water Utilities Index (MSCI ACWI) using the vector autoregression (VAR) framework for the period 2004–2014. We also employ methods of Granger causalities, variance decomposition and impulse responses. We find Granger causality significance between S-Net and MSCI ACWI and S-Net and S&P indices at the 1% level of significance, suggesting that the indices are significantly linked. Further, S-Net is the most influential index amongst them in the forecast variance that can be accounted by S-Net at level of 55.75%. Our study indicates that the four water indices are interdependent and related, so the water indices are influenced by movements in the other water indices.

KEYWORDS:

Water investment water index vector autoregression Granger causality variance decomposition impulse response analysis

JEL CLASSIFICATION:

Q25 C32

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

[1] According to OECD (2013) '… A Laspeyres index number is a form of index number where prices, quantities or other units of measure over time are weighted according to their values in a specified base period…'.