

## Accepted Manuscript

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PII: S0378-4371(17)31015-4  
DOI: <https://doi.org/10.1016/j.physa.2017.10.007>  
Reference: PHYSA 18721

To appear in: *Physica A*

Received date: 17 July 2017  
Revised date: 16 September 2017

Please cite this article as: K. Gkillas, D.I. Vortelinos, S. Saha, The properties of realized volatility and realized correlation: Evidence from the Indian stock market, *Physica A* (2017), <https://doi.org/10.1016/j.physa.2017.10.007>

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The properties of realized volatility and realized correlation:  
evidence from the Indian stock market

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October 15, 2017

**Abstract**

This paper investigates the properties of realized volatility and correlation series in the Indian stock market by employing daily data converting to monthly frequency of five different stock indices from January 2, 2006 to November 30, 2014. Using non-parametric estimation technique the properties examined include normality, long-memory, asymmetries, jumps, and heterogeneity. The realized volatility is a useful technique which provides a relatively accurate measure of volatility based on the actual variance which is beneficial for asset management in particular for non-speculative funds. The results show that realized volatility and correlation series are not normally distributed, with some evidence of persistence. Asymmetries are also evident in both volatilities and correlations. Both jumps and heterogeneity properties are significant; whereas, the former is more significant than the latter. The findings show that properties of volatilities and correlations in Indian stock market have similarities as that show in the stock markets in developed countries such as the stock market in the United States which is more prevalent for speculative business traders.

*Keywords:* realized volatility; realized correlation; statistical properties; Indian stock market.

*JEL Classification codes:* F30; G14; G15; C14; C22; O53.

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