

GOLD PRICE DATA ANALYSIS USING RESCALED RANGE (R/S) ANALYSIS

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ABSTRACT

Gold has been at centre of attraction from various angles, particularly for value and financial importance and served as a reference. There has been a continuous rise in the international gold prices since for ages. Gold is a major part of savings of investors, this has caused concern as to whether any correction in gold prices will have destabilizing implications on the financial markets. With this backdrop, we make an attempt to analyze the gold prices over a period of more than last 32 years to explore the variability in the gold price in India. The gold market has recently attracted a lot of attention and the global price of gold is relatively higher than its historical changing pattern and trend. There has been a drastic increase in international gold prices in the last few years, though there was one large correction in 2008. The gold price data for about 32 years is divided into four sets for the purpose of implementation of Rescaled Range (R/S) Analysis. R/S analysis is an effective technique for analyzing random data in the form of time series in order to bring out trends and any memory effects present in the behavior of the changing data. Details of implementation of the R/S analysis technique and estimation of the Hurst exponent H and the fractal dimensions are presented and findings and results discussed, it is shown that the international gold prices exhibit a consistent trend of persistence and long term memory effect with fractal dimension close to unity.

KEYWORDS: Gold Market, Gold Prices, Time Series, R/S Analysis, Fractal Dimension, Persistence, Memory Effect