Periodicals of Engineering and Natural Sciences

Testing the random walk hypothesis of stock indexes through variance-ratio

Sadi Fadda

Abstract

The Random Walk is considered to be a tool trying to explain the characteristic of movement of prices in the financial markets. It can also be seen in the form of a trial to demonstrate the non-predictability of future changes in the financial markets through reliance on the characteristics identified based on past price changes. In this paper used is the variance-ratio test initiated by Lo and MacKinlay to test the Random Walk Hypothesis for a more recent data of eleven Stock Indexes, seen as main indexes of the current market.

Keywords

Random Walk Hypothesis, Efficient Market, Variance Ratio, Stock Index

Full Text:

PDF

References

Granger CW, Morgenstern O. Predictability of stock market prices. Heath Lexington Books; 1970.

Malkiel BG, Fama EF. Efficient capital markets: A review of theory and empirical work. The journal of Finance. 1970 May;25(2):383-417.

Fama EF. Efficient capital markets: II. The journal of finance. 1991 Dec 1;46(5):1575-617.

Malkiel BG. The efficient market hypothesis and its critics. Journal of economic perspectives. 2003 Mar;17(1):59-82.

Samuelson PA. Proof that properly anticipated prices fluctuate randomly. Industrial management review. 1965;6(2).

Grossman SJ, Stiglitz JE. On the impossibility of informationally efficient markets. The American economic review. 1980 Jun 1;70(3):393-408.

Roll R. A simple implicit measure of the effective bid-ask spread in an efficient market. The Journal of finance. 1984 Sep;39(4):1127-39.

Lo, Andrew W. (2008). Efficient Markets Hypothesis. The New Palgrave Dictionary of Economics. Second Edition. Eds. Steven N. Durlauf and Lawrence E. Blume. Palgrave Macmillan

Chordia T, Roll R, Subrahmanyam A. Liquidity and market efficiency. Journal of Financial Economics. 2008 Feb 1;87(2):249-68.

Campbell JY, Mankiw NG. Permanent and Transitory Components in Macroeconomic Fluctuations. The American Economic Review. 1987 May 1;77(2):111-7.

Cochrane JH. How big is the random walk in GNP?. Journal of political economy. 1988 Oct 1;96(5):893-920.

Cogley T. International evidence on the size of the random walk in output. Journal of Political Economy. 1990 Jun 1;98(3):501-18.

Mandelbrot B. New methods in statistical economics. Journal of political economy. 1963 Oct 1;71(5):421-40.

Fama EF. The behavior of stock-market prices. The journal of Business. 1965 Jan 1;38(1):34-105.

Chou RY. Volatility persistence and stock valuations: Some empirical evidence using GARCH. Journal of Applied Econometrics. 1988 Oct;3(4):279-94.

Schwert GW. Why does stock market volatility change over time?. The journal of finance. 1989 Dec;44(5):1115-53.

Baillie RT, Bollerslev T, Mikkelsen HO. Fractionally integrated generalized autoregressive conditional heteroskedasticity. Journal of econometrics. 1996 Sep 1;74(1):3-0.

Lo AW, MacKinlay AC. Stock market prices do not follow random walks: Evidence from a simple specification test. The review of financial studies. 1988 Jan 1;1(1):41-66.

Worthington AC, Higgs H. Random walks and market efficiency in European equity markets. Global Journal of Finance and Economics. 2004;1(1):59-78.

Ayadi OF, Pyun CS. An application of variance ratio test to the Korean securities market. Journal of banking & finance. 1994 Sep 1;18(4):643-58.

Huang BN. Do Asian stock market prices follow random walks? Evidence from the variance ratio test. Applied Financial Economics. 1995 Aug 1;5(4):251-6.

Urrutia JL. Tests of random walk and market efficiency for Latin American emerging equity markets. Journal of financial research. 1995 Sep;18(3):299-309.

Chang KP, Ting KS. A variance ratio test of the random walk hypothesis for Taiwan's stock market. Applied Financial Economics. 2000 Sep 1;10(5):525-32.

Muradoglu G, Unal M. Weak form efficiency in the thinly traded Istanbul Securities Exchange. The Middle East Business and Economic Review. 1994;6(2):37-44.

Omran M, Farrar SV. Tests of weak form efficiency in the Middle East emerging markets. Studies in Economics and Finance. 2006 Apr 1;23(1):13-26.

Dockery E, Kavussanos MG. Testing the efficient market hypothesis using panel data, with application to the Athens stock market. Applied Economics Letters. 1996 Feb 1;3(2):121-3.

Awad I, Daraghma Z. Testing the weak-form efficiency of the Palestinian securities market. International Research Journal of Finance and Economics. 2009;32:7-17.

Squalli J. A non-parametric assessment of weak-form efficiency in the UAE financial markets. Applied Financial Economics. 2006 Dec 1;16(18):1365-73.

Auer BR, Schuster M. Does the financial crisis influence the random walk behaviour of international stock markets?. Applied Economics Letters. 2011 Mar 9;18(4):319-23.

Taylor SJ. Asset price dynamics, volatility, and prediction. Princeton university press; 2011 Feb 11.

Lo AW, MacKinlay AC. Stock market prices do not follow random walks: Evidence from a simple specification test. The review of financial studies. 1988 Jan 1;1(1):41-66.

Lo AW, MacKinlay AC. The size and power of the variance ratio test in finite samples: A Monte Carlo investigation. Journal of econometrics. 1989 Feb 1;40(2):203-38.

Campbell JY, Lo AW, MacKinlay AC. The econometrics of financial markets. Princeton, NJ: princeton University press; 1997 Jan.

DOI: http://dx.doi.org/10.21533/pen.v7i1.212

Refbacks

There are currently no refbacks.

ISSN: 2303-4521

Digital Object Identifier DOI: 10.21533/pen