Seasonality, Quarterly Impact on Net Asset Value of Equity Linked Savings Schemes

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Abstract

This article attempts to (a) understand the quarterly seasonal behaviour of Net Asset Value of Equity Linked Savings Schemes (ELSS—Tax Saver Schemes), (b) analyse statistical significance of quarterly seasonal behaviour, (c) investigate the existence of unit root (Stationarity and Non-Stationarity time series of deseasonalised NAV) and (d) examine the weak form of efficient market hypothesis. Twenty tax saver schemes launched on or prior to 2006 were selected for analysis. The quarterly NAV data for the study period between 2006 and 2011 were obtained from respective asset management companies. The study reveals that (i) majority of the selected funds follow normal distribution, that is, seasonalised NAV is not skewed, (ii) 3rd quarter and 4th quarter of a calendar year are seen as appropriate for structuring investment decisions, (iii) statistical significance exists among the seasonal indices across quarters, (iv) autocorrelation function among the selected schemes are statistically significant, that is, deseasonalised NAV is non-stationary, (v) majority of schemes contains unit root at base level, that is, deseasonalised NAV is non-stationary, (vi) all schemes do not contain unit root at first differences, that is, deseasonalised NAV is stationary, (vii) deseasonalised NAV is weak–form inefficient, that is, cautious investors can have greater mileage by exploiting historical NAV and at the same time historical NAV facilitates to forecast future NAV on account of its non-randomness. Hence, this study accentuates that mutual fund investments are beneficial in the long run.

Keywords

Autocorrelation, deseasonalised NAV, ELSS, random walk, stationarity