BOOK REVIEW

Behaviour of Share Prices in India: A Test of Market Efficiency. Author: O. P. Gupta. Publisher: National Publishing House, New Delhi. Price: Rs. 100.00, pp. xii : 182

The book under review is the outcome of the author's doctoral dissertation successfully completed at Delhi University. The title of the book is 'eye-catching' while its price is, if one may say so, 'purse-snatching', despite the UGC's financial assistance for its publication.

Indian research work in the area of share prices is, by and large, confined to studying the impact of certain independent variables such as dividend pay-out ratio, debt/equity ratio, business risk etc. on the market value of share prices. Dr. Gupta's work is a healthy departure from the well-trodden track. It is primarily concerned with testing for the existence of random-walk hypothesis and adducing therefrom the weak form of efficiency of the Indian stock market. In addition, the author has also examined the issue of 'lead', 'lag' relationship among shares. The material, both written and tabular, is well-structured and presented neatly in six chapters besides the chapters on 'Introduction' at the beginning and 'Summary and Conclusions' at the end.

A brief presentation of the theories of share price behaviour followed by a survey of literature along with empirical evidence on the random-walk hypothesis is contained in chapter two. The author has distinguished three approaches to the behaviour of share prices, viz. technical or chartist approach, fundamental or intrinsic value approach and random-walk approach. The technical or chartist approach suggests that by plotting the market values of share prices, over a period of time, on a chart (hence the term chartist approach) one can discern certain patterns which tend to repeat themselves. A knowledge of this enables the operator to identify the pattern in its initial stage itself and take necessary buy/sell decision ahead of others and thereby derive above average returns. This approach is based on the premises that stock market has got memory and history repeats itself. This approach has still got its adherents even in the U.S.A. even though considerable research work has disproved its validity by means of random-walk models, filter techniques etc. Random-walk approach suggests that share prices change in a random-fashion and hence no amount of studying past price changes is going to help an operator to consistently earn above normal profits. The basic premise of random-walk (R-W) approach is that stock market has got no memory and hence the best estimate of tomorrow's price of a share is today's price itself. Thus one can see that R-W approach is completely at variance with the technical or chartist approach. If one observes closely, the fundamental or intrinsic value approach is not inconsistent with the R-W approach. The former suggests that the market value of a share is based on certain intrinsic or fundamental factors such as the earnings per share, dividend pay-out policy, debt equity mix, growth potential etc. which do not change from day to day or week to week. But changes in the market price of shares do take place even several times during the course of a single day. These changes are occasioned by the flow of some information, psychology of the market participants and similar such factors. There is no reason to disbelieve that the aforesaid factors occur in a random fashion. When looked at from this perspective one does not find inconsistency between the fundamental and R-W approaches. As the author has himself said that the establishment of R-W theory in the Indian context will seriously doubt the usefulness of *Golden Investment Strategy*, an essentially chartist approach developed for the Indian market.

Chapter three traces the history and growth of the Indian stock market, trading procedures, listing requirements and also the regulatory framework of the government on the Stock Exchanges for safeguarding the interests of the investing public.

Chapter four describes the research methodology adopted for the study. From

the available techniques the author has chosen the serial correlation approach for lags ranging from 1 to 30 to test for the independence of changes in prices in log form. To test for randomness the runs test, a non-parametric one, has been chosen. The issue of the existence or otherwise of 'leading' shares the changes in whose prices portend changes in the prices of other shares with a time lag has been examined by the cross-correlation analysis. The data for the study have been obtained from more than one source, viz. The Economic Times index of ordinary share prices (both all-industries index and industrywise index), The Financial Express (all-industries and also weekly industrywise), All India Equity index and individual share prices (at weekly intervals) of 39 actively traded shares listed with different stock exchanges. Unfortunately, a few lines in respect of the choice of time interval were not printed towards the end of page 53. In any case, the period of study is segmented into two parts—one part prior to the promulgation of ordinance restricting dividends and the second after the ordinance. Thus the period covered is from January 1, 1973 to July 5, 1974 and then from August 1, 1974 to December 1975 (in the case of daily share price indices) but to March 31, 1976 in the case of weekly prices. The usual adjustments have been made to the prices for the bonus and rights issues during the period under study. However, a typographical error persisted throughout page 63 wherein the multiplying factor for adjusting ex-bonus prices is given initially as $i + r$ and later as $1 + r$. It should in fact be $\left(1 + \dfrac{1}{r}\right)$ where the meaning of r is as given in the text.

Serial correlation analysis has been carried out and the test results summarised in chapter five. Analysis of the data on daily price changes obtained from Economic Times or Financial Express indices did not lend support to R-W model. However, weekly data based on industrywise indices and also specific share prices lent empirical support to R-W hypothesis. Here also departures from the R-W model have been found but they may be regarded more as aberrations than evidence to provide opportunities to investors from making more than average profits. On the whole, tests carried out on individual share price data rather than on the index-based data provided better results. No significant changes are noticed between the results of the two time segments. The application of runs test carried out in chapter six has by and large corroborated the conclusions reached on the basis of earlier analysis. No significant lead-lag relationships could be noticed from the lagged pairwise correlations presented in chapter seven that could provide adequate scope for making more than average profits.

The present study, by and large, indicates that the Indian Stock market is 'weakly efficient'. Instances of non-randomness should be regarded from the financial standpoint whether they help obtain better returns after meeting transaction costs. If the financial standpoint is taken they may not stand the test. The greatest contribution of the present study lies in arousing interest in carrying out further research work in this area which holds out excellent promise.

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