ABSTRACT

The ‘Mean-Variance’ theory of Markowitz and the resulting ‘Capital Asset Pricing Model’ (CAPM) of William Sharpe were a path-breaking contribution to the theory of finance. This study is an attempt to examine the empirical validity of these theories in the Indian capital market in the context of the financial Reforms. The study has been carried out by using data collected from the Indian stock markets, confining to fifteen years from April 1991 to March 2006 in the post-Reforms period.

The major findings: The examination of the capital market efficiency in its weak form by using ‘Dickey-Fuller Unit Root Test’ on the monthly return series of well-diversified portfolios shows that the price movements in the Indian stock markets obey the ‘Random Walk Hypothesis’. This implies that Indian stock markets are at least weakly efficient as far as monthly return series are concerned. It is also observed that there is no seasonal effect (January, April, and Festival effects) present in Indian stock markets during the period of study. The absence of April effect shows that the tax loss-selling hypothesis, reported from the western capital markets, is not applicable to the Indian stock markets.

The results of the empirical tests of CAPM for the total period support the validity of the model. The investigation after dividing the data into various sub periods reveals that, after the initiation of financial Reforms up to the year 2000-01, CAPM was a perfect model, but, after the year 2000-01, the model could not be claimed as perfect in explaining the expected returns. It is observed that the
model leaves large amounts of positive unexplained returns, especially during the last sub period. However, one cannot reject the model during this last sub period because of the overall significance and the significance of the market factor.

The positive unexplained returns observed are because of the size and value effects as per the three-factor model tested in the study. But, the higher levels of positive unexplained returns observed after 2000-01 are not adequately explained by the three-factor model. The study observes that this is an issue to be investigated further in the light of booming FII inflows. Finally, the examination of the relative importance of the three factors (market, size and value) reveals that market factor ranks first, the size factor comes second and the value factor comes third.

The empirical validity of the three-factor model shows that the risk in Indian capital market is multidimensional, so much so that the size and value effects observed are not the symptoms of capital market inefficiency in the semi-strong form; rather they are the outcome of missing risk factors. The findings of the study, as it establishes the risk-return relationship, are very significant for the retail investors in choosing portfolio for investment, for fund managers in introducing thematic funds that can cater to the needs of investors and for the policy makers in framing long-term policies.