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Review of Corporate Dividend Policy Models – A Prologue

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Abstract

Dividend policy is one of the vital decision areas of corporate finance. At the time of formulation of dividend policy different economic factors, monetary factors, legal factors and other factors considered relevant by the financial experts are to be considered. Many attempts have been made by researchers to explain the dividend behaviour of the companies in different countries over a long period of time. But the "dividend puzzle" (F. Black, 1976) still remains. In the present study, we have put forward a sincere effort to review the well-known models as proposed by famous scholars in the field of finance as well as other few prominent studies relating to applicability of different dividend policy models in both the western developed countries and India. From the survey of the existing studies on the applicability of different models on dividend policy, it is evident that the Lintner's model and Brittain's model are mostly applied by the researchers. However, the other models are also important to explain the dividend behaviour of different firms.

Keywords: *Lintner's model, Brittain's model*

Introduction

The yield or return on capital invested in shares is known as dividend. Preference shareholders get fixed rate of dividend. Ordinary equity shareholders and sweat equity shareholders get variable rate of dividend. Dividend may be paid by issue of dividend warrants (cash dividend), or by issue of fully paid-up bonus shares (share/stock dividend). Board of Directors recommends dividend after setting aside proper depreciation and reserves from profits of the company. There must be a fair balance between dividend payment and creation of reserves. Accordingly, dividend policy is one of the vital decision areas of corporate finance. The other two important decision areas of corporate finance are financing decisions and investment decisions. All these decision areas are correlated and decision in one area has a bearing on the other. At the time of formulation of dividend policy different economic factors, monetary factors, legal factors and other factors considered relevant by the financial experts are to be considered. Many attempts have been made by researchers to explain the dividend behaviour of the companies in different countries over a long period of time. But the "dividend puzzle"(F. Black, 1976) still remains. The debate on various aspects of dividend policy still continues. For example, some of the researchers (Gordon 1959) believe that dividends increase investors' wealth, while others (Miller and Modigliani, 1961 and Miller and Scholes, 1978) believe that dividends are irrelevant as a determinant of investors' wealth. In Lintner's Model (Lintner J, 1956) it is proved that firms establish their dividends in accordance with the level of current earnings as well as dividend of the previous year. In the present study, we have put forward a sincere effort to review the well-known models as proposed by famous scholars in the field of finance as well as other few prominent studies relating to applicability of different dividend policy models in the western developed countries and India.

Notable contributions in the field of applicability of different models of dividend policy

A number of studies are available in the field of applicability of different models of dividend policy in both the western developed countries and India. Some notable contributions in this field have been briefly described here.

Lintner (1956) has developed the theory based on two important things that were observed about dividend policy: (1) Companies tend to set long-run target-dividend payout ratios (=Total dividend paid /Total profits earned), (2) Earning increases are not always sustainable. According to the author, dividend policy remains unaltered until managers could see that new level of earnings is sustainable. The author has also found that firms pursue a stable dividend policy and gradually increase dividends given the target payout ratio. Many researchers like Fama and Babiek (1968), Baker et.al (1985) and Baker and Powel (1999) support Lintner's model. Benartzi et.al (1997) have commented, "Lintner's model remains the best description of the dividend setting process available."

Mazumdar (1959) has conducted a study on dividend behaviour of Indian companies over the period 1946-1955. Accepting the hypothesis of Dobrovolsky's (1951) the author has concluded that current profit, preceding year's dividend (lagged dividend) and current requirement for expansion have significant impact on dividend policy of the firms under study. In fact, in this study current year's profit has turned out to be the most important variable in framing dividend policy.

Brittain (1966) has studied the dividend behaviour of firms belonging to all major industries over a period from 1919-1960 and his study reveals that cash flow (i.e., net profit after tax but before charging depreciation) is a better explanatory variable of dividend behaviour than net profit after tax as proposed by John Lintner. The argument put forward in support of his findings is that depreciation does not involve any real cash outflow and hence depreciation does not decrease capital. So, it should be added back to profit after tax.

The study of Sastry (1966) over the period 1955-60 on Indian corporate sector has pointed out that Lintner's findings are important in Indian corporate sector. The two-stage least square technique has been applied by the author to analyse the interaction between dividend and external finance. However, the study reveals that gross profit after tax is better than net profit after tax as explanatory variable and investment expenditure is negatively associated with dividends.

Rao and Sharma (1971) have taken up a study on applicability of Lintner's model for public limited as well as private limited companies in India. Their study depicts that Lintner's model satisfactorily explains the dividend behaviour of Indian companies. However, when cash flow is used as an explanatory variable in place of net profit after tax, the model provides a better explanation. So, in this study Brittain's model has turned out to be a refined version of Lintner's model.

Krishnamurthy and Sastry (1974) have studied dividend behaviour of public limited companies in India consisting of firms belonging to cotton and textile, jute, sugar, paper and paper board, chemicals, engineering as well as cement sector. The study has clearly shown that investment expenditure and external finance has negligible impact on dividend policy of the firms taken up for the study. In their study, Lintner's hypothesis significantly explains the dividend behaviour of the firms under study. According to authors, the dividend decisions are largely autonomous of investment and external financing decisions and retained earnings are residual in character.

Ojha (1978) has analysed the dividend behaviour of cotton textile industry in India during the period 1960-67. The author opines that dividend has the most powerful impact on share prices and it is almost two times higher than that of retained earnings. The author also states that the basic Lintner's hypothesis provides a good explanation of the dividend behaviour in Indian cotton textile industry.

Khurana (1985) has conducted a study on sixty-eight companies belonging to chemical, electrical goods, sugar, cotton and general engineering industries that were listed in Bombay Stock Exchange during the period from 1962-63 to 1976 – 77. The author estimates the parameters of the Lintner's model to identify and determine their respective significance in the Indian context. The study incorporates share prices, liquidity, investment demand and flow of net debt in the model which have a direct bearing on the dividend decision of the sample companies. The author concludes that Lintner's model captures dividend behaviour precisely than the other models analysed. However, according to the author, among the other determinants, the flow of net debt and the behaviour of share prices have an impact on the dividend decision of the sample companies.

Sharma (1986) has analysed the dividend behaviour of seventy-one Indian companies covering six industries for the period of 1967-68 to 1980-81. The author supports Lintner's model on both short term and long term basis in respect of 50% of the firms studied. According to the author, the dividend policy has been considered as crucial decision and it has a major impact on the investment and financing decision of the firm.

Agarwal (1987) has conducted a study on the Indian automobile industry for a period from 1959-60 to 1978-79. The study has revealed that Indian automobile industry generally follows target pay out ratio and the Lintner's model is not applicable to this industry. According to the author, the sales are the prime mover of financial system and profits are the critical factor when deciding the dividend policy.

Jaidev (1992) opines that the Lintner's hypothesis in the determination of dividends is found to be relevant in the sample companies of the manmade fibre industry for the period 1978-79 to 1987-88. However, in case of Brittain's hypothesis, the author has stated that cash flows have more stable and consistent relationship with dividends rather than earnings.

Mahapatra and Sahu (1993) examine the determinants of dividend policy using the models developed by Lintner (1956), Darling (1957) and Brittain (1966) for a sample of 90 companies for the period from 1977-78 – 1988-89. They find that cash flow is a major determinant of dividend followed by net earnings. The authors conclude that the Brittain's model explains the movement in dividend better than those of Lintner's model and Darling's model.

Jain and Kumar (1997) have conducted a study on 96 listed companies on BSE over the period 1984-1995 and their study discloses that even in the post-liberalization era Lintner's model explains the dividend behaviour of the firms quite well. However, they have found an industry-wide variations so far as the applicability of the Lintner's model is concerned.

Baker, Theodore, and Powell (2001) have made a survey of Nasdaq-listed firms. They have found that the managers of Nasdaq firms generally take dividend decisions consistent with the Lintner's model. They have also found the presence of industry effects on dividend policy decisions.

Anand (2004) has conducted a survey on 81 chief financial officers' (CFOs) from a broad cross section of 474 private sector and top 51 public sector firms to analyse the factors influencing dividend decisions of corporate India. The findings of the study are also in tune with the findings of Lintner's study

Pandey & Bhat (2004) have conducted the first study on dividend behaviour of Indian companies under monetary policy restrictions. The study reveals that macroeconomic policies have an impact on corporate financing decisions. Their findings disclose that restricted monetary policies caused about a 5%-6% reduction in dividend payout ratios. According to their study, monetary policy restrictions affect the availability and cost of external fund relative to internal fund. They have extended Lintner's framework to examine the impact of these restrictions on dividend payout.

George and Kumudha (2006) in a study on dividend policy of Hindustan Constructions Company Ltd. with special reference to Lintner's model have analyzed seventy-eight years (from 1926-27 to 2003-04) dividend history of the company. The study reveals that dividend decision of a firm is always influenced by the requirement of future capital and the amount of equity capital. The analysis of dividend history of the company has shown the applicability of Lintner's model. However, it is also found that Lintner's argument regarding a tendency to increase their dividend rate over a period of time is not supported by the study. This study also mentions the importance of maintaining a steady growing dividend rate for a firm.

Kaushik (2009) has examined the determinants of dividend behaviour of corporate India. For this purpose, the author has employed Dobrovolsky's (1951) model, Lintner's (1956) model, Darling's (1957) model, and Brittain's (1966) model on 332 firms. He concludes that the Lintner's model and Brittain's model work better than that of Dobrovolsky's model and Darling's model in the post-liberalized environment of corporate India.

Das, Samanta and Mazumdar (2010) have tested the dependence of dividend on some well-known factors as proposed by John Lintner and John A. Brittain in the mining and minerals sector in India. The authors conclude that dividend statistically depends on lag dividend for most of the years under study according to Lintner's model and Brittain's model.

Epilogue

From this brief survey of the existing studies on the applicability of different models on dividend policy, it is evident that the Lintner's model and Brittain's model are mostly applied by the researchers. However, the other models are also important to explain the dividend behaviour of different firms. Many theoretical frameworks have been constructed by the eminent experts and empirical studies prove that dividend decision depends on heterogeneous factors. In fact, a particular theoretical model is not successful in analysing dividend behaviour of all firms. There is a countrywide difference in dividend decision due to difference in business environment, regulatory framework, investors' preferences etc. In a particular country dividend decisions vary from time to time and from industry to industry. We find difference in dividend policy even for firms belonging to the same industry. Empirical evidences also show that there is a remarkable change in the dividend policies of the Indian firms in the post-liberalization era.

References:

Agarwal, R.N. Corporate Investment and Financing Behaviour- An Econometric Analysis of Indian Automobile Industry. India, Delhi: Commonweath Publishers, 1987.

Anand, M. "Factors Influencing Dividend Policy Decisions of Corporate India " The ICFAI Journal of Applied Finance (2004): 5-16.

Barker, H. Kent. Veit, E. Theodore. and Powell, Garye. "Factors Influencing Dividend Policy Decisions of Nasdaq Firms." The Financial Review 37 (3) (2001): 19-38.

Bhat, R. and Pandey, I.M. "Dividend Behaviour of Indian Companies Under Monetary Policy Restrictions." Decision (2004):1-20.

Black, F. "The dividend puzzle." Journal of Portfolio Management (1976): 5-8.

Brittain, John A. Corporate Dividend Policy. Washington, D.C.: The Brooking Institution, 1966.

Das,A. Samanta,A. and Mazumdar,M.D. Rediscovering Finance & Banking Ed.James, P.S. et al. New Delhi: Excel India Publishers,2010.

Darling, P.G. "The Influence of Expectations and Liquidity on Dividend Policy." Journal of Political Economy (1957):209-24.

Dobrovolsky, S.P. "Corporate Income Retention(1951)." Economics of Corporate Finance, Delhi: Tata McGraw Hill Pvt. Ltd, 1974.

Fama, E. F. and Babiak, H. "Dividend Policy: An Empirical Analysis." Journal of American Statistical Association(1968): 1132-1161.

George, R. and Kumudha, A. "A study on dividend policy of HCC Ltd. with special reference to Lintner's model."Synergy 4(1) (2006): 85-96.

Jaidev, M. "Determinants of Dividends – Some Empirical Observations." Indian Journal of Finance and Research 2(2) (1992):45-60.

Jain, P.K. and Kumar, Manoj. "Dividend Policy and Practices in Select Corporate Firms of India and South-East Asia: A Comparative Study." Vision (1997):11-20.

Kaushik, K. "Empirical Validity of Dividend Policy Models in the Indian Context." Management Accounting and Business Finance (2009): 24-34.

Khurana, P.K. Corporate Dividend Policy in India. New Delhi: Panchsheel Publications, 1985.

Krishnamurty, K., and Sastry, D.U. "Dividends and External Finance: An Analysis of the Corporate Sector in India." Indian Economic Review, 9(2) (1974): 155- 182.

Lintner, J. "Distribution of Incomes of Corporations among Dividends, Retained Earnings and Taxes." American Economic Review (1956): 97-113.

Mahapatra, R.P. and Sahu, P.K. "A Note on Determinants of Corporate Dividend Behaviour in India-An Econometric Analysis," Decision 20(1) (1993): 1-12.

Mazumdar, H.K. Business savings in India: An Estimate and an Analysis in Relation to Profitability and the Growth of the National Saving Rate. Holland: J.B. Walters Publishing Company, 1959.

Miller, M. and Modgliani, F. "Dividend Policy, Growth and the Valuation of Shares." Journal of Business (1961): 411-433.

Ohja, P.R. Corporate Dividend Policy in Indian Cotton Textile Industry. Allahabad: Kitab Mahal, 1978.

Sastry, V.K. Dividends, Investment and External Financing Behaviour of the Corporate Sector in India: An Econometric Study. University of Pennsylvania: Unpublished Doctoral Dissertation, 1966.

Sharma, Rita. Corporate Financial Policy and Dividend Decisions, India, New Delhi: Deep and Deep Publications, 1986.

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