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Is Dividend Policy An Important Determinant Of Market Performance: Focus On Private Banks Of Bangladesh

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This paper empirically estimates excess stock returns for 26 out of 30 Dhaka Stock Exchange listed private commercial banks in Bangladesh during January 2008 - November 2010. Attempts are made to examine what kind of relationship exists between dividend policy and stock returns of these banks, and to what degree the returns on stocks can be explained by their respective dividend policy for the same period of time. Using statistical measures like, correlation and regression analyses, it is found that a positive correlation exists between dividend policy of commercial banks and their respective market returns in 2008 but with time, the correlation becomes negative. The results also show that in most cases, the variation in returns on stocks cannot be strongly explained by variation in their respective dividend policy by the end of 2010, though the results are different in 2008. Therefore, the findings suggest that perceptions on important determinants of market performance is changing with time in the Dhaka Stock Exchange and that banks should try to detect and control this new set of perceived important determinants in order to increase their market returns.

Field of Research: Corporate Finance

1. Introduction

The economic development of a nation is extensively dependant on its banking system. A strong banking system gives birth to a strong economy. A number of studies have indicated that the banking sector plays a more important role than it was believed earlier (World Bank 1996; Almeyda 1996). Bangladesh Bank is the central bank of Bangladesh and the chief regulatory authority in the sector. However, the commercial banking sector dominates the financial system of the country. This sector is composed of four state-owned commercial banks, five specialized development banks, thirty private commercial banks, and nine foreign commercial banks.

Bangladesh earned its independence in 1971. After the independence, the Government took over and nationalized the banks existing at that time through the Bangladesh Bank Nationalization Order, 1972. In 1975, with the changing time, some of the state principles were replaced from “Socialism” to “Social Welfare”. This led to the denationalization of some nationalized banks and the birth of a significant number of private commercial banks. Denationalized banks started showing better performance after this change in terms of their equity position, deposit-mobilization, loan and advances, and investment of fund both in

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nominal and real terms (Uddin and Quadir 1998, cited by Chowdhury and Ahmed 2009). Private commercial banks have , ever since, been showing a steady growth of employees, branches, loans and advances, deposits, net income, earnings per share till 2006 (Chowdhury and Ahmed 2009). This speedy growth and major contribution of private commercial banks to the economy of Bangladesh have given the author an incentive to study and gain a better understanding of their performances. So far, the performances of these banks have been evaluated on the basis of criteria like net income, earnings per share, employee strength etc. through various researches. This paper wants to see if dividend policy of these banks can reflect their performance, to be more specific, market performance, as well; and hence, whether a private commercial bank can be evaluated on the basis of its dividend policy. The paper, therefore, tests if there is a correlation between dividend policy and market performance of these banks; and if there is, then what type of correlation exists and how strong it is. The objectives of this study are:

i. Estimating weekly excess stock returns of all private commercial banks of Bangladesh listed in the Dhaka Stock Exchange over the period of January 2008 till November 2010.
ii. Determining dividend policies of these banks that are recorded during the period of January 2008 till November 2010.
iii. Examining if a relationship exists between dividend policies and stock returns of the private commercial banks and to what extent, dividend policies can explain stock returns.

The paper first studies existing literature on how dividend policy affects stock prices. The second part of the paper deals with relevant data and methodology used to analyse data. Weekly stock returns of private commercial banks of Bangladesh have been estimated over the period of January 2008 till November 2010. Dividend policies of these banks over the same period have been determined. Statistical measures like the Karl Pearson's coefficient of correlation (r), the coefficient of determination (r^2), and regression analysis have been used to test if a correlation exists between dividend policy and stock prices. The third part presents the findings and conclusion of the analyses.

2. Literature Review

Academic researchers have studied the dividend policy issue extensively. The issue still remains unresolved. Researchers at this time cannot tell corporate decision makers exactly how dividend policy affects stock prices (Besley and Brigham 2008). Miller and Modigliani (1961) developed the dividend irrelevance theory, which holds that a firm's dividend policy has no effect on the value of its stock. Then, there is the dividend relevance theory which holds that the value of a firm is affected by its dividend policy. Some proponents of this theory argue that stock price changes with dividend announcements occur because investors consider these announcements as signals of management's earnings forecasts. Thus, investors are less concerned with the actual dividend and are more concerned with the information content of the dividend announcements. This theory is known as the information content or signaling hypothesis (Besley and Brigham 2008).

There are mainly two types of dividend policies: cash dividend and stock dividend. Private commercial banks of Bangladesh are seen to be following mostly stock dividend policy for the last three years. One reason for following this policy more this year is the implementation of Basel-II framework. Under the Basel-II accord, banks have to comply with the minimum capital required (MCR) at eight percent from January 1, 2010 to June 30, 2010, while a rate of nine percent from July 1, 2010 to June 30, 2011. The MCR had been set at nine percent with the risk-weighted assets of the banks or BDT four billion of total capital, whichever is higher. This has been done to be in line with the international standard. This accord encourages banks to distribute stock dividend rather than cash dividend.

There are four dividend dates that are important to shareholders: declaration date, record date, ex-dividend date, and payment date (Besley and Brigham 2008). Research has been done that show evidence that stocks show relatively high average excess returns on the payment dates of dividend (Ogden 1994). Studies have also shown that stock prices are expected to fall on the ex-dividend date (Yilmaz and Gulay 2006). In Bangladesh, there is a general tendency among investors to hold onto their shares till the record date so that they get entitled for dividend, and then sell it off after the record date. This results in an increase in share supply which might result in price decrease. This paper, therefore, attempts to study excess stock returns on the week of the record dates of the DSE listed private commercial banks in Bangladesh. The study, hence, tests if a correlation exists between dividend policies and stock prices on the week of record dates of the DSE listed private commercial banks.

3. Data and Methodology

This study has been carried out to evaluate the relationship between market performance and dividend policy of selective private commercial banks in Bangladesh that are listed in the Dhaka Stock Exchange (DSE). There are 30 DSE listed private commercial banks in Bangladesh. Out of them, four banks are excluded based on the fact that these banks did not declare or give dividends every year over the period of study. The period of study from January 2008 to November 2010 has been chosen based on the reason that more banks would get excluded from the sample if the study extends further into the past as some of them did not declare dividend before that period. The crash of the Dhaka Stock Exchange in the early part of 2011 prevents the study from extending further into future. The selected 26 banks are: Arab Bangladesh Bank Limited, Al-Arafah Islami Bank Limited, Bank Asia Limited,BRAC Bank Limited, The City Bank Limited, Dhaka Bank Limited, Dutch-Bangla Bank Limted, Eastern Bank Limited, Export Import Bank of Bangladesh Limited, International Finance Investment and Commerce Bank Limited, Islami Bank Bangladesh Limited, Jamuna Bank Limited, Mercantile Bank Limited, Mutual Trust Bank Limited, National Bank Limited, National Credit and Commerce Bank Limited, One Bank Limited, The Premier Bank Limited, Prime Bank Limited, Pubali bank Limited, Shahjalal Islami Bank Limited, Social Islami Bank Limited, Southeast Bank Limited, Standard Bank Limited, Trust Bank Limited, and Uttara Bank Limited. The relevant data and information are collected from the Dhaka Stock Exchange, audited annual reports of different private commercial banks of Bangladesh, and websites of relevant private commercial banks of Bangladesh. Relevant articles and literature in this context have also been consulted.

3.1 Market Performance

The study attempts to understand the market performance of the selected banks by looking into their weekly excess stock returns. In order to calculate weekly excess stock returns, the closing stock market price of each bank on the closing day of each week has been determined over the period of study. The weekly excess stock returns for each bank has, then, been estimated by the following procedure:

$$\textit{Excess stock return for week "i"} = (R_i - R_{i-1})/\, R_{i-1} - R_f$$

where, R_i is closing stock market price in week "i", R_{i-1} is closing stock market price in the week preceding week "i", and R_f is risk free rate of return. Bangladesh central bank discount rate has been taken as the risk free rate of return. This is the annualized interest rate that Bangladesh (Central) Bank charges commercial, depository banks for loans to meet temporary shortage of funds. The rate has been five percent every year over the set period of time. Once weekly excess stock returns for the selected banks over the last three years have been determined, the record dates for dividend for each of the banks are detected. It has been seen that dividends declared for one year are usually recorded some time in the following year. For example, dividends declared by the Arab Bangladesh Bank Limited for the year 2009 were recorded on the 20th of May of the following year ie 2010. The excess stock returns on the week of the record dates are then, separated from the rest of the data, to study the impact of dividend policy on market performance.

3.2 Dividend Policy

All dividends declared by the selected banks for the years 2007 to 2009 have been taken into consideration. Dividends for a particular year are declared and recorded in the following year. For example: dividends for the year 2007 are declared and recorded in 2008. It has been found that most of the banks in most of the times have declared stock dividend. There were 13 cases out of 78, when banks declared cash dividend along with stock dividend. The banks claim that the amount of dividend declared is based on their net profit. Cases where there are both cash and stock dividend, the rates of each dividend are added up to come to a single value. For example: the Arab Bangladesh Bank Limited declared cash dividend of 20% and stock dividend of 25% for the year ended 2009. These two rates are added up to come to a single value of 45% for ease of analysis.

For evaluating the relationship between market performance and dividend policy of the selected DSE listed private commercial banks in Bangladesh, data have been analyzed through various statistical measures like the Karl Pearson's coefficient of correlation (r), the coefficient of determination (r^2), and regression analysis.

4. Empirical Findings

The summary statistics of the dividends of the selective DSE listed private commercial banks from 2007 to 2009 have been reported below in Table 1. It can be seen from the table that the average dividend of banks for 2007, 2008, and 2009 are 50.93%, 29.17% and 32.11% respectively. It is also evident that dispersion relative to the mean in dividend is the highest in 2007, which decreases over time as the coefficient of variation suggests. The highest dividends in 2007, 2008, and 2009 are 395%, 100%, and 55% respectively, which reflect a decline with time. The opposite is observed in the lowest dividend figures over the period where an increase with time is evident.

Table 1: Descriptive Statistics of Dividend Declared by 26 DSE Listed Private Commercial Banks in Bangladesh for years 2007 – 2009

Measures	***Dividend-07***	***Dividend-08***	***Dividend-09***
Count	26	26	26
Mean	0.509286	0.291731	0.321088
Median	0.25	0.25	0.31
Mode	0.25	0.3	0.3
Sample variance	0.657605	0.02927	0.010575
Sample standard deviation	0.810929	0.171084	0.102834
Minimum	0.07	0.1	0.11
Maximum	3.95	1	0.55
Range	3.88	0.9	0.44
Skewness	3.545224	3.116792	0.289197
Kurtosis	13.71206	11.95727	0.001275
Coefficient of variation	1.592286	0.586446	0.320267

This study attempts to determine the degree of association or the strength of the relationship between dividend policy and excess stock returns of DSE listed private commercial banks in Bangladesh. Table 2 and Table 3 report the results of correlation and linear regression analysis, respectively, between dividend and excess stock returns on the weeks of dividend record dates of 26 DSE listed private commercial banks in Bangladesh considering the period between January 2008 and November 2010.

Table 2: Correlation Matrix between Dividend and Excess Stock Returns of 26 DSE Listed Private Commercial Banks in Bangladesh over the Period of 2008-2010

	Dividend-07	**Dividend-08**	**Dividend-09**
Excess Stock Return-08	**0.499**		
Excess Stock Return-09		**- 0.301**	
Excess Stock Return-10			**-0.118**

It is observed that a positive correlation exists between dividend and excess stock return in 2008. The correlation, however, becomes negative in 2009 and continues to be so in 2010. The association between the variables is moderately strong in 2008, which further loses in strength with time. The results suggest that the relationship between the concerned variables becomes negative from positive with time and is always statistically insignificant.

Table 3: Regression Analysis between Dividend and Excess Stock Returns of 26 DSE Listed Private Commercial Banks in Bangladesh over the Period of 2008-2010

Year	Estimated Regression Equation	R-Sq	F	*P*-Value
2008	Excess Stock Return-08 = – (0.0614) + (0.0557) Dividend-07	24.92%	7.96	0.009
2009	Excess Stock Return-09 = – (0.0182) – (0.1323) Dividend-08	9.05%	2.39	0.135
2010	Excess Stock Return-10 = – (0.1061) – (0.1288) Dividend-09	1.40%	0.34	0.565

The estimated regression equations are reported in Table 3. It can be seen that the estimated regression coefficients are statistically insignificant (close to 0) over the years at 5% level of significance. In addition it is found that 24.92% variation in excess returns of the stocks can be explained, or accounted for, by the variation in the dividend policy in 2008 which reduces to only 1.4% in 2010. It is also observed that F is significant in 2008 (7.96), therefore regression equation helps to understand the relationship between dividend and excess stock return. However, F becomes insignificant with time, dropping to as low as 0.34 in 2010. Besides, in 2008, there is no more than a 0.9% chance of rejecting null hypothesis when it is true, thus the association between dividend and excess stock return is statistically significant. However, it increases over time to 56.5% in 2010, hence increasing the chance of rejecting null hypothesis when it might be true.

From the findings, it is seen that dividend policy is losing its strength in explaining the market returns of the banking stocks. This is an indication that dividend irrelevance theory is persisting in the capital markets of Bangladesh.

5. Conclusion

The paper has estimated weekly excess stock returns for 26 out of 30 private commercial banks of Bangladesh that are listed in the Dhaka Stock Exchange over the period of 2008 to 2010. The strength of the relationship between the dividend policy and the estimated excess stock return on the week of the dividend record date is examined. Though there is a moderately strong positive relationship between the two variables in 2008, the relationship becomes negative and less significant over time. This proves that variables other than dividend policy are gaining momentum in influencing stock returns in the capital markets of Bangladesh. Further studies could be done to identify these variables and to measure their impact on stock returns so that the private commercial banks in Bangladesh are able to control their market performance and thus contribute to the building of a more efficient capital market in Bangladesh, which in turn, will help build up a growing healthy economy.

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