

DETERMINANTS OF DIVIDEND PAYOUT POLICY: AN EMPIRICAL STUDY OF BANKING SECTOR OF PAKISTAN

Ishtiaq Ahmad - Muhammad Fahid Muqaddas

University of Debrecen, Faculty of Economics & Business
e-mail: ishtiaqnuml@gmail.com

Abstract: One good way to communicate financial performance of a bank to its shareholders is the payment of dividend. The present study is attempted to explore the influence of financial efficiency, safety, risk and profitability on dividend policy using panel data of 10 commercial banks listed at Pakistan Stock Exchange (PSX) for a period of 9 years between 2006 to 2014. The panel regression technique is used to analyze the data. The analysis shows a positive relationship of dividend payout ratio with safety and profitability in banking sector of Pakistan. The study identifies a negative association of dividend payout measure with financial efficiency and risk. The results show the statistically significant association of safety, risk and profitability with dividend payout ratio. Based on these findings it is concluded that safety, risk and profitability measures are relatively strong measures for defining dividend policy. The results are strongly indicating that safer the banks, the greater payout ratio the bank has. Moreover; banks with higher profitability and lower non-performing loans (NPLs) are believed to pay more dividends.

Keywords: Dividend payout, financial efficiency, risk, investment to total assets and profitability (JEL code: G21, G23, G35)

INTRODUCTION

Dividend is an income paid to the shareholders from the company's earning, decided by the board of directors. Dividend per share is the amount received per share. The percentage of earnings paid out as dividends is called the dividend payout ratio. The dividend payout policy determines the pattern of stockholders' earnings distributions. This research paper tries to find the determinants of the dividend payout policy in banking industry of Pakistan. Banking industry is the backbone of the economy of a country and all the banks in Pakistan are listed at Pakistan stock exchange. The study has investigated those listed banks which pay dividends more frequently. The most important determinants of dividend payout in banking industry of Pakistan are financial efficiency, safety, risk and profitability.

It is evident that dividend payout policy is an important decision taken by the board of directors. Therefore, there is a great need to explore the core determinants of the dividend payout policy in banking industry of Pakistan.

It is very important for a public limited company to determine the influential factors of the dividend payout policy.

The shareholders have great expectations from the dividends that they receive.

The first aim of the research is to determine the most important factors of dividend payout policy in the banking sector of Pakistan. Secondly, to investigate the relationships among dividend payout and its determinants which are:

- Financial efficiency,
- Safety,
- Risk and
- Profitability.

This research study will help the board of directors of the listed companies especially the banks for rationalization of their dividend policy. Hence this study is useful to understand the determinants of dividend payout policy and could help the board of directors making dividend decisions. An improved understanding of the influential factors could assist the decision makers to determine an effective dividend payout policy.

The results of this study can increase the chances of an effective decision making about the dividend payout policy to effectively target their investors (i.e. stockholders) and to better compete with the competing listed companies.

LITERATURE REVIEW

Different researchers have published diverse findings regarding dividend. Miller and Modigliani (1961) who were considered pioneers in the study of dividend payout policy identified that there is no relationship between market value of a firm and dividend payout policy. They found that firm market value does not depend on dividend payout policy. At the same time many of other researchers came to quite contrasting results. According to Gordon (1963) the firm can raise its market value by paying dividends. Dividend payout provides information to investors about the efficiency of the firm in terms of profits and investment opportunities (Alli et. al, 1993).

Lintner (1962) found that the dividend payouts can positively change the firm market value. Whereas Litzenberger and Ramaswamy (1979) identified that by increasing the dividend the firm value is decreased. Glen et al. (1995) also found that the demand of the share increases due to high dividend payout which also increases the share price of the firm.

Dybvig and Zender (1991) found that as, dividend payout ratio depicts the return on investment for shareholders and a dividend payout ultimately results into a benefit to the shareholders therefore, dividend payout prevents the firm from the agency problem. The notion that dividend payout ratios can prevent agency problem is also supported by other researchers for instance, Easterbook, (1984) argued that the agency problem can be reduced when the company has to pay dividend even it does not have enough profits, in such case the lenders will act as monitoring units and hence exerting a monitoring pressure over the management of a firm. Similarly, Jensen (1986) states that the amount distributed in the form of dividends refrains the management from spending it in activities that best suits them, ultimately preventing the agency problem.

Farrelly and Edelman (1986) found an interesting relationship between payment of dividend and expected level of future earnings. First of all, dividend payment depends on the future earning both are positively correlated and level of earnings supports the decision of board of directors in designing dividend policy. Dividends act as a source of information regarding the future earnings of the firm. Therefore, a decline in dividend payout represents an increase in retain earnings for any future investments or conversely, where the firm is relatively uncertain about its future earnings, then it has to cut the dividend payout. Pruitt and Gitman (1991) described that the dividend payout is determined on current and future profits. Huda and Farah (2011) found that dividend payout decision in banking industry is dependent upon income, earnings per share, cash and retained earnings.

Marfo-Yiadom and Agyei (2011) found that dividend payout policy in the banking sector of Ghana is based on profits, collateral capacity, leverage, and growth rate. Al-Malkawi (2007) and Fama and French (2001) linked the dividend payout with size of firm, profits, growth. Lintner (1956) concluded that dividend payout decision is determined by the present year earnings.

Lee (2009) stated that dividend is dependent upon profit and risk in Korean banking sector. Deshmukh et al. (2013) confirmed that the increase in debt decreases the dividend payout. It's quite logical that debt financing increases interest cost which eventually decreases profit and dividend payments. Lie (2005) also found that firm's ability to pay dividend decreases due to debts; it reduces the availability of free cash flow. Kania & Bacon (2005) explored that dividend payout ratio is dependent on profits, growth, risk, liquidity, ownership control and planning for expansion.

Ho (2003) concluded that risk has negative impact on dividend payout in Japan but also depended on profit, size, liquidity, leverage, asset mix. Aivazian et al. (2001) also confirmed that dividend payout is affected by debts and risk. The underlying risk with debt is nonperforming loans. The nonperforming loans negatively affect the interest income of banks. Gill et al. (2010) found that dividend payout is based on sales, profit, tax and debts to equity ratio. Al-Kuwari (2009) also concluded that the dividend payout is positively correlated with size and negatively associated with leverage ratio. Berger and DeYoung (1997) confirmed that performance of bank is related to asset quality (loan management) which leads to dividend payout decision.

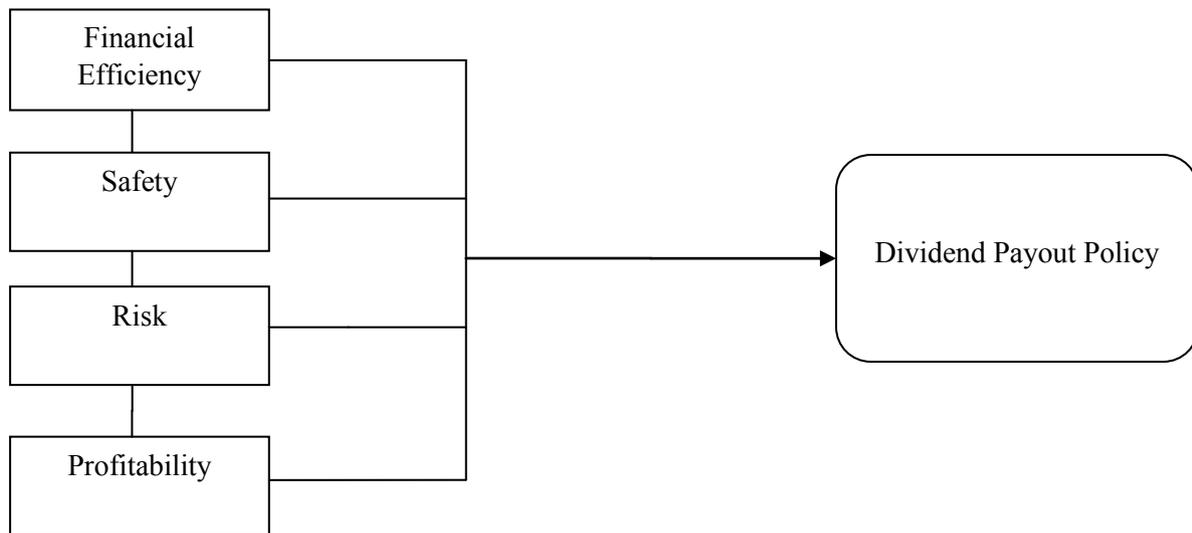
Masood (2009) reported that NPLs is a problem for every bank in the world; it is not only affecting the profitability of banks but also the economic conditions of the country. This situation is more critical in underdeveloped countries; similar in Pakistan. Banking sector in Pakistan is facing destructive problems because of NPLs. It's badly affecting the balance of interest payments and interest incomes.

Jabbouri (2016) found that current profitability, liquidity and size have significant positive association with the dividend distributions. McCann et al. (2012) observed that current ration, leverage ratio, liquidity ratio, ratio of loan to total assets and profitability ratio are the main determinants of loan defaults. They reported that chances of loan default depend on the size of firm; if the firm is getting larger in size the loan default decreases.

RESEARCH METHODOLOGY

The relationship between dividend payout policy and independent variables has been examined by applying statistical tools. The present study has used STATA 11 for data analysis. Commonly, fixed effect and random effect models are used for panel data analysis. The STATA is used for fixed effect and random effect analysis to see the impact of independent variables on dependent variable. The study objective is to underline the key variables that help the banking sector in determination of dividend payout policy. The dividend payout ratio is used as a dependent variable and mainly four independent variables are used (i) financial efficiency (ii) safety (iii) risk (iv) profitability. The panel regression technique is used. More, correlation analysis is also applied.

Research Model



Dependent Variable

Dividend payout ratio serves here as the dependent variable. Dividend is distributed from the profit of the bank. It is expected that banks with better loan management and higher revenues have higher dividend payout ratio. Generally, the matured banks those who have limited investment opportunities pay more dividend as compared to growing banks; because they have to invest in newly available investment opportunities. The growing banks prefer to retain more profit, the rationale behind it to avoid external financing. Internal financing helps to increase the average price of current shares hence maximizing the worth of existing shareholders.

$$\text{Dividend payout ratio} = \text{dividend per share} \div \text{earnings per share}$$

Independent Variables

Interest Ratio: This ratio indicates the interest payment to the depositors in relation to the amount of interest earned from the borrowers. In banking sector the interest is the primary source of revenue and expense. A higher interest ratio in the form of the higher interest expense indicates a declining profits and hence resulting into a lower dividend payout ratio or conversely, a decreased interest earned also have the same consequences in the form of declining dividend payout ratio. This ratio indicates the risk of a bank; whether bank is capable to pay interest to its depositor or not? The lower the ratio; the less burden on bank for interest payments. Interest ratio acts as financial efficiency and a risk measurement tool for banks. The interest payments are negatively correlated with dividend payout.

$$\text{Interest ratio} = \text{Interest paid} \div \text{Interest Earned}$$

Investment to Total Assets/Safety: It is expected that the banks with greater investment opportunities in securities and other portfolios will have more revenues in form of interest

and dividend at a given market risk. This will enable the banks to pay more dividend to their shareholders. Banks with safer investment are generally considered to pay more dividends. Investment to total assets is considered as a safety measure for the reward of shareholders. Therefore, it is expected to have a positive relationship between investment to total assets and dividend payout ratio.

$$\text{Investment to total assets} = \text{investment} \div \text{total assets}$$

Nonperforming loans (NPLs) to gross Loans: A nonperforming loan is that part of borrowed money against which the debtor is not in a position to pay it. A nonperforming loan is either in default or going to be in default. But banks can easily evaluate the amount of NPLs on the bases of past experience, financial condition of borrower and prevailing economic conditions in the country. Banks prefer to use factoring for their NPLs, they sell their receivables either to receive the lend money in advance or transferring the risk to other institutions to avoid insolvency. Increasing NPLs amount is a sign of red flag for banks. This ratio indicates the ability of a financial institution in managing its credit risk. The lower nonperforming loan to asset ratio is considered to represent the higher safety and lower risk. NPLs to gross advances is termed as risk of the bank. A negative relationship is expected between bank dividend payout policy and risk.

$$\text{NPLs to gross advances} = \text{NPLs} \div \text{gross advances}$$

Return on assets: Return on assets (ROA) is a measure of profitability. It determines the efficiency of the banks; how well they have utilized their assets to produce profits? The higher ROA indicates the management efficiency of using resources. A positive relationship is expected between ROA and dividend payout.

$$\text{Return on Assets (ROAs)} = \text{Net profit after tax} / \text{Total Assets}$$

HYPOTHESES

H₁:-Interest payments do not have significant influence on dividend payout policy.

H₂:-Investment has no significant influence on dividend payout policy.

H₃:-NPLs do not have any significant influence on dividend payout policy.

H₄:-Profitability has no significant influence on dividend payout policy.

Data Analysis

The panel regression is applied to panel data to see the impact of each independent variable on dividend payout ratio. As per the criteria of Hausman Test ($p \leq .05$), the value of p .0232; thus, the fixed effect model is accepted. A fixed effect model refers to time independent effects for each category, possibly associated with the regressors in a regression model. The results are statistically significant in case of fixed effect model. The results regarding correlation and panel regression analysis are presented in table 2 and table 3 respectively. Financial efficiency and risk have lower degree of strength of relationship but both are negatively correlated with dividend payout ratio. Safety has a high degree of strength with dividend payments and it is positively correlated with payout ratio. Profitability has a moderate strength of relationship with dividend payout policy.

On the basis of results it is reported that financial efficiency i.e. measured in the form of interest ratio has negative (-22.010) association with payout ratio and it is statistically insignificant (t -0.76 & p -value=0.449) at confidence level of 95%. A p -value represents our chances of being wrong about the estimates while t -statistics shows the proportionate relation between sample and population mean.

The coefficient on investment to total assets (safety) shows a significant positive relationship (82.33 & $p < 0.01$). Banks with greater safe investment opportunities are considered to be safer, especially investment in securities is giving hope for expected future dividend payments. Investment in securities has a positive sign for dividend payments; when banks are investing in debt and equity securities, in return they will receive interest and dividend incomes. These two sources of income will make banks financially healthy and more availability of free cash flow (FCF), then same FCF will be used to pay off dividend to shareholders.

Non-performing loans has negative (-79.065) association with dividend payout ratio; and it is statistically significant (t -2.31) effect on dividend payments. Non-performing loans is a measure of risk; it shows the capacity of debtors to pay off contractual interest plus principal payments to concerned banks. In other words, it evaluates the efficiency of banks in finding out the financially sound customers. The management of loans is crucial for banks survival. Rising amount of NPLs is a sign of bankruptcy and decreases the amount of profit for banks. It is believed that banks with lower ratio of NPLs to gross advances/loans are safer and less risky. The

dividend payments are not independent of NPLs to gross advances; as the higher ratio the lesser dividend payments to shareholders. As per the guidelines of SBP for commercial banks & DFIs the bank must make an assessment of risk profile of customer or transaction, this may include (i) the objective of taking credit and what is the source of repayment (ii) repayment history of borrower (iii) credit assessment of borrower's industry and macroeconomic indicators (iv) proposed protective covenants (v) evaluate the capacity of repayment of debt-interest payments plus principal payments (vi) adequacy and enforceability of collaterals in case of default.

The profitability has a statistically significant (t 2.11) impact on dividend payout policy. The tendency of paying dividend might be different in growing and matured banks. The growing banks will prefer to use profit as retained earnings to avoid external financing. In other words profitability helps the bank to increase the wealth of current shareholders in the long run by avoiding the issuance of new shares or bonds. But matured firms use profitability to pay dividend and to increase the wealth of shareholders. Gieseche (2004) reported that profitability and risk management together affect the payout policy; a good management of credit risk is an indicator of sound financial position.

CONCLUSION

The study determines positive relationship between dividend payout policy and safety and profitability measures in Pakistan's banking sector considering data for 9 years 2006-2014. A negative (insignificant) interaction is observed between dividend payout ratio and financial efficiency while a significant negative relationship was noted for dividend payout ratio and risk measures. The loan defaults negatively affects the interest income in the form of decreased profitability and hence low dividend payments, which ultimately increases the risk for commercial banks in Pakistan.

However, findings show a statistically significant association in case of safety, financial efficiency and profitability with dividend payout ratio. The significantly positive coefficient on (investment to total assets) and significantly negative coefficient (NPLs to gross advances) shows that trend of banks with higher safety and lower non-performing loans to pay more dividends is more stronger as the banks have higher return on assets.

From the data of ten Pakistani commercial banks during 2006-2014; we found that results are consistent with prior research that banks with better performance or profitability in general pay more dividend. In addition, we found statistically significant results that safer banks pay more dividends.

Table 1:

Summary of testable predictions

Characteristics	Variables	Predicted relationship
Financial Efficiency	Interest ratio = Interest expense / interest income	Negative relationship
Safety	Investment to total assets = Investment/total assets	Positive relationship
Risk	NPLs = NPLs / Gross advances	Negative relationship
Profitability	ROA = Net profit after tax /Total assets	Positive relationship

Table 2:

Correlation between dependent and independent variables

Correlation with dividend payout ratio	
Financial Efficiency	-0.06
Safety	0.55
Risk	-0.21
Profitability	0.31

Table 3:

Regression Coefficient Estimates

	Dividend payout coefficients	P-value	T-statistics
<i>Intercept / Constant</i>	4.519	.727	.35
<i>Financial Efficiency</i>	-22.010	0.449	-0.76
<i>Safety</i>	82.33	.000	5.22***
<i>Risk</i>	-79.065	.024	-2.31*
<i>Profitability</i>	.595	.038	2.11*
R-square	.4558		
F-significance	15.91		

Note: ***, ** and * denote significance at the 1, 5 and 10 percent level.

REFERENCES

- Aivazian, V., Booth, L., & Cleary, S. (2001). Do Firms in Emerging Markets Follow Different Dividend Policies From Those in the US: Evidence From Firms in Eight Emerging Countries. Working Paper.
- Al-Kuwari, D. (2009). Determinants of the Dividend Policy of Companies Listed on Emerging Stock Exchanges: The Case of the Gulf Cooperation Council (GCC) Countries. *Global Economy & Finance Journal*, 2(2), 38-63.
- Alli, K. L., Khan, A. Q., & Ramirez, G. G. (1993). Determinants of corporate dividend policy: A factorial analysis. *Financial Review*, 28(4), 523-547.
- Al-Malkawi, HN (2007), Determinants of corporate dividend policy in Jordan: an application of the Tobit model, *Journal of Economic & Administrative Sciences*, Vol. 23, No.2, December pp.44-70.
- Awan, A. G., Nadeem, N., & Malghani, F. S. CAUSES OF LOAN DEFAULTS IN PAKISTANI BANKS: A CASE STUDY OF DISRICT DG KHAN.
- Bhattacharya, S. (1980). Non dissipative signaling structures and dividend policy. *Quarterly Journal of Economics*, 95(1), 1-24.
- Berger, A. N., & DeYoung, R. (1997). Problem loans and cost efficiency in commercial banks. *Journal of Banking & Finance*, 21(6), 849-870.
- Deshmukh, S., Goel, A. M., & Howe, K. M. (2013). CEO overconfidence and dividend policy. *Journal of Financial Intermediation*, 22(3), 440-463.
- Dybvig, P. H., & Zender, J. F. (1991). Capital structure and dividend irrelevance with asymmetric information. *Review of Financial Studies*, 4(1), 201-219.
- Easterbrook, F. H. (1984). Two agency-cost explanations of dividends. *The American Economic Review*, 74(4), 650-659.
- Fama, EF and French, KR 2001, „Disappearing dividends: Changing firm characteristics or lower propensity to pay? *Journal of Financial Economics*, Vol 60(1), pp.3-43.
- Farrelly, GE, Baker, KH and Edelman, RB 1986, 'Corporate Dividends: Views of the Policy Makers,' *Akron Business and Economic Review*, Vol. 17, No.4, pp. 62-74
- Gieseche, K. (2004). "Credit Risk Modeling and Valuation: An Introduction", *Credit Risk: Models and Management*, Vol.2, Cornell University, London.
- Gill, A., Biger, N., & Tibrewala, R. (2010). Determinants of dividend payout ratios: evidence from United States. *The Open Business Journal*, 3(1).
- Glen, J. D., Karmokolias, Y., Miller, R. R., & Shah, S. (1995). Dividend policy and behavior in emerging markets: To pay or not to pay. *The World Bank*.
- Gordon, M. J. (1963). Optimal investment and financing policy. *The Journal of finance*, 18(2), 264-272.
- Ho, H. (2003). Dividend policies in Australia and Japan. *International Advances in Economic Research*, 9(2), 91-100.
- Huda, F., & Farah, T. (2011). Determinants of dividend decision: A focus on banking sector in Bangladesh. *International Research Journal of Finance and Economics*, 77(1).
- Jabbouri, I. (2016). Determinants of Corporate Dividend Policy in Emerging Markets: Evidence from MENA Stock Markets. *Research in International Business and Finance*.
- Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *Corporate Finance, and Takeovers. American Economic Review*,76(2).
- Kania, S. L., & Bacon, F. W. (2005). What factors motivate the corporate dividend decision. *ASBBS E-Journal*, 1(1), 97-107.
- Lee, S. W. (2009). Determinants of dividend policy in Korean banking industry. *Banks and Bank Systems*, 4(1), 67-71.
- Lie, E. (2005). Financial Flexibility, Performance, and the Corporate Payout Choice*. *The Journal of Business*, 78(6), 2179-2202.
- Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *The American Economic Review*, 46(2), 97-113.
- Lintner, J. (1962). Dividends, earnings, leverage, stock prices and the supply of capital to corporations. *The review of Economics and Statistics*, 243-269.
- Litzenberger, R. H., & Ramaswamy, K. (1979). The effect of personal taxes and dividends on capital asset prices: Theory and empirical evidence. *Journal of financial economics*, 7(2), 163-195.
- Marfo-Yiadom, E and Agyei, SK (2011), 'Determinants of Dividend Policy in Ghana', *International Research Journal of Finance and Economics*, Issue 61, pp.99-108
- Masood,O.,(2009) "Determinants of Non-performing Bank loans and bank loan recovery in Pakistan: A survey approach., *Euro-Mediterranean Economics and Finance review*. 89- 104.
- McCann, F., & McIndoe-Calder, T. (2012). Determinants of SME loan default: the importance of borrower-level heterogeneity (No. 06/RT/12). *Central Bank of Ireland*.
- Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *the Journal of Business*, 34(4), 411-433.
- Myers, S. C. (1984). The capital structure puzzle. *The journal of finance*, 39(3), 574-592.
- Pruitt, SW and Gitman, LW (1991), 'The interactions between the investment, financing, and dividend decisions of major US firms', *Financial Review*, Vol. 26, No.33, pp.409-30.