

**DIVIDEND POLICY AND FIRMS' PERFORMANCE: A CASE OF LISTED
BANKS IN GHANA**

BY

**OPPONG FOSU KENNEDY
(BSC.BUSINESS ADMINISTRATION, ACCOUNTING OPTION)**

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ABSTRACT

The study examines whether dividend policy influences banks performance in Ghana.

The choice for the study stems from the pivotal role banks play in the financial development of the economy and hence if not given the critical look could lead to spiralling adverse effects on the other sectors of the economy in which case studies in this area have not received much attention in Ghana.

The analysis have been performed using data derived from the financial statements of listed banks on the GSE, BoG and GSS during the most recent ten year period on which data were easily accessible.

Stata version 13 was used to estimate the regression results. The results show positive relationships between return on equity and dividend policy. The results further reveal that bank size, CEO duality banks age of listing since IPO, capital adequacy and growth in sales revenue are significant determinants of banks performance in Ghana.

Surprisingly, inflation and leverage proved insignificant in determining banks performance for the present study.

As way of robustness check, the Tobin's q calculated as the ratio of market value of equity to their book values, could not also fail to provide consistent results for the study. The study thus supports previous studies.

It is recommended that banks devote critical attention to the creation of an ideal and sustainable dividend policy specifically, adopting steadily increasing dividend policies whilst curtailing agency problems and other suboptimal decisions to shareholders in order to ensure enhancement in banking performance.

DEDICATION

I dedicate this work to my beloved father, Nicholas Fosu, for his parental role towards my education.

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CHAPTER ONE

INTRODUCTION

1.0 Background information

The most commonly accepted aim of a firm is to maximize the value of the firm and the wealth of its stock holders (Ali and Chowdhury, 2010: 52). In general, there are three types of financial decisions that could have an impact on the value of the firm. These are investment decisions, financing decisions and dividend decisions (Uddin and Chowdhury, 2005).

These three decisions are linked to each other in series. Investments made by a firm determine the future gains and potential dividend amount of the firm. The policy of dividend distribution determines the equity capital rate within the capital structure of the firms; therefore, capital cost is being influenced as well. The aim of these interrelated decisions is maximizing the wealth of the stock holders. (Fong et al., 2007: 98).

The widely held view that dividend policy has an impact on the firm performance has led to increasing global attention. Ghana a developing economy is not immune to these developments.

The issue of dividend policy is a very important one in the current business environment. Dividend policy is the regulations and guidelines that a company uses to decide to make dividend payments to shareholders (Nissim & Ziv, 2001). The dividend policy decisions of firms are the primary element of corporate policy and have been an issue of interest in financial literature over the past decades. Dividends are commonly defined as the distribution of earnings (past or present) in real assets

among the shareholders of the firm in proportion to their ownership. It is basically the benefit of shareholders in return for their risk and investment and is determined by different factors in an organization.

Basically, these factors include financing limitations, investment chances and choices, firm size, pressure from shareholders and regulatory regimes. Dividend policy connotes to the pay-out policy, which managers pursue in deciding the size and pattern of cash distribution to shareholders over time. Managements' primary goal is shareholders' wealth maximization, which translates into maximizing the value of the company as measured by the price of the company's common stock. This goal can be achieved by giving the shareholders a "fair" payment on their investments. However, the impact of firm's dividend policy on shareholders wealth is still unresolved.

1.1 Research gap and problem statement

The area of corporate dividend policy has attracted attention of management scholars and economists culminating into theoretical modelling and empirical examination. Thus, dividend policy is one of the most complex aspects in finance. Three decades ago, Black (1976) in his study on dividend wrote, "The harder we look at the dividend picture the more it seems like a puzzle, with pieces that just don't fit together".

Why shareholders like dividends and why they reward managers who pay regular increasing dividends is still unanswered. According to Brealey and Myers (2002) dividend policy has been kept as the top ten puzzles in finance.

The most pertinent question to be answered here is that how much cash should firms give back to their shareholders? Should corporations pay their shareholders through dividends or by repurchasing their shares, which is the least costly form of pay-out from tax perspective? Firms must take these important decisions period after period

(some must be repeated and some need to be revaluated each period on regular basis).

It is on this premise that the present study is built.

Besides, the pattern of corporate dividend policies not only varies over time but also across countries, especially between developed, developing and emerging Capital markets. If the value of a company is the function of its dividend payments, dividend policy will affect directly the firm's cost of capital. But is there any significant relationship between dividend policy and corporate performance in form of Profitability (ROE)? This is the question this research study intends to answer.

Even though, there have been a number of studies on dividend policy especially in developed countries. Most of the studies examined dividend policy in general without focusing on a particular sector. Also, most of the literature on dividend policy used data from non-financial institutions, with very few on financial institutions.

In Ghana, studies on dividend policy have been limited to: the determinants of dividend pay-out ratios of listed firms (Amidu and Abor, 2006), how does dividend policy affect performance of the firm on Ghana Stock Exchange? (Amidu, 2007) and dividend policy and share price volatility (Asamoah, 2010).

Nonetheless, none of these researchers devoted his study wholly to banks. Marfo (2010), had it right though, but narrowed his findings to only commercial banks whereas Ghana has witnessed and keeps on witnessing the proliferation of varied banks over the past decade. This study again seeks to fill the gap by expanding the horizon to incorporate other varied banking institutions listed on the Ghana Stock Exchange whilst focussing on the most recent ten year period on whose data are easily attainable.

The choice for the selected banks stems from the pivotal role they play in the financial development of the economy and hence if not given the critical look could lead to spiralling adverse effects on other sectors of the economy.

1.2 Significance of the study

Unanimity exists on the fact that dividend policy and dividend pay-outs are not only most important from the viewpoint of the company but also from that of the shareholders, consumers, workers, regulatory bodies, government etc. “The relative importance of this policy stems from the fact that it is a pivotal policy around which other financial policies rotate, hence, central to the performance and valuation of firms”, Bebczuk, (2004).

To the shareholder, this study would enable him or her to decide whether to accept dividend or capital gain as a way of enhancing wealth or creating value.

To the regulatory bodies, this work will enable them regulate the actions of bankers in overcoming agency problem as posited by (Easterbrook 1984).

To the government, in satisfying itself against the principle and canon of equity, whether to adjust the tax rate in consonance with banks performance in order to enhance efficiency in tax collection for revenue mobilisation.

Furthermore, by contributing to the available literature in the field, the study would serve as reference point to policy makers, researchers and other stakeholders in their quest to formulate policies and regulations to improve the operations of banking institutions.

1.3 Research objectives

- (i) The main objective of this study is to empirically examine whether there is any significant relationship between banks' dividend policy and their performance (ROE).
- (ii) The secondary objective of the study is to determine the impact of dividend policy on banks ROE.

1.4 Research questions

- (i) Is there any significant relationship between banks dividend policy and banks ROE?
- (ii) To what extent does dividend policy of banks affect their performance (ROE)?

1.5 Research hypothesis

- (i) There is no significant relationship between banks' dividend policy and their ROE
- (ii) Dividend policy of banks has no impact on the ROE of banks

1.6 Scope of work

The objective of the study was to ascertain the relationship between dividend policy and banks performance as measured by its ROE. The study examined whether dividend policy influences bank's performance in Ghana.

Banks that have been listed on the GSE would be considered for the analysis gathering data on them over the most recent ten year period (2013-2004). Listed companies are considered here thanks to their *credibility* and the ease with which data would be attainable, cost, time and other resource constraints relative to non-quoted firms. The results thereof form the general conclusion of the banking industry.

The data was derived from the annual reports of listed companies on GSE. The GSE data would also consist of Balance Sheet, Income Statements, Financial ratios and other relevant information for all publicly quoted companies. The data is available on Compact Disks (CDs) from the year 2004 to 2013.

The study used accounting measure of performance, Return on Equity (ROE) as the dependent variable whereas dividend per share was used as the measure of dividend policy in line with Hashim (2013). As a way of checking for consistency of results and findings the Tobin's q was employed to aid in such regard. This has been calculated as the ratio of market value of equity to their book values.

1.7 limitation of the study

Every research work is faced with some kind of challenges and this work was not an exception. An important limitation to this work is the period for which the data was sampled. This study consists of utilization of the data belonging to the period of 2004-2013.

Thus the results are constricted to be valid only within its period and may possibly not be generalized. More research is therefore needed on "normal" times. The inclusion of only listed banks outside the financial sector and the usage of 2 performance indicators also remain contentious. Future studies could analyse the influence of dividend distribution policies of the firms on their performances by making an industrial differentiation.

Another anticipated challenge which posed a threat to the exhaustive study of the topic was the fear of disclosing or reporting key/relevant information by the Banks, hence limiting the required information needed for the study

1.8 Organisation of the report

This study consists of five sections. Second section found right after the introduction summarizes the studies measuring the relation between dividend policies and financial performance. Third section develops hypotheses after defining the variables and the methodology of the study. Forth section consists of regression results and a general assessment of the study. The last section also deals with the summary, conclusion and recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on previous studies done by various authors in relation to dividend policy and firm performance. The section discusses the key theoretical considerations from previous studies to inform the general and specific objectives developed for this study, that is, dividend policy and firm performance; extend of their relationship; factors that affect dividend policy and forms of dividend policy used by listed firms.

Many studies are observed to be present concerning the dividend policies when reviewing the literature. But majority of these studies are focused on the factors determining dividend payments. Moreover, there is scarcely any empirical study measuring the influence of dividend payments on financial performance. This section will lay down the summaries of the studies analysing the relation between dividend payments and firm value, banks; financial performance or its profitability (ROE).

2.1 Theoretical Framework

2.1.1 Agency theory

The agency cost theory suggests that, dividend policy is determined by agency costs arising from the divergence of ownership and control. Managers may not always adopt a dividend policy that is value-maximizing for shareholders but would choose a dividend policy that maximizes their own private benefits. Making dividend pay-outs which reduces the free cash flows available to the managers would thus ensure that managers maximize shareholders' wealth rather than using the funds for their private

benefits (DeAngelo, H., & DeAngelo, L., 2006). In the process of attracting new equity, firms subject themselves to the monitoring and disciplining of these markets.

Agency theory states that managers of firms are likely to engage in Non-Value Maximizing (NVM) behaviour. Jensen and Meckling (1976) theorized that the value of the firm would be decreased by the agency costs incurred due to NVM managers. However, if a manager's personal wealth were linked to the price of the firm's common equity, these agency costs could be reduced. Thus, managerial ownership of equity (insider holdings) could serve as an agency- cost reducing mechanism, increasing the value of the firm.

2.1.2 Signalling Theory

The signalling theory proposes that dividend policy can be used as a device to communicate information about a firm's future prospects to investors. Cash dividend announcements convey valuable information, which shareholders do not have, about management's assessment of a firm's future profitability thus reducing information irregularity. Investors may therefore use this information in assessing a firm's share price. The intuition underlying this argument is based on the information irregularity between managers and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders. Dividend policy under this model is therefore relevant (Al-Kuwari, 2009).

According to the information content of dividends or signalling theory, firms, despite the distortion of investment decisions to capital gains, may pay dividends to signal their future prospects. Here, managers are thought to have the incentive to communicate this information to the market. Bhattacharya (1979).

John and William (1985), and Miller and Rock (1985) argued that information asymmetries between firms and outside shareholders may induce a signalling role for dividends. They show that dividend payments communicate private information in a fully revealing manner. The most important element in their theory is that firms have to pay out funds regularly. An announcement of dividends increase is taken as good news and accordingly the share price reacts favourably, and vice-versa. Only good-quality firms can send signals to the market through dividends and poor quality firms cannot mimic these because of the dissipative signalling cost (for e.g. transaction cost of external financing, or tax penalty on dividends, distortion of investment decisions). Therefore, a similar reasoning applies to recurrent share buy-backs.

2.1.3 Bird in hand theory

Bird in hand theory proposes that a relationship exists between firm value and dividend pay-out. It states that dividends are less risky than capital gains since they are more certain. Investors would therefore prefer dividends to capital gains (Amidu, 2007). Because dividends are supposedly less risky than capital gains, firms should set a high dividend pay-out ratio and offer a high dividend yield to maximize stock price. The essence of the bird-in-the-hand theory of dividend policy (John Lintner in 1962 and Myron Gordon in 1963) argues that outside shareholders prefer a higher dividend policy. Investors think dividends are less risky than potential future capital gains, hence they like dividends. If so, investors would value high pay-out firms more highly.

The “Bird in Hand” theory of Gordon (1961, 1962) argues that outside shareholders prefer a high dividend policy. They prefer a dividend today to a highly uncertain capital gain from a questionable future investment. A number of studies demonstrate

that this model fails if it is posited in a complete and perfect market with investors who behave according to notions of rational behaviours (See Miller and Modigliani, 1961; Bhattacharya, 1979 etc.). Nonetheless, the original reasoning of Gordon (1961) is still frequently studied.

2.1.4 Dividend Irrelevance Theory

Investors are indifferent between dividends and retention-generated capital gains. If they want cash, they can sell stock. If they don't want cash, they can use dividends to buy stock. Modigliani-Miller support irrelevance. Theory is based on unrealistic assumptions (no taxes or brokerage costs). According to Miller and Modigliani's (1961) theorem, the value of the firm is unaffected by its dividend policy in a world of perfect market conditions. Two major assumptions driving the MM irrelevance theorem were that:

- (1) A firm's management is purely interested in maximizing share-holder value (there are no agency problems).
- (2) Corporate insiders and outsiders share the same information about the firm's operations and prospects (the "symmetric information" assumption).

2.2 Determinants of Dividend Policy

Most firms quoted on the Ghanaian Stock Exchange have clearly defined dividend policies that are based on the general dividend practice in the industry. Lintner, (1996) in a study of dividend policies of large Industrial Corporation in the United States suggested that in the majority of cases, current dividend decisions are intimately related to previous decisions. In the study, he concluded that management takes the existing dividend decision as a question of whether or not to change this rate in the current period. However, other views on the issues suggest that the dividend rate

should be related to current earnings and must reflect changes in business conditions. The question therefore is how and why, a company should select a particular pay-out ratio and determine its rate of adjustment towards that particular rate? At this point, it is pertinent that we consider the factors affecting dividend policy of an organization.

Lintner (1996) developed a model to study the determinants of the dividend behaviour of American corporations by assuming that the dividend pay-out is a function of net current earnings after tax (PAT) and dividend paid during the previous year. His findings revealed that pay-out a fixed proportion of their net profits as dividend to common stockholders especially when they are well-known for stable dividends policy and may try to achieve the target level of dividend or targeted pay-out ratio even whenever profit changes.

The main determinants of dividend policy of a firm can be classified into:

Dividend pay-out ratio: Dividend pay-out ratio refers to the percentage share of the net earnings distributed to the shareholders as dividends.

Stability of dividends: Dividend stability refers to the payment of a certain minimum amount of dividend regularly.

Legal, contractual and internal constraints and restrictions: Legal stipulations do not require a dividend declaration but they specify the conditions under which dividends must be paid. Such conditions pertain to capital impairment, net profit and insolvency. Important contractual restrictions may be accepted by the company regarding payment of dividends when the company obtains external funds.

Owner's Considerations: Dividend policy is also likely to be affected by the owner's considerations of the tax status of the shareholder, their opportunities of investment and the dilution of ownership.

Capital Market Considerations: The extent to which the firm has access to the capital markets also affects the dividend policy. In case the firm has easy access to the capital market, it can follow a liberal dividend policy. If the firm has only limited access to capital markets, it is likely to adopt a low dividend pay-out ratio. Such companies rely on retained earnings as a major source of finance for future growth.

Inflation: With rising prices due to inflation, the funds generated from depreciation may not be sufficient to replace obsolete equipment and machinery. So, organizations may have to rely on retained earnings as a source of fund to replace those assets. Thus, inflation affects dividend pay-out ratio in the negative side.

Legal Framework: The Companies and Allied matters Act 1990 part II (379-382) provides the basis which dividends can be paid. As high-risk financial assets, stock investors suffer from high investment risks and share the company's operating results. This is the main purpose of investors investing in stocks. The more companies distribute dividends, the higher the dividend pay-out ratio, the more attractive to investors, the more conducive to establishing a good corporate reputation and the market value of the company. Also, as part of the legal regulations, section 30(1) of Banking Act (2004) Act 673 adds that a bank shall not declare or pay dividend on its shares unless it has:

- a) Completely written off all its capitalized expenditure;

b) made the required provisions for non-performing loans and other erosions in asset values; c) supplied the minimum capital adequacy ratio requirements; and d) completely written off all its accumulated operating losses from its normal operations.

Consequently, this study hopes to find out the effect of dividend payments by banks on the performance of banks in Ghana

A company must satisfy shareholders minimum requirement and if looking for extra funds, should not be seen by investors to be paying generous dividend or salaries to owners Directors.

Theoretically, the assumption is that:

1. Market value of a company's share depends on:
 - i. The size of dividends paid
 - ii. The growth rate in dividends; and
 - iii. The shareholders required rate of return.
2. Growth rate in dividends depends on the money re-invested in the company and the rate of earning retention.
3. Shareholders will expect their company to pursue a retention policy that maximizes the value of the shares.

Several surveys have identified different factors influencing the payment of dividends (Baker et al., 2007). Pruitt and Gitman (1991) found that important influences on the amount of current dividends are current and past years' profits, the year-to-year variability of earnings, the growth in earnings, and prior years' dividends. Baker and Powell (2002) found that the most important factors influencing dividend policy by corporations listed on the New York Stock Exchange (NYSE) are the level of current and expected future earnings and the pattern or continuity of past dividends. Amidu

and Abor (2006) reported similar findings in Ghana. They found that the most important factor influencing dividend pay-out by firms listed on the Ghana Stock Exchange (GSE) is their level of earnings or profitability.

Luke (2011) states that a significant part of returns investors can realize from putting money into stocks comes from dividends paid by companies. The amount of money a company pays in form of dividends varies significantly from one business to the other. Companies use dividend policy to determine how much they will distribute. Directors can determine what is paid out as dividend from the company's earnings. Factors that affect the dividend policy may be grouped into four categories (1) constraints on dividends payments, (2) investment opportunities, (3) availability and cost of alternative sources of capital, and (4) effects of dividend policy on the cost of capital.

Other factors are:

1. Bond indentures: debt contracts often limit dividends payment to earnings generated after the loan was granted.
2. Preferred stock restrictions: typically, common dividends cannot be paid if the company has omitted its preferred dividend. The preferred rearranges must be satisfied before common dividends can be resumed.
3. Impairment of capital rule: Dividend payments cannot exceed the balance sheet item "retained earnings". This legal restriction, known as the impairment of capital rule, is designed to protect creditors. Without the rule, a company that is in trouble might distribute most of its assets to stockholders and leave its debt holders out in the cold.

4. Availability of cash: cash dividends can be paid only with cash. Thus, a shortage of cash in the bank can restrict dividend payments; however, the availability to borrow can offset this factor.
5. Possibility of accelerating or delaying projects: the ability to accelerate or to postpone projects will permit a firm to adhere more closely to a stable dividend policy.
6. Cost of selling new stock: If a firm needs to finance a given level of investment, it can obtain equity by retaining earnings or by issuing new common stock. If flotation cost are high, that will increase the cost of capital, making it better to set a low pay-out ratio and to finance through retention rather than through sale of new common stock. On the other hand, a high dividend pay-out ratio is more feasible for a firm whose flotation costs are low.
7. Ability to substitute debt for equity: A firm can finance a given level of investment with either debt or equity. If the firm can adjust its debt ratio without raising costs sharply, it can pay the expected dividend, even if earnings fluctuate, by using a variable debt ratio.
8. Control: If management is concerned about maintaining control, it may be reluctant to sell new stock, hence the company may retain more earnings than it otherwise would. However, if stockholders want higher dividends and a proxy fight looms, then the dividend will be increased.

2.3 Forms of dividend payment

Forms of dividends represent part of the earnings per share of each particular stock in a company to be paid to the shareholders. It is often announced by the company's management and board of directors at the end of the financial year. Dividend

distributions are based on accumulated profits, that is, retained earnings, or on other capital items such as donated or additional capital paid-in. Payment of dividend to stockholders indicates the corporation is operating successfully. Dividends are commonly paid in form of cash dividends but occasional stock, scrip, or some other asset.

The following are the various forms of dividends

Cash dividends

The board of directors vote and propose on the declaration of dividends. It is not paid immediately because transfer of stock from one holder to another require a current list of stockholders be prepared. For this reason, there is a date of declaration of dividend on meeting of the board of directors. There is a date of record for closure of shareholder register. Then there is a date of payment where checks are mailed to shareholders. Shareholders approve the dividends at the Annual general meeting thereby concluding the declaration of cash dividends. A declared cash dividend is a not a liability rather as part of the shareholder's equity since such a decision can be recalled. Cash dividends are not paid on treasury stock.

Property dividends

A property dividend is a nonreciprocal transfer of non-monetary assets between an enterprise and its owners. It is payable in form of assets other than cash. They may be in form of merchandise, real estate, or investments. Board restates assets at fair value of the property it will distribute recognizing any gain or loss. Fair value measured by the amount that would be realizable in an outright sale at or near the time of the distribution. Such amount is quoted at market prices or other available evidence.

Recording property dividend at fair value allows for comparisons of other dividend rates in future.

Liquidating dividends

This is a form of dividend that uses paid in capital in early years as a basis for dividend payments. As a result it reduces the corporate paid in capital. Without proper disclosure, shareholders may believe the corporation has been operating at a profit. This type of misunderstanding can be avoided by requiring a clear statement of the basis of every dividend to accompany the dividend check. Any dividend not based on earnings must be a reduction of corporate paid-in capital and, to the extent, it is a liquidating dividend.

Stock dividends

It is a form of dividend whereby management decides to capitalize part of the earnings and retain them in the business on a permanent basis by issuing stock dividend. No assets are distributed and each shareholder has exactly the same proportionate interest in the company and same book value after the stock dividend was issued as before it was declared. A stock dividend does not change the total stockholders' equity. Earnings are appropriated equally to shareholders in relation to the amount of stock they hold with the company. When a corporation wants to raise money from investors, it can issue debt (bonds and notes) and equity (common stock, preferred stock and warrants). All corporate dividend payments must come from retained earnings -- the accumulated profits of the company. Common stock represents an ownership share of a corporation that entitles shareholders to participate in the governance and growth of the company. The benefits of company growth include higher stock prices and, optionally, common stock dividends and dividend

increases. A company can choose to pay common stock dividends in the form of cash or additional stock, but dividends on common stock are not required and can be changed by a vote of the company's board.

Stock split dividend

Another form of dividend payment that increases the number of share outstanding for each shareholder but consequently reduces the par value of each share. A stock dividend of more than 20–25 percent of the number of shares previously outstanding is called a large stock dividend or stock split. A stock split can be compared to a reverse stock split which reduces the number of shares outstanding and increases the per share price. The main purpose of a stock split is to increase the marketability of the stock and for management to take control (www.testden.com).

Preferred Stock Dividends

Preferred stock also represents an ownership interest in a corporation, but exchanges the right to participate in company growth and governance for high-fixed-dividend payments. Preferred dividends normally pay 4 to 8 percent dividend yields (the annual pay-out divided by the stock price). Because the payments are fixed, preferred dividends don't benefit from company growth. Corporations must pay preferred dividends in full before the corporation shells out any common dividends for the period. "Cumulative" preferred stock requires a corporation to make good on any missed dividends before resuming payment of common stock dividends.

Qualified Dividends

Most dividends issued by U.S. corporations qualify for lower capital-gains tax rates. The main requirement is that the issuer is not a non-profit and that it pays taxes on its

earnings. Many foreign stock dividends also qualify for the tax break, as long as they meet the same standards and you can readily trade their shares in the United States. To take advantage of the tax break, you must hold common stock for 61 days surrounding the ex-dividend date -- the first date on which the stock trades without the current dividend. Preferred stock that pays a dividend based on a period exceeding 366 days requires a 91-day holding period. You treat cash dividends from non-qualified shares as ordinary income, taxable at your marginal rate (the tax you fork over on the “last dollar” of annual income).

Fund Dividends

A mutual fund must pass along all the dividends, interest and capital gains it earns over the course of a year. In return, the fund doesn't pay income taxes -- which privilege passes through to shareholders. Fund payments that result from dividends on stock are qualified if the stock pays qualified dividends.

2.4 Dividend Policy of Other Economies

Published research on dividend payments in the United States has innovative results. First, Fama and French (2001) show that the fraction of U.S. industrial firms paying cash dividends has dropped sharply over the past five decades, from 66.5 percent of listed firms in 1978 (and over 80 percent during the 1950s) to 20.8 percent in 1999. Fama and French show this dramatic decline is due to two influences: changing firm characteristics and a declining propensity to pay. In the first instance, the financial characteristics of the ‘typical’ publicly-traded company have changed dramatically since 1978, with many new listings of firms with low (or negative) profits, high growth opportunities, and an asset base tilted heavily towards intangible rather than

fixed assets. The characteristics of the typical NYSE-listed firm have also changed similarly.

A second, seemingly aberrant major recent finding is that the total value (nominal and real) of cash dividends paid by U.S. corporations has been rising relentlessly for several decades, and now often approaches 100 percent of aggregate corporate profits. Weston and Siu (2003) documented that the U.S. corporate sector's cash dividend pay-out ratio increased from 40 percent in 1971 to around 60 percent in 1990 - where it remained throughout the 1990s - and finally to 81 percent in 2001. Including repurchases with dividends had little effect on the aggregate pay-out ratio in 1971, but adding in repurchases brought the pay-out ratio to 105 percent in 1998 and to 116 percent in 2001.

DeAngelo et al. (2004) show that both dividends and earnings have become increasingly concentrated among a relative handful of U.S. corporations over the past quarter century. A mere 25 firms now account for over 50 percent of industrial earnings and dividends, and the hugely increased dividends of these 'high payers' swamp the declining tendency of small and mid-sized firms to pay dividends.

Further, there has been a decline only in the number of industrial payers since 1978; the number of financial and utility payers has increased, as have their total real dividend payments. DeAngelo, DeAngelo, and Stulz (2006) document a previously unconsidered influence on dividend policy - the mix of earned versus contributed capital in a firm's equity capitalization. Young and rapidly growing companies that have recently executed an IPO have mostly contributed equity capital and pay few or no dividends.

On the other hand, the equity capitalization of mature, highly profitable firms will consist mostly of retained earnings, and these public companies pay the bulk of cash dividends each year. This life-cycle explanation of dividend payments, while intuitive, is nonetheless a radical departure from received theory, which has long been based on dividend irrelevance theorems. DeAngelo et al. (2006) also show that, had these 50 high-dividend companies not paid dividends over the past quarter-century, their cash holdings would equal one-seventh of America's GDP, they would be debt-free, and their managers would be totally insulated from capital market discipline.

Finally, there is some evidence that dividends payment may be resurfacing. Julio and Ikenberry (2005) documented a small, but significant, five percentage point increase in the fraction of U.S. industrial firms paying cash dividends since 2001. They also describe a greater tendency for large firms to pay dividends since 1999. This rebound in dividend payments is partly accounted for by the 2003 Bush Tax Cut, and partly due to the natural maturation of IPO firms that went public during the 1990s. It is unclear whether the dividend reappearance Julio and Ikenberry documented is permanent or temporary.

In addition to the empirical contributions discussed above, there has been a major addition to the theoretical literature on dividends. Baker and Wurgler (2004a, b) develop a catering theory of dividends to explain observed U.S. payout patterns. They assert that companies supply dividends to meet investor demand. Their measure of demand, the dividend premium, is the logarithm of the ratio of average market-to-book ratios of dividend-payers to non-payers. When this premium is high, non-paying firms try to cater to the demand of investors by initiating dividends. Baker and Wurgler (2004a, b) and Li and Lie (2006) find empirical support for the catering

model, but unfortunately this model does not explain why investors demand dividends in the first place. There has been no recent international analogue to the success of researchers explaining U.S. dividend payments, though several single-country studies have been published.

In common law countries, with legal systems that protect investors, shareholders are able to force managers to pay out free cash flow, whereas they cannot do this in civil law countries. LLSV examine pay-out policies using cross-sectional data for 4000 plus companies from 33 countries, during the single year 1995, and find strong support for the agency cost model. Dividends are economically and statistically significantly higher in common law countries.

Second, Denis and Osobov (2006) examine the dividend policies of companies headquartered in six major countries using data from 1989-2002. They study the United States, United Kingdom, Canada, France, Germany, and Japan—and document declining propensities to pay (PTP) in all six countries. These authors also test whether the patterns observed support either the agency cost or the catering theory models of dividend payments. They find the propensity to pay is negatively related to growth opportunities in common law countries, but positively related in civil law countries, and conclude this supports the agency cost model over the catering theory.

Finally, a small corner of the empirical privatization literature also examines how ownership changes influence propensities to pay dividends. Megginson, Nash, and van Randenborgh (1994), Boubakri and Cosset (1998), and D'Souza and Megginson (1999) show that formerly state-owned companies typically pay much higher

dividends after their first share issue privatization than they did under state ownership. In most cases, the first, partial privatization prompts firms to initiate dividend payments. Given the size and importance of many privatized firms, this tendency to initiate dividend payments appears to have a bell-weather effect on other firms in the national market, though it is unclear whether privatized companies adopt national or global pay-out standards. We hope to examine privatization's impact on dividends in a follow-on study.

2.5 Empirical evidence on Investor Preferences based on dividend theory

According to various investor preference arguments, investors favour one pay-out form over another for unknown reasons. It can thus be called a behavioural argument because there is no economic rationale behind these preferences. Companies cater to these preferences by choosing the pay-out method currently favoured by investors (Baker and Wurgler, 2004). For this argument to work it must be the case that share prices of firms that cater to investor preferences are higher than share prices of firms that do not (or managers believe this to be the case). Otherwise, there is no reason for a firm to adjust its pay-out policy. Given that the price differential is based on investor irrationality, this argument also relies on limits to relative value investing. If not, a relative value investor would simply sell short the shares of the firms that cater to investor demand and purchase shares of firms that do not. The price difference between the two sets of firms would be the profit for the relative value investor (Servaes and Tufano, 2006).

Individual investors' tax preferences may also influence their dividend preferences. Investors afraid of higher taxes are likely to prefer low or no dividend pay-outs in an attempt to reduce their taxable income thus preferring capital gains (Howatt et al.,

2009). In Kenya dividends are taxed at 5% as a final tax for individuals while capital gains tax are tax exempt (Income Tax Act, 2010). Firms that meet the needs of individual investors are more likely to be able to command a higher share price premium and thus an enhanced firm value. However, Amidu (2007) argues that, if investors migrate to firms that pay the dividends that most closely match their needs, no firm's value should be affected by its dividend policy. Thus, a firm that pays no or low dividends should not be penalized for doing so, because its investors do not want dividends. Conversely, a firm that pays high dividends should not have a lower value, since its investors like dividends. This argument assumes that there are enough investors in each dividend clientele to allow firms to be fairly valued, no matter what their dividend policy is.

The "Bird in Hand" theory of Gordon (1962) argues that outside shareholders prefer a higher dividend policy. They prefer a dividend today to a highly uncertain capital gain from a questionable future investment. A number of studies demonstrate that this model fails if it is posited in a complete and perfect market with investors who behave according to notions of rational behaviour (Miller and Modigliani, 1961; Bhattacharya, 1979).

The information content of dividends or signalling theory identifies that despite the distortion of the firm's investment decisions to capital gains, the firm may pay dividends to signal their future prospects (Amidu, 2007). The intuition underlying this argument is based on the information asymmetry between managers (insiders) and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders.

Miller and Rock (1985) argued that the market would interpret a dividend payment (or a repurchase) as a signal of quality, which will create an incentive for the firm to underinvest, so that more funds are available to signal quality. The surprising result of their analysis is that high quality firms will underinvest more, because they can afford it, and therefore have the greatest incentive to signal, (Servaes and Tufano, 2006). This dividend signaling theory has several implications: Firms will pay dividends to signal quality to the market, Firms will be very reluctant to cut their dividend because that will provide a negative signal, firms will not increase their dividend unless they feel comfortable that they can maintain the dividend in the future; as a result, the pattern in dividend payments will be much smoother than the pattern in earnings or cash flows, Dividend increases are associated with positive stock price changes, Dividend cuts are associated with negative stock price changes , firms may forego projects that add value to the firm in order not to have to cut the dividend.

Firms are reluctant to cut dividends—investors know this and hence interpret dividend cuts to indicate a serious problem, making firms more reluctant to cut dividends. Thus, dividend policy is employed to convey information at the cost of underinvestment. This signalling argument also applies to repurchases, except that repurchases are generally not considered permanent by investors. That is, if a firm repurchases shares in one year, the market generally does not expect this to continue in the future. Many observers, therefore, argue that the signalling power of repurchases is weaker than that of dividends to communicate long-run prospects for the firm (Servaes and Tufano, 2006).

Even if a firm does not have free cash flow, dividend payments can still be useful for the shareholders in order to control the overinvestment problem. Easterbrook (1984)

argues that dividends reduce the overinvestment problem because the payment of dividends increases the frequency with which firms have to go to equity markets in order to raise additional capital. In the process of attracting new equity, firms subject themselves to the monitoring and disciplining of these markets. This lowers agency cost.

A firm's dividend policy can reduce agency problems between managers and shareholders and, in turn, enhance the firm's value to shareholders (Dhanani 2005). Dividends are a way to solve agency problems where managers can use excess free cash flows to pursue their own interests.

By paying dividends to shareholders, free cash flows are reduced and thus managers have no opportunity to make suboptimal investments (DeAngelo et al., 2006). A firm's value and performance is therefore enhanced through higher returns from optimal investments. Dividend payments force firms to raise funds externally for new investments, which in turn increases the level of external monitoring of corporate activities by the capital market regulator (Jiraporn et al. 2011). There is thus improved corporate governance which has a positive effect in the firm's performance. A firm's dividend policy can take into consideration the different circumstances of its shareholders and in turn, enhance the firm's value to these shareholders (Dhanani, 2005).

If investors generally prefer returns in the form of capital gains, whether this is for tax reasons or not, and supposing that a subset of investors prefer dividend income, would it ever make sense for firms to cater to this small subset? Allen et al. (2000) argue that it could make sense if these investors are more skilled at monitoring the firm and its managers than other investors. In other words, firms cater to particular investors

because these investors are better at assessing the performance of the company and taking action if necessary. Managers might cater to these investors for at least two reasons:

1. It may be a way for high quality managers to bond themselves and indicate that they are not afraid of being closely monitored
2. The monitors may actually provide valuable advice to management, which enhances the value of the firm (Servaes and Tufano, 2006).

Depending on the preferences of shareholders, firms can formulate a dividend policy that meets the needs of its shareholders. In this case, dividends themselves do not provide information about future earnings, but rather create a clientele that are drawn to firms with their preferred dividend policy. Malcolm and Wurgler (2004) demonstrate that firms design dividend policy in response to shareholders' preference for dividends. Certain shareholders may have a preference for cash dividends, others for dividend stability and others would prefer capital gains earned through reinvestment of dividends and thus no cash dividends. This may be explained by the bird in hand fallacy as investors may deem dividends a more current and certain return than capital gains (Amidu, 2007 & Howatt et al., 2009).

2.6 Dividend Policy and Maximization of Shareholder Value

The dividend irrelevance proposition suggests that a firm's dividend policy has no effect on the value of the firm in a perfect and complete market (Stulz, 2000). Financial managers therefore, cannot alter the value of their firms by changing their dividend policy (Dhanani, 2005). The market position or observation is that a change in dividend policy is valued by the market. The valuation of firms also focuses on the relationship between dividend changes and future cash flows, that is, future earnings

or dividends. If a firm's dividend policy can provide additional insight into the cash flows, then a more reliable estimate of value can be obtained (Howatt et al., 2009).

A study by Dhanani (2005) revealed that dividend policy is important in maximizing shareholder value. A firm's dividend policy can influence one or more of imperfections in the real world such as information asymmetry between managers and shareholders; agency problems between managers and shareholders; taxes and transaction costs and in turn, enhance the firm's value to shareholders (Dhanani, 2005).

In an imperfect market setting, dividend can influence shareholders' wealth by providing information to investors or through wealth redistribution among shareholders (Travlos et al., 2001; Adesola & Okwong, 2009).

A firm's dividend policy can influence its capital structure or investment decisions and in turn, enhance the firm's value to shareholders (Baker et al., 2001). Shareholder's wealth is maximized through effective investment strategies, financed by an optimal capital structure. Dividend policy can be viewed as a result of the investment and financing decisions since the company needs to decide how to distribute wealth generated from these strategies (Dhanani, 2005). The relationship can also be inverse, where dividend policy influences a firm's capital investment and structure decisions and in turn its value enhancing properties. Aivazian et al., (2003) state that since corporate investment is sensitive to financial constraints, a firm's dividend decisions, which directly affects its free cash flow, could affect its investment.

This arises when a firm's dividend policy is viewed as a residual to its capital structure and investment decisions; internally generated cash flows from existing investments will be used to optimize the firm's capital structure (Mitchell et al., 2001). A residual dividend policy, for example, may enable firms' access to external sources of funds such as debt. Lenders in this case will not view dividends as a fixed and regular payment which may adversely affect the firm's cash flows. They will thus be more willing to give debt to firms.

A firm's dividend policy can reduce agency problems between managers and shareholders and, in turn, enhance the firm's value to shareholders (Dhanani 2005). Dividends are a way to solve agency problems where managers can use excess free cash flows to pursue their own interests. By paying dividends to shareholders, free cash flows are reduced and thus managers have no opportunity to make suboptimal investments (Bartram et al., 2009 & DeAngelo et al., 2006). A firm's value and performance is therefore enhanced through higher returns from optimal investments. Dividend payments force firms to raise funds externally for new investments, which in turn increases the level of external monitoring of corporate activities by the capital market regulator (Jiraporn et al. 2011). There is thus improved corporate governance which has a positive effect on the firm's performance.

A firm's dividend policy can take into consideration the different circumstances of its shareholders and in turn, enhance the firm's value to these shareholders (Dhanani, 2005). Depending on the preferences of shareholders, firms can formulate a dividend policy that meets the needs of its shareholders. In this case, dividends themselves do not provide information about future earnings, but rather create a clientele that are drawn to firms with their preferred dividend policy. Malcolm and Wurgler (2004)

demonstrate that firms design dividend policy in response to shareholders' preference for dividends. Certain shareholders may have a preference for cash dividends, others for dividend stability and others would prefer capital gains earned through reinvestment of dividends and thus no cash dividends. This may be explained by the bird in hand fallacy as investors may deem dividends a more current and certain return than capital gains (Amidu, 2007 & Howatt et al., 2009).

Unequivocally, it is accepted fact that dividend policy is an important financial decision for the management. While determining dividend policy, the management must consider to what extent dividend policy would influence share prices because the objective of financial management is to maximize owners' wealth.

The payment of dividend should be preferred if it leads to the maximization of wealth of the owners. But if it does not, then the firm should retain the profit and should not distribute dividend. It is generally accepted fact that the objective of the firm is to maximize the shareholders utility which can be expressed by the maximization of the firm's value. There are numerous researches both theoretical and empirical that focus upon to the relationship between the value of the firm and its dividend policy. Thus, there is a lot of controversy and existence of dilemma with regard to the influence of dividend on share prices and on value of the firm. In the theoretical context, two schools of thoughts came up with their suggestions.

One school of thought advanced by Miller and Modigliani (1961) referred to as the "dividend irrelevance theory" believes that dividend is irrelevant and has no effect on the valuation of the firm or on value of shares. They viewed that the value of firm depends solely on its earnings power and is not influenced by the manner in which its earnings are split between dividends and retained earnings.

The second school of thought is advanced by Lintner (1956), Gordon (1962) and Walter (1963) referred to as the “dividend relevance theory”. They hold a view that there is a direct relationship between dividend policy of the company and value of firm. They viewed that dividend is relevant to the valuation of firm, as measured by market price of shares.

2. 7 Dividend Pay-out and Profitability

Firm performance can be measured by the earnings generated by the company in terms of profitability. There is substantial literature on the relationship between dividend policy and profitability. Dividends are important to shareholders and potential investors in showing the earnings that a company is generating. Healthy dividends pay-outs thus indicate that companies are generating real earnings rather than cooking books (Barron, 2002).

A study by Zhou & Ruland (2006) revealed that high dividend pay-out firms tend to experience strong future earnings but relatively low past earnings growth despite market observers having a contradicting view. The findings of another study done by Arnott & Asness (2003) also revealed that future earnings growth is associated with high rather than low dividend pay-out. They concluded that historical evidence strongly suggests that expected future earnings growth is fastest when current pay-out ratios are high and slowest when pay-out ratios are low.

Their evidence contradicted the view that substantial reinvestment of retained earnings would fuel faster future earnings growth. Their study was done to investigate whether dividend policy of the U.S. equity market portfolio, forecasts future earnings growth. The study comprised companies in the S&P 500 which tend to be large and

well established firms in advanced economies (Zhou & Ruland, 2006). Empirical studies need to be done in developing capital markets or for newly listed companies which tend to be, less profitable and more growth oriented. Arnott & Asness (2003) suggested that the positive relationship between current dividend pay-out and future earnings growth is based on the free cash flow theory.

Low dividend resulting in low growth may be as a result of suboptimal investment and less than ideal projects by managers with excess free cash flows at their disposal. This is prominent for firms with limited growth opportunities or a tendency towards over-investment. Paying substantial dividends which in turn would require managers to raise funds from issuance of shares, may subject management to more scrutiny, reduce conflicts of interest and thus curtail suboptimal investment (Arnott & Asness, 2003). This is based on the assumption that suboptimal investments lays the foundation for poor earnings growth in the future whereas discipline and a minimization of conflicts will enhance growth of future earnings through carefully chosen projects. Therefore, paying dividends to reduce the free cash flows enhances the performance of a company since managers will have less cashflows thus avoiding suboptimal investments. This is also consistent with the agency cost theory.

Another explanation by Arnott & Asness (2003) for the positive relationship between dividend pay-out and growth in future earnings is that managers are reluctant to cut dividends. A high pay-out ratio indicates management's confidence in the stability and growth of future earnings and a low pay-out ratio suggests that management is not confident of the stability of earnings or sustainability of earnings growth (Arnott & Asness, 2003). Managers therefore pay low dividends to avoid dividend cuts when earnings drop.

The positive relationship is also driven by sticky dividends combined with mean reversion in more volatile earnings (Arnott & Asness, 2003). The temporary increases and decreases in earnings subsequently reversed cause the payout ratio to be positively correlated with future earnings growth. Their robustness check for the mean reversion of earnings suggested that earnings seem to revert to the mean but may revert most strongly in terms of their ratio to dividends.

However, Farsio et al. (2004) argue that no significant relationship between dividends and earnings hold in the long run and studies that support this relationship are based on short periods and therefore misleading to investors. They proposed three scenarios that would render the long-term relationship of dividends and future earnings insignificant.

First, they point out that an increase in dividends may lead to a decline in funds that are to be reinvested by the firm. Firms that pay high dividends without considering investment needs may therefore experience lower future earnings (Farsio et al., 2004). There is thus a negative relationship between dividend pay-out and future earnings.

Secondly, an increase in dividends in a quarter may be the result of the management's policy to keep investors satisfied and prevent them from selling the stock at times when future earnings are expected to decline or current losses are expected to continue (Farsio et al., 2004). This is a case of rising dividends followed by declining earnings.

Lastly, an increase in dividends may be the result of good performance in previous periods which may continue into the future (Farsio et al., 2004). This supports the view of a positive causal relationship between current dividends and future earnings.

From these scenarios, they argue that the overall long-term relationship is insignificant since there is a positive relationship between dividends and future earnings in some periods and a negative relationship in other periods.

Nissim & Ziv (2001) showed that dividend increases were directly related to future increases in earnings in each of the two years after the dividend change. What therefore happens when there is a steady increase in dividends for a given number of years? Nissim & Ziv (2001) found that dividend increases and decreases are not symmetric. Dividend increases are associated with future profitability for at least two years after the dividend change, whereas dividend decreases are not related to future profitability after controlling for current and expected profitability. They propose that this lack of association can be explained by accounting conservatism. They therefore conclude that there is a positive relationship between dividend pay-out and future earnings but the relationship is stronger for listed companies.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The methodology of every research work includes the sources and methods of collecting and analysing data. It is the heart of the study. The generality of the findings depends on methodology used. Therefore the choice of methods must be thoroughly chosen to minimize any chances of bias. This study is similar to the works of Amidu (2007) and Agyei and Marfo-Yiadom (2011) in that it also examines the effect of dividend policy on banks performance, but different in the sense that this study examines inflation, CEO duality, and capital adequacy which were ignored in the earlier studies. The study employs the methodology of Amidu (2007) with some modifications.

3.1 Research design

The study adopts quantitative data technique using panel data type constructed from the annual reports of the selected firms for the study. Listed banks are considered for the analysis focusing on the most recent ten year data obtained from their annual records, BoG and GSS. Stata version 13 is used in estimating the regression results where return on equity is denoted as the main dependent variable with dividend per share being the independent variable as measured by Hashim et al 2013.

3.2 Study population

Collecting and analysing data from every possible case or group is sometimes not possible due to time limitation, cost or non-availability of data. In instances like these, a sampling technique is employed to select cases to represent the whole. Sampling

techniques provide a range of methods that allows a researcher to reduce the amount of data needed to collect, by only selecting from the population some cases to represent the whole (Saunders, Lewis & Thornhill, 1997). The size and the method of sampling can affect the generality of the findings and therefore samples must be carefully selected to minimize bias.

In view of the above, companies listed on the Ghana Stock Exchange (GSE) were selected for the present study as the total population.

3.3 Sample frame

Due to time constraints, the researcher paid particular attention to only the banks that were listed as of January, 2014 from which data on them were easily accessible.

Typically, the sample of this study was made up of all banks listed on the Ghana Stock Exchange. These included CAL Bank Limited, Ecobank Ghana Limited, Ecobank Transnational Incorporated, Ghana Commercial Bank Ltd., HFC Bank Ltd, SG-SSB Ltd., Standard Chartered Bank Ltd., Trust Bank Ltd. and UT Bank Limited. In this study, purposive sampling was used to select seven out of the nine banks listed on the Ghana Stock Exchange. The two banks excluded were Ecobank Transnational Incorporated and Trust Bank Ltd. These banks were excluded from the study because their financial statements were reported in currencies other than Ghana Cedis. With the regards to the above explanation the selection of the banks in this research was mainly as a result of the availability of data, nature of business and to ensure uniformity and easy comparison. Besides, the present study focuses on Ghanaian quoted banks which are duly licenced by Bank of Ghana.

3.4 Data sources

Data on dividend policy and banks performance have been collected from secondary sources of the listed banks in Ghana. The study used panel data constructed from the financial statements of commercial banks in Ghana for a period of 10 years, from 2004-2013. These financial statements were obtained from the Ghana Stock Exchange fact book. The GSE data consist of Balance Sheet, Income Statements, Financial ratios and other relevant information for all publicly quoted companies. Inflation rates were also made accessible from the Ghana Statistical Service (GSS). Other relevant information was also captured from the BoG to aid in the analysis among including capital adequacy minimum requirement.

The author used textbooks, journals, magazines and the company's bulletins to collect other additional data about the company.

3.5 Panel Data

The study adopts the longitudinal time dimension, specifically the panel study type. Panel study is a powerful type of longitudinal research in which the researcher observes exactly the same people, group, or organization across multiple time points (Neuman, 2007). This means that, the panel study type helps to identify characteristics of exact organizations over a time period. Also, this study type helps to capture dynamic adjustments

3.6 Econometric model determination

The study employs a panel data regression analysis. This is because the data set consists of observations of multiple variables over multiple time periods. Thus panel data combines time series and cross sectional data. It allows the researcher the flexibility in modelling differences in behaviour across individuals firm. It is also

appropriate for this study because of its ability to take into account heterogeneity problem or individual effects in cross sectional data and give more informative data. The panel regression equation is different from a regular time-series or cross section regression by the double subscript attached to each variable. The general form of the panel data model is specified as:

$$y_{i,t} = \alpha + \beta X_{i,t} + \varepsilon_{i,t} \quad (1)$$

The subscript i denotes the cross-sectional dimension and t represents the time-series dimension. The left-hand variable y represents the dependent variable in the model, which represents the performance of banks listed on the Ghana Stock Exchange. βx contains the set of explanatory variables in the estimation model, α is taken to be constant overtime t and specific to the individual cross-sectional unit i .

3.7 Measurement of Variables

One performance indicator was used in the study measuring the influence of dividend payments on financial performance (ROE) of the Banks. Authors such as Baptista et al. (2011) and Lam and Lee (2008) used accounting based criteria as financial performance indicators (Return on Assets-ROA and Return on Equity- ROE). Authors such as Chen et al. (2005) and Ehikioya (2009), on the other hand, utilized market based performance indicator (Tobin's q). The present study used accounting based (ROE) financial performance indicator as dependent variable. In attempting to evaluate the consistency of results, Tobin's q was employed to aid in such regard. Dependent and independent variables used in the study are as below:

Table 3.1 Variables, Measurement and Symbols used to represent them

VARIABLE	MEASUREMENT	SYMBOL
DEPENDENT VARIABLE		
Return on Equity (ROE)	The ratio of net profit after tax to total equity capital	ROE
Tobin's q (Q)	Market value to the book value of total assets	Tobin's Q
INDEPENDENT VARIABLE		
Dividend Per Share (DPS)	Distributed Dividend/Number of Shares	DPS
CONTROL VARIABLES		
Capital adequacy	Ratio of capital to liabilities	CAR
Size of firm (SIZE)	Natural logarithm of total assets	SIZE
Growth	Growth in sales	GRTH
Age	Age of listing since IPO	LTNAGE
Leverage (LEVERAGE)	The ratio of total liabilities to total assets	LEV
Inflation	Ghana Statisal Service	INFL
CEO duality	Dummy	CEODUAL

The table 3.1 above specifies the various variables, description and associated symbols used to represent each of them.

The model is thus specified as follows:

$$ROE_{i,t} = \alpha + \beta_1 DPS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GRTH_{i,t} + \beta_4 LEV_{i,t} + \beta_5 CAR_{i,t} + \beta_6 INFL_{i,t} + \beta_7 LTNAGE_{i,t} + \beta_8 CEODUAL_{i,t} + \epsilon_{i,t} \dots\dots\dots (1)$$

$$TOBIN'S Q_{i,t} = \alpha + \beta_1 DPS_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GRTH_{i,t} + \beta_4 LEV_{i,t} + \beta_5 CAR_{i,t} + \beta_6 INFL_{i,t} + \beta_7 LTNAGE_{i,t} + \beta_8 CEODUAL_{i,t} + \epsilon_{i,t} \dots\dots\dots (2)$$

Where, α is constant, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ & β_8 are coefficients of variables, ϵ is error term.

3.8 Dependent variable

The study uses accounting measure of performance, Return on Equity (ROE), as the dependent variable. However, as a robustness check, the study also uses TOBIN'S q as a proxy for market based measures ratio. The q is defined as the ratio of the market value of equity to book value of equity. The choice of these variables follows Amidu (2007).

3.9 Independent variable

The explanatory variable is dividend policy (POLICY) which is given as dividend per share in line with Hashim *et al.*, (2013).

3.10 Control variables

In order to test the relative impact of independent variables, control variables are included in the model to regulate for the flow of control. Among some of the control variables included but not of major study are size, growth, capital adequacy, inflation, CEO duality, leverage and bank's age of listing since Initial Public Offering (IPO).

3.10.1 Size

As firm grow, they mature, have easy access to financial market and become less dependent on internally generated funds which allows them to pay higher dividends. Larger firms pay lower transaction cost as compared to smaller ones due to the economies of scale or scale they may enjoy in operations. It therefore expected that size of a bank has positive influence on its performance. A proxy for firm size (SIZE) is the logarithm of total assets to control for size differences across the sample firms.

3.10.2 Growth

Firms in growth phase has investment opportunities, to finance these opportunities from internally generated funds, firms have to retain more and to pay very little or no dividend. These findings are providing support to the pecking order theory. Mature companies are likely to be in low growth phase and less attractive investment opportunities, these firms don't have any incentive to retain more as a result of less capital expenditure firms, growth in income have been set as a control variable which is expected to have a positive impact on banks ROE.

3.10.3 Inflation

Generally there seems to exist a negative relationship between inflation and profitability because firms in inflation conditions are not able to distribute earning rather preferred to retain. Firms which have relatively stable earning can easily predict their future earnings. Inflation can also bring about an improvement in corporate profitability upon recognizing any movements in the inflation rates. Banks are more likely to adjust their interest rates accordingly in order not to be disadvantageous. Inflation is therefore expected to have an association on banks performance.

3.10.4 Leverage

High debt means that firms have high interest expense, which will lead to a low net income and thus less earning will be available for shareholders. Dividend payments to shareholders may suffer the financing and investment plans especially in case of high leveraged firms. Earnings of highly leveraged firms are more risky and volatile and accordingly pay low dividends. Highly leveraged firms tend to pay low dividends in order to reduce transaction cost of external capital. The converse is true. It is therefore expected that an inverse association be seen in leverage and banks ROE.

3.10.5 CEO duality

Generally, there is an inverse relationship between CEO duality and profitability meaning that as the presence of CEO duality is more likely to create conflict of interest in the organisation which invariably is more likely to be performance negatively. Presence of duality can also improve firms in critical situations especially when the firm needs to take a quick decision without having the chance of seeking any excessive bureaucratic consultations. There is therefore some association between dividend policy and CEO duality.

3.10.6 Capital adequacy

Capital is one of the bank specific factors that influence the level of bank profitability. Capital is the amount of own fund available to support the bank's business and act as a buffer in case of adverse situation. Banks capital creates liquidity for the bank due to the fact that deposits are most fragile and prone to bank runs. Moreover, greater bank capital reduces the chance of distress. Capital adequacy ratio is directly proportional

to the resilience of the bank to crisis situations. Therefore, capital adequacy is expected to be positively correlated to profitability (ROE).

3.10.7 Age

Age of listing since Initial Public Offering (IPO), is also controlled for because it is reported to have a direct impact on firms profitability. This is because as firms increase in years, they gain some experience in their business processes for which firms are more likely to drive costs down for more profit to be reaped all else constant. Hence, age is expected to have a positive impact on banks ROE.

3.10.8 Dividend policy

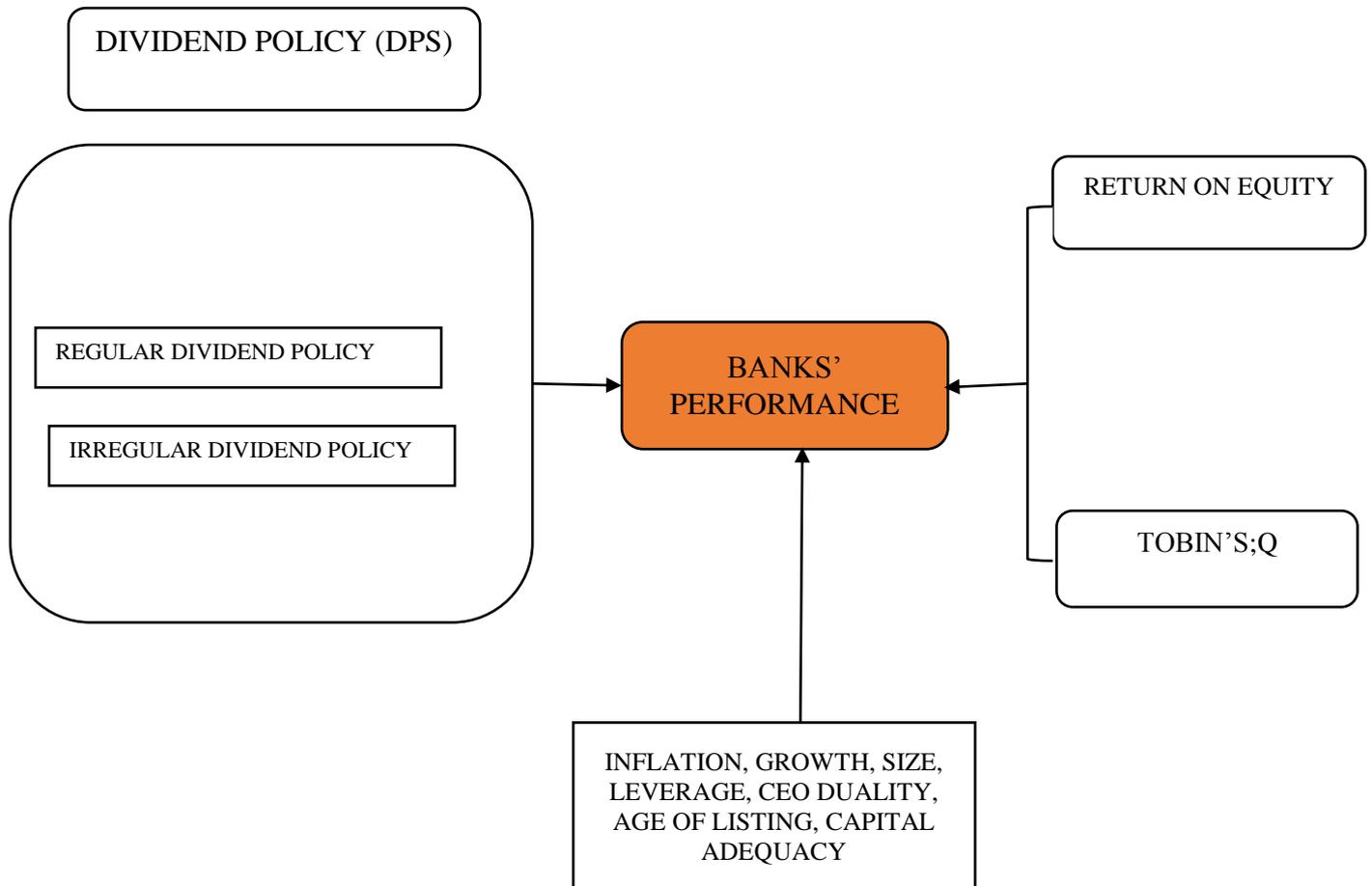
Dividend policy is the main predictor of the outcome of this study. It represents the firms' ability to pay regular or irregular dividends over the years studied. Generally, as firms pay regular dividends to stockholders, it regulates the actions of management to perform creditably in order to continue the policy. They may therefore adopt a policy whether to increase the dividend payment policy, fixed or no dividend payment. As firms adopt regular dividend policy, performance is more likely to increase in the short term whilst firms that adopt irregular dividend policy may increase performance but normally in the long run because of the investments such firms may retain funds to undertake such worthy projects. On this premise, dividend policy may be deemed to either positively or negatively affect banks performance depending on the time horizon.

Table 3.2 Show the list of variables which the researcher has used in the regression analysis.

Variable	Definition	Source	Expected sign
Growth	Growth in sales revenue	Annual report	+
Size of bank	Logarithm of total assets	Annual report	+
Capital adequacy	Capital to total assets	Annual report	+
CEO duality	Dummy, 1= presence 0=absence	Annual report	-/+
Inflation	Inflation rate in percentage	Ghana statistical service	-/+
Leverage	Total debt to capital employed	Annual report	-
Age o listing	Ltnage since Initial Public Offering (IPO)	Annual report	+
dividend per share	Dividend paid / number of shares issued outstanding	Annual report	+/-

Based on the above, the following conceptual framework have therefore been formulated for the present study. The model diagrammatically explains how dividend policy affects banks performance whilst controlling for other variables that are more likely to affect banks; performance accordingly.

3.11 Conceptual framework of the model for the study



3.12 Method of Data Analysis

Financial analytical tools and techniques involving some statement of financial position and income statement items financial ratios such as liquidity and profitability ratios were calculated using Excel, a Microsoft Application to assist in the analysis and evaluation of the data collected. The data were analyzed in line with the main objectives of the study to determine the relationships of the study. Pearson Correlation analysis and panel data regression analysis were used to determine the relationship between the factors and the performance level of commercial banks listed on the Ghana stock exchange. The use of Stata version 13 was mainly employed for running the regression results. The results were then interpreted and recommendations

suggested appropriately. The study was concluded by the whole research work through to the recommendations offered.

3.13 Profile of Ghana Stock Exchange (GSE)

The GSE is an important player in the regulation of the equity market in Ghana. It derives its power from PNDC Law 333 as amended. It is a self-regulatory body with rules and regulations guiding the transactions of members both on and off the Exchange. The GSE seeks to protect investors, using its rules and regulations and the powers vested in it by the SEC. Two major legislations that guide the conduct of the Exchange include the Ghana Stock Exchange Listing Regulations, (1990) L.I. 1509 and the Ghana Stock Exchange Membership Regulations, (1991) L.I. 1510. The membership regulations specify the requirements that must be met by an individual or corporate entity that seeks to be a member of the exchange. The listing Regulations on the other hand stipulate the requirements that must be met by a company that wants its security to be listed on the Exchange. The GSE Listing rules issued in 2006 is also to guide the conduct of issuing firms both before and after listing on the exchange.

The exchange has two classes of members; associate and licensed dealing members. The associate members are individuals and body corporate who are contributing towards the achievements of the objectives of the exchange. The exchange currently has thirty tree (33) associate members of which one is an individual.

The license dealing members are license to deal on the floor of the exchange in listed securities. It currently has twenty one (21) License Dealing Members (LDMs) and thirty six (36) securities trading on the floor. Apart from the dealing member there exist currently ten (10) custodians, seventeen (17) government security dealers and four (4) registrars participating in the securities market licensed by SEC. The

Exchange is currently governed by a Council of nine representing three independent members, two representatives of licensed dealing members, two listed companies' representatives and two executives (www.gse.com.gh).

3.14 Brief profile Bank of Ghana (BoG)

The Bank of Ghana though not the principal regulator of the securities industry have the supervisory role of licensing and regulating banks and non-bank financial institutions which also forms parts of the financing system. The functions and responsibilities of the Central Bank as a Regulator are defined in Bank of Ghana Act 2002, (Act 612) and Banking Act, 2004 (Act 673). Among its responsibilities is to regulate, supervise and direct the banking and credit systems to ensure the smooth operation of a safe and sound banking system. Prior to the establishment of SEC the Bank of Ghana executed its functions (www.bog.gov.gh).

CHAPTER FOUR

ANALYSIS AND DISCUSSION OF RESULTS

4.0 Introduction

This chapter analyses, discusses and reports the findings of the research. Regression estimation was done by the researcher using Stata 13. The section analyses and discusses the hypothesis set in this research, provides the descriptive results, regression results and the necessary diagnostic tests.

4.1 DESCRIPTIVE STATISTICS

Table 4.1 Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
GRTH	3.398714	1.405137	.02	7
LEV	4796987	1349117	.1940104	.8396847
CAR	1276979	036602	.01723	.2166698
INFL	12.478	3.267193	8.73	19.3
ROE	2778143	1277472	.071	.614
SIZE	13.4183	1.257248	10	15.86448
DPS	.2566638	.6568296	0	3.05
CEODUAL	.7285714	.4479075	0	1
LTNAGE	10.53809	6.013831	.08333	22.33333

Note: GRTH=growth in income revenue, LEV=leverage, CAR=capital adequacy ratio, INFL=inflation, ROE=return on equity, SIZE=size of bank, DPS=dividend per share, CEODUAL=CEO duality, LTNAGE= listing age of bank

Table 4.1 provides a summary of the descriptive statistics of the dependent and explanatory variables. ROE is the dependent variable to operationalize performance in

terms of how profitable the firm is, (Fama and French, 2001). It measures the rate of return made by the equity investors on their investment. It has been calculated as the net amount of income returned as percentage to equity investors.

This record an average value of 27.78% for the firms studied on GSE. This means that on average, stockholders receive GHC 0.28 of every GHC1 invested annually, (See table 1 above). The table again records both minimum and maximum return of 7.1% and 61.4% respectively indicating the highest forgone alternative benefit an investor may obtain if he decides to invest in the banking industry as compared to other government most risk-free assets such as T-Bills and gilt-edged securities all else being equal. Additionally, ROE records a standard deviation of 0f 12.77%, meaning the amount of variation or dispersion of the data set values are not far spread out from their mean value.

Bank size measures the spatial dimensions, proportions and the magnitude of the firm. With much reference to Amidu, 2007, bank size has been measured as the natural logarithm of total assets. This is deemed expedient to control for size differences across sample firms. Table 1 records an average firm size of GHC 672,192.48 (antilog of 13.4183). The control for size in this manner helps to even out all the disparities that may exist among the sampled firms.

Dividends are essentially profit sharing mechanisms allowing the distribution of a firm's profit to shareholders who own the company. These figures have been directly ascertained from the quoted firm' annual report but were computed as the total dividend declared for the period but excluding special dividends divided by the total number of shares outstanding for the period. The reason for the exclusion perhaps is due to the non-indicative performance nature of it as it turns to be representing one-

off event. Averagely, investors receive approximately 26% in terms of the total dividend for the period. Some firms however were able to record as high dividend as GHC 3.05 annually to every investor based on the total amount of the dividend proposed for the period. There also seems to be a much variation of approximately 66% from the mean dps, (see table 1 above).

CEO duality (CEODUAL) connotes the idea of the chief executive holding the chairmanship position on the board. It has been used as a dummy variable where the binary 0 and 1 represents the absence and presence of CEO duality on the board respectively. On average, approximately 78% of the firms studied do have CEO duality present.

Listing age (LTNAGE) of the firms also records on average a minimum time period of 0.08333 years. Majority of the firms record a listing age of 10.53 years with 6 years of significant variations from the mean age. This concludes that all firms do not appear to have equal time of listing. The average listing age of 10.53 years concludes on the fairness in getting a strong balanced panel data.

Inflation (INFL) is the main macro-economic variable been observed as control variable for the study. The choice of inclusion is not far-fetched as this indicator remains pivotal on which other indicators revolve, (Xu, 1997). From table 1, inflation records a mean of 12.4780% for the ten year period with a range of 10.57% recording minor variations in the mean of about 3.27% annually. This means that firms are more likely to record a hike of 13% of their products being it interest rates, policy rates and other financial services.

Growth (GRTH) has been measured in relation to Amidu 2007, as the percentage increase in sales revenue (interest income) over the previous year. Whilst some were able to record a significant increase of 7% in revenue others observed gradual movement in sales revenue of .02%. On average, however, most of the firms recorded a substantial increase of 4% approximately over the previous year.

Leverage (LEV) measures the proportion of debt in the overall capital structure. This has been measured as the ratio of total debt (current and non-current liabilities) to the total assets of the company. From the table, most of the firms could be said to be less leveraged for a successful investment. This thus notwithstanding, a maximum percentage of 83.97 is recorded. This means that the firm is said to be highly geared making it riskier for safe investments. This does not also preclude any potential investor from undertaking investments with such firms thereof having regard to other considerations.

Capital Adequacy Ratio (CAR) measures firms capital position and it is expressed as a ratio its capital to its total assets. It determines the capacity to meeting time liabilities and other risks such as credit risk, operational risks, etc. averagely, the firms record about 12.76% of CAR meaning that they exceed the minimum CAR of 10% from Bank of Ghana (BoG). This means most of the banks can expand with the adequate capital at their disposal without necessarily bringing any undue financial distress upon themselves. The table above confirms the above analysis.

4.2 Model specification- Hausman test

The fixed and random effect were performed and the Hausman test was used to settle on the random effect after both Wald test (F test) and Breusch-Pagan Lagarange

multiplier test rejected the suitability of the pooled OLS against fixed and random effect models respectively. The implication is that the regression has been performed on the appropriate assumption as determined by the Hausman effect that the unobserved heterogeneity or individuality is uncorrelated with the regressors. The stochastic error term in this regression thus comprises the traditional error component and a portion arising because of the individual heterogeneity of the selected firms. The result of the hausman test is set below:

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2 (8)} &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 8.66 \\ \text{Prob>chi2} &= 0.3721 \\ & (V_b-V_B \text{ is not positive definite}) \end{aligned}$$

The test finds out the appropriateness of the assumption under the fixed and random effect whether the unobserved heterogeneity relates with the regressors or otherwise. The null hypothesis is chosen because the p- value of is .3721 could not fail to reject the assumption under the random effect as appropriate (as denoted by difference in co-efficient is not systematic (H_0)). In other words, it assumes there is randomness in the co-efficient). The results of the test shows the X^2 (chi-square) value as 8.66 and the probability of getting it at 37.21%. Since this is above the significance level of 5%, the null hypothesis cannot be rejected. The random effect model is thus more appropriate than the fixed effect model in predicting the impact of dividend policy on firms' performance in this regard.

4.3 Model diagnostics

The R-square provides an estimate of the strength of relationship between the model and the response variables. It is seemingly an intuitive measure of how the linear model specified fits the sets of observations. The R-square provides a within mean percentage of 80 indicating that the co-efficient of determination for the overall model is highly significant in predicting the outcome. This notwithstanding, it does not provide any formal hypothesis test for the relationships. The F-Test of overall significance determines whether this relationship is statistically significant. F- Test of 0000 is far below 1% meaning that the variables have a greater chance of explaining the outcome of the model jointly.

4.4 Test of normality of residuals

The normality of the residuals is determined by the shapiro-wilk test for normal data. The table (4.2) for the test indicates that the null hypothesis stating that data is normal cannot be rejected as the probability is above 5% criterion level. This suggests therefore that the significance of regressors in the models used in this research is not biased as required for the purpose of hypothesis testing.

Table 4.2 Shapiro-Wilk W test for normal data

Variable 	Obs	W	V	z	Prob>z
-----+-----					
r 	70	0.94144	3.605	2.788	0.1921

4.5 Test of multicollinearity

Three major methods were used in order to determine the presence of multicollinearity among independent variables in this study. These methodologies involved calculation of a pairwise correlation matrix, tolerance test and Variance Inflation Factor (VIF) (Ahsan, Abdullah, Gunfie, & Alam, 2009).

The pair-wise correlation matrix is shown at 10% level of significant. It shows the relationship among the individual variables. The lowest correlation is -0.010. However, the highest correlation is 0.4689 between dividend per share and age of listing. Thus, the correlation among these two variables even though the highest correlation, the value is too low to amount to any meaning multicollinearity at 0.8 point of confidence, (rule of thumb).

Table 4.2: Correlation Matrix

	grth	lev	car	infl	banksize	dps	ceodual	ltnage
Grth	1.0000							
lev	-0.0313	1.0000						
car	0.2007	0.1687	1.0000					
infl	-0.0961	0.0592	-0.0836	1.0000				
banksize	0.2689	0.0709	0.3270	-0.1519	1.0000			
dps	0.2903	-0.2988	-0.1064	-0.0900	0.1778	1.0000		
ceodual	-0.1499	-0.0101	0.1227	-0.1193	0.3071	0.2402	1.0000	
ltnage	0.0180	-0.1299	0.2187	-0.1643	0.4095	0.4689	0.3839	1.0000

Note: GRTH=growth in income revenue, LEV=leverage, CAR=capital adequacy ratio, INFL=inflation, SIZE=size of bank, DPS=dividend per share, CEODUAL=CEO duality, LTNAGE=listing age of bank

Besides, according to the table below test of Co linearity, none of the tolerance level is equal to 1; and also VIF values are perfectly below 10. Thus the measures selected for assessing independent variable in this study do not reach levels to indicate the

presence of multi-co linearity. This means that the severity of multicollinearity (assuming there were any) is further deflated by the VIF (Myers, 1990)

Table 4.3: Value Inflation Factor (VIF)

Variable	VIF	1/VIF
ltnage	1.76	0.567268
dps	1.76	0.569504
banksize	1.48	0.674795
grth	1.44	0.696447
ceodual	1.34	0.746557
Car	1.30	0.767028
Lev	1.14	0.877100
Infl	1.05	0.952138

Mean VIF 1.41

Note: GRTH=growth in income revenue, LEV=leverage, CAR=capital adequacy ratio, INFL=inflation, SIZE=size of bank, DPS=dividend per share, CEODUAL=CEO duality, LTNAGE=listing age of bank

4.6 Autocorrelation test

The Wooldridge test for serial correlation was run using Stata to check for autocorrelation and the results indicate that presence of serial correlation is not innocuous and pernicious to reject the null hypothesis at p- value of 5 % (approximately). The result is shown below;

Wooldridge test for autocorrelation in panel data

H0: no first order autocorrelation

$$F(1, 6) = 6.262$$

$$\text{Prob} > F = 0.0464$$

4.7 Heteroscedasticity test

Heteroskedasticity is the absence of homoskedasticity. This occurs when the variance of the error term which is assumed to be constant varies. The Breush-Pagan and Cook-Weisberg test therefore was run to test for the presence of heteroscedasticity. The test revealed the following results;

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity

Ho: Constant variance
 chi2 (1) = 4.99
 Prob > chi2 = 0.0255

The above test reports a significant value of 2.55% below the 5% level of the set hypothesis. This means that the chi2 of 4.99 is significant and for that matter could not afford to reject the alternate hypothesis of saying that heteroscedasticity is present. This is however dealt with in line with White's heteroscedasticity- consistent variances and standard errors also known as robust standard errors. The following results were finally produced for the analysis.

Table 4.4 Main regression results

VARIABLES	(1) COEFFICIENTS	P-VALUE
BANKSIZE	1.387***	(0.000)
DPS	1.251***	(0.001)
CEODUAL	-2.995*	(0.052)
LTNAGE	-0.187*	(0.076)
INFL	0.224	(0.216)
CAR	-153.0***	(0.000)
LEV	-0.841	(0.720)
GRTH	7.316***	(0.000)
_cons	5.344	(0.560)
r2_w	0.800	
P	.	

Note: GRTH=growth in income revenue, LEV=leverage, CAR=capital adequacy ratio, INFL=inflation, ROE=return on equity, SIZE=size of bank, DPS=dividend per share, CEODUAL=CEO duality, LTNAGE= listing age of bank; P-values in parentheses

* p<0.1, ** p<0.05, *** p<0.01

4.8 Analysis of regression results

Bank size appears significant a significant predictor in determining performance. It reports a significant co-efficient statistically and it is positively related with performance. The co-efficient of 1.38 means that performance (ROE) is likely to increase by 1.38units as size of bank increases by 1 unit. Holding all things constant means that the size of the firms plays an important role in determining the kind of relationship the firm enjoys within and outside its operating environment. The larger the firm, the greater the influence it has on its stakeholders. Again the growing of conglomerates and multinational corporations into today's global economy are possibly indicative of the role size plays within the corporate environment. This lends credence to Bhayani (2007) who argues that larger firm disclose more information in companies and companies may tend to allocate larger resources for production of this information to yield better result in performance. Many previous studies also concluded the existence of bank size has a positive relationship between size and performance. Research by Ibrahim (2012), Barako (2007), Hossain (2008), Dogan (2013) allude to the above fact. Company size therefore has a critical role in the profitability (Roe-performance) because persistence of profitability is greater in larger firms than smaller firms.

Leverage (LEV) has incorporated the meaning of risk increasing philosophy. Though leverage is not statistically reported as a significant predictor in determining banks' performance, it is reported to have a negative impact on performance from the table above. The co-efficient indicates that a 1% change in leverage is likely to bring about 0.84% downward shift in performance. This is highly laudable because a company can attract external resources, especially when it goes through a boom period and it needs additional financial resources in order to salvage the situation. This makes it

riskier on sufferance that an increasing level of risk is similar to increasing the cost of other external resources which may plunge the company within the danger of peril. This is in consonance with Abiodun (2008), Kebewar and Ahmed (2013), Dogan (2013) but in complete dissonance with Weill (2001) as against Young and Jang (2005) who reported that financial leverage has no impact on profitability. In short, agency cost arise thanks to the conflict of interest between shareholders and debtholders hence the agency cost resulting from the conflict of interest between shareholders and debtholders indicating that a higher leverage firms is said to perform woefully.

Age is the number of years elapsed since the firm's year of initial public offering (IPO) to the reporting date. From the table age of listing statistically present a negative co-efficient of 0.18 meaning that as firms increase in age performance is likely to be affected negatively. The economic justification of corporate ageing could be reflected in the cementation of organisational rigidities and therefore becoming oblivious of the prospects of a successful organisational change. In line, ageing firms experience incremental costs, slow growth, obsolete assets and the apathy by management towards research and development geared towards an upward surge in revenue. This is supported by Carroll (1983), Hannan and Freeman (1984) concluding that organisation rigidity and inertia phenomenon impairs firms' ability to perceive valuable signal of firms' prospects. The root of the problem could be due to the tendency of the firm's inability to codify their success with organisational measure, rules of conduct as best practice making it undesirable to recognise, accept and implement change.

Again, it must not be glossed over that whatever learning benefits the firm captured in established lines of business probably declines over time and as such it is incumbent on ageing firms to be less flexible in their quest to match the dynamic and competitive business environment for a significant improvement in performance.

Growth (GRTH) in income reports a significant coefficient factor in determining banks performance. It reports a positive coefficient of 7.316 statically from the regression table above indicating that as firms increase in sales revenue by 100 %, profitability is more likely to increase astronomically by 731.6%.

An emphasis on (income) sales growth plays an important role in motivating banks in their propensity to achieve results. Without income (sales) growth, most of the firms' objectives are not easily attainable. Income growth has undoubtedly positive impact on performance. For instance firms' old lines of business may be continued if they simply cover their marginal costs or if closing down costs more than continuing, because profit seeking managers mostly initiate business ventures that promise sufficiently high returns. That is increases in sales income from new business should improve sales which end up improving performance. Sales growth generally, utilises capacity more fully, which spreads fixed costs over more revenue resulting in higher profitability. Alternatively, if an industry has increasing economies of scale or learning curve effects, growing firms benefit from such effects, again increasing performance.

Besides, growth in income is more likely to provide additional market power which firms can use to increase performance.

Theoretical interest in revenue growth in increasing performance is ably espoused by the free cash flow and governance effects on sales. Jensen et al, 1983, Fama and Jensen 1983, Shleifer and Vishny 1991 argue that managers have a bias towards using cash flow to support unneeded sales growth. On the other hand, firms facing good investment prospects also use cash flow to support revenue growth aimed at enhancing performance. Other scholars also hold a dissenting view positing that revenue growth sometimes benefits managers rather than stockholders. A concept known in economics as ‘managerial capitalism’ in which Adam Smith (1776) pointed out that hired managers do not take as much care of their firms as do owners. Berle and Means 1932, Marris 1964, Baumol 1967, Marris and Wood 1971 also acclaim to this fact but do not oppose that increase in sales leads to incremental value in performance.

Inflation (INFL) effect is also another important determinant in determining banks performance. The regression results statistically reports direct relationship between performance and inflation for banks in Ghana. It shows that a 1% rise in inflation would cause banks performance to rise by 22.4%. This could be justified by the fisher effect. This theory states that real interest rates are independent of the changes in the monetary base. Fisher argued that real interest rates is equal to the nominal interest rate minus inflation rate. This is mathematically stated as;

$(1 + N) = (1 + R)(1 + I)$ where N= Nominal rate, R= real interest rate, and I=inflation rate

In general, high inflation rates are associated with high loan interest rates and thus high income. The effect of inflation on banks performance mostly depends on whether inflation is anticipated or unanticipated. If inflation is fully anticipated and interest rates are adjusted accordingly, a positive impact on profitability would result.

Similarly, unexpected rises in inflation cause cash flow difficulties for borrowers which can lead to premature termination of loan arrangements and precipitate loan losses. Perry 1992, Jiang 2003 and Guru 2002 supports the above sharing the same ideology.

It is thus generally believed that a rising interest rate should lead to higher banking sector profitability by increasing the spread between the saving and the borrowing rates. This assertion is also lauded by Hanweck and Kilcollin 1984 who found that there is a positive higher relationship between banks performance and interest rates triggered by inflation among USA banks. Molyneux and Thornton 1992 and Bourke 1989 also do not have any divergent opinion.

Capital Adequacy Ratio (CAR) is one the bank specific factors that influence the level of banks profitability. Capital is the amount of own fund available to support the banks business and act as a buffer in adverse situations. Banks capital creates liquidity for the bank due to the fact that deposits are mostly fragile and prone to bank runs. Greater bank capital reduces the chance of distress however it is without drawbacks that it induces weak demand for liability, the cheapest sources of fund.

Capital adequacy is the level of capital required by the banks to enable them withstands risks such as credit, market and operational risks they are exposed in order to absorb the potential losses and protect the debtors of the bank. The negative connectivity to the firms' performance means that the firm stands the chance of risks in meeting maturing obligations of debtors and other associated banking risks.

Capital adequacy is important for banks to absorb risks till banks are able to generate profit. However, banks that are able to exceed the capital requirement stand a better

chance of luring customers and instilling confidence in the system. Like other sectors, this sub sector is also faced with poor infrastructural facilities and poor performance of regulatory authorities. Some of the reasons advanced could be poor asset quality, under capitalization, inexperienced personnel, illiquidity, inconsistent regulatory policies and supervision leading to the inability of these banks to meet the minimum capital adequacy ratio in Ghana thereby leading to serious decline in performance.

The issue of bank capitalization in most economies today has been how to resolve the problem of unsound bank, enhance efficient management of the banking system, provide better funding for banks' lending activities, reduce non- performing loans and advances, increase profitability, reduce risk, to ensure quality asset management and to put banks in a strong liquid position to meet customers obligation at all times.

The inability could be further explained by the illiquidity in the banking system which leads to loss of customers' confidence in the banking industry. It is imperative for banks to meet up the required level of capital for sound and safe banking. The evolving competition in the banking industry as a result of globalization has made it difficult for banks to play their major role of financing economic activities arising from inadequate capital.

Inadequate bank capital could lead to a crisis of confidence in the banks to the extent that the original functions which is to support the volume, type and character of a bank's business, to provide for the possibilities of losses that may arise there from and to enable the bank to meet a reasonable credit need of the community have been eroded. Losses suffered by banks led to bank failure especially in the areas of lending. The soundness, safety and profitability of a bank affect the quality of its loan portfolio.

Dividend Per Share (DPS) is the amount of earnings received by each stockholder for the period. It indicates a significant factor in predicting firms' performance statistically from the regression table above. The statistics of 1.251 suggest that as the payment of dividend per share increases by GHC1, Roe is more likely to experience GHC1.25 increment. This means that the amount of income received by owners of the firm appease them much to continue to repose much confidence in the business towards incremental performance annually.

A dividend that is cash distributions that many companies pay out regularly to shareholders from earnings send a clear, powerful message about future prospects and performance. A company's willingness and ability to pay steady dividends over time - and its power to increase them - provide good clues about the great prospects of the banks.

Again, as a way of ensuring efficient use of resources, regular dividend payments mostly incremental in nature may be adopted to help regulate the actions of management of banks I Ghana. Dividends payment may bring more discipline to management's investment decision-making. Holding onto profits might lead to excessive executive compensation, sloppy management, and unproductive use of assets. Studies show that the more cash a company keeps, the more likely it is that it will overpay for acquisitions and, in turn, damage shareholder value. In fact, companies that pay dividends tend to be more efficient in their use of capital than similar companies that do not pay dividends since dividend payment serve as a mechanism in disciplining the actions of management.

Managers can be awfully creative when it comes to making earnings look good. But with dividend obligations to meet twice a year, manipulation becomes that much more challenging.

Another possible explanation is that, management of quoted banks may adopt dividend payment in order to give investors a sense of what a company is really worth relative to non-dividend paying companies. The dividend discount model is a classic formula that explains the underlying value of a share, and it is a staple of the capital asset pricing model which, in turn, is the basis of corporate finance theory. According to the model, a share is worth the sum of all its prospective dividend payments, 'discounted back' to their net present value. As dividends are a form of cash flow to the investor, they are an important reflection of a company's value. This invariably, translates into the appreciated returns required by equity holders of banking institutions.

CEO duality (CEODUAL) was found to be significant in explaining banks performance. It however reports an adverse relationship between performance and duality of CEO position and the board chairman. The figure from the regression results indicate that an increase (presence) in CEO duality by 100 points will cause performance to diminish by 299 points in Roe. This means that as the CEO holds these two key positions simultaneously, banks performance are more likely to experience a setback in performance.

The economic justification could be that the agency problem could left unchecked by virtue of the fact that the CEO would assume the position of a player and at the same

time being the officiating referee. The emanating problem would be conflict of interest that is likely to erupt.

Additionally, performance could be affected negatively because of the complicated and uncountable workload that would be exerted on the CEO to execute within the limited time frame. There is therefore the high tendency too for him to embark upon suboptimal decisions that are not results oriented all stemming from the fact that fresh ideas from other knowledgeable personnel may not be injected or brought on board into the business. Another anticipated cause for this adverse performance could be that the managerial clout of the CEO would be over-broadened thereby crippling the initiatives of other subordinating key staff of the organisation in their desire to protect their jobs other than to challenge any ill- decision that may cause for their firing.

Ehikioya (2009) found that CEO duality adversely affects firm performance suggesting that both roles (i.e. decision management and decision control) should not be combined into a single position. This notwithstanding, Abor and Biekpe (2007) found a positive relationship between CEO duality and performance using the data of small and medium enterprises in Ghana.

In a similar vein, the ratio of market value of equity to the book value of equity, been regressed against the independent and control variables did not provide any much varied results.

The results however indicated that dividend policy has a significant influence on banks performance. This is highly consistent with the first model specified already. Hence one can conclude without any doubt that dividend policy has a strong and significant influence on banks' performance. The results further reveals that for

market based performance indicator, size of bank, CEO duality and growth in sales are insignificant in determining banks performance. Inflation, capital adequacy, leverage and age of listing are also significant predictors in determining banks performance on a market bases. See the attached appendix for the Stata results.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter presents the overall findings of the research, necessary recommendations areas for further studies and the general conclusion of the study. It thus gives clear cut policy guidelines that must be adopted and the existing business processes worthy of espousing enormously to increase banks performance following the findings.

5.2 Summary of findings

Size of a bank has been found to be a significant determinant in explaining banks performance. It was revealed that as banks increase in size in terms of total assets, performance is likely to increase. This could be due to the utilisation of idle assets (resources) to generate more sales revenue in order to increase profitability all else constant. Further explanation could be due to the growth of conglomerates and Multinational Corporation resulting in what is called synergy.

A bank's leverage was found to have an insignificant adverse effect on its performance all from the fact that risks increase as banks borrow from external sources. The restrictive covenants imposed and the regulations to abide by trammel actions in an attempt to undertake risky investments to yield higher returns. That is agency problem is created between shareholders and debt holders which ultimately may lead to the gradual plummeting of performance.

Age of a banks listing since IPO has also been found to be a significant determinant factor in determining banks performance unfavourably. Holding that, the older the company, the more woefully the company is likely to perform. The justification could

be due to the cling to the antiquated ways of business norms, rules, procedures and conduct (business processes). Businesses (banks) become less flexible to accommodate change for positive results all because of the difficulty in the change process but do fail to recognise the immense economic benefits the change will bring to the firms.

Growth in sales was also found to report a significant coefficient in determining banks performance positively. Following the above, this was further justified by the economies of scale, scope and the learning curve effects, aged firms are more likely to reap fruitful results, holding all costs constant. Growth in sales revenue gives such firms additional power over competitors in order to withstand and outwit keen competition from external pressures thereby placing such banks highly advantageous.

Inflation reports an insignificant effect statistically in determining banks performance. This shared light with Fisher's proposition that real interest rate is equal to the nominal rate less inflation rate. Since, banks adjust such rate accordingly depending on the mode of anticipation in order not to jeopardize their profitability margins. The spread is however adjusted (often upwards) to commensurate the level of inflation hikes between saving and borrowing rates.

Capital adequacy of the banks was also found to report an adverse effect in determining banks performance. The association could be explained by the poor asset quality, under capitalisation inexperienced personnel, illiquidity an inconsistent regulatory policies making it less difficult for banks to meet the required capital adequacy ratio in ensuring safe and sound investments without any loss of confidence among stakeholders that may lead to the downward movement in performance.

Dividend policy measured in terms of the dividend per share by the stockholders was found to be a highly significant predictor in explaining the banks performance. This was further explained by the signalling effect reposing much confidence in the company thereby translating into higher results. Dividend policy of payment is self-disciplinarian action against manager behaviour thereby offering the platform to create incremental value for owners.

CEO duality had also been found to be significant in explaining banks performance. The negative impact however was possibly due to the agency conflict of interest that is likely to persist once this phenomenon so exist. Managerial/CEO clout advancement unjustifiably could also be responsible for the adverse effect in performance. Additionally, job role enlargement on one person would not create the enabling environment for fresh ideas to be injected into the business to yield results.

5.3 Recommendations

From the fore-going, it is highly recommended that;

1. Banks should strive to utilise all idle resources (assets) if desirable, merge with other banks to reap the benefit of synergy alongside. Specifically, amount of cash being held for precautionary measures may be reduced or reinvested in short term securities. Besides, customers who withdraw huge sums of money occasionally may be advised to give a prior notice of say three months earlier for the banks to meet such demands.
2. In their propensity to reduce leverage, unprofitable ventures that command huge sums of money may be abandoned. These projects push firms to increase gearing; else banks should associate themselves with risky investments promising higher returns. That is, banks should not open new outlets or

branches in locations that are not revenue generating. There is therefore the need for proper feasibility studies before such projects may be carried out.

3. It is also more imperative for banks to become more flexible and adapt to change (positive) easily in their business processes without causing any undue harm. In this regard, banks can review their business processes from time to time and see where there is the need for a swift change being it technology-wise or manpower.
4. Growth in sales revenue also must be continually sustained by exploring different marketing strategies say niche marketing. Precisely, there is the need for more marketing strategies to maintain and attract new customers in their bid to increase market share and power.
5. Banks must not also relent on their effort to adjust their spread or nominal rate of interest to match the inflationary trend. Thus, if policy rates increases by say one percent, then banking institutions must also reflect the change in their relative prices (rates).
6. Regulatory bodies like BoG can also loosen the tight banking regulatory policies regarding capitalisation, liquidity and policy rates, in order to increase banking results for its owner. For instance, regulations on minimum capital adequacy ratio may be reviewed from time to time but central banks must not also be oblivious of the need to increase the profitability of the banks.
7. It is also recommended that banks should continually sustain (if possible) increase their divided per share policy due to the benefits that are likely to perceive. In accomplishing this, constant and steadily increasing dividend policies may be adopted whilst management adopt stringent measures to curtail agency problems and other suboptimal decisions.

8. Lastly, CEO duality should be separated or position split between different people in order to forestall its antecedent repercussions. Put simply, one person should not be allowed to hold dual positions on the board unless there is a strong justification which does not raise any reasonable doubt to do so.

5.4 Further research

It must be noted that this work is solely confined to Ghanaian quoted banks on the Ghana Stock Exchange and hence the analysis may be limited in scope compared to other non- banking industries listed at the GSE. Further research could be carried out in a different non- banking industry say manufacturing, pharmaceutical, distribution or insurance companies depending on the potential researchers' preference.

Besides, as a way of robustness check, further research could be carried out in the same banking industry increasing the scope to cover non listed banks whilst using different performance measure like return on assets or share price as the depend variable.

5.5 Conclusion

In the nutshell, it could be stated unequivocally from the study that dividend policy has an affirmative impact on banks performance. There is no gainsaying the fact that strict attention paid to dividend policy by banking institutions would lead to a better performance results. It therefore behoves on management to craft an ideal dividend policy that would appeal to stockholders the most as a way of returning value to them by virtue of their sacrifices made.

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Appendix 1: The hausman specification ntest

```
. xtset id years

panel variable: id (strongly balanced)

time variable: years, 2004 to 2013

delta: 1 unit

Prob>chi2 = 0.3721

(V_b-V_B is not positive definite)

. xtreg roe inflation capital lev grth ltnage ceodual dps banksize, fe

Fixed-effects (within) regression      Number of obs   =    70
Group variable: id                    Number of groups =    7
R-sq: within = 0.8195                 Obs per group: min =   10
                                     between = 0.8010           avg =   10.0
                                     overall = 0.8063         max =   10
                                     F(8,55) = 31.21
corr(u_i, Xb) = -0.2347                Prob > F = 0.0000

-----
      roe |   Coef.  Std. Err.   t   P>|t|   [95% Conf. Interval]
-----+-----
inflation |   .042904   .1942405    0.22  0.826   -0.3463627   .4321706
capital   |  -148.9039  23.72362   -6.28  0.000   -196.4471   -101.3607
lev       |   5.755166   5.355155    1.07  0.287   -4.976805   16.48714
grth      |   7.256034   .5503566   13.18  0.000    6.153094    8.358973
ltnage    |  -0.6834693  .2371111   -2.88  0.006   -1.15865    -0.2082883
ceodual   |  -3.331097   1.874775   -1.78  0.081   -7.088229    .4260348
dps       |   1.072006   1.651391    0.65  0.519   -2.237455    4.381467
```

```

banksize | 1.323845 .4695016 2.82 0.007 .382943 2.264748
_cons | 10.51844 5.804416 1.81 0.075 -1.113869 22.15075
-----+-----

sigma_u | 4.3331974
sigma_e | 4.7116385
rho | .45823255 (fraction of variance due to u_i)
-----

F test that all u_i=0: F(6, 55) = 2.63 Prob > F = 0.0260
. estimates store fixed
. xtreg roe inflation capital lev grth ltnage ceodual dps banksize, re
Random-effects GLS regression Number of obs = 70
Group variable: id Number of groups = 7
R-sq: within = 0.7997 Obs per group: min = 10
between = 0.9594 avg = 10.0
overall = 0.8669 max = 10
Wald chi2(8) = 397.32
corr(u_i, X) = 0 (assumed) Prob > chi2 = 0.0000
-----

roe | Coef. Std. Err. z P>|z| [95% Conf. Interval]
-----+-----

inflation | .2238476 .1916193 1.17 0.243 [-.1517194 .5994146]
capital | -153.0108 18.64794 -8.21 0.000 [-189.5601 -116.4615]
lev | -.8405665 4.449865 -0.19 0.850 [-9.562141 7.881008]
grth | 7.315514 .504108 14.51 0.000 [6.327481 8.303548]
ltnage | -.1867474 .1348711 -1.38 0.166 [-.4510898 .077595]

```

```

ceodual | -2.994547  1.578499  -1.90  0.058  -6.088348  .0992535
      dps |  1.251378  1.232432   1.02  0.310  -1.164143   3.6669
banksize |  1.386905  .3712696   3.74  0.000   .6592301   2.11458
      _cons |  5.343607  5.349559   1.00  0.318  -5.141335  15.82855

```

-----+-----

```

sigma_u |      0
sigma_e | 4.7116385
      rho |      0 (fraction of variance due to u_i)

```

-----+-----

. estimates store random

. hausman fixed random

---- Coefficients ----

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fixed	random	Difference	S.E.
inflation	.042904	.2238476	-.1809437	.0318025
capital	-148.9039	-153.0108	4.106883	14.66508
lev	5.755166	-.8405665	6.595733	2.979328
grth	7.256034	7.315514	-.0594808	.2208337
ltnage	-.6834693	-.1867474	-.4967219	.1950165
ceodual	-3.331097	-2.994547	-.3365501	1.011495
dps	1.072006	1.251378	-.1793724	1.099183
banksize	1.323845	1.386905	-.0630598	.2873859

-----+-----

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\text{chi2}(8) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$

$$= 8.66$$

$$\text{Prob}>\text{chi2} = 0.3721$$

(V_b-V_B is not positive definite)

Normality test

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
r	70	0.94144	3.605	2.788	0.1921

Appendix 2: The Main Regression Results for the Study

. xtreg roe inflation capital lev grth ltnage ceodual dps banksize, robust

Random-effects GLS regression Number of obs = 70

Group variable: id Number of groups = 7

R-sq: within = 0.7997 Obs per group: min = 10

 between = 0.9594 avg = 10.0

 overall = 0.8669 max = 10

Wald chi2(6) = .

corr(u_i, X) = 0 (assumed) Prob > chi2 = .

(Std. Err. adjusted for 7 clusters in id)

```

-----
|               Robust
|
|   roe |   Coef.   Std. Err.   z   P>|z|   [95% Conf. Interval]
|-----+-----
| inflation | .2238476   .1808185   1.24   0.216   -1.1305501   .5782453
| capital | -153.0108   22.38509   -6.84   0.000   -196.8848   -109.1369
| lev | -.8405665   2.340791   -0.36   0.720   -5.428432   3.747299
| grth | 7.315514   .6260911   11.68   0.000   6.088398   8.54263
| ltnage | -.1867474   .1050722   -1.78   0.076   -.3926851   .0191903
| ceodual | -2.994547   1.537925   -1.95   0.052   -6.008826   .0197313
| dps | 1.251378   .3818215   3.28   0.001   .5030219   1.999735

```

```

banksize | 1.386905 .3568982 3.89 0.000 .6873975 2.086413
_cons | 5.343607 9.17394 0.58 0.560 -12.63699 23.3242

```

-----+-----

```

sigma_u | 0
sigma_e | 4.7116385
rho | 0 (fraction of variance due to u_i)

```

```
. xtreg roe inflation capital lev grth ltnage ceodual dps banksize, fe
```

```
Fixed-effects (within) regression      Number of obs   =    70
```

```
Group variable: id                    Number of groups =    7
```

```
R-sq:  within = 0.8195                Obs per group: min =   10
```

```
        between = 0.8010                avg =   10.0
```

```
        overall = 0.8063                max =   10
```

```
F(8,55) = 31.21
```

```
corr(u_i, Xb) = -0.2347                Prob > F = 0.0000
```

```

roe |   Coef.  Std. Err.   t  P>|t|  [95% Conf. Interval]

```

-----+-----

```
inflation | .042904 .1942405  0.22  0.826  -0.3463627  .4321706
```

```
capital | -148.9039 23.72362 -6.28  0.000  -196.4471  -101.3607
```

```
lev | 5.755166 5.355155  1.07  0.287  -4.976805  16.48714
```

```

    grth | 7.256034 .5503566 13.18 0.000 6.153094 8.358973
    ltnage | -.6834693 .237111 -2.88 0.006 -1.15865 -.2082883
    ceodual | -3.331097 1.874775 -1.78 0.081 -7.088229 .4260348
    dps | 1.072006 1.651391 0.65 0.519 -2.237455 4.381467
    banksize | 1.323845 .4695016 2.82 0.007 .382943 2.264748
    _cons | 10.51844 5.804416 1.81 0.075 -1.113869 22.15075

-----+-----

sigma_u | 4.3331974
sigma_e | 4.7116385
rho | .45823255 (fraction of variance due to u_i)

-----

F test that all u_i=0: F(6, 55) = 2.63 Prob > F = 0.0260

. estimates store fixed

. xtreg roe inflation capital lev grth ltnage ceodual dps banksize, re

Random-effects GLS regression      Number of obs   =   70
Group variable: id                  Number of groups =    7
R-sq: within = 0.7997                Obs per group: min =   10
    between = 0.9594                    avg =   10.0
    overall = 0.8669                    max =   10

                                Wald chi2(8)   =  397.32
corr(u_i, X) = 0 (assumed)          Prob > chi2   =  0.0000

-----+-----

    roe |   Coef.  Std. Err.   z  P>|z|  [95% Conf. Interval]
-----+-----
inflation | .2238476 .1916193  1.17 0.243  -.1517194 .5994146

```

```

capital | -153.0108  18.64794  -8.21  0.000  -189.5601  -116.4615
    lev |  -.8405665  4.449865  -0.19  0.850  -9.562141  7.881008
    grth |  7.315514  .504108  14.51  0.000  6.327481  8.303548
    ltnage | -.1867474  .1348711  -1.38  0.166  -.4510898  .077595
ceodual | -2.994547  1.578499  -1.90  0.058  -6.088348  .0992535
    dps |  1.251378  1.232432  1.02  0.310  -1.164143  3.6669
banksize | 1.386905  .3712696  3.74  0.000  .6592301  2.11458
    _cons | 5.343607  5.349559  1.00  0.318  -5.141335  15.82855

```

```

-----+-----
sigma_u |      0
sigma_e | 4.7116385
rho |      0 (fraction of variance due to u_i)

```

```

. estimates store random

```

```

. hausman fixed random

```

```

---- Coefficients ----

```

```

| (b)      (B)      (b-B)  sqrt(diag(V_b-V_B))
| fixed   random  Difference  S.E.
-----+-----
inflation |  .042904  .2238476  -.1809437  .0318025
capital   | -148.9039 -153.0108  4.106883  14.66508
    lev    |  5.755166 -.8405665  6.595733  2.979328
    grth   |  7.256034  7.315514  -.0594808  .2208337
    ltnage | -.6834693 -.1867474  -.4967219  .1950165
ceodual   | -3.331097 -2.994547  -.3365501  1.011495

```

```
dps | 1.072006 1.251378 -.1793724 1.099183
banksiz | 1.323845 1.386905 -.0630598 .2873859
```

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(8) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 8.66 \end{aligned}$$

Prob>chi2 = 0.3721

(V_b-V_B is not positive definite)

. xtreg roe inflation capital lev grth ltnage ceodual dps banksiz, robust

Random-effects GLS regression Number of obs = 70

Group variable: id Number of groups = 7

R-sq: within = 0.7997 Obs per group: min = 10

 between = 0.9594 avg = 10.0

 overall = 0.8669 max = 10

Wald chi2(6) = .

corr(u_i, X) = 0 (assumed) Prob > chi2 = .

(Std. Err. adjusted for 7 clusters in id)

| Robust

roe | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----+-----

inflation | .2238476 .1808185 1.24 0.216 -.1305501 .5782453

capital		-153.0108	22.38509	-6.84	0.000	-196.8848	-109.1369
lev		-.8405665	2.340791	-0.36	0.720	-5.428432	3.747299
grth		7.315514	.6260911	11.68	0.000	6.088398	8.54263
ltnage		-.1867474	.1050722	-1.78	0.076	-.3926851	.0191903
ceodual		-2.994547	1.537925	-1.95	0.052	-6.008826	.0197313
dps		1.251378	.3818215	3.28	0.001	.5030219	1.999735
banksize		1.386905	.3568982	3.89	0.000	.6873975	2.086413
_cons		5.343607	9.17394	0.58	0.560	-12.63699	23.3242

-----+-----

sigma_u		0
sigma_e		4.7116385
rho		0 (fraction of variance due to u_i)

Appendix 3: .THE TOBIN'S Q

xtreg tobinsq inflation capital lev grth ltnage ceodual dps banksize, robust

Random-effects GLS regression Number of obs = 70

Group variable: id Number of groups = 7

R-sq: within = 0.1065 Obs per group: min = 10

 between = 0.8022 avg = 10.0

 overall = 0.2970 max = 10

 Wald chi2(6) = .

corr(u_i, X) = 0 (assumed) Prob > chi2 = .

(Std. Err. adjusted for 7 clusters in id)

| Robust

tobinsq | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----+-----

inflation | -.0715783 .0390504 -1.83 0.067 -.1481157 .004959

capital | -8.072922 7.06124 -1.14 0.253 -21.9127 5.766854

lev | 2.411664 1.956061 1.23 0.218 -1.422145 6.245473

grth | .0819737 .1112366 0.74 0.461 -.136046 .2999934

ltnage | .0751514 .0475308 1.58 0.114 -.0180073 .16831

ceodual | -.4013309 .3315737 -1.21 0.226 -1.051203 .2485416

dps | -.6743179 .347584 -1.94 0.052 -1.35557 .0069343

banksize | .0295488 .08472 0.35 0.727 -.1364994 .1955969

_cons | .9189348 .5303464 1.73 0.083 -.120525 1.958395

-----+-----

sigma_u | 0

sigma_e | .85091591

rho | 0 (fraction of variance due to u_i)

Table 1 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
grth	70	3.398714	1.405137	.02	7
lev	70	4796987	1349117	.1940104	.8396847
capital	70	1276979	036602	.01723	.2166698
inflation	70	12.478	3.267193	8.73	19.3
roe	70	2778143	1277472	.071	.614
banksize	70	13.4183	1.257248	10	15.86448
dps	70	.2566638	.6568296	0	3.05
ceodual	70	.7285714	.4479075	0	1
ltnage	70	10.53809	6.013831	.08333	22.33333

Appendix 4 :Correlation Matrix

grth	l ev ltnage	capital	infl	banksize	dps	ceodual		
Grth	1.0000							
lev	-0.0313	1.0000						
capital	0.2007	0.1687	1.0000					
inf	-0.0961	0.0592	-0.0836	1.0000				
banksize	0.2689	0.0709	0.3270	-0.1519	1.0000			
dps	0.2903	-0.2988	-0.1064	-0.0900	0.1778	1.0000		
ceodual	-0.1499	-0.0101	0.1227	-0.1193	0.3071	0.2402	1.0000	
ltnage	0.0180	-0.1299	0.2187	-0.1643	0.4095	0.4689	0.3839	1.0000

Appendix 5 Value Inflation Factor (VIF)

Variable	VIF	1/VIF
ltnage	1.76	0.567268
dps	1.76	0.569504
banksize	1.48	0.674795
grth	1.44	0.696447
ceodual	1.34	0.746557
Capital	1.30	0.767028
Lev	1.14	0.877100
Inflation	1.05	0.952138

Mean VIF 1.41

WOOLDRIDGE TEST FOR AUTOCORRELATION IN PANEL DATA

H0: no first order autocorrelation

$$F(1, 6) = 6.262$$

$$\text{Prob} > F = 0.0464$$

HETEROSCEDASTICITY TEST

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity

Ho: Constant variance

$$\text{chi2}(1) = 4.99$$

$$\text{Prob} > \text{chi2} = 0.0255$$

Appendix 6: Data Picked

company name	years	GRTH%	LEV.	CAPITAL	INFLATION(%)	BANK SIZE	DPS	CEO DUAL	LTNAGE	TOBIN'S Q
CALBANK	2004	4.4	0.364996	0.201051	12.6	13.62	0.00255	1	0.08333	0.71
CALBANK	2005	3.1	0.409684	0.18883	15.1	12	0.005	1	1.0833	0.17
CALBANK	2006	3.6	0.55	0.14	10.9	12.35907	0.00557	1	2.08333	0.02
CALBANK	2007	3.1	0.49	0.129465	10.7	11.96442	0.00757	1	3.08333	0.22
CALBANK	2008	3.39	0.57	0.105491	16.5	12.72382	0.0112	1	4.08333	0.26
CALBANK	2009	2	0.476647	0.126566	19.3	13.01805	0.0148	1	5.08333	0.17
CALBANK	2010	1.8	0.513524	0.153114	10.75	13.12187	0.012	1	6.08333	0.1
CALBANK	2011	2.3	0.52485	0.118211	8.73	13.57479	0.026	1	7.08333	0.22
CALBANK	2012	4.3	0.644661	0.175999	9.2	13.96337	0.026	1	8.08333	0.1
CALBANK	2013	5.9	0.629367	0.180372	11	14.25953	0.035	1	9.08333	0.19
GCB	2004	3.1	0.381734	0.10975	12.6	15.52	0.025	1	8.58333	1.2
GCB	2005	2.2	0.436777	0.119519	15.1	14	0.0375	1	10.58333	0.09
GCB	2006	3.7	0.47	0.11	10.9	15.86448	0.04	1	11.58333	1.2
GCB	2007	2.6	0.652185	0.150905	10.7	13.95614	0.04	1	12.58333	2.01
GCB	2008	2	0.66	0.12	16.5	14.31374	0.0342	1	13.58333	2.45
GCB	2009	0.9	0.660126	0.103715	19.3	14.46632	0.06	1	14.58333	3.4
GCB	2010	2.6	0.479375	0.08162	10.75	14.54613	0.0356	1	15.58333	2.9
GCB	2011	0.7	0.19401	0.070735	8.73	14.71346	0.07	1	16.58333	2.7
GCB	2012	4.7	0.28528	0.095067	9.2	14.90477	0.07	1	17.58333	3.1
GCB	2013	6	0.283302	0.131862	11	15.03666	0.14	1	18.58333	3.02
HFC	2004	3	0.384665	0.170788	12.6	13.3	0.007061	1	9.7	0.87
HFC	2005	1.1	0.422515	0.149518	15.1	11	0.008602	1	10.7	0.67
HFC	2006	1.4	0.614877	0.100873	10.9	11.58275	0.004567	1	11.7	0.08
HFC	2007	2.4	0.636998	0.080856	10.7	11.98827	0.005582	1	12.7	0.2
HFC	2008	0.02	0.38	0.07	16.5	12.83869	0.01	1	13.7	0.03

HFC	2009	2.1	0.620387	0.124119	19.3	12.46182	0.01	1	14.7	0.02
HFC	2010	2.1	0.498851	0.193064	10.75	12.79777	0.015	1	15.7	1.03
HFC	2011	2.3	0.488163	0.171745	8.73	12.97369	0.022	1	16.7	3.01
HFC	2012	2.2	0.571321	0.21667	9.2	13.28412	0.022	1	17.7	2.03
HFC	2013	3.7	0.530347	0.168226	11	13.78821	0	0	18.7	1.05
ECOBANK	2004	4	0.291304	0.099255	12.6	14.69	0	0	0.41667	0.01
ECOBANK	2005	4.2	0.367763	0.086698	15.1	12	0	0	1.41667	1.02
ECOBANK	2006	4.4	0.38	0.1	10.9	12.97586	0	0	2.41667	0.51
ECOBANK	2007	3.7	0.43	0.07	10.7	13.40684	0	0	3.41667	0.64
ECOBANK	2008	3.7	0.44	0.09	16.5	13.73179	0	0	4.41667	0.66
ECOBANK	2009	3.9	0.328912	0.148112	19.3	14.14256	0	0	5.41667	0.31
ECOBANK	2010	3.9	0.32608	0.149646	10.75	14.23503	0	0	6.41667	0.3
ECOBANK	2011	3.3	0.398711	0.123401	8.73	14.5707	0.24	1	7.41667	0.33
ECOBANK	2012	4.2	0.412853	0.135119	9.2	15.03304	0.24	1	8.41667	0.19
ECOBANK	2013	4	0.459417	0.120471	11	15.34686	0.29	1	9.41667	0.29
STANCHART	2004	4.7	0.38	0.1	12.6	15.26	0.8765	1	13.33333	0.89
STANCHART	2005	4.9	0.430313	0.129125	15.1	12	0.9574	1	14.33333	0.2
STANCHART	2006	5	0.337432	0.11341	10.9	13.47444	1.2095	1	15.33333	0.82
STANCHART	2007	4.3	0.354964	0.1093	10.7	13.60322	1.3	1	16.33333	0.43
STANCHART	2008	3.4	0.47	0.09	16.5	13.80034	1.521	1	17.33333	0.22
STANCHART	2009	4.1	0.290937	0.113642	19.3	14.15499	1.5	1	18.33333	0.07
STANCHART	2010	4.3	0.280087	0.117503	10.75	14.32707	2.47	1	19.33333	0.56
STANCHART	2011	3.9	0.302742	0.117995	8.73	14.49408	3.05	1	20.33333	0.012
STANCHART	2012	5.7	0.40139	0.130234	9.2	14.68709	3.05	1	21.33333	0.23
STANCHART	2013	7	0.378216	0.16296	11	14.91023	0.047	1	22.33333	0.45
UTB	2004	0	0	0	12.6	0	0	0	0.08333	0.104
UTB	2005	5.2	0.756684	0.09932	15.1	10	0	0	1.08333	2.4
UTB	2006	6.2	0.839685	0.099302	10.9	10.92082	0	0	2.08333	4.5
UTB	2007	5.8	0.70594	0.106469	10.7	11.22259	0	0	3.08333	3.08

UTB	2008	4.1	0.46	0.13	16.5	11.7584	0	0	4.08333	2.04
UTB	2009	3.5	0.652512	0.109848	19.3	12.26397	0	0	5.08333	1.09
UTB	2010	1.9	0.610293	0.098883	10.75	13.15509	0.0107	1	6.08333	0.109
UTB	2011	1.8	0.666652	0.085892	8.73	13.47705	0.01	1	7.08333	3.08
UTB	2012	2.1	0.688666	0.130139	9.2	13.80233	0	0	8.08333	2.04
UTB	2013	0.7	0.686244	0.096286	11	14.10544	0.02	1	9.08333	4.2
SG-SSB	2004	4.7	0.32	0.15	12.6	14.66	0.073957	1	9.16667	3.2
SG-SSB	2005	3.5	0.443758	0.142016	15.1	12	0.09	1	10.16667	0.77
SG-SSB	2006	3	0.386901	0.156678	10.9	12.81069	0.048707	1	11.16667	1.9
SG-SSB	2007	3	0.508414	0.13982	10.7	12.94289	0.045	1	12.16667	0.94
SG-SSB	2008	3.7	0.66	0.16	16.5	12.98715	0.0739	1	13.16667	0.25
SG-SSB	2009	3.3	0.513649	0.188179	19.3	13.26507	0	0	14.16667	0.89
SG-SSB	2010	2.8	0.435552	0.169474	10.75	13.43851	0	0	15.16667	0.63
SG-SSB	2011	2.7	0.409648	0.179144	8.73	13.64244	0	0	16.16667	1.98
SG-SSB	2012	2.8	0.477627	0.155947	9.2	13.9007	0	0	17.16667	2.07
SG-SSB	2013	3	0.608607	0.159221	11	14.01153	0.04	1	18.16667	2.43