

**DETERMINANTS OF DIVIDEND PAYOUT POLICY IN ETHIOPIAN PRIVATE  
COMMERCIAL BANKS**



**A RESEARCH PROPOSAL SUBMITTED TO DEPARTMENT OF ACCOUNTING AND  
FINANCE FOR PARTIAL FULFILMENT OF BACHELOR OF ART DGREE IN  
ACCOUNTING AND FINANCE**

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## ***Abstracts***

*The researcher of this study decided to conduct a study regarding the determinants of dividend policy of Ethiopian private banks using bank specific factors and macro variables. The main objective of this study was to identify the determinants of dividend policy of Ethiopian private banks. To answer the objective of the study, explanatory study used &the data covered the period from 2009-2018 for the sample of ten Ethiopian private banks and used secondary data. Both bank specific and macroeconomic variables were analyzed by employing the balanced panel fixed effect regression model and the study used dividend policy as a dependent variable and nine independent variables; they are profit, leverage, liquidity, retained earnings, loan loss provision, lagged dividend payout, bank size, economic growth rate and inflation rate. The result of the study revealed that profit, lagged dividend payment has statistically significant impacts on dividend policy of Ethiopian private banks while loan loss provision, leverage have negative and statistically significant impact on dividend policy of Ethiopian private banks whereas liquidity, retained earnings, bank size, inflation and economic growth rate were found to be statistically insignificant and have no any impact on dividend policy of Ethiopian private banks.*

***Keywords:*** *Dividend policy, Ethiopian private banks, bank specific factors, macro variables*

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## **List of Acronyms and Abbreviations**

BS-Bank size

CBE – commercial bank of Ethiopia

CLRM – Classical linear regression model

CSA – Central statistical agency

DVPO – Dividend payout

DW – Durbin-Watson

ECOG – Economic growth

FEM – Fixed Effect Model

GDP – Gross domestic product

INF - Inflation

LDVP – Lagged dividend payment

LEV – Leverage

LIQ – Liquidity

LLP- loan loss provision

M&M – Miller and Modigliani

MOFED – Ministry of finance economic development

NBE – National bank of Ethiopia

OLS- ordinary list square

NPV – Net present Value

RER- Retained earnings

PRO – Profitability

REM – Random Effect Model

ROE – Return on equity

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# CHAPTER ONE

## INTRODUCTION

### 1. Background of the study

Among financial institutions banking system is a corner stone for once country economy .Study about banking is a crucial issue. Among these studies one is divided policy. Dividend policy is one of the major decisions in corporate finance. Corporate dividend policy has been the concern of financial managers, and firms at large. Dividend policy is one of the most controversial issue in modern corporate finance (Maladjian & El Khoury, 2014). Explaining why company pay dividend and some do not pay dividends is still problematic to explain and therefor, dividend policy remains controversial (Ross, Westerfield, & Jaffe, 2002; Brealey & Myers, 2003;Badu, 2013). Firms are faced with dilemma of sharing dividend to stockholders and retaining their earnings, with the view to reinvesting it into the business so as to promote further growth of the business. As the business grows, then, earning flow of the stockholders grows over time. The decision of the firm concerning how much earnings should be distributed, how stable should the distribution be, and how much should be retained is the concern of dividend policy decision (Kinfе, 2011).Researchers have proofed that firms use dividends as a way of showing to the outsiders regarding the stability and growth prospects of the firm. When accompany Paying out more cash dividends will tend to increase the price of the stock in contrary this reduce reinvestment these result in lower the expected growth rate. Alternatively, earnings retained are the most important internal sources of financing the growth of the firm. In practice every firm follows some kind of dividend policy, which retains a portion of the net earning in such a manner that it will not constitute a threat to dividend payment (Chigazie, 2010). The dividend policy of a firm is a significant aspect of corporate financial management, for it has potential implications for share prices (and hence returns to investors), the financing of internal growth (through retentions), the size of the equity base within the firm (again through retentions), and hence it's gearing (leverage) ratio (M. Omran and J. Pointon, 2004).

The researcher of this paper is highly inspired to study about dividend payout by using more variables compared to before & to give up to dated literature.

## 1.2 Statement of the problem

There is extensive debate about dividend policy one of the most powerful arguments towards the impact of dividend was presented by Modigliani and Miller (1961). They stated that under perfect capital markets, without any taxes, and transaction costs the company value is independent of the dividend policy. Instead the firm value is solely depended of the earning power of the company's assets and its investment policy and not by how its profits are distributed to shareholders (Modigliani & Miller, 1961). In contrary, Linter (1956) argued that that dividend is relevant because it has an impact on the company's value by disregarding the assumption presented by Modigliani and Miller (1961) and concluded by Linter is that in the real world dividends depend on the company's earnings and as the firm pays dividends the value of the firms increase. Linter's research also was supported by Gordon (1959) who stated that the shareholders prefer dividends to capital gains. Thus, the company's dividend payouts are important both to shareholders and managers since it contributes to a higher value of a firm and shareholders would be willing to pay a higher price for stocks that pay dividends.

Even though, several empirical studies have been conducted on the determinants of dividend payout, the finding show differences. Although profitability is claimed to have a positive impact on dividend payment by Lintner (1956) and Gordon (1959) and others, but the finding in developing countries shows profitability is not significant (Zaman, 2013; Nyor & Adekunle, 2013) or is negatively related with dividend payment ( Maladjian & El Khoury, 2014). In spite of the continuous and increasing theoretical and empirical debate on dividend policy, there is still no generally accepted standard on how firms actually pay out dividend to shareholders at a given time period (Basse, Elizabeth, & Asinya, 2014).

Since the argument persists to date, it is important to study factors that affect the dividend policy because it can be used as a mechanism to signal financial information to the outsiders regarding the stability and growth prospects of the firm, it can play an important role in a firm's capital structure, it can be affected by the firm's investment decisions, a firm's stock price is affected by the dividend pattern. Firms prefer not to reduce or eliminate dividend payments because they are

confident of keeping up with their good performance because the success of a financial manager is tied to the maximization of shareholder wealth so it is needed to understand the determinants of dividend policy of firms (Butros, 2014).

Ethiopian banking industry is well known for its abnormal profit and associated high dividend payments due to lack of competitiveness and under development (Making finance work for Africa, 2014). It is also relatively under developed in comparison to that of other African countries (Zerayehu, Kagne, & Teshome, 2013). But the last decade report show that .banking industry in Ethiopia is rapidly increasing. The industry is seen as a lucrative by investors and new banks are joining year to year.

Researcher like Hashim, Shahid, Sajid, Umair (2013) investigated that the determinants of divided policy of banks in Pakistan by taking panel data for seven years time period (2003-2009) for twenty seven banks. The study reached profitability, last year divided and ownership structure show positive impact on dividend payout and liquidity show negative impact in the banking industries. size, leverage ,agency cost, growth and risk show insignificant relationship and have no impact on dividend payout.

In Ethiopia a lot of researches have also been conducted in order to describe the factors affecting the company's dividend payouts. For example, Hailemariam (2013) investigated the determinants of dividend policy of banks in Ethiopia by taking panel data for ten years' time period (2002-2011) for five banks and analyzed through panel least square method with fixed effect model. The study concluded that current earnings, previous year's dividend, bank's age and loan loss provision have positive and statically significant impact on the banks dividend payment whereas liquidity has negative impacts on bank dividend decision. Mitiku (2015) examined the determinants of dividend payout in Ethiopian private banks using banks audited financial statements from 2009/10 to 2013/14 and analyzed a panel data through regression technique. The study concluded that lagged dividend payout, growth, size, and risk have statistically significant impact on dividend payout. Profitability, liquidity, leverage have no statistically significant impact on dividend payout. As per Zipporah (2013) and Mitiku's (2015) recommendation that using company specific and macroeconomic factors that determine dividend payout is good instead of using macroeconomic variable and firm specific factors separately as the only determinant of dividend payout because it was possible to understand from findings of Basse and Reddeman (2011) and Ghafoor et al. (2014) that macroeconomic factors: economic growth and inflation rate have impact on dividend policy of firms. Tadele Tesfaye (2018) examined the

determinants of dividend payout policy in Ethiopian private banks by using company and macroeconomic factors. The study was conducted by taking sample of six private banks.

The researcher of this study tried to address bank specific and macroeconomic factors for ten banks in Ethiopia for the year 2009\_2018.

### **1.3 Hypotheses**

**Ho1:** Profit has a positive significant impact on dividend policy in Ethiopian Private Banks.

**Ho2:** Leverage has a significant negative impact on dividend policy in Ethiopian Private Banks.

**Ho3:** Liquidity has a significant positive impact on dividend policy in Ethiopian Private Banks.

**Ho4:** Retained earning has a significant negative impact on dividend policy in Ethiopian Private Banks

**Ho5:** Loan loss provision has a significant negative impact on dividend policy in Ethiopian Private Banks.

**Ho6:** A previous lagged dividend has a significant positive impact on dividend policy in Ethiopian Private Banks.

**Ho 7:** Firm size has a positive relationship with dividend payout in Ethiopian Private Banks.

**Ho8:** Economic growth has a significant positive impact on dividend policy in Ethiopian Private Banks.

**Ho9:** Inflation has a significant negative impact on dividend policy in Ethiopian Private Banks.

## **1.4 Objective of the study**

### **1.4.1 General objective**

The main objective of this study is planning to examine the determinants of dividend payout policy in Ethiopian private banks.

### **1.4.2 Specific objective:**

1. To examine the impact of profit on the dividend policy of Ethiopian private banks.
2. To investigate the impact of leverage on the dividend policy of Ethiopian private banks.
3. To identify the impact of liquidity on the dividend policy of Ethiopian private banks.
4. To evaluate the impact of retained earnings on the dividend policy of Ethiopian private banks.
5. To examine the impact of loan loss provision on dividend policy of Ethiopian private banks.
6. To investigate the impact of lagged dividend payment on dividend policy of Ethiopian private banks.
7. To investigate the impact of bank size on dividend payout of Ethiopian private banks
8. To identify the impact of economic growth rate on dividend policy of Ethiopian private banks.
9. To evaluate the impact of inflation rate on dividend policy of Ethiopian private banks

## **1.5 Significance of the Study**

This study has many importances from different perspectives. It examines determinants of dividend policy of Ethiopian private banks and the findings enable board of directors, management, shareholders of banks and investors to identify significant factors affecting dividend payout. It reminds board of directors and management of the bank which bank specific factors and macro-economic variables should be taken into account before making dividend decision and establishes dividend policy. It gives way to other researchers that want to make further investigation in the area and to conduct detailed researchers on the problem and it may serve as additional source of reference and tests various theory related to dividend policy.

## **1.6 Scope of the study**

The study targeted only determinants of dividend policy of Ethiopian private banks. By doing so samples of ten private banks selected from the banking sector and analysis covered only for ten years period. Therefore, the study is limited to financial institution, specifically to private owned commercial banks in Ethiopia. The study is used explanatory research type and secondary data. Both bank specific and macroeconomic variables & analyzed by employing the balanced panel regression model and the study used dividend policy as a dependent variable and nine independent variables; they are profit, leverage, liquidity, retained earnings, loan loss provision, lagged dividend payout, bank size, economic growth rate and inflation rate.

## **1.7 Limitation of the Study**

Because of the ownership structure, Government commercial bank excluded from the sample and the generalization given for only Ethiopian private commercial bank in Ethiopia because of this the study was conducted on Ethiopian private banks with long term dividend payout history and experience in the industry. Shortage of pervious similar researches in Ethiopian case, and limited resource may affect the qualities of the study output. This study does not consider the possible effect of absence of secondary market on dividend policy

## **1.8 Organization of the Study**

This study has five chapters. The first chapter included background information, statement of the problem, research hypotheses, objective, significance, scope and limitation of the study. The second chapter deal about review of literature, theoretical and empirical reviews. The third chapter deal about the research design and methodology, it includes research approach, data collection and analysis methods. The fourth chapter presents the research results including descriptive statistics result and regression result for models. The last chapter gives recommendation and conclusion.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

The second chapter introduces the reader with the necessary theoretical background and presents the most relevant theories and previous empirical studies related with determinants of dividend payout. The last part of the chapter discusses the company selected factors & macro-economic variables included in the research.

#### **2.1 Theoretical literatures**

##### **2.1.1 Concept of Dividend**

In discussing about dividend, it is important to highlight what a dividend is? Dividend is simply the money that a company pays out to its shareholders from the profits it has made (Ross et al. 2002). Such payments can be made in cash or by issuing of additional shares as a dividend (Brealey & Myers, 2003). Investopedia however, defined it as the amount payable to shareholders from profit or distributable reserves; it is a distribution of a portion of a company's earnings, decided by the board of directors, to a class of its shareholders. Companies that are listed in the stock exchange are usually obligated to pay out dividends on a quarterly or semiannual basis. The semiannual or quarterly payment is referred to as the interim dividend. The final payment, which is usually paid at the end of the financial year of the company, is known as the final dividend. Dividends are normally paid after the corporate tax has been deducted. The decision whether or not to pay a dividend rests in the hands of board of directors of a corporation (Brealey & Myers, 2003). A dividend is distributable to shareholders of record on a specific date. When a dividend has been declared, it becomes a liability of the firm and cannot be easily rescinded by the corporation. The amount of the dividend is expressed as dollars per share (dividend per share), as a percentage of the market price (dividend yield), or as a percentage of earnings per share (dividend payout) (Ross et al. 2002). Most companies pay a regular cash dividend each quarter, but occasionally this regular dividend is supplemented by a one-off extra or special dividend. Dividends are not always in the form of cash. Frequently companies also declare stock dividends. That means it sends each shareholder some extra shares for every shares currently owned. A stock dividend is very much like a stock split. Both stock dividends and splits increase the

number of shares, but the company's assets, profits, and total value are unaffected. Eventually both reduce value per share. The distinction between the two is technical. A stock dividend is shown in the accounts as a transfer from retained earnings to equity capital, whereas a split is shown as a reduction in the par value of each share (Rosset al. 2002) & (Brealey & Myers, 2003).

Dividend policies tend to be one of the most stable and predictable elements of a company, and most companies began to pay dividends once they reach a level of business maturity where attractive investment opportunities are generally less available while cash flow generation is stable or growing more slowly when compared to the past. Decreasing or eliminating a dividend is tantamount to an announcement that the firm is financially distressed. Directors weigh dividend policies very carefully, they rarely lower dividends unless they have to, and they do not raise dividends unless they are confident that it can be sustained (Ross et al. 2002). When a company announces a larger than expected dividend or unexpectedly announces a dividend cut or omission, the market reaction is dramatic and sudden. Thus a stable dividend policy should convey stability or lower risk within the enterprise.

### **2.1.2 Theoretical Background**

Starting the 1961 Miller and Modiglian dividend irrelevant controversial proposition, scholars in corporate finance developed large numbers of theories to show how the firms dividend policy affect it value and what factors affect their dividend payment. Among them, Bird-Hand theory Gordon (1963), tax preference theory Brennan (1970). Agency theory of Jensen and Meckling (1976), signaling theory, Aharony and Swary(1980) and transaction cost and residual theory Mueller (1967) are the major ones.

#### ***2.1.2.1 Dividend Irrelevance Theory***

The question of effect of dividend on firm's value has been controversial one for many years. Dividend irrelevant school originated with the paper published by Miller and Modiglian (1961). They argued that, under the certain assumption, the firm's value not depends on mixture of debt and equity, demonstrating capital structure is irrelevancy. Capital structure and dividend policy closely related. Cash paid as dividend leaves the firms with less equity and potentially a greater need to raise additional stock or debt in future. Consequently MM capital structure result is so crucial to dividend irrelevant. Investment decision was responsible for a company future profitability and hence the only decision determines market value (Miller and Modigliani, 1961).

Miller and Modigliani argue that share valuation is independent of level of dividend paid by the company the reason that any increase in dividend at some point in time is exactly offset by decrease somewhere else, so the net effect once account for the time value is zero. Dividend does not enrich shareholder, they simply modify the wealth composite, like a transfer from left hand to the right hand pocket. Miller and Modigliani were not arguing that dividend are residual payments, they were arguing was that as long the company followed its optimal investment policy, its value completely unaffected by its dividend policy. Hence according to MM a company choice of dividend policy, given its investment policy, it really a choice of financing strategy. In developing their dividend theory MM made a number assumptions: There is no transaction cost associated with converting share in to cash by selling them. Firms can issue shares without incurring flotation or transaction cost. There is tax at either a corporate or personal level. Capital market are perfect efficient.

Miller and Modigliani, also did not argue, as is often assumed that investor were not concerned whether they receive dividend or not rather, they argue that shareholders were indifferent to timing of dividend payments. If no dividend were paid because all earnings consumed by the company's optimum investment schedule, the market value of the company would increase to reflect the expected future dividend payments or increase share price resulting from investment return.

### ***2.1.2.2 Dividend Relevant Theories***

The Dividend irrelevant argument given by Miller and Modigliani was not accepted since the assumption of perfect financial market did not exist and the real world market imperfect so the firm's dividend decision have an impact its value. After this conclusion researchers developed a large numbers of theories and models to show how dividend policies affect the firm's value. Among them, Bird-Hand theory, Gordon and Walter (1963), tax preference theory Brennan (1970), Agency theory of Jensen and Meckling (1976), signaling theory, Aharony and Swary (1980) and transaction cost and residual theory Mueller (1967) are discussed in the following sections.

#### **2.1.2.2.1 The "Bird-in the Hand" Theory**

The name "bird in hand" is the umbrella term for all studies that argues that dividends are positively correlated to the company's value. It is based on the expression that "a bird in the hand

is worth more than two in the bush”. Expressed in financial terms, the theory says that investors are more willing to invest in stocks that pay current dividend rather than to invest in stocks that retain earnings and pay dividends in the future. This is due to the high degree of uncertainty related to capital gains and dividends paid in the future (Al-Malkawi et al. 2010) & (Gustav&Gairatjon, 2012). Gordon (1959) gave the bird in hand theory. He maintained that the discounted value of near future dividends is higher than the present value of distant dividends. He argued that the dividends to be received in future have much uncertainty as compared to the dividends in the near future since the shareholders would prefer certain returns the stock prices would be higher for the dividend paying stocks as compared to the companies paying lesser dividends. In a world of uncertainty and imperfect information, dividends are valued differently to retained earnings (or capital gains). Increasing dividend payments, ceteris paribus, may then be associated with increases in firm value. As a higher current dividend reduces uncertainty about future cash flows, a high payout ratio will reduce the cost of capital, and hence increase share value (Al-Malkawi et al. 2010). Moreover, when making dividend payouts, the firm gets a higher rating from rating agencies as compared to a firm not making any dividend payout. With a better rating, the firm will be able to raise finance more easily from capital markets since credit institutions will be willing to give loans to the firm since the payout of dividends shows that the firm has the ability to meet its obligations. Moreover, in some cases, the firm will be able to borrow at preferential rates and enjoy better facilities (Kinfe, 2011).Lintner’s (1956) main arguments towards the bird in hand theory is based on that most companies are conservative in their financing policy and the dividend payments are therefore, based on an optimal payout ratio. The principal factor that contributes to deviations from the optimal payout ratio is due changes in the company’s profit, and if the profit increases the dividend payout should increase in the same proportions. But uncertainty regarding future profits also has an impact on the company’s dividends. If the estimated risk in the future is higher than the current risk, the company may decrease the dividend payout ratio.

#### **2.1.2.2.2 Signaling Theory**

Another hypothesis for why M&M’s dividend irrelevance theory is inadequate as an explanation of financial market practice is the existence of asymmetric information between insiders (managers and

directors) and outsiders (shareholders). M&M assumed that managers and outside investors have free, equal and instantaneous access to the same information regarding a firm's prospects and performance. But managers who look after the firm usually possess information about its current and future prospects that is not available to outsiders. This informational gap between insiders and outsiders may cause the true intrinsic value of the firm to be unavailable to the market. If so, share price may not always be an accurate measure of the firm's value. In an attempt to close this gap, managers may need to share their knowledge with outsiders so they can more accurately understand the real value of the firm ( Al-Malkawi et al. 2010).The signaling theory of dividends has its origins in Lintner's (1956) studies who revealed that the price of a company's stocks usually changes when the dividend payments changes. Even though M&M argued in favor of the dividend irrelevance they also stated that in the real world disregarding the perfect capital markets, dividend provides an "information content" which may affect the market price of the stock. Many researchers have thereafter been developing the signaling theory and today it is seen as one of the most influential dividend theories (Gustav & Gairatjon, 2012). Signaling theory assumes that managers typically have more information about the value of the firm's assets than outside agents. Managers therefore use dividend changes to communicate to the shareholders about the financial situation of the company. The information may reflect the strategies that the firm is employing in the short run or long run (Ross, 1977).

Bhattacharya (1979) presented one of the most acknowledged studies regarding signaling theories which states that dividends may function as a signal of expected future cash flows. An increase in the dividends indicates that the managers expect higher cash flows in the future. The research is based on the assumptions that outside investors have imperfect information regarding the company's future cash flows and capital gains. Another important assumption is that dividends are taxed at a higher rate compared to capital gains. Bhattacharya (1979) argues that under these circumstances even though there is a tax disadvantage for dividends, companies would choose to pay dividends in order to send positive signals to shareholders and outside investors.

According to the signaling hypothesis, investors can infer information about a firm's future earnings through the signal coming from dividend announcements, both in terms of the stability and changes in dividends. However, for this hypothesis to hold, managers should firstly possess private information about a firm's prospects, and have incentives to convey this information to the market. Secondly, a signal should be true; that is, a firm with poor future prospects should not

be able to mimic and send false signals to the market by increasing dividend payments. Thus the market must be able to rely on the signal to differentiate among firm (Al-Malkawi et al. 2010).

As managers are likely to have more information about the firm's future prospects than outside investors, they may be able to use changes in dividends as a vehicle to communicate information to the financial market about a firm's future earnings and growth. Outside investors may perceive dividend announcements as a reflection of the managers' assessment of a firm's performance and prospects. An increase in dividend payout may be interpreted as the firm having good future profitability (good news), and therefore, its share price will react positively. Similarly, dividend cuts may be considered as a signal that the firm has poor future prospects (bad news), and the share price may then react unfavorably. Accordingly, it would not be surprising to find that managers are reluctant to announce a reduction in dividends (Al-Malkawi et al. 2010).

Lintner (1956) argued that firms tend to increase dividends when managers believe that earnings have permanently increased. This suggests that dividend increases imply long-run sustainable earnings. This prediction is also consistent with what is known as the "dividend - smoothing hypothesis". That is, managers will endeavor to smooth dividends over time and not make substantial increases in dividends unless they can maintain the increased dividends in the foreseeable future.

#### **2.1.2.2.3 Agency Theory**

The agency theory is based on the principal agent relationships. The separation of ownership from management in modern corporations provides the context for the functioning of the agency theory. In modern corporations the shareholders (principals) are widely dispersed and they are not normally involved in the day to day operations and management of their companies rather they hire managers (agent) to manage the corporation on behalf of them (Habbash, 2010).

The agents are appointed to manage the day to day operations of the corporation. The separation of ownership and controlling rights results conflicts of interest between agent and principal. To solve this problem or to align the conflicting interests of managers and owners the company incurs controlling costs including incentives given for managers (Habbash, 2010). This controlling cost is called agency cost (Easterbrook, 1984).

Agency theory refers to a set of propositions in governing a modern corporation which is typically characterized by large number of shareholders who allow agents to control and manage their collective capital for future returns. The agent, typically, may not always own shares but may possess relevant professional skills and competence in managing the corporation. The theory offers many useful ways to examine the relationship between owners and managers and verify how the final objective of maximizing the returns to the owners is achieved, particularly when the managers do not own the corporation's resources. Agency theory identifies the role of the monitoring mechanism of corporate governance to decrease agency costs and the conflict of interest between managers and owners (Habbash, 2010).

Implementing corporate governance system usually makes possible controlling the activities of managers and by expending resources to alter the opportunity the managers has for capturing non-pecuniary benefits. These methods include auditing, formal control systems, budget restrictions, and the establishment of incentive compensation systems which serve to identify the manager's interests more closely with those of the outside equity holders (Jensen & Meckling, 1976).

Easterbrook (1984), raises a question "why do most firms pay significant dividends, given the costs of paying them (and raising new capital), and given that all investors either prefer capital gains or are indifferent between dividends and capital gains?" and raised two possible explanation.

The first possible reason for firms to pay dividend steams from that managers are not perfect agents of the other participants in the corporate venture, but that they pursue their own interests when they can. Because the managers are not the residual claimants to the firm's income stream, there may be a substantial divergence between their interests and those of the other participants. Managers, investors, and other participants will find it advantageous to set up devices, including monitoring, bonding, and exposure adjustments that give managers the incentive to act as better agents. Therefore, dividend could use as a tool to achieve this purpose.

The second possible reason for firms to pay dividend is related to market response for securities of firms simultaneously paying dividends and raising new money from the market will appreciate relative to other securities. According to agency theory the agent strive to achieve his personal goals at the expense of the principal. Mangers are mostly motivated by their own personal interests and benefits, and work to maximize their own personal benefit rather than considering

shareholders' interests and maximizing shareholders wealth. To control and shape this inclination of managers, shareholders adopt monitoring schemes like payment of dividend. The costs of monitoring and bonding are agency costs borne by investors (Easterbrook, 1984).

Easterbrook (1984) states that two factors affect the agency costs in a company monitoring costs and the risk aversion preferences of managers. The monitoring cost refers to the costs incurred by the shareholders in order to supervise the managers and prevent them from following their own personal agenda instead of maximizing the value of the shareholders equity. The second source of agency costs is the risk aversion preferences of managers. The problem arises because most shareholders have diversified portfolios and they are therefore, only interested in systematic risk which cannot be eliminated through diversification. In contrast to shareholders, managers usually have a large amount of their personal wealth connected to the company. Therefore, if the company is unprofitable or even goes bankrupt, the managers' personal wealth becomes heavily affected. The managers will as a result be more risk averse compared to the shareholders and they may reject potential high value project due to their risk aversion preferences.

Jensen (1986) argued that in order to monitor the conflict between owners and managers, payment of dividend is not a good option claiming that Payouts to shareholders reduce the resources under managers' control, thereby reducing managers' power, and making it more likely they will incur the monitoring of the capital markets which occurs when the firm must obtain new capital. Financing projects internally avoids this monitoring and the possibility that the funds will be unavailable or available only at high explicit prices. Managers have incentives to cause their firms to grow beyond the optimal size. Growth increases managers' power by increasing the resources under their control. It is also associated with increases in managers' compensation. The problem is how to motivate managers to disgorge the cash rather than investing it at below the cost of capital or wasting it on organization inefficiencies. Therefore, Jensen developed two theories to prevent waste of free cash flow.

The benefits of debt in reducing agency costs of free cash flows by issuing debt in exchange for stock, managers are bonding their promise to pay out future cash flows in a way that cannot be accomplished by simple dividend increases. In doing so, they give shareholder recipients of the debt the right to take the firm into bankruptcy court if they do not maintain their promise to make the interest and principle payments. Thus debt reduces the agency costs of free cash flow by reducing the cash flow available for spending at the discretion of managers.

Debt can substitute dividend - Managers with substantial free cash flow can increase dividends or repurchase stock and thereby pay out current cash that would otherwise be invested in low-return projects or wasted. This leaves managers with control over the use of future free cash flows, but they can promise to pay out future cash flows by announcing a "permanent" increase in the dividend. Such promises are weak because dividends can be reduced in the future. The fact that capital markets punish dividend cuts with large stock price reductions is consistent with the agency costs of free cash flow. Debt creation, without retention of the proceeds of the issue, enables managers to effectively bond their promise to pay out future cash flows. Thus, debt can be an effective substitute for dividends.

#### **2.1.2.2.4 Tax Preference Theory**

Taxation is one of the critical factors that affect firm value and future expected profits. For example, discounted expected after-tax cash flows can be used as a determinant for the market value of a firm. In this respect, differential tax treatment of capital gains relative to the dividends can influence the after-tax returns of investors and in turn affect the willingness of investors to receive dividends (Kinfe, 2011).

The M&M assumptions of a perfect capital market exclude any possible tax effect. It has been assumed that there is no difference in tax treatment between dividends and capital gains. However, in the real world taxes exist and may have significant influence on dividend policy and the value of the firm. In general, there is often a differential in tax treatment between dividends and capital gains, and because most investors are interested in after-tax return, the influence of taxes might affect their demand for dividends. Taxes may also affect the supply of dividends, when managers respond to this tax preference in seeking to maximize shareholder wealth (firm value) by increasing the retention ratio of earnings (Al-Malkawi et al. 2010).

Brigham and Houston (2004) pointed out three tax-related reasons that investors might prefer a low dividend payout to a high dividend payout: first, that long-term capital gains are taxed at a maximum rate of 20 percent, whereas dividends are taxed at effective rates that go up to 39.1 percent in case of USA. Therefore, wealthy investors (who own most of the stock and receive most of the dividends) might prefer to have companies retain and plow earnings back into the business. Earnings growth would presumably lead to stock price increases, and thus lower-taxed

capital gains would be substituted for higher-taxed dividends. Second, Taxes are not paid on the gain until a stock is sold. Due to time value effects, a dollar of taxes paid in the future has a lower effective cost than a dollar paid today. Third, if a stock is held by someone until he or she dies, no capital gain tax is due at all, the beneficiaries who receive the stock can use the stock's value on the death day as their cost basis and thus completely escape the capital gains tax. Because of these tax advantages, investors may prefer to have companies retain most of their earnings. If so, investors would be willing to pay more for low-payout companies than for otherwise similar high-payout companies. The tax-preference theory suggests that low dividend payout ratios lower the cost of capital and increase the stock price. In other words, low dividend payout ratios contribute to maximizing the firm's value. This argument is based on the assumption that dividends are taxed at higher rates than capital gains. In addition, dividends are taxed immediately, while taxes on capital gains are deferred until the stock is actually sold. These tax advantages of capital gains over dividends tend to predispose investors, who have favorable tax treatment on capital gains, to prefer companies that retain most of their earnings rather than pay them out as dividends, and are willing to pay a premium for low-payout companies. Therefore, a low dividend payout ratio will lower the cost of equity and increases the stock price earnings (Al-Malkawi et al. 2010).

#### **2.1.2.2.5 Pecking Order Theory**

Fama & French (2007), Myers (1984) develops an alternative theory known as the pecking order model of financing decisions. The pecking order arises if the costs of issuing new securities overwhelm to other costs and benefits of dividends and debt. The financing costs that produce pecking order behavior include the transaction costs associated with new issues and the costs that arise because of management's superior information about the firm's prospects and the value of its risky securities. Pecking order can keep leverage of firms down when investments are persistently large relative to earnings, as a result dividend payers can keep their payout ratio low (Fama & French, 2007). Fama and French (2001) find that dividend payers are firms with high earnings relative to investment. Thus, for dividend payers, the prediction that firms with larger expected investments have less current leverage.

#### **2.1.2.2.6 Clientele Effect Theory**

The portfolio choices of individual investors might be influenced by certain market imperfections such as transaction costs and differential tax rates to prefer different mixes of capital gains and dividends. M&M argued that these imperfections might cause investors to choose securities that reduce these costs. M&M termed the tendency of investors to be attracted to a certain type of dividend-paying stocks “dividend clientele effect”. Investors’ investment goal and their demographic factors matter on decision whether to invest on high dividend paying shares to low dividend paying shares. For example, assuming that investors have a portfolio of investments, these investments are attuned to serve the investors’ goal such as: high growth, capital preservation or income generation. These goals vary in terms of investor’s age, family size, education expenses, career, employment package, and other characteristics.

Al-Malkawi et al. (2010) classified clientele effect in to tax-induced clientele effect and transaction induced clientele effect.

##### **2.1.2.2.6.1 Tax-Induced Clientele**

Since most of the investors are interested in after-tax returns, the different tax treatment of dividends and capital gains might influence their preference for dividends versus capital gains. This is the essence of the tax-induced clientele effect. For example, *ceteris paribus*, investors in low tax brackets who rely on regular and steady income will tend to be attracted to firms that pay high and stable dividends. In addition, some corporate or institutional investors tend to be attracted to high-dividend. On the other hand, investors in relatively high tax brackets might find it advantageous to invest in companies that retain most of their income to obtain potential capital gains, all else being equal. Some clienteles, however, are indifferent between dividends and capital gains such as tax exempt and tax deferred entities (Al-Malkawi et al. 2010).

##### **2.1.2.2.6.2 Transaction Cost-Induced Clientele**

Another argument of the clientele effect is based on the proposition that dividend policy may influence different clienteles to shift their portfolio allocation, resulting in transaction costs. For example, small investors (such as retirees, income-oriented investors, and so on) who rely on

dividend income for their consumption needs, might be attracted to (and even may pay a premium for) high and stable-dividend stocks, because the transaction costs associated with selling stocks might be significant for such investors. On the other hand, some investors (e.g. wealthy investors), who do not rely on their share portfolios to satisfy their liquidity needs, prefer low payouts to avoid the transaction costs associated with reinvesting the proceeds of dividends, which they actually do not need for their current consumption. Note that for both groups of investors, transforming one financial asset to another, transaction costs need to be incurred. That is, M&M's notion of homemade dividends is not costless and the existence of such costs may make dividend policy not irrelevant.

The other effect of transaction costs on dividend policy is related to the fact that firms may need to restore cash paid out as dividends with new equity issues (or debt financing) to take advantage of new investment opportunities. If issuing costs are significant, then firms are most likely to rely on retained earnings rather than external financing. This is reinforced by the empirical fact that retained earnings constitute the major source of firm finance not just in developing but also even in developed capital markets. In these cases, there should be a negative relationship between transaction costs and dividend payments. Firms can reduce or avoid such expenses by lowering dividend payments or not paying them at all. However, in practice, many firms continue to pay cash dividends, while at the same time issuing new equity and debt, suggesting that other factors may also be at work in influencing dividend policy (Al-Malkawi et al. 2010).

### **2.1.3 Types of Dividend Policy**

There are a number of different dividend policies or payout strategies that companies can adopt.

#### **2.1.3.1 Fixed Percentage Payout Ratio Policy**

Here the company pays out a fixed percentage of annual profits as dividends, i.e. it maintains a constant payout ratio. The advantages of this policy from company's point of view are that it is relatively easy to operate and sends a clear signal to investors about the level of the company's performance. The disadvantage for a company is that it imposes a constraint on the amount of funds it is able to retain for reinvestment. This dividend policy is unsuitable for companies with volatile profits which have shareholders requiring a stable dividend payment existence (Watson & Head, 2010).

#### **2.1.3.2 Zero Dividend Policy**

A company could decide to pay no dividend at all. Such an extreme policy is likely to be highly beneficial to a small minority of investors while being totally unacceptable to the majority. Such a policy is easy to operate and will not incur the administration costs associated with paying dividends. A zero dividend policy will allow the company to reinvest all of its profits and so will be attractive to investors who, from a personal tax perspective, prefer capital gains to dividends. Given that the majority of ordinary shareholders are institutional investors who rely on dividend payments for income, a zero dividend policy is hardly likely to be acceptable on an ongoing basis. A zero dividend policy, however, is often adopted by new companies which require large amounts of reinvestment in the first few years of their existence (Watson & Head, 2010).

#### **2.1.3.3 Constant or Steadily Increasing Dividend**

A company may choose to pay a constant or steadily increasing dividend in either money terms or in real terms. A constant or increasing dividend in money terms may result in a declining or

increasing dividend in real terms, depending on the level of inflation (or deflation). A constant or increasing dividend in real terms will usually result in an increasing dividend in money terms. In both policies, dividend increases are kept in line with long-term sustainable earnings. It is important for a company to avoid volatility in dividend payments as doing so can help to maintain a stable share price. Cuts in dividends, however well signaled or justified to the markets, are usually taken to mean financial weakness and result in downward pressure on a company's share price. The drawback of keeping dividends constant or of steadily increasing them is that investors may expect that dividend payments will continue on this trend indefinitely. This can cause major problems when companies wish to reduce dividend payments, either to fund reinvestment or in the name of financial prudence. Because of the reaction of the market to a dividend cut, companies experiencing increases in profit tend to be cautious about a dividend increase. Rarely will a 20 percent increase in profits lead to a 20 percent dividend increase. This is reinforced by the fact that a certain level of profit rarely equates to an equal amount of cash, which is ultimately what dividends are paid out of. Companies tend to increase dividends slowly over time, to reflect the new profit level, when they are confident that the new level is sustainable (Watson & Head, 2010).

#### **2.1.3.4 Residual Policy**

Dividends are just what is left after the company determines the retained profits required for future investment. This policy gives preference to its positive NPV (Net Present Value) projects and paying out dividends if there are still left over funds available. Dividend becomes a circumstantial payment paid only when the investment policy is satisfied. Firms adopt this type of policy because they more rely on internally generated funds and are not willing to raise new capital for saving floatation and other costs associated with issuing debt and the managers think that high retention cause more growth to the company. There is a tendency therefore, that this type of policy could give rise to a zero dividend structure. Firms may need to modify this policy to ensure that investors of the different clienteles are not chased out by a strict application of the policy (Kolb and Rodriguez, 1996).

#### **2.1.3.5 Smoothed Residual Dividend Policy**

This policy suggests dividend fluctuations should be kept to a minimum. Dividend policy changes tend to lag behind earnings fluctuations. Dividends are set equal to the long-run residual

between forecasted earnings and investment requirements. Dividend changes, in turn, are made only when this long run residual is expected to change; earnings fluctuations believed to be temporary are ignored in setting dividend payments. The clear preference is for a stable, but increasing, dividend per share (Shapiro, 1990). As per Lintner (1956) it is many management's belief that most stockholders prefer a reasonably stable rate and that the market puts a premium on stability or gradual growth in rate were strong enough that most managements sought to avoid making changes in their dividend rates that might have to be reversed within a year or so.

#### **2.1.3.6 Alternative Policies to Paying Cash**

In order to give shareholders a choice between dividends or new shares, the firm might choose to buy back shares. This is share or stock repurchase. This has a significant advantage in terms of tax to the shareholders. While the dividend is fully taxed just as ordinary income, the stock repurchase or buyback is not taxed until the shares are sold and the shareholder makes a profit or capital gain (Ross et al. 2002).

#### **2.1.3.7 Alternatives to cash dividend**

In addition to paying cash dividends, there are a number of other ways in which companies can reward their shareholders (Watson & Head, 2010).

##### **2.1.3.7.1 Scrip Dividends**

Scrip dividends involve the offer of additional ordinary shares to equity investors, in proportion to their existing shareholding (e.g. 1 for every 20 shares held), as a partial or total alternative to a cash dividend. Usually, shareholders are given the choice of taking either the declared cash dividend or the scrip alternative, allowing them to choose the alternative that best suits their liquidity and tax position. The major advantage with paying a scrip dividend is that it allows a company to keep the cash that would have been paid out in cash dividends. From a personal taxation point of view, the scrip dividend received is treated as income, with tax deemed to have been paid at the basic rate of personal income tax. Unfortunately, scrip dividends will be unattractive to investors who are exempt from paying tax on dividends as they are not able to reclaim tax which is only „deemed“ to have been paid (Watson & Head, 2010).

### **2.1.3.7.2 Share Repurchases**

Share repurchases have become an increasingly common way of returning value to ordinary shareholders instead of distributing cash dividend. The reacquired shares may be kept in the company's treasury and resold if the company needs money (Brealey & Myers, 2003). The main benefit to shareholders of a share repurchase is that they receive surplus funds from the company which they use more effectively. The main benefit for a company of a share repurchase is that it enhances the value of the remaining shares. Another reason behind companies repurchasing their shares is if they consider the stock market to be undervaluing their company (Watson & Head, 2010).

### **2.1.3.7.3 Special Dividends**

Occasionally, companies return surplus funds to shareholders by making a special dividend payment. A special dividend is a cash payout far in excess of the dividend payments usually made by a company. If a company has funds surplus to its investment requirements, paying out these funds via a special dividend enables shareholders to reinvest them according to their preferences (Watson & Head, 2010).

During the last fifty years several theories have emerged around dividend, claims and counter claims have forwarded by authors about the relevance of dividend. M&M claimed that under perfect capital market dividend payment is irrelevant, what is really important to increase firms value are the earning capability of the firms and their associated risk not how the profit is divided, but the presence of market imperfections such as taxes, asymmetric information, agency costs, and transaction costs means that we cannot dismiss the proposition that dividend policy is relevant to the firm's value and other theories have emerged claiming dividend is relevant like Agency theory, Bird in hand theory and signaling theory.

## 2.2 Empirical Literature

Ayodeji and Lukmon (2014) investigated the determinants of dividend payout in the Nigerian banking industry over the period 2006 to 2008. The study employed pooled regression techniques to analyze the data. Dividend payout is dependent variable while profitability, liquidity, Tax, revenues growth, Market to book value, loan deposit ratio, loan loss provision, capital adequacy, activity mix, size, cost income ratio, market power, debt to equity ratio, retained earnings were independent variables. The results show that profitability, liquidity size, and activity mix are stastically significant factors which positively influence dividend payout whereas revenue growth debt to equity ratio, retained earnings, loan deposit ratio and loan loss provision negatively influence dividend payout. The result of capital adequacy in inconclusive as it is combined with bank specific variables it has significant impact on dividend payout but insignificant in the combined variables with dividend payout.

Agyemang (2013) examined determinants of dividend payout policy of listed financial institutions in Ghana using panel data covering 2005-2009 and fixed and random effect. Profitability, liquidity, leverage, collateral capital, growth, and age of firm were independent variables while dividend payout ratio was dependent variables. The finding indicated that age and liquidity have significant and positive effect on dividend payout ratio financial institutions fund in Ghana whereas profitability, leverage, growth & collateral have negative insignificant impact on dividend payment.

Alzomain& Al-Khadiri (2013) Examined determinants of dividend policy of 105 non-financial firms listed in stock market of Saudi Arabia for the period of 2004 to 2010 using panel data and regression model. Earnings per share, previous dividend per share for the last year, growth, debit to equity ratio, Beta & Capital size were independent variables while dividend payout was dependent variable. The results of the study shows that earning per share, size & pervious dividends per share have significant positive relationship with dividend per share whereas growth, leverage & Beta have insignificant negative impact of determination of dividend policy on non-financial firms listed in stock market of Saudi Arabia.

Zameer et al. (2013) investigated the determinants dividend policy of Pakistani Banking sector using data of 27 Pakistani banks listed at different stock exchange from 2003 to 2009 year. The study used step wise regression technique to analyze the data. Size, liquidity, profitability, agency

cost, growth, last year dividend, risk and ownership structure, were independent variables while dividend payout was dependent variable. The study result shows that liquidity, profitability, last year dividend and ownership structure have positive significant relationship with dividend payout of Pakistani banks. Profitability, last year dividend, and ownership structure show positive impact on dividend payout. But liquidity shows negative impact on dividend payout of the Pakistan banking industry. Size, leverage, agency cost growth risk show insignificant impact on dividend payout of Pakistan banks.

Hailemariam (2013) investigated the determinants of dividend policy of banks in Ethiopia by taking panel data for ten years' time period (2002-2011) for five banks and analyzed through panel least square method with fixed effect model. The study used independent variables, current earnings, previous year's dividend, liquidity, leverage, loan loss provision and bank's age and dependent variables was dividend payment. The result shows that current earnings previous year's dividend, bank's age and loan loss provision have positive and statically significant impact on the banks dividend payment whereas liquidity has negative impacts and leverage is not an important variables for bank dividend decision.

Mitiku (2015) examined the determinants of dividend payout in Ethiopia private banks using banks audited financial statements from 2009/10 to 2013/14 and analyzed panel data through regression technique. The study used dividend payout as dependent variable and seven independent variables; they are profitability, liquidity, leverage, lagged dividend payout, growth size and risk. The finding indicated that among the seven independent variables, lagged dividend payout, growth, size, and risk have positive statistically significant impact on dividend payout. The rest three variables have no statistical significant impact on dividend payout.

NsikanEd et al. (2014) examined the various determinants of dividend payout of selected Commercial Banks in Nigeria using Secondary data collected from 1989-2010 and analyzed using the Ordinary Least Squares (OLS) regression technique. Dividend payout was dependent variable and Current earnings, previous year dividend, liquidity, inflation rate, lending rate were factors of dividend payment. The findings revealed that while current earnings, lagged dividend and lending rate were the major determinants of cash dividend payout in these banks while Inflation rate and liquidity ratio have insignificant negative impact on dividend payout.

Kazmierska-Jozwiak (2014) investigated the determinants of dividend policies of polish companies listed on Warsaw stock exchange using panel data analysis. Leverage, liquidity, ROE,

size, risks were used as exogenous variables and dividend payout ratio as endogenous variable. The finding of the study shows that profitability of the firm (ROE) & leverage have significant negative relationship with dividend payout ratio whereas the rest variables have no significant impact on dividend payout ratio.

Alzomaia & Al-Khadhiri (2013) examined the factors determining dividend for companies listed in the Saudi Arabia Stock Exchange using panel data covering the period from 2004 to 2010 for 105 non-financial firms by running a regression model. The study used profit (EPS), previous year dividend per share for last year, Growth, debt to equity ratio, beta & capital size as independent variables while dividend as dependent variables. The results of the study showed that profit & previous dividend have positive significant influence on the company's decision to increase or decrease the level of dividend in Saudi stock market.

Maladjian & El-khoury (2014) investigated factors determining the dividend payout policy in Lebanese Banks Listed on the Beirut stock exchange. The study considered the impact of seven variables, namely profitability, liquidity, leverage, firm size, growth, firm risk and previous years dividend payout on the dividend payout ratios by using panel data of listed, banks between the years of 2005 to 2011. The empirical results show that dividend payout policies are positively affected by the firm size, risk and previous year's dividends but are negatively affected by the opportunity growth & profitability. The study concluded that firms pay dividend with intention of reducing the agency conflicts. Furthermore managers take in to consideration that stability of dividends while determining the dividend policy.

Wasike & Amborse (2015) investigated determinants of dividend policy of 60 companies listed at Nairobi securities exchange for the period 2004 to 2014 by using panel regression techniques. Profit, risk, cash flow, tax, institutional ownership and market book value, growth were used as independent variables and dividend policies (DPS) as a dependent variable. The result shows that profitability, cash flow, tax have positive & significant impact on dividend policy of firms while risk, institutional ownership, growth, & market to book value have negative association with dividend policy.

Awad (2015) examined the determinants of dividend policy of 56 firms listed in Kuwait stock exchange using panel data & OLS regression technique data for the period of 2011 to 2014. The study employed three determinants namely company size, profitability, financial leverage & dividend policy as dependent variable. The result indicated that dividend policy in Kuwait stock

exchange market is positively affected by leverage, profit & company size. The study concluded that profitability, leverage, & size are major determinants of dividend policy in wait stock exchange market.

Nohu (2014) re-examined the factors that determine dividend payout in 30 listed firms on Ghana stock exchange for the period of 2000 to 2009. The study used ordinary least squares panel regression model to estimate the determinants of dividend payout. Profitability, investment opportunity, taxation, leverage, firm size, Board size, Board independence & audit type were used as factors of dividend payout and dividend payout ratio as dependent variable. The result show that profitability, Board size audit type have positive & significant effect on dividend payout of firms while profit, leverage, Board independence have negative

significant impact on dividend payout ratio. Tax & size have no significant impact on dividend payout ratio.

Mirbagherijam (2014) examined asymmetric effect of inflation on dividend policy of Iran's stock market using panel data of 322 companies listed on Tehran stock exchange for the period of 2005 to 2011 to test the effect of inflation on the companies' decision in decreasing, increasing and maintaining of dividends. Inflation rate, lagged dividend and profits were independent variables while dividend payout was dependent variable. The result showed that inflation, lagged dividend and earnings have the positive effect on dividend payout decision of companies. The study concluded that Inflation has significant contribution to the dividend policy maker decision according to the status of companies as making profit or loss.

Duncan and Wairimu (2013) conducted study on relationship between inflation and dividend payout for companies listed at Nairobi securities exchange using panel data for the period of 2002 to 2011. The finding shows that inflation has negative impact on dividend payout of companies. The study concluded that companies listed at Nairobi securities exchange should consider the effect of inflation rate before making dividend payment decision.

Basse and Reddeman (2011) analyzed the dividend policy of firms from a macroeconomic and firm factors Perspective of the 500 leading companies in the USA. A dividend was dependent variable while corporate earnings, real economic growth rate and inflation were dependent variables and the data were analyzed by applying cointegration techniques. The result indicated that inflation, corporate earnings, real growth have positive relationship with dividend payment.

Komrattanapanya & Suntrauk (2013) investigated factors that influence the dividend payout of all firms listed in the Stock Exchange of Thailand during year 2006 to 2010 using Tobit regression analysis technique. The factors used in the study are profit, liquidity, financial leverage, investments opportunity, sales growth, business risk and firm size. The result showed that leverage, investments opportunity, sales growth and firm size have an impact on dividend payout of firms listed in the Stock Exchange of Thailand. While profitability, liquidity, and business risk are insignificantly related to dividend payout.

Mehta (2012) examined determinants of dividend policy of United Arab Emirates (UAE) companies' year 2005 to 2009 using multiple regression technique. The study used dividend policy as dependent variable and profitability, risk, liquidity, leverage and size. The result indicated that profitability and size are the only significant variables that have an impact on dividend policy of UAE companies.

Ghafoor et al. (2014) examined the dividends behavior of Pakistani firms by taking a macroeconomic perspective. And the study used annual data Pakistani firms for the period of 1966–2010 and analyzed by autoregressive distributed lag approach. Inflation rate, return on equity, real growth rate were independent variables while dividend payment was dependent variable. The finding shows that inflation has positive relationship with dividend payment whereas returns on equity and real economic growth rate have negative relationship with dividend payout Pakistani firms. The study concluded that Pakistani firms should not only take into account the effect of firm factors but also macroeconomic perspective while deciding dividend payout decision.

## 2.3 Literatures Gap

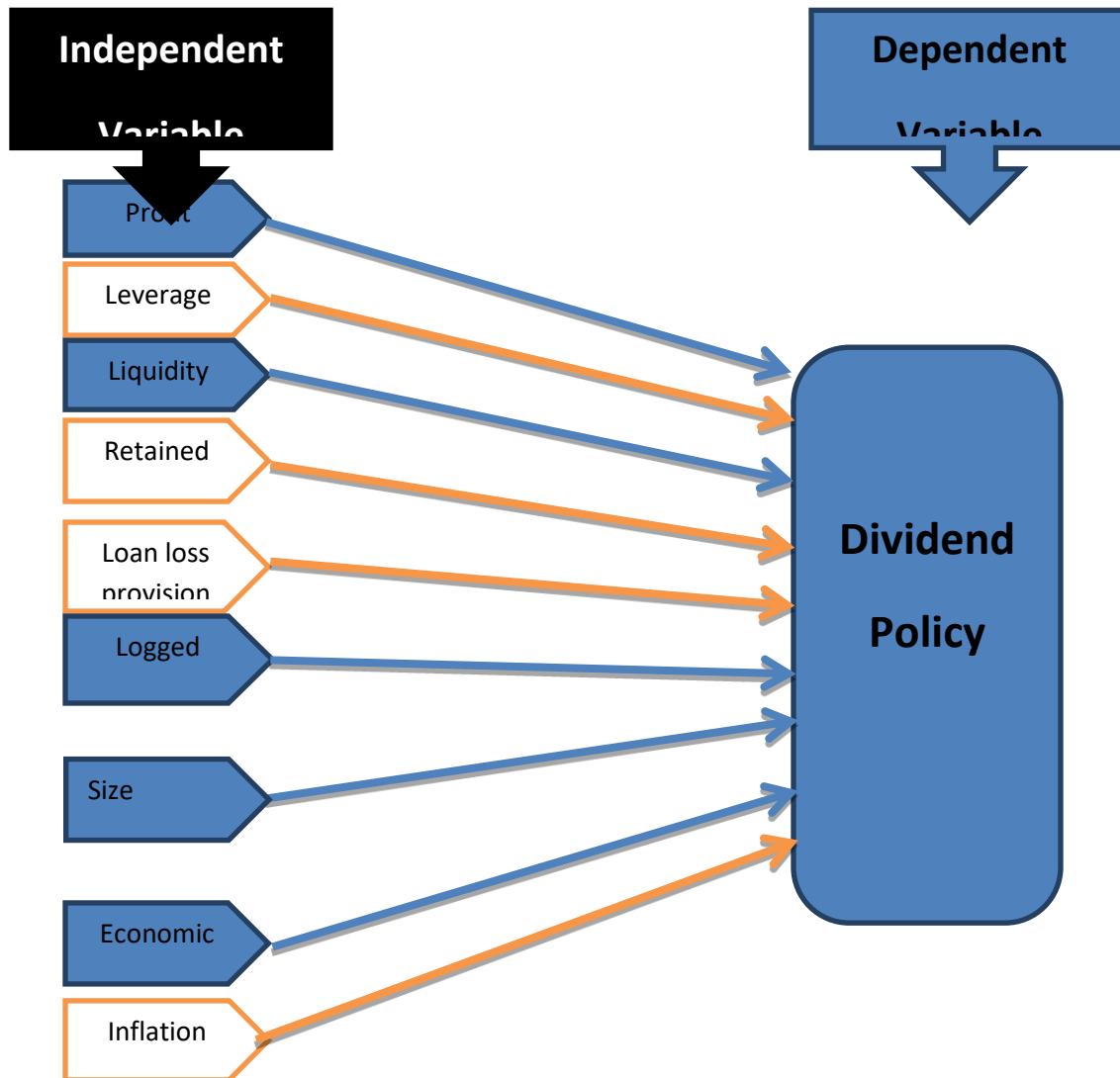
It was possible to understand from empirical literature review that there are mixed results that indicate some factors of dividend policy of companies in a given country with secondary market and without, they have significant impact on dividend policy of companies in a given country, the same variable have no significant effect on dividend policy of firms in other countries. As result of this, the researcher of this study decided to examine determinants of dividend policy of Ethiopian private banks.

Most of previous studies conducted on the determinants of dividend policy of Ethiopian share companies, they have not considered the effect of inflation & economic growth from macro-economic perspective and loan loss provision and retained earnings from bank specific factors on dividend payout decision only one research is conducted by Tadele Tesfaye(2018) for only six private banks. Thus, the researcher of this study is inspired & incorporated another four banks & one variable in the study.

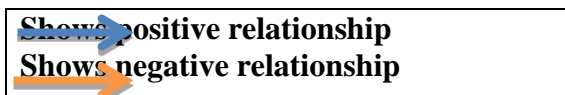
Now a day, a lot share companies like banks are emerging following economic growth of Ethiopia, the people making a huge investment in these companies and the companies also pay dividend as a return from their profits for shareholders. When it is observed, there is only a few studies have been conducted on determinants of dividend policy of companies in Ethiopia so this condition requires more studies to be conducted on the factors that determine dividend payout decision in Ethiopian private banks

## 8. Conceptual Framework

This conceptual framework is self-extracted and shows the relationship between the dependent variable, dividend payout and the eight explanatory variables.



Source: Personal design made as per theory and empirical literature



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

The primary aim of this study was to examine the determinants of dividend payout in Ethiopian private banks. To achieve the objective explanatory type of research design with a quantitative approach method was employed. The explanatory type of research design helps to identify and evaluate the causal relationships between the different variables under consideration (Creswell, 2008). So that, in this study the explanatory research design was employed to examine the relationship of the dependent and independent variables.

#### **3.2 Research approach**

There are basically two main types of research approaches which describe the relationship between theory and the research process, deductive and inductive. The main difference between the two approaches is that the deductive tests already existing theories while the inductive approach tries to generate new theories based on the empirical data (Saunders et al.2009). This study was based research on already existing theories therefore, the deductive approach is most appropriate in this case since it tests the different theories against formulated hypothesis.

#### **3.3 Research Method**

The qualitative, the quantitative, and mixed methods are the most common research methods used in academic studies. The quantitative method focuses on numbers and it is the systematic and scientific investigation of quantitative properties and phenomena and their relationships. If research problem is to identifying the factors that influence an outcome then the quantitative approach is best (Creswell, 2002). So this research used quantitative approach.

#### **3.4 Sampling method**

The population of the study is all private commercial banks in Ethiopia. Currently, in Ethiopia there are sixteen private commercial banks. From those the researcher was selected ten banks as a sample based on non-probability purposive sampling technique because the left have no full data

from the year 2009-2018. As noted by Kothari (2004), good sample design must be viable in the context of time and funds available for the study.

### **3.5 Type of Data**

Numerical (secondary) data which represent the firms' characteristics was collected from the financial report of the sample selected bank .A panel type of data was used because it has the two dimensions, time series and cross-sections, and the Panel Least Squares (OLS) regression method was used since it is suitable for panel data. To analysis panel data the Least square method has two alternatives techniques; the fixed and random effect technique. From the two techniques the fixed effect model was used since this model control all time invariant difference between the individuals the estimated coefficient of the fixed-effect models and omitted time-invariant characteristics (Brooks,2008).

### **3.6 Data Source and Collection**

This study was conducted by using secondary data annual reports of Private Banks financial report, such as income statements, cash flow statement and balance sheets of banks listed by NBE and annual macro-economic variables reported by MOFED& CSA for the period from 2009 to 2018, journals, and books.

### **3.7 Data analysis Method**

In this study to analysis the data, descriptive statistics and inferential statistics analysis was used. Descriptive statistics is used to measure the central value of the observations, Maximum and minimum to indicate the highest and lowest values respectively. The standard deviation also is used to measure the dispersion the values of all the dependent and independent variables.

Inferential statistics is used to measure the degree of association between the dependent and independent variable since it indicates the direction and the strength of association between independent and dependent variables and infer about the population (Kothari, 2014).To estimate the causal relationship between dependent and independent variables, the Ordinary Least Square (OLS) Regression analysis method is used by statistical software E-views 8.

### 3.8 Model Specifications

Panel data involves the pooling of observations on a cross-section of units over several time periods and provides results that are simply not detectable in pure cross-sections or pure time-series studies. The panel regression equation differs 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 can be specified more compactly as follow:

$$Y_{i,t} = \alpha + \beta X_{i,t} + \epsilon_{i,t}$$

With the subscript  $i$  denote the cross-sectional dimension and  $t$  representing the time-series dimension. In this equation,  $Y_{i,t}$  represents the dependent variable in the model, which is the firm's dividend payout ratio;  $X_{i,t}$  contains the set of explanatory variables in the estimation model; and  $\alpha$  is constant term over time  $t$  and cross-sectional unit it  $\alpha$  is taken to be the same across units  $\epsilon_{i,t}$  represents error term over time  $t$  and cross-sectional unit which are not observable in the regression.

In the light of the above model and on the bases of the selected variables, the current study used the below econometric model:

**DVPO = Dividend payout**

**PRO = Profitability**

**LEV = Leverage**

**LIQ = Liquidity**

**LLP= loan loss provision**

**LDVP = lagged dividend paid out**

**RER= Retained earning**

**BS=Bank size**

**ECOG= Economic growth**

**INF= Inflation**

**Model: DVPO =  $f$  (PRO, LEV, LIQ, RER, LLP, LDVP,BS, ECOG ,INF).....(1)**

**From equation (1) above, the following equation in linear form generated:**

**DVPO  $i_t$  =  $\alpha_i$  +  $\beta_1$  PRO  $i,t$  +  $\beta_2$  LEV  $i,t$  +  $\beta_3$  LIQ  $i,t$  +  $\beta_4$  RER  $i,t$  +  $\beta_5$  LLP  $i,t$  +  $\beta_6$  LDVP  $i,t$  +  $\beta_7$  BS +  $\beta_8$  ECOG +  $\beta_9$  INF +  $\epsilon_{i,t}$ ....(2)**

### 3.9 Definition and Measurement of Variables

**Dividend policy** – in this study dividend policy is the dependent variable and it is measured by dividend payout ratio. It is the proportion of profit distributed to shareholders and calculated by dividing the total dividend to net profit after legal reserve deducted.

#### **Independent Variables**

**Profit** – in this study return on equity (ROE) is a proxy for profit. It is calculated by dividing Profit after tax and legal reserve to total equity. Every bank in Ethiopia has a mandate to transfer 25% of yearly profit to legal reserve account maintained at National bank of Ethiopia as per proclamation No 84/1994. Due to this, banks cannot distribute all of the profit as dividend like other industries. Therefore, taking net profit after tax only without removing legal reserve would lead to higher ratio on return on equity and lower ratio on dividend payout. Ayodeji and Lukmon (2014), and Alzomain & Al-Khadiri (2013) also found positive relationship between ROE and dividend payout.

**Leverage** – leverage shows firms capital structure meaning that how much of the firm's capital is covered by debt and equity. Rozeff (1982), Lloyd et al. (1985), Collins et al (1996) and D'Souza (1999), Amidu and Abor (2006) and Gill et al. (2010) found a statistically significant and negative relationship between firm's leverage and the dividend payout ratios. In this study, it is calculated by dividing total debt to total asset.

**Liquidity** – The liquidity position of a firm is an important determinant of its ability to pay dividend payout. A firm with a poor liquidity position means will be less generous in paying dividend due to shortage of cash. Amidu and Abor (2006) found a positive relationship between cash flow and dividend payout ratios. Thus, under this study, it is calculated by dividing current asset to current liability.

**Retained earnings** -Retained earnings represents part of the undistributed earnings of a company and is needed for future expansion of the firm. Onali (2009) and Huda and Farah (2011) found a negative relationship between retained earnings and dividend payout. In this study retained earnings is defined as retained earnings divided by profit after tax and legal reserve.

**Loan loss provision**-The loan loss provision is a measure of a bank's credit quality. A high ratio goes together with a lower credit quality resulting in a lower profitability and thus

lower dividend payout. Thus, a negative effect of the loan loss provisions relative to total loans on bank dividend policy is expected. Dietricha and Wanzenried (2009) examined the relationship between the loan loss provisions on profitability. In this study, loan loss provision (LL) is defined as loan loss provision divided by total loans.

**Lagged dividend** – it is a dividend paid by a firm one year back. Zameer et al. (2013), and Rehaman (2012) found that last year dividend significantly affect the current period payout ratio and firms strive not cut dividend payment from preceding year, instead they try to increase payout ratio. Under this study, it is measured by previous year dividend payout divided by previous year profit after tax and legal reserve

### **Bank size**

Size of a firm has been one of the most commonly used factors in previous studies. Various researchers have argued that the size of the company is one of the factors that have the largest influence on the dividend payout ratio (Holder, Langrehr, & Hexter, 1998).

Information asymmetry between managers and owners/shareholders in large firms are more sensitive than small firms due to lack of close supervision. To control this problem dividend payout is widely used as a motivating factor for managers to show shareholders that their organization is in the right track.

According to Fama and French (2001) larger firms expend a greater portion of their net profits as cash dividends compared to smaller firms. Larger firms have greater advantage over small firms in accessing capital from public and financial institutions. The cost of acquiring capital is smaller due to firm size. Holder, Langrehr, & Hexter (1998) said large firms have greater access to financial markets, making it easier for them to reduce their costs, become more profitable and pay higher dividends. Therefore, firm size is directly related to dividend payout. Several studies have showed size is directly related with dividend payout (Al-Malkawi, 2008; Kinfе, 2011; AlShubiri, 2011). Therefore, this study also expects a positive relationship between firm size and dividend payout.

**Economic growth**- An increase in real economic activity increases the corporate earnings of different sectors operating in the economy leading to higher earnings which may ultimately lead to higher dividend payments (Ghafoor et al. 2014). Annual GDP rate is used for measure of economic growth of the country.

**Inflation-** During inflationary periods, companies usually retain huge part of their earnings so as to avoid a reduction in their scale of operation and to compensate for the fall in purchasing power, hence, would not be able to pay much dividend. If this occurs, the relationship between inflation rate and dividend payout would be negative. On the other hand, shareholders on their part would advocate for higher dividend due to the fall in purchasing power (Duncan and Wairimu, 2013). Given this, the relationship between dividend payout and inflation rate would be positive. Consumer price index is used for measurement of inflation of the country.

Table 3-1: Expected sign and Abbreviation

<b>Variable</b>	<b>Type</b>	<b>Abbreviation</b>	<b>Expected Sign</b>
Dividend Policy	Dependent	D V P O	
Profit	Independent	P R O	+
Leverage	Independent	L R V	-
Liquidity	Independent	L I Q	+
Retained earnings	Independent	R E R	-
loss provision	Independent	L L O	-
Lagged dividend	Independent	L D P V	+
Economic growth	Independent	E C O G	+
Inflation	Independent	I N F	-

**Source: Self developed**

### **3.10 Assumptions to be tested**

Diagnostic tests carried out to ensure that the data fits the basic assumptions of classical linear regression model.

### **Tests for Classical Linear Regression Assumptions**

In order to use the regression models, the basic Ordinary least square assumptions should be valid. The following tests: Homoscedasticity Test, Test for autocorrelation, Multicollinearity and Normality test conducted in order to check whether these assumptions are violated or not.

#### **3.10.1 Assumption one: The errors have zero mean ( $\epsilon = 0$ )**

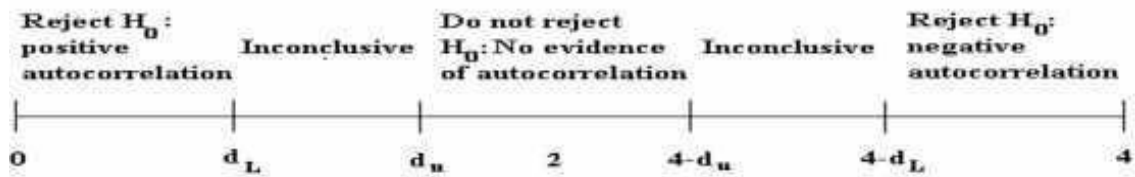
According to Brooks (2008), if a constant term is included in the regression equation, this assumption will never be violated.

#### **3.10.2 Assumption two: Test for Homoscedasticity**

The assumption of homoscedasticity is that the residuals are approximately equal for all predicted dependent variable scores- the variance of the errors is constant, if the assumption are met the pattern of the residuals will have about the same spread on either side of a horizontal line drawn through the average residual (Wooldridge, 2006). Otherwise if the errors do not have a constant variance, it is said that the assumption of homoscedasticity has been violated. This violation is termed as heteroscedasticity.

#### **3.10.3 Assumption three: Tests of Autocorrelation**

This is an assumption that the errors are linearly independent of one another (uncorrelated with one another). If the errors are correlated with one another, it would be stated that they are auto correlated.



**Test for Normality assumption ( $U_t \sim N(0, \sigma^2)$ )**

A normal distribution is not skewed and is defined to have a coefficient of kurtosis 3. Bera-Jarque formalizes this by testing the residuals for normality and testing whether the coefficient of skeweness and kurtosis are zero and three respectively.

Skewness measures the extent to which a distribution is not symmetric about its mean value and kurtosis measures how far the tails of the distribution are. The Bera-Jarque probability statistics/P-value is also expected not to be significant even at 10% significant level (Brooks, 2008). According to Gujarati (2004), the JB is a large sample test and our sample of 96 falls within that range; suggesting possibility for using JB test also.

**3.10.4 Assumption Four: Test for Multicollinearity**

This assumption of multicollinearity is that explanatory variables are not correlated with one another. But, if the variables are not uncorrelated with one another, it will be the violation of the CLRM assumption of multicollinearity. The problem of multicollinearity usually arises when certain explanatory variables are highly correlated. Malhotra (2007) stated that multicollinearity problems exist when the correlation coefficient among variables are greater than 0.75

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

This chapter deals with the results and analysis of the findings, presents the result of the fulfillment of the classical linear regression model (CLRM) assumptions, Section deals with descriptive statistics of the variables and presents the regression.

#### **4. Tests for the Classical Linear Regression Model (CLRM) Assumptions**

In this study as mentioned in chapter three diagnostic tests were carried out to ensure that the data fits the basic assumptions of classical linear regression model. Consequently, the results for the model assumption tests are presented as follows.

##### **4.1 Tests for Classical Linear Regression Assumptions**

In order to use the regression models that developed earlier in the methodology section, the basic Ordinary least square assumptions should be valid. The following tests: Homoscedasticity Test, Test for autocorrelation, Multicollinearity and Normality test were conducted in order to check whether these assumptions are violated or not.

###### **4.1.1 Assumption one: The errors have zero mean ( $\epsilon = 0$ )**

According to Brooks (2008), if a constant term is included in the regression equation, this assumption will never be violated. Thus, since the regression model used in this study included a constant term, this assumption is not violated

###### **4.1.2 Assumption two: Test for Homoscedasticity**

The assumption of homoscedasticity is that the residuals are approximately equal for all predicted dependent variable scores- the variance of the errors is constant, if the assumption are met the pattern of the residuals will have about the same spread on either side of a horizontal line drawn through the average residual (Wooldridge, 2006). Otherwise if the errors do not have a constant variance, it is said that the assumption of homoscedasticity has been violated. This violation is

termed as heteroscedasticity. In this study Harvey test was used to test for existence of heteroscedasticity across the range of explanatory variables.

**Table 4.1 Heteroskedasticity Test: Harvey**

F-statistic	0.767384	Prob. F(9,90)	0.6466
Obs*R-squared	7.126927	Prob. Chi-Square(9)	0.6239
Scaled explained SS	9.759622	Prob. Chi-Square(9)	0.3703

**Source: E-view -8 output**

The result in table 4.1 shows, the F-stat, X2, and scaled explained SS versions of the test statistic give the same conclusion that reveals the absence of heteroscedasticity, because the p-values are greater than 0.05.

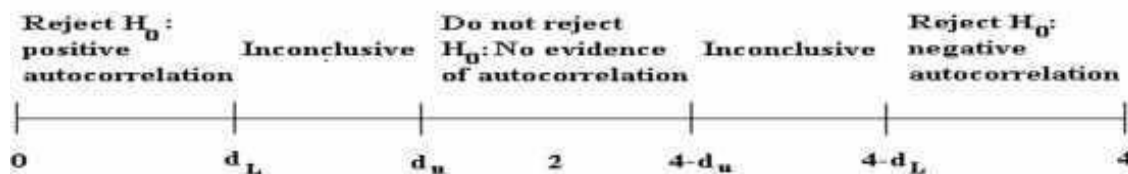
**4.1.3 Assumption three: Tests of Autocorrelation**

This is an assumption that the errors are linearly independent of one another (uncorrelated with one another). If the errors are correlated with one another, it would be stated that they are auto correlated. The DW test statistic value from the regression result is 1.272. There are 40 yearly observations in the regression and 8 eight regressors including the intercept. According to DW statistics table, the relevant critical values for the test at 5% significance level were  $d_L = 1.06$ ,  $d_U = 1.97$ . The DW statistics result of 1.272 is above the lower level but below the upper level. Therefore, it falls in the inconclusive region and the null hypothesis is neither rejected nor not rejected. Continuing Breusch-Godfrey Serial Correlation LM test is applied at 7 lagged level considering the seven independent variables used on the study. The test result indicated below

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Shows the null hypothesis of no autocorrelation is not rejected, since it is above 5% significance level.

**Figure 4.1**



0	$d_L$	$d_U$	2	$4-d_U$	$4-d_L$	4
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Continuing with Breusch-Godfrey Serial Correlation LM test is applied at 2 lagged level considering the 9 independent variables used on the study. The test result indicated below shows the null hypothesis of no autocorrelation is not rejected, since it is above 5% significance level.

**Table 4 .2 Breusch-Godfrey Serial Correlation LM Test:**

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.371837	Prob. F(2,88)	0.6905
Obs*R-squared	0.838003	Prob. Chi-Square(2)	0.6577

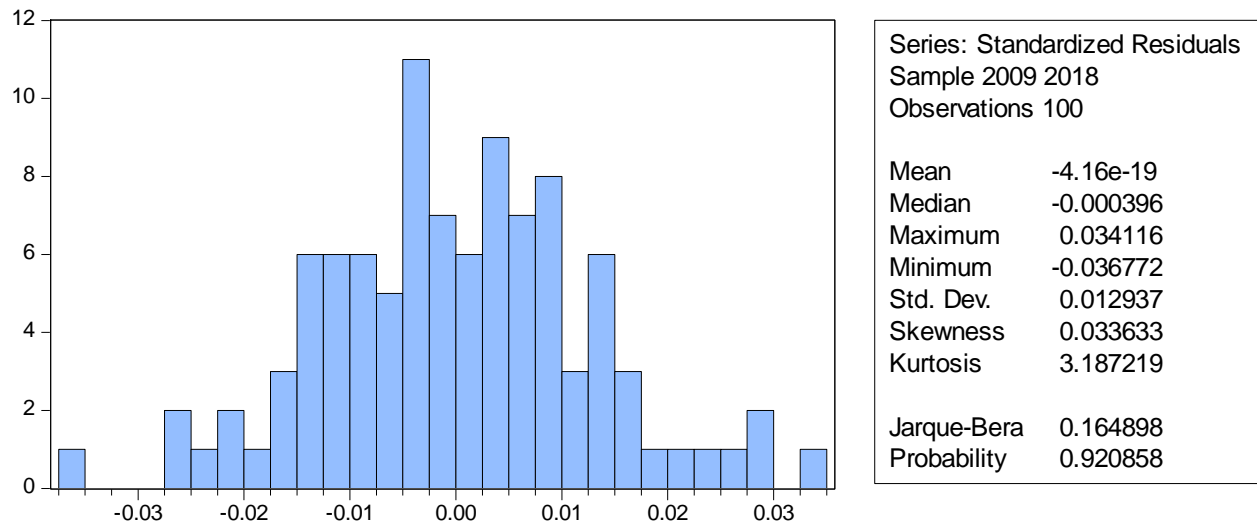
**Source: E-view-8 output**

#### **4.1.4 Test for Normality assumption ( $U_t \sim N(0, \sigma^2)$ )**

A normal distribution is not skewed and is defined to have a coefficient of kurtosis 3. BeraJarque formalizes this by testing the residuals for normality and testing whether the coefficient of skeweness and kurtosis are zero and three respectively.

Skewness measures the extent to which a distribution is not symmetric about its mean value and kurtosis measures how far the tails of the distribution are. The Bera-Jarque probability statistics/P-value is also expected not to be significant even at 10% significant level (Brooks,2008).According to Gujarati(2004), the JB is a large sample test and our sample of 96 falls within that range; suggesting possibility for using JB test also.

**Figure 4.2 Normality Test**



**Source: E-view-8 output**

As shown in the above Histogram, kurtosis approaches to 3 (i.e. 3.187219), skewness approaches to 0 (0.033633) and the Jarque-Bera statistics was not significant even at 5% level of significance as per the P-values shown in the histogram more than 5% (i.e. 0.406659). Hence, the null hypothesis that the error term is normally distributed should be accepted.

#### **4.1.5 Assumption Four: Test for Multicollinearity**

This assumption of multicollinearity is that explanatory variables are not correlated with one another. But, if the variables are not uncorrelated with one another, it will be the violation of the CLRM assumption of multicollinearity. To test the independence of the explanatory variables or to detect any multicollinearity problem in the regression model the study used a correlation matrix of independent variables. The problem of multicollinearity usually arises when certain explanatory variables are highly correlated. Malhotra (2007) stated that multicollinearity problems exist when the correlation coefficient among variables are greater than 0.75. Table 4.3 of correlation matrix has shown that the correlations among the independent variables are well below 0.75. Therefore, the risks of multicollinearity do not affect our regression analysis.

**Table 4.3: Correlation Matrix between independent variables**

	RER	PRO	LLP	LIQ	LEV	LDVP	INF	ECGO	BS
RER	1.0000 00								
PRO	-0.2506 42	1.0000 00							
LLP	-0.2165 55	0.0814 62	1.0000 00						
LIQ	-0.3412 89	-0.0890 20	-0.0661 54	1.0000 00					
LEV	0.1567 36	0.1141 45	0.0347 68	-0.2074 58	1.0000 00				
LDVP	-0.3692 46	0.0983 66	0.0080 94	0.0300 20	-0.0828 54	1.0000 00			
INF	-0.0097 73	-0.0542 42	-0.0324 88	0.0688 70	0.0197 32	-0.1146 94	1.0000 00		
ECGO	-0.0586 59	-0.0671 30	0.0122 27	0.0943 16	0.0519 42	-0.1534 59	0.1179 36	1.0000 00	
BS	0.0192 02	0.4217 35	0.0352 73	-0.3191 83	0.2388 64	0.3141 18	-0.1713 01	-0.3019 10	1.00000 0

**Source: E-views-8**

The results of the correlation matrix show that the highest correlation is 0.42 i.e. between PRO and BS. Since there is no correlation above 0.75 according to Malhotra (2007), it is possible to conclude in this study that there is no problem of Multicollinearity.

## 4.2 Descriptive statistics

Table 4.4 provides a summary of the descriptive statistics of the dependent and independent variables for ten private banks from year 2009 to 2018 with a total of 100 observations. The table includes the mean, median, standard deviation, number of observations, minimum and maximum for the independent and dependent variables used in this research. It shows the average indicators of variables computed from the financial statements.

**Table 4.4 Descriptive Statistics**

	DVP O	RER	PRO	LLP	LIQ	LEV	LDVP	INF	ECGO	BS
Me an	0.91 3952	0.82 1543	0.16 1586	0.024 955	0.550 580	0.855 875	0.910 707	12.52 119	9.815 894	3.985933
Me dian	0.89 8700	0.95 4232	0.14 5571	0.021 210	0.549 008	0.864 530	0.897 600	8.491 822	9.880 676	4.021576
Ma xim um	0.99 9900	2.37 8141	0.26 9943	0.098 273	0.971 276	0.917 152	1.000 000	33.24 996	12.55 054	4.742475
Mi nim um	0.84 3200	0.00 0000	0.10 0000	0.000 000	0.208 139	0.663 551	0.789 900	7.263 732	6.810 169	2.506505
Std . Dev .	0.04 6179	0.40 4764	0.04 8589	0.016 961	0.229 786	0.042 675	0.051 312	8.423 316	1.494 720	0.407948
Ob serv atio ns	100	100	100	100	100	100	100	100	100	100

**Source: E-view-8 output**

Table 4.4 shows a mean value of dividend payout is 0.913952 indicating that the private banks in Ethiopia have paid 91.4 % of their income as dividend with 4.62% variability ups and downs for the period from year 2009 to 2018. As stated in chapter three, this study used profit after tax and legal reserve to calculate dividend payout. The figure indicated that Ethiopian banking industry distribute 91.4% of their profit to their shareholders with 4.62% variation.

Retained earnings is a variable used as a proxy to measure how much Ethiopian private banks retain from their profits for expansions of banks and internal financing purpose. The average

retained earnings is 82.15% which means Ethiopian private banks do not distribute 82.15% of their profit rather retain it for expansions and internal financing purpose with a variability of 40.78% ups and downs for the last ten years from 2009 to 2018 years.

Profit measured by return on equity shows the banks' profitability to generate income using the available shareholders' investment. The figure shows that Ethiopian private banks shareholders have generated on average 16.16% profit for a one birr funds invested by shareholders, this shows that Ethiopian private banks have earned 16.16% return from their equity investment with 4.86% variability ups and downs for the period from year 2009 to 2018.

Loan loss provisions a variable used as a proxy for credit risk. The average value of loan loss provision is 2.45% which means that Ethiopian private banks loan loss provision is 2.45% in the last sixteen years from year 2009 to 2018 with a variability of 1.67% ups and downs. Which means the quality of Ethiopian private banks' granted loan is good.

Ethiopian private banks have on average 55.06% liquidity position measured by current asset divided by current liability. This means that for a one birr current liability there is an available 0.55 cents on average on current assets, a maximum liquidity position of 97% and minimum of 20.81% with a high dispersion of 22.99% ups and downs. The nature of the banking industry is highly dependent on deposit, which is a debt, to finance their operation, where they receive deposit from the public, mainly has a nature of short term, and extend loan to borrowers both for short and long period of time. Receiving short term deposit and providing long term loan, create a gap on banks liquidity management but evaluating the above figure based on National bank of Ethiopia liquidity requirement is a minimum of 15% this shows that Ethiopian private banks have maintained a liquidity requirement of NBE and it can be said they are solvent.

Ethiopian private banks have on average 85.59% debt in their asset composition mainly from deposit which is an equity contribution of 14.41% which is well above the national bank of Ethiopia's requirement of a minimum of 8% equity to all banks to maintain in their capital structure. This condition shows banking industry is highly levered due to their main source of fund is from deposit, which is a liability with 4.27% variability ups and downs. A maximum debt ratio of 91.72% so there is no a bank with less than 8% equity thus all private banks maintain the requirement set by national bank of Ethiopia.

Lagged dividend paid by private banks shows average value of 91.07% with a variability of 5.13% ups and downs. This figure shows Ethiopian private banks have distributed 91.07 % of their revenues to shareholders, which indicates Ethiopian banking industry is a high dividend paying industry.

Inflation rate is a variable which measures the variability of the price level in the economy. The average CPI rate 12.52% of the country over the last sixteen years from year 2009 to 2018 was more than the average Real Gross Domestic Products growth rate (GDP). The rate of inflation was highly dispersed over the periods under study towards its mean with standard deviation of 8.42%.

GDP measures the economic growth of the country. The average value of GDP is 9.81 % with 14.94 % up and down for the last sixteen years from year 2009 to 2018. Which means the average value of GDP indicates the average real economic growth of the country this shows that Ethiopia is registering good economic growth and from this result Ethiopian private bank are exploiting this good opportunity because as there is more deposits, it is possible to grant more loan and this results in more profit and leads to more dividend payout to shareholders.

The variable size measures banks total assets. The anti-logarithm figure on table 4.2 shows eight Ethiopian private banks have an asset on average of birr 3 9.8.

**Table 4.5 Correlation Matrix of Dependent and Independent Variables**

	DVPO	RER	PRO	LLP	LIQ	LEV	LDVP	INF	ECGO	BS
DVPO	1.000000									
RER	-0.527866	1.000000								
PRO	0.142192	-0.250642	1.000000							
LLP	-0.115469	-0.216555	0.081462	1.000000						
LIQ	0.104696	-0.341289	-0.089020	-0.066154	1.000000					
LEV	-0.287869	-0.156736	0.114145	0.034768	-0.207458	1.000000				
LDVP	0.873209	-0.369246	0.098366	0.008094	0.030020	-0.082854	1.000000			
INF	-0.088128	-0.009773	-0.054242	-0.032488	0.068870	0.019732	-0.114694	1.000000		
ECG	-	-	-	0.0122	0.09431	0.0519	-	0.117936	1.000000	

O	0.122585	0.058659	0.067130	27	6	42	0.153459		0	
BS	0.250372	0.019202	0.421735	0.035273	-0.319183	0.238864	0.314118	-0.171301	-0.301910	1.000000

**Source: E-view-8output**

A Retained earnings has negative correlation with dividend payout with a negative coefficient of -0.5279. This implies an increase in Retained earnings in one birr result decrease in dividend payout by 0.5279 cents. As it can be seen from the table, the result of correlation between ROE and dividend payout showed a positive coefficient 14.22%. It indicates that if the ROE increases by one birr it will increase by 0.1422 cents. Loan loss provision has shown negative correlation with dividend payout with coefficient of -0.1155. This indicates that as loan provision increases by one birr dividend payout will decrease by 0.1155 cents. Liquidly has a positive relationship with dividend payout with coefficient 0.1047 this means as liquidly or cash flow increases by one birr dividend payout will increase it by 0.1047 cents. The correlation result between leverage and dividend payout showed a negative sign with a coefficient of -0.2879. This indicates, if the private banks' leverage increases by one birr, the dividend payout decrease by .2879 cents. Lagged dividend payout has positive relation with current dividend payout with coefficient of 0.8732, this show that as

Lagged dividend payout increases by one birr, current dividend payout will increase by 0.8732 cents. Bank size measures the firms total assets, the increase one birr in bank size results increase dividend payout by 0.2503 cents. Economic growth of country has negative association with dividend payout with coefficient of -0.5279. This implies that as economic growth of the country increases by one birr dividend payout of private banks decrease by 0.5279 cents. Inflation rate of the country has a negative relation with dividend payout of private banks with coefficient of -0.0881. This indicates that as the inflation rate of the country increases by one birr, dividend payout of private banks decrease by 0.0881 cents.

Generally, the correlation results showed Retained earnings, loan loss provision, leverage, economic growth and inflation have a negative relation with dividend policy. On the other hand, ROE, bank size, liquidity and lagged dividend payout have positive relationship with dividend payout policy of Ethiopian private banks.

### 4.3 Choices of Regression Results

#### 4.4.1 Choosing Random Effect (RE) Versus Fixed Effect (FE) Models

The Hausman test show p value < 0.05 i.e. 0.0000. I use fixed effect model.

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	40.335719	9	0.0000

### 4.4. Analysis and Interpretation of Regression Result

This section presents the regression result of fixed effect model to examine the determinant of DVPO of Ethiopian private commercial banks.

Accordingly, the regression result and coefficients of the variables were estimated via E-view version 8 software. As stated earlier in model selection part, fixed effect regression model is an appropriate model used in this study. Thus, the model used to examine the determinants of DVPO Ethiopian private commercial banks in this study is as follows:

$$DVPO_{i,t} = \beta_0 \alpha_i + \beta_1 RER_{i,t} + \beta_2 PRO_{i,t} + \beta_3 LLP_{i,t} + \beta_4 LIQ_{i,t} + \beta_5 LEV_{i,t} + \beta_6 LDVPO_{i,t} + \beta_7 BS + \beta_8 ECOG_{i,t} + \beta_9 INF_{i,t} + \epsilon_{i,t}$$

Where,

$\beta_0$  is an intercept

**$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$  and  $\beta_9$**  represent estimated coefficient for specific bank  $i$  at time  $t$

,

**DVPO<sub>it</sub>** = the ratio of total dividend payment to total net profit for bank  $i$  at time  $t$

**LEV** = Leverage, it is ratio of total debt to total asset for bank  $i$  at time  $t$

**PRO** = Profitability is measured by ROE, it is the ratio of total net profit to total fund invested by shareholders for bank  $i$  at time  $t$

**RER** = Retained earnings, it is the ratio of total retained earnings to total profit for bank  $i$  at time  $t$

**LIQ** =Liquidity, it is the ratio of total current asset to total current liability for bank  $i$  at time  $t$

**LLP** = Loan loss provision, it is the ratio of total estimated uncollectible loan for bank to total loan granted  $i$  at time  $t$

**LDVP** = lagged dividend payment, it is the ratio of previous year dividend payment to total net profit for bank  $i$  at time  $t$

**BS**= Bank size, it is log of total asset

**ECOG** =Economic growth, it is measured by Real GDP growth rate of Ethiopia at time  $t$  **INF**

= Inflation, it is measured by consumer price index in Ethiopia at time  $t$

$\epsilon$  = represents Error Term

**I** = cross section dimension, refers banks

t = Time series dimension, refers number of years

**Table 4.7**  
Regression result-fixed effect model (FEM)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RER	-0.007332	0.006994	-1.048321	0.2976
PRO	0.266163	0.061706	4.313384	0.0000
LLP	-0.437783	0.105607	-4.145403	0.0001
LIQ	0.010706	0.009918	1.079484	0.2836
LEV	-0.125295	0.048272	-2.595591	0.0112
LDVP	0.500871	0.045255	11.06775	0.0000
INF	-7.56E-05	0.000178	-0.424563	0.6723
ECGO	-0.000509	0.001072	-0.475008	0.6361
BS	0.000405	0.005607	0.072279	0.9426
C	0.537417	0.061284	8.769362	0.0000

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.921518	Mean dependent var	0.913952
Adjusted R-squared	0.904078	S.D. dependent var	0.046179
S.E. of regression	0.014302	Akaike info criterion	-5.487507
Sum squared resid	0.016569	Schwarz criterion	-4.992525
Log likelihood	293.3754	Hannan-Quinn criter.	-5.287179
F-statistic	52.83810	Durbin-Watson stat	1.815154
Prob(F-statistic)	0.000000		

**Source: E-view-8 output**

Thus, based on the result Table 4.7above, the following model was developed to examine the determinants of DVPO in this study

$$\begin{aligned}
 \text{DVPO} = & 53.74 - 0.073 \text{ RER} + 26.62 \text{ PRO} - 43.77 \text{ LLP} + 1.07 \text{ LIQ} - 12.52 \text{ LEV} + 50.08 \text{ LDVP} \\
 & + 0.004 \text{ BS} - 0.005 \text{ ECGO} - 75.6 \text{ INF} + \epsilon
 \end{aligned}$$

According to table 4.7 fixed effect regression results, adjusted R<sup>2</sup> has the value of 92.15% which reveals that the explanatory power of the model is good. The value (i.e. 92.15%) could be interpreted as; dividend payout of Ethiopian private banks 92.15% were explained by ROE, LEV, LIQ, RER, LLP, LDVP, BS, ECOG, and INF whereas the rest 7.85% variation of dividend payout of Ethiopian private banks were explained by neither bank specific nor macroeconomic variables used in this study rather it explained by the error term. Generally, the value of adjusted R<sup>2</sup> in this study indicated good model specification. Also, the overall test of significant F statistics shows that the model was good enough fitted and statistically significant at 1% level (i.e. p-value = 0.000).

Furthermore, the study examined the impact of both bank specific and macroeconomic factor on dividend payout of Ethiopian private banks for based on regression result of fixed Effect Model in Table 4.8 in terms of examination of coefficients of explanatory variables and significance level.

In examination of coefficients for bank specific factors, PRO, LIQ, LDVPO and BS had positive impact on dividend payout having a coefficient of 26.62, 1.07, 50.08 and

0.004 respectively. This indicates that one unit change (increase/decrease) in PRO, LIQ, LDVPO and BS can result a change on dividend payout by 26.62, 1.07, 50.08 and 0.004 units in similar direction respectively. However, RER, LLP and LEV had negative impact on dividend payout having coefficient of -0.073, -43.77, and -12.52. This indicates that 1% change in RER, LLP and LEV can result in a change on dividend payout by -0.073, -43.77 and -12.52 in opposite direction.

Besides, from macroeconomic factors, ECOG measure by GDP and INF measured by general inflation rate had negative impact on dividend payout having a coefficient of -0.005 and -75.6 respectively which indicates a one unit change (increase/decrease) in GDP and INF can result a change on dividend payout by -0.005 and -75.6 units in opposite direction respectively.

In terms of significance level (corresponding p-value); out of the total nine explanatory variables of the study three of them were statistically significant at 1% level (PRO, LLP & LDVP) while LEV was significant at 5% level. The rest six variables had no statistically significant impacts on dividend payout of Ethiopian private banks for the period between 2009-2018. Variables that significantly affected dividend payout are bank specific.

## 4.5 Discussions of the Regression Results

In this section the discussions of regression results were made on the basis of related literature provided in chapter two of this study. Accordingly, the relationship between dependent and independent variables were discussed on the basis of the findings of this study and then it was associated to the theoretical literature and the finding of other researchers provided in the empirical review under this study.

### **Profitability**

The result of profitability measured by ROE as shown in table 4.7 is positive and statistically significant. Profitability is a significant factor that determines dividend payout. The result shows the effect of profit measured by ROE on dividend payout with a coefficient of 0.2662 and a p-value of 0.0000 at 1% significance level. This implies that for one unit change in ROE, keeping the other things constant will result 0.2662 unit changes on dividend payout in similar direction. Therefore, hypothesis 1 is not rejected. Hypothesis 1 states that profitability has positive significant impact on dividend policy of Ethiopian private banks. This means that Ethiopian private banks pay dividends for their shareholders when they are profitable. This result is consistent with the signaling theory of the dividend policy theory; it states that the more profitable firm is, the higher the possibility to pay dividends the less profitable firm, the lower possibility to pay dividends.

This finding is similar to the finding of Lintner (1956) ,Ayodeji and Lukmon (2014), Alzomain & Al-Khadiri (2013) ,Zameer et al. (2013) ,Hailemariam (2013), NsikanEdet et al . (2014), Alzomaia& Al-Khadhiri (2013), Wasike & Amborse (2015) , Awad (2015) ,Mirbagherijam(2014) Basse and Reddeman (2011),Mehta (2012),Nohu (2014) and Tadele(2015) . The possible reason for the positive significant relationship with dividend payout could be Ethiopian banking industry is more profitable industry. This may indicates that Ethiopian private banks pay dividend by considering the level of profit.

## **Leverage**

The result of leverage as shown in table 4.7 is negative and statistically significant. Leverage is a significant factor that determines dividend payout. The result shows the effect of leverage on dividend payout with a coefficient of -0.1253 and a p-value of 0.0112 at 5% significance level. This implies that for one unit change in leverage, keeping the other things constant will result 0.1253 unit changes on dividend payout in opposite direction. The increase or decrease in leverage ratio has negative statistical significant effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 2 is not rejected. It states that leverage has a negative impact on dividend policy of Ethiopian private banks. The finding is consistent with pecking order theory, Pecking order theory states that external financing is more costly compared to internal financing. This is explained by the high transaction costs and highly leveraged companies therefore have to rely on retained earnings in order to meet their obligations than less leveraged companies. As result of this a larger proportion of highly leveraged companies' profit and retained earnings gone for payment of obligations and financing cost, it leads to decrease in profit and this in turn results in decrease in the company the dividend payout ratio.

## **Liquidity**

The result of liquidity as shown in table 4.7 is positive and statistically insignificant. Liquidity is insignificant factor that determines dividend payout. The result shows the effect of liquidity on dividend payout with a coefficient of 0.0107 and a p-value of 0.2836 at 5% significance level. This implies that for one unit change in liquidity, keeping the other things constant will result 0.0107 unit changes on dividend payout in the same direction. The increase or decrease in liquidity ratio has positive statistical insignificant effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 4 is also rejected, stating that liquidity has a positive significant impact on dividend policy of Ethiopian private banks. The finding is somehow consistent to the Jensen's (1986) agency theory stated; companies with higher free cash flow have higher dividend payout ratios. Based on this theory, companies that have higher liquid assets are more exposed to agency problem than a company with lower liquid assets. Because shareholders do not trust managers, and they therefore, think that the managers may be engaged in excessive spending if they have excess free cash flow at their hands.

### **Retained earnings**

Table 4.7 shows retained earnings has a negative insignificant relationship with dividend payout. The result shows the effect of retained earnings on dividend payout with a coefficient of -0.07. This implies that for one unit change in retained earnings, keeping the other things constant will result - 0.07 unit changes on dividend payout in opposite direction. The increase or decrease in retained earnings has negative effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 4 is rejected; stating that retained earnings has negative significant impact on dividend policy of Ethiopian private banks.

The finding is not similar to Ayodeji and Lukmon (2014), Tadele Tesfaye (2015).

### **Loan loss provision**

Table 4.7 shows loan loss provision is used to measure the risk of credit and has a negative and statistically significant relationship with dividend payout at 1% significance level. The result shows the effect of loan loss provision on dividend payout with a coefficient of - 0.4378 and a p-value of 0.0001 at 1% significance level. This implies that for one unit change in loan loss provision, keeping the other things constant will result -0.4378 unit changes on dividend payout in opposite direction. The increase or decrease in loan loss provision has negative statistical significant effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 4 is not rejected, stating that loan loss provision has a negative significant impact on dividend policy of Ethiopian private banks.

The finding is similar to Ayodeji and Lukmon (2014) but contradicts to Hailemariam (2013). It is consistent with the answer of interview as the interviewees indicated that their bank's dividend payment fluctuated with the bank's change in loan loss provision since it affects the current earnings of the bank. The possible reason for significant and negative relationship between loan loss provision and dividend payout could be Ethiopian private banks examine properly the quality of loan and maintain high provision for loans whose chance of collectability are doubtful in the future.

### **Lagged Dividend Payment**

Table 4.7 shows lagged dividend payout has a positive and statistically significant relationship with dividend payout at 1% significance level. The result shows the effect of lagged dividend payout on dividend payout with a coefficient of 0.454770 and a p-value of 0.0000 at 1% significance level. This implies that for one unit change in lagged dividend payout, keeping the other things constant will result 0.454770 unit changes on dividend payout in similar direction. The increase or decrease in lagged dividend payout has positive statistical significant effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 6 is not rejected; stating that lagged dividend payout has positive significant impact on dividend policy of Ethiopian private banks. The finding of study supports the theory of signaling, theory of signaling stated that when companies want to give a positive signal to the market that the company is in good condition whereby it is continuing paying dividends. A company that pays dividend this year is also expected to pay in the coming years.

The finding is similar to Zameer et al. (2013), Hailemariam (2013), Mitiku (2015), Nsikan Edet et al (2014), Alzomaia & Al-Khadhiri (2013), & Maladjian & El-khoury (2014). It is also consistent with the result found in the in-depth interview in which most of the interviewees revealed that lagged dividend payout has positive impact current on current dividend. The possible reasons for significant and positive relationship between lagged dividend payout and dividend could be Ethiopian private banks use previous year's dividend payment as signal that the firms are performing well and their shareholders expect positive thing in the future.

### **Size**

Size is measured by natural logarithm of total asset. Table 4.7 shows that size has a positive with dividend payout. Therefore, hypothesis 7 is not rejected when size of the banks increase by 1%, dividend payout will by 0.000405 cent. The result is consistence with the agency theory which states large firms face high agency costs as a result of ownership dispersion, increased complexity, and the inability of shareholders to monitor firm activity closely. Hence, such firms pay a larger dividend to reduce agency costs. Most empirical studies have showed a positive relationship between size and dividend payout, but others like Ahmed & Javid, (2008) and Nuredin, (2012) have found a negative relationship between size and dividend payout. Possible reason for positive relationship could be large sized firms invest their profits in their assets rather than paying dividends to its shareholder.

## **Economic growth**

Table 4.7 shows economic growth of the country measured by GDP it has a negative and statistically insignificant relationship with dividend payout at 5% significance level. The result shows the effect of GDP on dividend payout with a coefficient of -0.0005 and a p-value of 0.6361 at 5% significance level. This implies that for one unit change in loan GDP, keeping the other things constant will result -0.0005 unit changes on dividend payout in opposite direction. The increase or decrease in GDP has negative statistical insignificant effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 8 is rejected, stating that GDP has positive significant impact on dividend policy of Ethiopian private banks.

The finding is in line with Ghafoor et al. (2014) but contradicts with Basse and Reddeman (2011). It is also inconsistent with the result found with interview in which most of the interviewees revealed that economic growth of the country has positive impact on dividend payout because as the economy of the country grows, the profit of bank increases and this lead to increasing of possibility of paying higher dividend. The possible reasons for insignificant and negative relationship between GDP and dividend payout might be Ethiopian private banks do not consider the effect of economic growth of the country on dividend payout while declaring dividend.

## **Inflation**

Table 4.7 shows inflation of the country measured by consumer price index it has a negative and statistically insignificant relationship with dividend payout at 5% significance level. The result shows the effect of inflation of the country on dividend payout with a coefficient of - 7.5E6 4 and a p-value of 0.6723 at 5% significance level. This implies that for one unit change in consumer price index, keeping the other things constant will result -7.56 unit changes on dividend payout in opposite direction. The increase or decrease in consumer price index has negative statistical significant effect on dividend payout in Ethiopian private banks for the study period. Therefore, hypothesis 9 is rejected, stating that inflation has a negative insignificant impact on dividend policy of Ethiopian private banks.

The finding is inconsistent with Duncan and wairimu (2013) & NsikanEdet et al.(2014).

#### 4.6 Summary of the Analysis

**Table 4.8 Comparison of the Test Result with the Expectation**

<b>Hypothesis</b>	<b>Independent Variables</b>	<b>Expected Relationship with Dependent variable (DPO)</b>	<b>Actual Result</b>	<b>Decision</b>
Hypothesis 1	Profitability	+ve & sig	+ve & sig	Not Rejected@ 5%
Hypothesis 2	Leverage	-ve & sig	-Ve & sig	Not Rejected@ 5%
Hypothesis 3	Liquidity	+ve & sig	+Ve & insig	Rejected

Hypothesis 4	Retained earnings	-ve	-ve insig	Rejected
Hypothesis 5	Loan loss provision	-ve & sig	-ve & sig	Not Rejected@ 1%
Hypothesis 6	Lagged dividend	+ve & sig	+ve & sig	Not Rejected@ 1%
Hypothesis 7	Bank size	+ve	+ve	Not rejected
Hypothesis 8	Economic growth	+ve & sig	+ve & insig	Rejected
Hypothesis 9	Inflation	-ve & sig	-ve & insig	Rejected@ 5%

## CHAPTER FIVE

### Conclusion and Recommendation

In this Chapter conclusion is made based on the findings of the study and forwarded possible recommendations and state future research areas which need further study.

#### 5.1 Conclusion

Dividend policy has been analyzed for many decades, but no universally accepted explanation for companies' observed dividend behavior established & become a puzzle in corporate finance. The main purpose of the study was to examine the determinants of dividend policy of Ethiopian private banks. In order to meet the objective of the study ten years audited financial statements data from National bank of Ethiopia and macro-economic variables from CSA and MOFED were used from year 2009 to 2018 for ten samples selected private banks. The collected data was analyzed using pooled fixed effect panel regression method to examine the relationship between the seven bank

specific factors, which are (profit, liquidity, leverage, lagged dividend payout, loan loss provision and size ) and macro variables which are GDP & inflation rate with dividend payout. The result of the regression analysis showed that: a result will lead to increase in profit, and the amount of dividend to be distributed to shareholders increases.

Liquidity has positive but it is not significant relationship with dividend payout of Ethiopian private banks and the finding is consistent the theory of agency. Theory of agency stated that agency companies with higher free cash flow will have higher dividend payout ratios. Based on this theory, companies that have higher liquid assets are more exposed to agency problem than a company with lower liquid assets. Because shareholders do not trust managers, and they think that the managers may be engaged in excessive spending if they have excess free cash flow at their hands. This indicates that Ethiopian private banks is required to maintain high liquidity in order to avoid insolvency problem due to large sum of their liquid assets is made up from deposit and this deposit could be withdrawal at any time, to avoid this problem banks should always make sure that they have enough liquidity to entertain huge amount of withdrawals from deposit due to different reasons.

Retained earnings have a negative relationship with dividend payout of Ethiopian private banks. The finding is similar to Ayodeji and Lukmon (2014). This shows that Ethiopian private banks retain more of their profit for the purpose of investment and internal financing.

Loan loss provision is used to measure the risk of credit and has a negative and statistically significant relationship with dividend payout of Ethiopian private banks. The finding is similar to Ayodeji and Lukmon (2014) but contradicts to Hailemariam(2013). This implies that Ethiopian private banks examine the quality of loan and maintain high provision for loans which are chance of collectability doubtful in the future.

Lagged dividend payout has a positive significant relationship with dividend payout of Ethiopian private banks. The results of the study supports the theory of signaling, it stated that companies wants to give a positive signal to the market that the company is in good condition and continuing paying dividends. A company that pays dividend this year is also expected to pay in the coming years. This indicates that Ethiopian private banks use previous year's dividend payment as signal

that the firms are performing well and their shareholders expect positive and attractive dividend payout in the future.

Size is found to have positive impact on dividend payout consistence the theory of agency, which describes large firms face high agency costs as a result of ownership dispersion, increased complexity, and the inability of shareholders to monitor the firm activity closely. Hence, such firms pay a larger dividend to reduce agency costs.

Economic growth of the country measured by GDP it has a negative insignificant relationship with dividend payout Ethiopian private bank. The finding is in line with Ghafoor, et al (2014).This implies that Ethiopian private banks do not consider the effect of economic growth of the country on dividend paid out while declaring dividend.

Inflation of the country measured by consumer price index it has a negative and statistically insignificant relationship with dividend payout Ethiopian private banks. The finding of the study is inconsistent with Duncan and wairimu (2013) & NsikanEdet et al. (2014). This indicates that Ethiopian private banks not take into account the effect of inflation while declaring dividend during inflationary periods.



## **5.2. Recommendations**

Based on the findings and conclusions of the study, the following recommendations are forwarded to the shareholders, investors, banks and the government:

Management and banks board of directors should give considerable attention for the following variables when deciding the dividend payment decision for their banks because profit & lagged dividend paid out have positive statistical significant impact on dividend paid out while loan loss provision & leverage have negative statistical significant impact on dividend paid out of Ethiopian private banks.

Investors need to evaluate Ethiopian private banks' performance from bank specific factors and macro variables perspectives before making any investment decision because those : profit & lagged dividend paid out have positive statistical significant impact on dividend paid out while retain earnings , loan loss provision & leverage have negative statistical impact on dividend paid out of Ethiopian private banks.

Government should facilitate the establishment of stock market in the country so that shares can be traded freely in the market. This will help Ethiopian private banks not to be depend on internally generated funds so as to make proper decision on dividend, and sell new shares in the market whenever needed and payout dividend.

### **For Future Research**

This study examined seven firms specific and only two macroeconomic determinant of dividend policy of Ethiopian private banks. Future researchers are recommended to include firm specific variable like liquidity risk and age with additional macro variables in order to demonstrate the impact of both internal and external variables on dividend policy of Ethiopian private banks.

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## Appendix

### Breusch-Godfrey Serial Correlation LM Test:

<b>F-statistic</b>	0.371837	Prob. F(2,88)	0.6905
<b>Obs*R-squared</b>	0.838003	Prob. Chi-Square(2)	0.6577

### Test Equation:

**Dependent Variable: RESID**

**Method: Least Squares**

**Date: 01/04/21 Time: 01:36**

**Sample: 1 100**

**Included observations: 100**

**Presample missing value lagged residuals set to zero.**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
	t			
<b>RER</b>	-0.000293	0.005331	-0.054928	0.9563
<b>PRO</b>	-0.006689	0.041551	-0.160980	0.8725
<b>LLP</b>	-0.003365	0.104300	-0.032260	0.9743
<b>LIQ</b>	-0.001161	0.008553	-0.135706	0.8924
<b>LEV</b>	-0.003742	0.042556	-0.087925	0.9301
<b>LDVP</b>	0.013947	0.042471	0.328385	0.7434
<b>INF</b>	2.06E-06	0.000206	0.009981	0.9921
<b>ECGO</b>	-0.000119	0.001220	-0.097389	0.9226
<b>BS</b>	-0.000649	0.005558	-0.116701	0.9074
<b>C</b>	-0.003737	0.054199	-0.068944	0.9452
<b>RESID(-1)</b>	-0.073031	0.119030	-0.613552	0.5411
<b>RESID(-2)</b>	-0.080839	0.113853	-0.710028	0.4796
<b>R-squared</b>	0.008380	Mean dependent var	2.72E-16	
<b>Adjusted R-squared</b>	-0.115572	S.D. dependent var	0.015943	
<b>S.E. of regression</b>	0.016839	Akaike info criterion	-	5.218017
<b>Sum squared resid</b>	0.024954	Schwarz criterion	-	4.905396
<b>Log likelihood</b>	272.9008	Hannan-Quinn criter.	-	5.091494
<b>F-statistic</b>	0.067607	Durbin-Watson stat	2.017241	
<b>Prob(F-statistic)</b>	0.999986			

### Heteroskedasticity Test: Harvey

<b>F-statistic</b>	0.767384	Prob. F(9,90)	0.6466
<b>Obs*R-squared</b>	7.126927	Prob. Chi-Square(9)	0.6239
<b>Scaled explained SS</b>	9.759622	Prob. Chi-Square(9)	0.3703

### Test Equation:

Dependent Variable: LRESID2

Method: Least Squares

Date: 01/04/21 Time: 01:54

Sample: 1 100

Included observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-18.96954	8.462312	-2.241650	0.0274
RER	0.759361	0.834161	0.910330	0.3651
PRO	-2.785049	6.400465	-0.435132	0.6645
LLP	-0.465375	16.32578	-0.028506	0.9773
LIQ	-0.599971	1.324522	-0.452972	0.6517
LEV	11.33672	6.638559	1.707708	0.0911
LDVP	4.728225	6.116705	0.773002	0.4415
INF	-0.027578	0.032201	-0.856419	0.3940
ECGO	-0.093975	0.189537	-0.495816	0.6212
BS	-0.864251	0.862424	-1.002119	0.3190
R-squared	0.071269	Mean dependent var	-	9.841428
Adjusted R-squared	-0.021604	S.D. dependent var		2.612658
S.E. of regression	2.640729	Akaike info criterion		4.874627
Sum squared resid	627.6106	Schwarz criterion		5.135144
Log likelihood	-233.7313	Hannan-Quinn criter.		4.980063
F-statistic	0.767384	Durbin-Watson stat		2.505184
Prob(F-statistic)	0.646601			

#### Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	40.335719	9	0.0000

**\*\* WARNING: estimated cross-section random effects variance is zero.**

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
RER	-0.007332	-0.031580	0.000029	0.0000
PRO	0.266163	0.007188	0.002606	0.0000
LLP	-0.437783	-0.490698	0.003334	0.3595
LIQ	0.010706	-0.009251	0.000047	0.0036
LEV	-0.125295	-0.220496	0.001037	0.0031

<b>LDVP</b>	0.500871	0.664209	0.000951	0.0000
<b>INF</b>	-0.000076	0.000030	0.000000	0.0030
<b>ECGO</b>	-0.000509	0.000344	0.000000	0.0058
<b>BS</b>	0.000405	0.007392	0.000010	0.0243

**Cross-section random effects test equation:**

**Dependent Variable: DVPO**

**Method: Panel Least Squares**

**Date: 01/04/21 Time: 01:45**

**Sample: 2009 2018**

**Periods included: 10**

**Cross-sections included: 10**

**Total panel (balanced) observations: 100**

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
<b>C</b>	0.537417	0.061284	8.769362	0.0000
<b>RER</b>	-0.007332	0.006994	-1.048321	0.2976
<b>PRO</b>	0.266163	0.061706	4.313384	0.0000
<b>LLP</b>	-0.437783	0.105607	-4.145403	0.0001
<b>LIQ</b>	0.010706	0.009918	1.079484	0.2836
<b>LEV</b>	-0.125295	0.048272	-2.595591	0.0112
<b>LDVP</b>	0.500871	0.045255	11.06775	0.0000
<b>INF</b>	-7.56E-05	0.000178	-0.424563	0.6723
<b>ECGO</b>	-0.000509	0.001072	-0.475008	0.6361
<b>BS</b>	0.000405	0.005607	0.072279	0.9426

**Effects Specification**

**Cross-section fixed (dummy variables)**

<b>R-squared</b>	0.921518	Mean dependent var	0.913952
<b>Adjusted R-squared</b>	0.904078	S.D. dependent var	0.046179
<b>S.E. of regression</b>	0.014302	Akaike info criterion	-
			5.487507
<b>Sum squared resid</b>	0.016569	Schwarz criterion	-
			4.992525
<b>Log likelihood</b>	293.3754	Hannan-Quinn criter.	-
			5.287179
<b>F-statistic</b>	52.83810	Durbin-Watson stat	1.815154
<b>Prob(F-statistic)</b>	0.000000		

**Dependent Variable: DVPO**

**Method: Panel Least Squares**

**Date: 01/04/21 Time: 02:01**

**Sample: 2009 2018**

**Periods included: 10**

**Cross-sections included: 10**

**Total panel (balanced) observations: 100**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RER	-0.007332	0.006994	-1.048321	0.2976
PRO	0.266163	0.061706	4.313384	0.0000
LLP	-0.437783	0.105607	-4.145403	0.0001
LIQ	0.010706	0.009918	1.079484	0.2836
LEV	-0.125295	0.048272	-2.595591	0.0112
LDVP	0.500871	0.045255	11.06775	0.0000
INF	-7.56E-05	0.000178	-0.424563	0.6723
ECGO	-0.000509	0.001072	-0.475008	0.6361
BS	0.000405	0.005607	0.072279	0.9426
C	0.537417	0.061284	8.769362	0.0000

Effects Specification

**Cross-section fixed (dummy variables)**

R-squared	0.921518	Mean dependent var	0.913952
Adjusted R-squared	0.904078	S.D. dependent var	0.046179
S.E. of regression	0.014302	Akaike info criterion	- 5.487507
Sum squared resid	0.016569	Schwarz criterion	- 4.992525
Log likelihood	293.3754	Hannan-Quinn criter.	- 5.287179
F-statistic	52.83810	Durbin-Watson stat	1.815154
Prob(F-statistic)	0.000000		