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College of Business and Economics
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Determinants of Dividend Payout: Evidence from Ethiopian Private Banks

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Statement of Declaration

I, Zelalem Abraham Zewdie, have carried out independently a research work on: *"Determinants of Dividend Payout: Evidence from Ethiopian Private Banks"* in partial fulfillment of the requirements of MBA degree in Management with the guidance and support of the research advisor. This study is my own work that has not been submitted for any degree or diploma program in this or any other higher learning institution.

Zelalem Abraham Zewdie

Signature _____

Date _____

Statement of Certification

This is to certify that Zelalem Abraham Zewdie has carried out his research work on the topic entitled *"Determinants of Dividend Payout: Evidence from Ethiopian Private Banks"* under my guidance. The work is original in nature and suitable for the award of MBA Degree in Management.

Advisor: Yitbarek Takele (PhD)

Signature _____

Date _____

Approved by Board of Examiners

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Abstract

Identifying and explaining factors that influence dividend payout is one of the most debated issues among various academicians and policy makers alike. This study examined determinants of dividend payout in Ethiopian Private Banks. We used dividend payout ratio as outcome variable and profitability, liquidity, leverage, previous year dividend, company age and GDP growth rate as explanatory variables. The study used secondary data of six private banks for the period from 2010/11 to 2015/16 analyzed with pooled ordinary least square (POLS) regression model. The results of the study show profitability and company age significantly and negatively influence the outcome variable. The study also shows previous year dividend, leverage and GDP growth rate positively and significantly affect the response variable. The other input variable liquidity was found to be insignificant in shaping the behavior of dividend payout. The results of the study show the existing dividend theories do not exhaustively explain dividend payout in Ethiopian Private Banks. The findings of this research recommends investors and bank officials to consider bank's profitability, leverage, previous year dividend, company age and GDP growth rate when they make investment and dividend payout decisions.

Keywords: Previous Year Dividend, Company Age, GDP Growth Rate, Dividend Payout Ratio, Ethiopian Private Banks, Pooled Ordinary Least Square Regression Model

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List of Acronyms and Abbreviations

AOC:	Age of Company
CBED:	Cambridge Business English Dictionary
CLRM:	Classical Linear Regression Model
CSA:	Central Statistical Authority
DPO:	Dividend Payout Ratio
DPS:	Dividend per Share
DRIP:	Dividend Reinvestment Plan
GDP:	Gross Domestic Product
GGR:	GDP Growth Rate
IMF:	International Monetary Fund
LEV:	Leverage
LIQ:	Liquidity
NBE:	National Bank of Ethiopia
OECD:	Organization for Economic Co-operation and Development
OLS:	Ordinary Least Square
POLS:	Pooled Ordinary Least Square
PRO:	Profitability
PYD:	Previous Year Dividend
ROE:	Return on Equity
VIF:	Variance Inflation Factor

Chapter One: Introduction

This chapter introduces the research topic. It addresses background of the study, statement of the problem, research questions, objective, significance, scope, limitation and organization of the study.

1.1.Background of the Study

The word "dividend" comes from the Latin word "dividendum" which means "thing to be divided". Dividend, in corporate finance, is a fund appropriated out of the profits of a corporation and distributed among its stockholders. It is also the share of the fund received by a stockholder. The directors of a corporation usually declare dividends periodically. Dividends are distributed on a proportional basis; the fractional share of the total dividend received by stockholders is equal to the proportional share of the stocks owned by them. Holders of the preferred stock of a company generally have a prior right to the payment of dividends over holders of common stock, and if their stock so provides, are paid at a fixed periodic rates (Microsoft Encarta, 2009; Harper, 2001). In financial history of the world, the Dutch East India Company was the first recorded public company ever to pay regular dividends (Freedman, 2006; Kindersley, 2014; Huston, 2015).

Payout is a large amount of money that is paid to someone. Dividend payout ratio is the percentage of a company's profit that is paid to shareholders during a particular period (CBED). It is the ratio of the total amount of dividends paid out to shareholders relative to the net income of the company. The dividend payout ratio provides an indication of how much money a company is returning to shareholders, versus how much money it is keeping on hand to reinvest in growth, pay off debt or add to cash reserves. The dividend payout ratio can be calculated as dividends divided by net income. It can also be restated on a per share basis. If the dividend per share and earnings per share is known, the dividend payout ratio can be calculated using the same concept of dividends paid divided by earnings, or net income (Rozeff, 1982; Christopher and Rim, 2014).

Maverick (2017) argued that dividend payout ratio varies among different companies within the same sector. He also argued that there is a considerable variation in dividend payout ratio between sectors, with certain sectors having consistently higher or lower ratios. Newer and smaller companies that are more vulnerable to fluctuations in earnings due to economic cycles usually have lower dividend payout ratios because they reinvest a larger share of revenues into growth and development. Some young and high growth companies offer no dividend payments at all. These companies instead depend on attracting investors who are more interested in profiting from a rise in the company's stock price. Companies that can most easily afford to maintain a high dividend payout ratio tend to be well-established, large and mature firms with consistent revenues that are not usually subject to economic cycles. In Ethiopian context, the financial system is dominated by banking industry, and yet, it is amongst the major under-banked economy in the world with no financial market. It is characterized as highly profitable, concentrated and moderately competitive. Banks performances are governed largely by macroeconomic performances than competitive parameters as high (low) performances coincided with good (bad) macroeconomic conditions (Sime et al, 2013). Following the double-digit economic growth that Ethiopian economy exhibit in the last years, Ethiopian private banks pay relatively high dividend payouts.

There are many reasons for the question “why companies pay dividends?” It may be to reduce the agency cost that arises between managers and shareholders or to reduce the uncertainty of investors. As one goal of investors is to receive returns on continuous basis, they prefer to invest in firms paying dividends. Firms paying more dividends have easy access to capital market. Dividends also effect the stock valuation (Zameer et al, 2013).

The dividend payout policy is one of the most debated topics within corporate finance and some academics have called the company’s dividend payout policy an unsolved puzzle. There is no uniform answer to the question: what are the determinants of the companies’ dividend payout ratios? (Hellstrom and Inagambaev, 2012)

Dividend payments affect the level of equity retained in a firm. If the payments are not replaced by issuing new equity securities, the decision also influences the financial structure of the company. The payment of dividend therefore has implications for both investment decisions and financing decisions that are taken. The more cash that a company pays out in the form of

dividends, the less funds it has available to finance future attractive investment opportunities and the greater the probability that it will have to issue new shares to raise more capital. In countries like Ethiopia, where there is no capital market in which investors can sell their share and convert it in to cash, at all, the importance of dividend payments by share companies is unquestionable. Thus, dividend payment is the only and most important means through which investors can realize returns from their investments made with no or at a lower cost (Dagnaw, 2009).

1.2.Statement of the Problem

The question of "why do corporations pay dividends?" has puzzled researchers for many years. Despite the extensive research (although mainly done in developed countries with capital market) devoted to solve the dividend puzzle, a complete understanding of the factors that influence dividend policy and the manner in which these factors interact is yet to be established (Black, 1976). Although a number of theories have been put forward in the literature to explain their pervasive presence, dividends remain one of the difficult puzzles in corporate finance (Allen et al., 2000).

Various academicians have argued that dividends have an impact on the company's value. If dividends affect the value of the company, it is of importance that the company's stakeholders are aware of the factors that affect dividend payout. According to findings of different researchers, the relationship between determinant factors and dividend payout vary from country to country in light of the country specific consideration (Felix et al, 2015; Black, 1976). However, in our country, because of limited research and absence of stock market, it is not well known about the determinants of the Ethiopian private banks' dividend payout. Dakito Alemu and Ravi (2015), Elias Mitiku (2015), Chekole Demilie (2015) and Theodros Kinfe (2011) made earlier studies on determinants of dividend payout in Ethiopian private banks. Lack of clarity among these studies about the determining factors of dividend payout in Ethiopia is the motivating factor for this study. In addition, the researcher believed that most of prior studies on determinants of dividend payout in Ethiopian private banks focused on firm-specific explanatory variables.

In view of above, it becomes important in investigating recent studies and include macroeconomic variable for better understanding of determinants of dividend payout ratio in

Ethiopian banking sector. This study tried to address this research gap byexamining theoretically and empirically which factors determine dividend payout in the sector. Based on prior local and international studies, key explanatory variables were identified. The selected factors that affect dividend payout were profitability, liquidity, leverage, GDP growth rate, companyage and previous year dividend. The researcher believed that these variables sufficiently determine dividend payout of Ethiopian private banks. Although most of the factors in previous studies were used in determining dividend payout in Ethiopia, this research used previously unaccounted factors like age of company and GDP growth rate, as determinant factors of dividend payout in Ethiopian private banks. Because the Ethiopian banking industry is composed of new and relatively old banks, it becomes necessary to study whether age affects dividend decision. Moreover, given that the Ethiopian economy is growing in double digits, it is imperative to check whether it affects dividend decision.

1.3.Research Questions

1. How far does profitability of banks determine dividend payout?
2. How far does liquidity of banks determine dividend payout?
3. How far does leverage of banks determine dividend payout?
4. How far does previous year dividend of banks determine dividend payout?
5. How far does company age determine dividend payout?
6. How far does GDP growth rate determine dividend payout?

1.4.Objectives of the Study

1.4.1. General Objective

The main objective of this study was to investigate bank specific and macroeconomic determinants of dividend payout ratio in private banks of Ethiopia and to analyze the relationships between the variables and dividend payout ratio.

1.4.2. Specific Objectives

- To examine the influence of profitability on dividend payout in private banks of Ethiopia
- To examine the influence of liquidity on dividend payout in private banks of Ethiopia
- To examine the influence of leverage on dividend payout in private banks of Ethiopia
- To examine the influence of previous year dividend on dividend payout in private banks of Ethiopia
- To examine the influence of companyage on dividend payout in private banks of Ethiopia
- To examine the influence of GDP growth rate on dividend payout in private banks of Ethiopia

1.5.Scope of the Study

Due to the availability of the required data, the study was limited on six private banks that were selected out of the sixteen private banks operating in Ethiopia. These six private banks were taken as a representative of all private banks for the study. Theperiod of the research was limited to a period of six years from 2010/11 to 2015/16 fiscal year. To determine the relationship between dividend payout ratio and determinant factors the researcher selected six variables that might affect the banks dividend payout. Dividend in this study refers to cash dividend since it is the most common type of dividend. When investors speak about dividend, they usually refer to cash dividend. Not all other kinds of dividends and other forms of distribution of profit to shareholders were considered under the study.

1.6.Limitations of the Study

Six determinant factors were included in the research but it was possible that other factors like type of industry, ownership characteristic, inflation, interest rates etc. might have an impact on the dividend payout ratio than the ones included in this research. However, most of the selected factors included in the research were the most commonly used factors in previous studies, and they should therefore be relevant for the study.

1.7.Significance of the Study

As this study was designed to investigate the determinants of dividend payout and to analyze the relationship of factors and dividend payout in private banks in Ethiopia, it will be important to both internal and external stakeholders of the banks. The study will be important for the

management of Ethiopian private banks in their dividend decision through identifying significant determinant factors of dividend payout from worldwide experience. The study will also have a great importance for external stakeholders such as investors in their investment decision on banks, the community for which the financial service is provided, and the government that regulate the sector for the sake of the safety of the public resource and sustainable economic development. In addition, other interested researchers on this area may use as a source for detailed and further studies.

1.8.Organization of the Study

The rest of the thesis is organized as follows. Chapter 2 presents theoretical and empirical literature related to the issue of determinants of dividend payout. Chapter 3 provides research design and methodology employed for the research. Chapter 4 contains data analysis, presentation and interpretation. The last chapter concludes the total work of the research and gives relevant recommendations based on the findings. At the end, references of related literature referred while writing the thesis and appendixes are presented.

Chapter Two: Literature Review

Concepts and different type of dividend policies are presented in the first part of this chapter. Then, the necessary theoretical and empirical literatures related with determinants of dividend payout are presented. The last part of the chapter shows conceptual framework of the relationship between the dependent variable and six explanatory variables.

2.1.Dividend and Its Types

A dividend is the cash, stock, or any type of property a corporation distributes to its shareholders. The board of directors may declare a dividend at any time, but dividends are not a legal obligation of the corporation, it is the board's choice. Unlike interest on debt securities, if a corporation does not pay a dividend, there is no violation of a contract, nor any legal recourse for shareholders. There are a number of types of dividends that can be issued, including the following:

1. Cash dividend: - this is the most common form of dividend, paid solely in cash.

2. Stock dividend: - this is the issuance of additional shares to investors. Despite the appearance of handing out something of value, a stock dividend merely increases the number of shares held by the same investors, and so does not constitute a transfer of value.

3. Property dividend: - this is a payment in the form of a non-cash asset, such as the products that a company manufactures.

4. Script dividend: - this is a promise to pay investors cash dividend at a later date, and so is essentially a promissory note.

5. Liquidating dividend: - this is a dividend issued when the board of directors intends to liquidate a business and return all remaining net assets to investors in the form of cash. Though there are a number of dividend distribution approaches to owners, the most popular type of income distribution in Ethiopia is cash (Kesto and Ravi, 2015).

2.1.1.Alternatives to Cash Dividend

In addition to paying cash dividends, there are a number of other ways in which companies can reward their shareholders.

A. Scrip Dividends

Scrip dividends involve the offer of additional ordinary shares to equity investors, in proportion to their existing shareholding (e.g. one for every 20 shares held), as a partial or total alternative to a cash dividend. Because these shares are usually issued by the company, no brokerage or stamp duty is paid. 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 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). Even though scrip dividends allow banks to increase their capital and preserve cash for reinvestment, it is not preferable by shareholders who want cash instead of shares. In addition, if shareholders prefer to receive shares instead of cash, they still need to pay ordinary income tax on the receipt.

B. 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 shares price (Watson & Head, 2010). However, because of absence of stock market and National Bank of Ethiopia capital requirement, to the best of the researcher's knowledge, Ethiopian private banks were not practicing share repurchase.

C. 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). However, this type of alternative restricts the opportunity that Ethiopian private banks could get by investing the money in very profitable investments. In addition, the retiree section of the society may not prefer this type of alternative as it is unpredictable.

D. Dividend Reinvestment

Dividend reinvestment plan (DRIP) gives shareholders the option of reinvesting their dividends in company stock rather than taking a cash payout. The shares sold in DRIP programs allow the company to access additional capital at reduced costs. It provides a cost effective way to put your dividend to good use. Rather than spending the money or depositing in a bank account, the money can be used to buy more stock. Almost all of these programs allow dividends to be reinvested for no fee. In a rough market, this is a great way to buy shares at a lower total cost. Stamp duty is payable on the purchase. Because Ethiopian private banks were at early growing stage (needs more capital) and NBE capital expansion requirement most of the dividends declared were reinvested. In the case of poor liquidity position, companies managed the problem by providing a dividend reinvestment options. In case of even high liquidity, companies preferred to invest the money to get high return instead of distributing to shareholders by providing a dividend reinvestment options.

2.2.Types of Dividend Policies

There are four basic types of dividend policies.

A. Regular Dividend Policy

In this type of dividend policy, the investors get dividend at usual rate. Here the investors are generally retired persons or weaker section of the society who want to get regular income. This type of dividend payment can be maintained only if the company has regular earning. Regular dividend policy creates confidence among the shareholders, stabilizes the market value of shares and maintains the goodwill of the company. It also gives regular income to the shareholders, establishes profitable record of company, aids in long-term financing, and renders financing easier. In this type of dividend policy, the ordinary shareholders view dividends as a source of funds to meet their day-to-day living expenses (Chawla, 2016; Watson & Head, 2010). However, because business cycles affect Ethiopian private banks performance, following this type of dividend policy is very difficult.

B. Stable Dividend Policy

Here the payment of certain sum of money is regularly paid to the shareholders. It is of three types (Chawla, 2016; Watson & Head, 2010):

1. Constant Dividend per Share: Some companies follow a policy of paying fixed dividend per share irrespective of the level of earnings year after year. Such firms usually create a 'Reserve for Dividend Equalization' to enable them pay fixed dividend even in year when earnings are not sufficient or when there are losses. A policy of constant dividend per share is most suitable to companies whose earnings are expected to remain stable over number of years. This type of dividend policy is also difficult for Ethiopian private banks, as it requires earnings to become stable for a number of years.

2. Constant Payout Ratio: It means payment of fixed percentage of net earnings as dividends every year. The amount of dividend in such a policy fluctuates in direct proportion to earnings of company. The policy of constant payout is preferred by the firms because it is related to their ability to pay dividends. This type of dividend policy is the most preferable policy that Ethiopian private banks should follow because the payment of dividend depends on their earnings.

3. Stable Dividend plus Extra Dividend: Some companies follow a policy of paying constant low dividend per share plus an extra dividend in the years of high profit. Such a policy is most suitable to the firm having fluctuating earnings from year to year. Because Ethiopian private banks are at growing stage, following this policy is also preferable for keeping a substantial amount of profit for investment, even though this type of policy is not acceptable in the long run, as it does not satisfy the requirements of institutional investors who rely on dividend.

Stable dividend policy creates confidence among the shareholders, stabilizes the market value of shares and maintains the goodwill of the company. It gives regular income to the shareholders, improves credit standing, and makes financing easier. It is also a sign of continued normal operations of the company. Stable dividend policy meets requirements of institutional investors who prefer companies with stable dividends (Chawla, 2016).

In spite of many advantages, stable dividend policy suffers from certain limitations. Once a stable dividend policy is followed by a company, it is not easier to change it. If stable dividends are not paid to shareholders on any account including insufficient profits, the financial standing of the company in minds of investors is damaged and they may like to dispose of their holdings. This adversely affects the market price of shares of the company. Moreover, if companies pay stable dividends in spite of its incapacity it will be suicidal in long run (Chawla, 2016).

C. Irregular Dividend

As the name suggests here the company does not pay regular dividend to the shareholders. The company uses this practice, among others, due to uncertain earning of the company, lack of liquid resources, afraid of giving regular dividend and not so much successful business (Chawla, 2016). Because this type of dividend policy does not create confidence among investors, Ethiopian private banks must not follow such policy, as it is disastrous for them.

D. No Dividend

Some firms may decide not to pay dividend. This is especially common in newly formed companies that rather require capital to execute its projects. All the profit is thus retained for expansion of the business. 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 (Chawla, 2016; Watson & Head, 2010). In countries like Ethiopia, where there is no capital market and investors rely solely on dividend, following such policy is suicidal.

2.3.Historical Perspective of Banking Sector in Ethiopia

Situated in the Horn of Africa, the Federal Democratic Republic of Ethiopia is Africa's oldest independent country. Bordered by Eritrea to the North, Sudan and South Sudan to the West, Djibouti and Somalia to the East and Kenya to the South, Ethiopia is a landlocked country of 92 million people, the second most populous country in Africa (CSA, 2016). Ethiopia's financial sector consists of commercial banks, insurance companies, microfinance institutions, saving and credit associations, multipurpose cooperatives and moneylenders. The formal financial system, as of 2016 comprised of 18 banks and 17 insurance companies. The capital of the sector is highly dominated by the state owned banks, accounting for 48.9% of capital. The total number of bank branches in the sector stood at 3187, with a high concentration of 34.4% located in the capital city, Addis Ababa. Financial results for the previous fiscal years shows that relatively high growth in profits and dividends, and in all key areas of banking operations like collecting deposits, providing loans and foreign exchange dealings (NBE 2015/2016 Annual Report). Table 2.1 summarizes capital and branch network of the banking system as at June 30, 2016.

Table 2.1 Capital and Branch Network of Banking System as at June 30, 2016

(Branch in Number and Capital in Millions of Birr)

Banks	Branch Network				Capital	
	2015/16				2015/16	
	Regions	Addis Ababa	Total	% Share	Total Capital	% Share
1. Public Banks						
Commercial Bank of Ethiopia	888	262	1150	36.1	13,557.5	31.5
Development Bank of Ethiopia	106	4	110	3.5	7,500.80	17.4
Total Public Banks	**994**	**266**	**1260**	**39.5**	**21,058.30**	**48.9**
2. Private Banks						
Awash International Bank	118	127	245	7.7	3,191.20	7.4
Dashen Bank	61	57	118	3.7	2,809.30	6.5
Abyssinia Bank	84	92	176	5.5	1,838.20	4.3
Wogagen Bank	95	66	161	5.1	2,431.10	5.6
United Bank	70	74	144	4.5	1,814.70	4.2
Nib International Bank	69	86	155	4.9	2,253.90	5.2
Cooperative Bank of Oromia	139	45	184	5.8	1,182.70	2.7
Lion International Bank	75	46	121	3.8	787.2	1.8
Oromia International Bank	148	62	210	6.6	1,069.90	2.5
Zemen Bank	8	5	13	0.4	800	1.9
Buna International Bank	56	49	105	3.3	774.7	1.8
Birhan International Bank	43	45	88	2.8	805.9	1.9
Abay Bank	89	27	116	3.6	814.5	1.9
Addis International Bank	17	26	43	1.3	569.8	1.3
Debub Global Bank	17	11	28	0.9	270.9	0.6
Enat Bank	7	13	20	0.6	588.6	1.4
Total Private Banks	**1,096.00**	**831**	**1,927.00**	**60.5**	**22,002.50**	**51.1**
3. Grand Total Banks	**2,090.00**	**1097**	**3187**	**100**	**43,060.80**	**100**
Source: **NBE 2015/2016 Annual Report**						

2.4.Theoretical Literature

2.4.1.Types of Dividend Theories

A. Dividend Irrelevance Theory

The dividend irrelevance theory was developed by Merton Miller and Franco Modigliani (1961). It states that "In perfect capital market, where there is no transaction cost, no taxes, no bankruptcy cost, investor are rational, all investors have same opportunities and information symmetry is there, dividend policy is irrelevant." The Miller and Modigliani theory implies that the dividend decision is a residual decision. If the company has no profitable investments to undertake, the company can pay out funds that would have gone to investments to shareholders. Whether or not the company pays dividends is of no consequence to the value of the company. It means that it does not matter that firm pay dividends or retain cash. According to Miller and Modigliani, the value of firms was rather depending on present and future cash flows and dividend does not affect the value of firm (Miller and Modigliani, 1961; Zameer et al, 2013). This theory was the foundation of modern corporate finance. However, in Ethiopia, the researcher believes that there is no concept of perfect capital market. In addition to the presence of transaction costs, taxes, information asymmetry and others, the Ethiopian banking industry is characterized as highly profitable, concentrated and moderately competitive whereby Commercial Bank of Ethiopia still seizes quasi-monopoly power. Entry to the industry is also difficult due to legal, technological and economic factors supporting the previous conclusion that the Ethiopian banking market is not a perfect market.

B. Bird in Hand Theory

In 1963, Miller and Scholes presented the bird in hand theory. According to the presenters of this theory, the return to shareholders was comprised of two parts: the return from dividends, the dividend yield and the return from the change in the share price, the capital yield. Corporations generate earnings and can either pay them out in cash dividends or reinvest earnings in profitable investments, increasing the value of the stock and, hence, share price. Once a dividend is paid, it is a certain cash flow. Shareholders can cash their dividend checks and reinvest the funds. However, an increase in share price is not a sure thing. It only becomes a sure thing when the

share's price increases over the price the shareholder paid and he or she sells the shares. Miller and Scholes also discussed that dividend-paying firms seem to be more profitable and have easy access to capital market and paying dividends effect the valuation of the stock (Miller and Scholes, 1963; Zameer et al, 2013). According to the researcher, even though cash dividends are a sure thing once they are declared, through research and development, capital yield can be predicted. Hence, there can also be a case where capital gain preference over cash dividends.

C. Tax Preference Theory

Bernnan (1970) was the first scholar who research dividend policy with context to the taxes and concluded that higher pretax returns were the compensation for investors facing tax disadvantage. If dividend income is taxed at the same rates as capital gain income, investors may prefer capital gains because of the time value of money. Capital gains are only taxed when realized, that is, when the investor sells the stock, whereas dividend income is taxed when received. If, on the other hand, dividend income is taxed at rates higher than that applied to capital gain income, investors should prefer stock price appreciation to dividend income because of both the time value of money and the lower rates. In addition, when the same rates applied to income, capital gain income is still preferred because the tax on any stock appreciation is deferred until the stock is sold, which can be many years into the future (Bernnan, 1970; Zameer et al, 2013). Even though this theory helps companies to retain most of their earning, according to the researcher, the tax impact is different for different types of shareholders depending on their tax appetites.

D. Clientele Effect Theory

The clientele effect is a theory that explains how a company's stock price will move according to the demands and goals of investors in reaction to a tax. According to this theory, investors choose stocks based on the taxes they have to pay. In the clientele effect, tax rate matters. The investors who are paying heavy taxes want to invest in the stock that retain cash and pay fewer dividends because they want capital gains but the investors who are paying less tax want return in the form of dividends and they invest in high dividend paying stocks. Mostly old age or retired investors invest in dividend paying stocks (Zameer et al, 2013). The researcher believes that, this theory is different in the eyes of investors depending on their tax and consumption appetites.

E. Dividend Signaling and Information Asymmetry Theory

In 1961, Merton Miller and Franco Modigliani found that dividends have a signaling effect. Companies use dividends as signaling device to the market. Companies that pay dividends seem to maintain a relatively stable dividend, either in terms of a constant or growing dividend payout ratio or in terms of a constant or growing dividend per share. In addition, when companies change their dividend either increasing or reducing ("cutting") the dividend, the price of the company's shares seems to be affected. When a dividend increases, the price of the company's shares typically goes up; when a dividend cut, the price usually goes down. This reaction is attributed to investors' perception of the meaning of the dividend change. Increases are good news decreases are bad news. The board of directors is likely to have some information that investors do not have, a change in dividend may be a way for the board to signal this private information. Because most boards of directors are aware that when dividends are lowered, the price of a share usually falls, most investors do not expect boards to increase a dividend unless they thought the company could maintain it into the future. Realizing this, investors may view a dividend increase as the board's increased confidence in the future operating performance of the company (Miller and Modigliani, 1961; Zameer et al, 2013). However, this theory, according to the researcher, mainly works for those investors who solely rely on dividend. This theory does not work for those investors who want to get capital gain instead of dividend income.

F. Pecking Order Hypothesis

Pecking order hypothesis states that firms prefer internally generated funds for investment opportunities and for issuing dividends and if internally generated funds are less then firms prefer debt to external equity. There were two different views about "why firms prefer pecking order hypothesis". First view was given by Donaldson and Preston (1961). They argued that firms prefer internally generated funds to debt because they want to avoid floatation and other cost associated with the debt and firms prefer debt to external equity because the cost of external financing is higher than the cost of debt. The other view was given by Myers (1984) and Myers and Majluf (1984). They had a view that total benefits of debt financing were greater than the floatation and other costs associated with debt in terms of tax shield and financial distress risk. They argue that firms depend upon internally generated funds because firms want to maximize the wealth of existing shareholders. In addition, their view about the external funds was that

firms prefer debt to external funds because, due to sale of new shares, price of existing shares decreases and it is against the existing shareholders and they have view that risk free debt has no impact on shareholders' wealth. If the debt is risky, it has less effect on the existing shareholders rather than the effect of issuing new shares (Donaldson and Preston, 1995; Myers, 1984; Myers and Majluf, 1984; Zameer et al, 2013). The researcher believes that, however, this hypothesis limits the capacity of expansion of companies. This hypothesis does not work for all companies. For instance, most of the operation of Ethiopian banks depends on deposit from the public, which is a liability/debt.

G. Free Cash Flow Theory / Agency Theory

The relation between the owners and the managers of a company is an agency relationship. The owners are the principals and the managers are the agents. Management is charged with acting in the best interests of the owners. Nevertheless, there are possibilities for conflicts between the interests of the two. If the company pays a dividend, the company may be forced to raise new capital outside of the company, that is, issue new securities instead of using internally generated capital, subjecting them to the scrutiny of equity research analysts and other investors. This extra scrutiny helps reduce the possibility that managers will not work in the best interests of the shareholders. However, issuing new securities is not costless. There are costs of issuing new securities, flotation costs. In "agency theory-speak," these costs are part of monitoring costs, incurred to help monitor the managers' behavior and ensure behavior is consistent with shareholder wealth maximization. The payment of dividends also reduces the amount of free cash flow under control of management. Free cash flow is the cash in excess of the cash needed to finance profitable investment opportunities. A profitable investment opportunity is any investment that provides the company with a return greater than what shareholders could get elsewhere on their money, that is, a return greater than the shareholders' opportunity cost. Because free cash flow is the cash flow left over after all profitable projects are undertaken, the only projects left are the unprofitable ones. Should free cash be reinvested in the unprofitable investments or paid out to shareholders? Of course if boards make decisions consistent with shareholder wealth maximization, any free cash flow should be paid out to shareholders since, by the definition of a profitable investment opportunity, the shareholders could get a better return investing the funds they receive. If the company pays a dividend, funds are paid out to

shareholders. If the company needs additional funds, it could be raised by issuing new securities; in this event, shareholders wishing to reinvest the funds received as dividends in the company could buy these new securities. One view of the role of dividends is that the payment of dividends therefore reduces the cash flow in the hands of management, reducing the possibility that managers will invest funds in unprofitable investment opportunities (Jensen, 1986; Easterbrook, 1984; Zameer et al, 2013). However, according to the researcher, this theory cannot be applicable for all countries. For example in Ethiopia, the bank to population ratio was about 1:28,932 in 2016 (NBE 2015/16 Annual Report) indicating that the banking industry was at its early growing stage. This implies that even though free cash flow available, the company can get a better return by investing the available fund rather than distributing as dividends to shareholders.

2.5.Empirical Literature

In a number of literatures, the variables that are generally regarded as determinants of dividend payout ratio include profitability, liquidity, leverage, types of industry, age of company, previous year dividend, size of the corporation, agency cost, growth, risk and other macroeconomic variables like GDP growth rate, inflation and interest rates. Based on summary of local and international studies profitability, liquidity, leverage, previous year dividend, age of company and GDP growth rate were selected as determinants of dividend payout ratio in this study. The researcher believes that these variables sufficiently determine dividend payout ratio. Because the Ethiopian banking industry is composed of new and relatively old banks, previously unaccounted factor, age of company, added as an explanatory variable in order to identify its effect on dividend payout ratio. Following double-digit economic growth of Ethiopia, GDP growth rate also included as an explanatory variable to check its effect on dividend payout ratio. The other variables like types of industry, size of the corporation, agency cost, growth, risk, inflation and interest rate were not considered due to unavailability of data, unavailability of stock market and time constraint.

A. Leverage

A company's leverage has been analyzed in the literature as an important factor for the dividend policy decisions. Rozeff (1982) argues that high leverage increases transaction costs and risk of the firm. Firms with high leverage ratio have high fixed payments for using external financing. Thus, according to him, the higher the leverage ratio, the lower becomes the chance for dividend payment. This result is supported by the agency cost theory of dividend policy (Jozwiaka, 2014; Al-Twaijry, 2007; Benavides et al, 2016). However, according to Barclay et al (1995), in order to fund increasing dividend payments firms are willing to increase the level of debt in their capital structure, as dividends act as signaling device to the investors. Eriotis and Vasiliou (2006) explored positive relationship of leverage and dividend payout, arguing that these findings are consistent with the expected return pattern at different levels of economic stability. Adedeji (1998) also found positive relationship between leverage and dividend payout ratios.

B. Liquidity

A company's liquidity position also determines the level of dividend payout. Firms with higher cash availability are more likely to pay dividends than firms with insufficient level of cash. Therefore, the likelihoods a firm will pay cash dividends are positively related to liquidity. This positive relationship is supported by the signaling theory of dividend policy (Jozwiaka, 2014; Joshua, 2006). However, according to Kesto and Ravi (2015), liquidity has a negative effect on dividend payout. This is because, first as banking operations are based on liquid cash and even in case of high liquidity banks preferred to maintain a substantial amount of liquid cash to smooth out operations. Second, high return on equity stimulates the firms to reinvest more, as dividend payment reduce the amount of funds available for reinvestment, so firms pay low dividends. Third, banks try to lend more in order to increase their returns. So in order to achieve smooth flow of operations and increase the future returns, banks tend to maintain high level of liquidity. Barclay et al (1995) also found negative relationship between liquidity and dividend payout ratio, suggesting that increasing dividend payout ratios reduce the liquidity and higher return on equity stimulates the firm need to retain more to reinvest or lower the dividend. In case of Indian firms, Ahmed and Javid (2008) also found opposite relation between liquidity and dividend payout ratios. In such situations, negative relationship between liquidity and dividend payout can be expected.

C. Profitability

Profitability has been found as one of the most important determinants of dividend policy. According to Kesto and Ravi (2015); Lintner (1956); Joshua (2006); Benavides et al (2016) and Imran et al (2013), a company's capacity to pay dividends will be determined primarily by its ability to generate adequate and stable profits. As dividend payments represent cash outflows, a company, which is not earning profits, will have trouble in sustaining dividend payments. However, the pecking order theory, which explains how companies prioritize their financing sources, states that firms prefer to use internal funds. When internal funds are insufficient to meet financial needs, firms turns to debt (first to risk free, then risky debt), and finally equity (Myers, 1984; Myers and Majluf, 1994). Myers (1984) suggests that this behavior may be due the cost of issuing new equity. The results indicate that there is an evidence of a significant negative relationship between profitability of the firm and dividend payout ratio. According to Joshua et al (2014), dividend payment reflects improvements in the fundamental financial records of companies (higher profitability levels, higher growth opportunities), while dividend omissions and reductions reflect negative company fundamentals (both earnings volatility and financial risk). Baker et al (2001) also stated that in case when a firm needs to plough back a major proportion of its profits to support rapid growth, low dividend might result.

D. Previous Year Dividend

Past dividend trend is significant enough to influence the current dividend payment in order for management to follow a stable dividend policy (Kesto and Ravi, 2015; Lintner, 1956; Al-Twaijry, 2007). According to Joshua et al (2014), current dividend decision reflects that of previous year, to avoid the negative effect of adverse dividend changes in an information efficient market. They also argued that companies set their current dividend level to reflect that the previous year and change their payout ratios only after convincing themselves that changes in earnings are stable and sustainable enough to warrant such a change. When formulating dividend policy, companies should give consideration to the previous year dividend decision, to avoid any negative reaction that may result from erratic changes to their dividend decisions. According to Imran et al (2013), the higher and consistent dividend payments lead to a greater demand of its shares, and as a result, the share price moves upward. Therefore, to keep this success firms normally are unwilling to skip or diminish the dividend payouts.

E. Age of Company

Small and newly established companies require most of their earning for branch improvement and expansion, while old and large companies, which have attained a longer earning experience, can formulate clear-cut dividend policies and may even be liberal in the distribution of dividends (Fabozzi, 2010). In addition, growing firms require more funds in order to finance their growth. Therefore, they would typically retain greater proportion of their earnings by paying low dividends. In contrary to this, companies with higher growth opportunities pay higher dividends as a means of proving their earnings generating ability (sustainability and stability in earnings) and to make their equity issues more attractive.

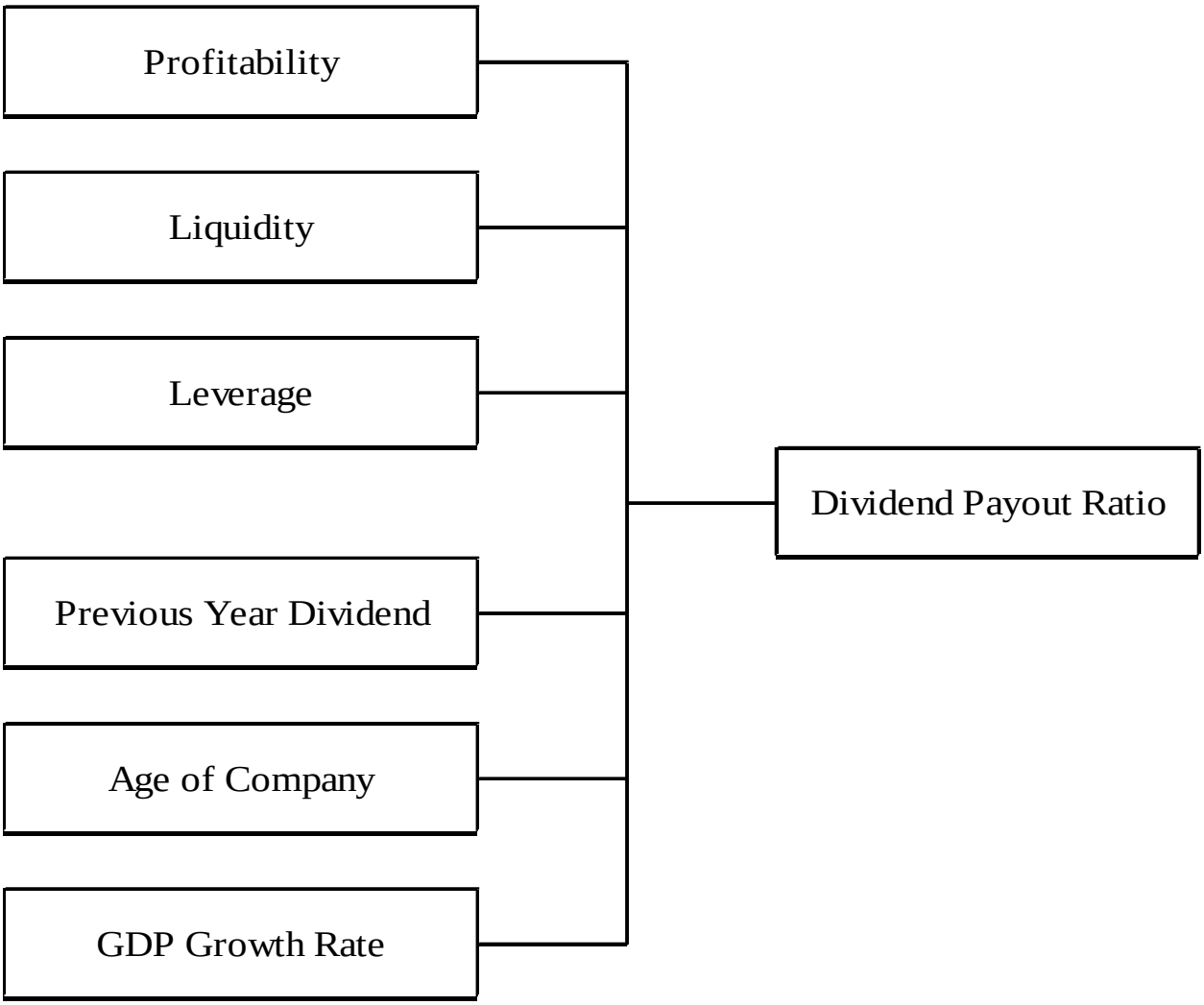
F. Gross Domestic Product (GDP)

The review of determinants of dividend payout on various literatures indicates that the conditions for the dividend payouts should be looked not only in numerous microeconomic areas of the company's operation, but also in its surrounding macroeconomic environment. The study conducted by Debski and Bujnowicz (2008) implies that there is a strong interdependence between the variables that describe the development of the financial market and the variables that describe economic growth. Another research carried out by Kowerski (2011), on the other hand, suggests that the economic situation measured by the dynamics of changes of GDP in the year *t*-1 has a positive effect on decisions to pay out dividends in the year *t*. Wanjiru (2013) also concluded that macro economic variables are very significant in the determination of dividend payout. However, according to Jablonski and Kuczowic (2015), even though GDP growth rate reflects the actual results of the economy, dividend-related decisions are not consistent with the condition of the economy expressed by the GDP growth rate. Their presentation on the comparison of the effect of microeconomic and macroeconomic factors on dividend-related decisions of companies points out to an explicit advantage of the former ones.

2.6.Conceptual Framework

This conceptual framework shows the relationship between the dependent variable i.e. dividend payout ratio and the six explanatory variables.

Figure 2.1 Conceptual Framework



Source: *Based on summary of local and international studies*

Chapter Three: Research Methodology

This chapter explains how the research was conducted. The research design, data collection and sampling technique were discussed in the first part of the chapter. Thereafter, operational definitions of variables and method of data analysis were discussed. Hypothesis testing and model specification also explained in the last part of the chapter.

3.1.Research Design

As the main purpose of this study was to examine determinants of dividend payout ratio in Ethiopian private banks, explanatory (causal) 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. So that, in this study, the explanatory research design was employed to examine the relationship of the dependent and independent variables.

3.2.Data Collection and Sampling Technique

The study employed secondary data of each selected private commercial banks included in the study. Financial statement and macroeconomic data was collected on dividend payout ratio, profitability, liquidity, leverage, previous year dividend, company age and GDP growth rate from National Bank of Ethiopia and published audited annual reports of the banks included in the sample in order to examine the factors that affect the dividend payout of Ethiopian private banks. Six years' data collected from year 2010/11 to 2015/16. This period was used based on availability of data. Among a total of sixteen private banks in Ethiopia, six private banks were selected for this study based on convenience sampling technique. This sampling technique was also used due to availability of data. In order to avoid bias, based on 10 years time interval, the banks were categorized as new banks, mid-aged banks and old banks and two banks were selected from each category. The selected banks for analysis were 'Abay Bank and Zemen Bank' from new banks, 'Nib International Bank and United Bank' from mid-aged banks and 'Awash Bank and Dashen Bank' from old banks.

3.3.Operational Definitions of Variables

A. Dividend Payout Ratio

Dividend payout ratio is defined as the percentage of the company's earning that is distributed to shareholders. It indicates how much of the profit is distributed among the shareholders of the firm. The higher the ratio of dividend payout, the more the shareholders will be attractive for the shares of the company. Here dividend payout was calculated as yearly dividend divided by net income (Rozeff, 1982).

B. Profitability

The primary indicator to pay dividend of the firm is the earning (Lintner, 1956). Here, return on equity (ROE) was used as a proxy for calculating profitability. Unlike return on asset (ROA), return on equity (ROE) allows banks with different asset structure to be compared each other or even with other types of business. Since equity capital tends to be the most expensive source of funds, carrying the largest risk premium of all funding options, its deployment is critical to success, even for the survival of the bank (Donaldson and Preston, 1995; Myers, 1984; Myers and Majluf, 1984). ROE tells us how effectively an organization is taking advantage of its base of equity or capital. ROE is also not asset dependent. Many previous researchers also used return on equity to calculate the profitability of the firm (Jozwiaka, 2014).

C. Liquidity

Current ratio was used as a proxy for calculating liquidity. Current ratio is a liquidity ratio that measures a company's ability to pay short-term obligations. Current ratio, also called working capital ratio, can be used to take a rough measure of a company's financial health. A ratio under one show the company is not in a good financial health. However, this does not necessarily mean that it will go bankrupt. A ratio over three does not necessarily indicate financial wellbeing of a company. It shows that the company is not using its current assets efficiently. Current ratio is important to compare companies within the same industry than in different industries (Atrill & McLaney, 2006).

D. Leverage

The dividend is important for investors of the company and it has also an effect on the capital structure of the firm. The capital structure is composed of long-term debts and shareholder's equity. To get affordable financial leverage, there should be an equal balance of capital structure. In this study, debt ratio was used as a proxy for calculating the leverage position of the company. Because of the nature of the operation, banks have high debt ratio (Jan et al, 2012).

E. Previous Year Dividend

Previous year dividend refers to the dividend payout ratio of the firm one year prior to the year under certain consideration. Here previous year dividend was calculated as last year dividend divided by last year net income.

F. Company Age

The number of years of establishment was taken as a proxy for company age variable.

G. GDP Growth Rate

Gross Domestic Product (GDP) is the monetary value of all finished goods and services produced within a country's borders in a specific period. Gross domestic product is often considered the best measure of how well the economy is performing. Businesses, among others, use GDP as a guide to decide how best to expand or contract their production and other business activities. Moreover, investors also watch GDP since it provides a framework for investment decision-making (Mankiw, 2003). In this study, the under mentioned formula was used as a proxy for calculating the GDP growth rate of the country.

$$\text{GDP Growth Rate at Time T} = \frac{(\text{GDP at Time T}) - (\text{GDP at Time T-1})}{(\text{GDP at Time T-1})}$$

3.4.Method of Data Analysis

Six years' panel data collected from the annual audited financial statement of selected banks and National Bank of Ethiopia. Because of the nature of data and the result of the tests conducted, POLS regression model (Wooldridge, 2006), which was appropriate for the study, was used to analyze the determinant variables of dividend payout ratio. CLRM tests were also conducted in

order to ascertain that no problem affected the results of the study. To conduct the analysis, STATA 12 statistical software package was employed. The variables of the study were taken and calculated from the audited financial reports of the selected banks and National Bank of Ethiopia.

3.5.Hypothesis Testing

A statistical hypothesis is a statement about the values of some parameters in the hypothetical population from which the sample is drawn. A hypothesis test is a procedure that answers the question of whether the observed difference between the sample value and the population value hypothesized is real or due to chance variation. The hypothesis we are testing is called the null hypothesis and is often denoted by H0. The alternative hypothesis is denoted by H1. The probability of rejecting H0, when in fact it is true, is called the significance level. To test whether the observed difference between the data and what is expected under the null hypothesis H0 is real or due to chance variation, we use a test statistic. The observed significance level or P-value is the probability of getting a value of the test statistic that is as extreme as or more extreme than the observed value of the test statistic. This probability is computed on the basis that the null hypothesis is correct (Wooldridge, 2000; Maddala, 1992).

3.5.1.Null Hypothesis

1. H0: There is no significant relationship between profitability and dividend payout.

2. H0: There is no significant relationship between liquidity and dividend payout.

3. H0: There is no significant relationship between leverage and dividend payout.

4. H0: There is no significant relationship between previous year dividend and dividend payout.

5. H0: There is no significant relationship between company age and dividend payout.

6. H0: There is no significant relationship between GDP growth rate and dividend payout.

The following relationships expected for the banks dividend payout ratio and selected determinant factors based on the research hypothesis.

Table 3.1 Summary of Variables Description and Their Expected Sign

Variables	Symbol	Description	Expected Sign
Dividend Payout Ratio	DPO	Yearly Dividend/Net Income	Not Available
Profitability	PRO	Net Profit/Shareholder's Equity	+ (Positive)
Liquidity	LIQ	Current Assets/Current Liabilities	+ (Positive)
Leverage	LEV	Total Liabilities/Total Assets	- (Negative)
Previous Year Dividend	PYD	Previous Year Dividend Payout Ratio	+ (Positive)
Age of Company	AOC	Number of Years	+ (Positive)
GDP Growth Rate	GGR	GDP at time t – GDP at time t-1/ GDP at time t-1	+ (Positive)

Source: *Compiled from literature review and operational definitions of variables*

3.6.Model Specification

Dividend payout ratio was regressed against profitability, liquidity, leverage, previous year dividend, age of company and GDP growth rate. Multiple regression analysis was used and inferences were drawn based on the regression analysis. In light of the nature of data and on the bases of the selected variables, this study used the below econometric model.

$DPOt = f$ (PRO, LIQ, LEV, PYD, AOC, GGR)

$DPO_{i,t} = \alpha_i + \beta 1PRO_{i,t} + \beta 2LIQ_{i,t} + \beta 3LEV_{i,t} + \beta 4PYD_{i,t} + \beta 5AOC_{i,t} + \beta 6GGR_{i,t} + \epsilon_{i,t}$

Where,

α, = Intercept; $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, $\beta 5$ and $\beta 6$ = Slope coefficients; ϵ = error term

DPO = Dividend Payout Ratio

PRO = Profitability

LIQ = Liquidity

LEV = Leverage

PYD= Previous Year Dividend

AOC = Age of Company

GGR = GDP Growth Rate

Chapter Four: Data Presentation, Analysis and Interpretation

The first part of this chapter deals with the descriptive statistics of the dependent and independent variables. In the last part of the chapter, the results of the regression analysis, correlation analysis and discussion of results follow after tests of Classical Linear Regression Model /CLRM/ assumptions.

4.1.Descriptive Statistics

Table 4.1 provides a summary of the descriptive statistics of all variables for six Ethiopian commercial banks during the period of six years from year 2010/11 to 2015/16 with a total of 36 observations. The table reports the number of observations, mean, standard deviation, minimum and maximum of all variables to give an overall description of data used.

Table 4.1 Summaries of the Descriptive Statistics

Variable	Observation	Mean	Std. Dev.	Min	Max
DPO	36	0.6061111	0.2204706	0	0.91
PRO	36	0.2075	0.0732657	0	0.36
LIQ	36	0.905	0.1083249	0.76	1.33
AOC	36	13.5	6.922015	1	23
PYD	36	0.6058333	0.2288402	0	0.91
LEV	36	0.8544444	0.0423215	0.66	0.9
GGR	36	26.54833	10.63993	15.33	45.09

Source: STATA 12 output

As shown from the result, all variables comprised 36 observations and the dividend payout ratio (DPO) indicate that Ethiopian banks paid on average 0.61 during the last six years. For the total sample, the mean of DPO was 0.61 with a minimum of zero and a maximum of 0.91. That means the highest dividend payout for shareholders was 0.91 (91% of net income distributed to shareholders) and the least dividend payout was zero (no dividend) among the sampled banks in the last six years. On the other hand, standard deviation statistics for DPO was 0.22, which

indicates dividend payout variation between the selected banks. On average the net income to equity ratio or profitability of Ethiopian commercial banks in the previous six years was nearly 0.21 with a minimum of 0, maximum 0.36 and standard deviation of 0.073, which was relatively low variation compared with dividend payout.

The average liquidity position (current ratio) of Ethiopian commercial banks was 0.91 with maximum of 1.33, minimum 0.76 and 0.11 variation. The age of Ethiopian private banks in the last six years was, on average, 13.5 years with maximum of 23 years, minimum of 1 year and variation of 6.92. The descriptive result shows the explanatory variable previous year dividend payout of private commercial banks of Ethiopia was on average 0.61, maximum 0.91, and minimum zero with variation of 0.23. This indicated Ethiopian commercial banks paid relatively consistent cash dividend payout to shareholders for the last six years. The GDP growth rate had also a maximum rate of 45.09, a minimum rate of 15.33 and a standard deviation of 10.64. It had also a mean value of 26.55. Lastly, Ethiopian private commercial banks had 0.85, on average, leverage with maximum of 0.9, minimum of 0.66 and standard deviation of 0.04. The amount of leverage was large due to the nature of the bank's capital structure that their major source is deposit from customers, which is a liability for banks.

4.2.Testing Assumptions of Classical Linear Regression Model (CLRM)

Inferences made based on the results of estimations are valid so long as the assumptions of the classical linear regression model holds. The Gaussian or Classical Linear Regression Model (CLRM), which is the cornerstone of many econometric theories, makes 10 assumptions. Accordingly, six basic assumptions: exogeneity, normality, homoskedasticity, non-multicollinearity, model specification and cross-sectional dependence (correlation) tests were tested in this study. Other assumptions were not tested due to the nature of data and time constraint.

Assumption 1: Exogeneity

All that this assumption says is that the factors not explicitly included in the model, and therefore subsumed in the error term, do not systematically affect the mean value of the dependent variable, dividend payout ratio in our case. According to Brooks (2008), if a constant term is included in the regression equation, this assumption will never be violated. Because the

regression model used in this study included a constant term, the errors were assumed to exhibit zero mean.

Assumption 2: Normality

In multiple-regression, normality of residuals is required for valid hypothesis testing. The interest of an econometrician is not only in obtaining the estimator but also in using it to make inferences about the true parameter. For this purpose, we need the normality assumption. Each error term assumed to be normally distributed. The normality assumption assumes a critical role if we are dealing with a small, or finite, sample size, say data of less than 100 observations. One property of the normal distribution is that any linear function of normally distributed variables is itself normally distributed. Since the estimators are linear functions of the error term, then they are also normally distributed. Skewness and kurtosis are one of the most important determinants of the normality of a data (Gujarati, 2004). As shown in table 4.2, because the coefficient of kurtosis was close to three and the coefficient of skewness was close to zero, the data were consistent with a normality distribution assumption.

Table 4.2 Normality Test for Residuals

Residuals				
	Percentiles	**Smallest**		
1%	-0.2902493	-0.2902493		
5%	-0.2098356	-0.2098356		
10%	-0.1528005	-0.162424	**Observation**	36
25%	-0.0655287	-0.1528005	**Sum of Weight**	36
50%	0.0087104		**Mean**	6.47E-10
		Largest	**Std. Dev.**	0.1109474
75%	0.0623934	0.153838		
90%	0.153838	0.1694895	**Variance**	0.0123093
95%	0.1827313	0.1827313	**Skewness**	-0.2880397
99%	0.2228671	0.2228671	**Kurtosis**	3.153048

Source: STATA 12 output

Another test available for normality was the Shapiro-Wilk W test. The p-value is based on the assumption that the distribution is normal. Since our p-value was very large (0.91), we cannot reject the hypothesis 'the residuals are normally distributed.'

Figure 4.1 Shapiro-Wilk W Test for normal data

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
uhat	36	0.98548	0.530	-1.329	0.90811

Source: STATA 12 output

Assumption 3: Homoskedasticity

According to Gujarati (2004), homoskedasticity means equal variance. That is, the*Y* populations corresponding to various *X* values have the same variance. Put simply, the variation around the regression line (which is the line of average relationship between *Y* and *X*) is the same across the *X* values; it neither increases or decreases as *X* varies. We are saying that at this stage all *Y* values corresponding to the various *X*'s are equally important. The first test on homoscedasticity was given by Breusch-Pagan test and the second was given by White's test. Both test the null hypothesis that the variance of the residuals is homogenous. Therefore, if the p-value were very small, we would have to reject the hypothesis and accept the alternative hypothesis that the variance is not homogenous. As indicated in figure 4.2 and 4.3 the assumption was not violated since the p-values of the test were 0.4158 and 0.6585, which were greater than 5%.

Figure 4.2 Breusch-Pagan Test for Homoskedasticity

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of DPO

         chi2(1)      =     0.66
         Prob > chi2  =   0.4158
```

Source: STATA 12 output

Figure 4.3 White Test for Homoskedasticity

```
White's test for Ho: homoskedasticity
         against Ha: unrestricted heteroskedasticity

         chi2(27)     =     23.49
         Prob > chi2  =    0.6585

Cameron & Trivedi's decomposition of IM-test
```

Source	chi2	df	p
Heteroskedasticity	23.49	27	0.6585
Skewness	3.21	6	0.7815
Kurtosis	0.07	1	0.7882
Total	26.77	34	0.8064

Source: STATA 12 output

Assumption 4: Non-Multicollinearity

In order to assess the separate influence of independent variables on the dependent variable multicollinearity tests are very important. The result in table 4.3 reports a mean VIF of 3.19 that was much lower than the limit of 10. The VIFs for individual variables was also very low, supporting

the conclusion that the explanatory variables included in the model were not substantially correlated with each other. Accordingly, in this study, there was no problem of multicollinearity, which enhanced the reliability for regression analysis.

Table 4.3 Variance Inflation Factor (VIF) of the explanatory variables

Variable	VIF	1/VIF
LEV	6.32	0.158171
PRO	3.77	0.265022
LIQ	3.65	0.274268
GGR	2.06	0.485908
AOC	1.82	0.54884
PYD	1.54	0.649087
Mean VIF	**3.19**	

Source: STATA 12 output

Assumption 5: Model Specification

A model specification error can occur when one or more relevant variables are omitted from the model or one or more irrelevant variables are included in the model. If relevant variables are omitted from the model, the common variance they share with included variables may be wrongly attributed to those variables, and the error term is inflated. On the other hand, if irrelevant variables are included in the model, the common variance they share with included variables may be wrongly attributed to them. Model specification errors can substantially affect the estimate of regression coefficients (Gujarati, 2004). As shown from the Ramsey (RESET) test for omitted variables below, one of the common tests for regression model specification, the model used in this study was correctly specified, as the p-value was greater than 5%.

Figure 4.4 Ramsey (RESET) Test for omitted variables

```
Ramsey RESET test using powers of the fitted values of DPO
       Ho:  model has no omitted variables
                  F(3, 26) =      2.21
                  Prob > F =      0.1108
```

Source: STATA 12 output

Assumption 6: Cross-Sectional Dependence

The statement of this assumption is that the errors associated with one observation are not correlated with the errors of any other observation. In other words, it is assumed that the errors are uncorrelated with one another (Brooks, 2008). According to Baltagi (2008), cross-sectional dependence is a problem in macro panels with long time series over 20 to 30 years. This is not much of a problem in micro panels with few years and large number of cases. Cross-sectional dependence can lead to bias in tests results. Breusch-Pagan LM test is one of the tests used to check whether the residuals are correlated across entities. The null hypothesis of the test is that the residuals across entities are not correlated. The result of the test presented in figure 4.5.

Figure 4.5 Correlation Matrixes of Residuals

```
Correlation matrix of residuals:

             __e1     __e2     __e3     __e4     __e5     __e6
__e1       1.0000
__e2       0.1409   1.0000
__e3       0.1925  -0.6303   1.0000
__e4       0.3586  -0.2738  -0.0005   1.0000
__e5      -0.2709  -0.9665   0.6808   0.1449   1.0000
__e6      -0.3346  -0.0795  -0.0052  -0.7697   0.0632   1.0000

Breusch-Pagan LM test of independence: chi2(15) =    17.187, Pr = 0.3078
Based on 6 complete observations over panel units
```

Source: STATA 12 output

As shown from the Breusch-Pagan LM test above, the residuals are not correlated across entities in the model used in this study, as the p-value was greater than 5%.

4.3.Results of Regression Analysis

Due to the nature of the data, the appropriate model for the study was Panel Data Regression Model. Accordingly, the researcher conducted different types of Panel Data Regression Models and applied Hausman test and Breusch and Pagan Lagrangian Multiplier (LM) test to choose the appropriate model for panel data under this study.

4.3.1. POLS Regression Result

According to Wooldridge (2006), POLS estimation is OLS estimation with independently pooled cross sections, panel data, or cluster samples, where the observations are pooled across time (or group) as well as across the cross sectional units. If there is neither significant cross sectional nor significant temporal effect, we could pool all of the data, run an ordinary least square (OLS) regression with an intercept and slope coefficients constant across banks and time. In such circumstances, ordinary least squares (OLS) produces efficient and consistent parameter estimates. POLS estimation is simpler, possibly naive, and it also has the advantage of not depending on strict exogeneity. However, the major problem with this model is that it does not distinguish between the various banks we have in this study. By combining and pooling the six banks under this study, the model denies the heterogeneity or individuality that may exist among these banks. Thus, all 36 observations pooled together, run the regression model, neglecting the cross section and time series nature of the data (Gujarati, 2004).

Figure 4.6 Result of POLS Regression Model

```
. reg DPO PRO LIQ AOC PYD LEV GGR

      Source |       SS       df       MS              Number of obs =      36
-------------+------------------------------           F(  6,    29) =   14.25
       Model |  1.27042939     6  .211738232            Prob > F      =  0.0000
    Residual |  .430826165    29  .014856075            R-squared     =  0.7468
-------------+------------------------------           Adj R-squared =  0.6944
       Total |  1.70125556    35  .048607302            Root MSE      =  .12189

------------------------------------------------------------------------------
         DPO |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         PRO |  -1.376417   .5462315    -2.52   0.018    -2.493586   -.2592486
         LIQ |  -.1605213   .3631632    -0.44   0.662    -.9032735     .582231
         AOC |  -.0112926   .0040176    -2.81   0.009    -.0195095   -.0030758
         PYD |   .6751342   .1117466     6.04   0.000     .4465868    .9036816
         LEV |   2.669822   1.224032     2.18   0.037     .1663956    5.173247
         GGR |   .0077019   .0027778     2.77   0.010     .0020207    .0133832
       _cons |  -1.705266    1.16703    -1.46   0.155    -4.092111    .6815785
------------------------------------------------------------------------------
```

Source: STATA 12 output

The POLS model result presented in figure 4.6 indicated that dividend payout ratio had negative and statistically significant relationship with profitability at 5% significance level. Because the bank's net profit growth rate was less than their shareholders equity growth rate, the profitability of the banks measured by return on equity (ROE) tends to decrease as their capital rises. The dividend payout ratio measured by yearly dividend divided by net profit, on the other hand, was consistently growing as the net profit of banks rises. This situation causes negative relationship between dividend payout ratio and profitability. The POLS model result also indicated that dividend payout ratio had a negative and statistically significant relationship with age of company at 1% significance level. The relationship between dividend payout ratio and previous year dividend found to be positive and strongly significant at 0.1% level. Dividend payout ratio also showed positive and significant at 5% level relationship with leverage of the firm. The relationship between dividend payout ratio and GDP growth rate was also positive and significant at 1% level. However, the relationship with liquidity was found to be insignificant.

In addition, from the POLS estimation result in figure 4.6, the R-squared and adjusted R-squared statistics of the model were 74.68% and 69.44% respectively. The result indicated that the changes in the independent variables explain 74.68% of the changes in the dependent variable. That is, net income to total equity ratio (PRO), current assets to current liabilities ratio (LIQ), total liabilities to total assets ratio (LEV), age of company (AOC), previous year dividend (PYD) and GDP growth rate (GGR) collectively explained 74.68% of the changes in dividend payout ratio. The remaining 25.32% of changes was explained by other factors, which were not included in the model. Thus, those independent variables included in the model collectively were good explanatory variables of the dividend payout of private commercial banks in Ethiopia. The null hypothesis of F-statistic (the overall test of significance) that the R^2 is equal to zero was rejected at 1%, as the p-value was sufficiently low. F value of 0.0000 indicates strong statistical significance, which enhanced the reliability and validity of the model.

4.3.2. Fixed Effects Regression Model Result

Fixed effect explores the relationship between predictor and outcome variables within an entity. Each entity, each banks in our case, has its own individual characteristics that may or may not influence the predictor variables. When using fixed effect, we assume that something within the individual may impact or bias the predictor or outcome variables and we need to control for this.

This is the rationale behind the assumption of the correlation between entity's error term and predictor variables. Fixed effects remove the effect of those time-invariant characteristics so we can assess the net effect of the predictors on the outcome variable, dividend payout ratio in our case. Another important assumption of the fixed effects model is that those time-invariant characteristics are unique to the individual and should not be correlated with other individual characteristics. Each entity is different therefore the entity's error term and the constant (which captures individual characteristics) should not be correlated with the others. If the error terms are correlated, then fixed effects is no suitable since inferences may not be correct and you need to model that relationship, probably using random effects (Gujarati, 2004; Wooldridge, 2006).

The key insight is that if the unobserved variables do not change over time, then any changes in the dependent variable must be due to influences other than these fixed characteristics. Fixed effects will not work well with data for which within cluster variation is minimal or for slow changing variables over time (Stock and Watson, 2003; Brandom, 2008).

The fixed effects model controls for all time-invariant differences between the individuals, so the estimated coefficients of the fixed effects models cannot be biased because of omitted time-invariant characteristics. One side effect of the features of fixed effects model, however, is that, they cannot be used to investigate time-invariant causes of the dependent variable. Technically, time-invariant characteristics of the individuals are perfectly collinear with the person or entity dummies. Substantively, fixed effects models are designed to study the causes of changes within a person or entity. A time-invariant characteristic cannot cause such a change, because it is constant for each person (Kohler and Kreuter, 2009).

The fixed effects model result, presented in figure 4.7 (See Appendix 1 for the full table), indicates that dividend payout ratio had negative and statistically insignificant relationship with profitability, liquidity and age of company. The relationship between dividend payout ratio and previous year dividend found to be positive and significant at 1% level. Dividend payout ratio also showed positive and significant at 1% level relationship with leverage of the firm. The relationship between dividend payout ratio and GDP growth rate was also positive and significant at 5% level.

Figure 4.7 Result of Fixed Effects Regression Model

```
. estimates table, star stats (N)

    Variable |      active
-------------+------------
         PRO |  -1.5898297
         LIQ |  -.29184545
         AOC |  -.02695076
         PYD |    .4137684**
         LEV |   3.7664944**
         GGR |   .00668229*
       _cons |  -2.0823823
-------------+------------
           N |           36
------------------------------

legend: * p<0.05; ** p<0.01; *** p<0.001
```

Source: STATA 12 output

4.3.3. Random Effects Regression Model Result

The rationale behind random effects model is that, unlike the fixed effects model, the variation across entities is assumed to be random and uncorrelated with the predictor or independent variables included in the model. The crucial distinction between fixed and random effects is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not (Greene, 2008). An advantage of random effects is that you can include time invariant variables. In the fixed effects model these variables are absorbed by the intercept. Random effects assume that the entity's error term is not correlated with the predictors, which allows for time-invariant variables to play a role as explanatory variables. It also allows generalizing the inferences beyond the sample used in the model (Gujarati, 2004).

Figure 4.8 Result of Random Effects Regression Model

```
. estimates table, star stats (N)

    Variable |      active
-------------+-------------
         PRO |  -1.3764174*
         LIQ |  -.16052126
         AOC |  -.01129262**
         PYD |   .67513422***
         LEV |   2.6698215*
         GGR |   .00770191**
       _cons |   -1.705266
-------------+-------------
           N |          36
------------------------------

legend: * p<0.05; ** p<0.01; *** p<0.001
```

Source: STATA 12 output

The random effects model result, presented above in figure 4.8 (See Appendix 2 for the full table), indicated a negative and significant relationship between dividend payout ratio and profitability at 5% level of significance. The dependent variable, dividend payout ratio, also showed a negative and significant relationship with age of company at 1% significance level. Dividend payout ratio also showed positive and highly significant at 0.1% level relationship with previous year dividend of the firm. The relationship between dividend payout ratio with leverage and GDP growth rate was also positive and significant at 5% and 1% significance level respectively. However, the relationship with liquidity was found to be insignificant.

4.3.4. Estimation Model Selection

This section of the study presented techniques to choose the appropriate estimation model among those presented in section 4.3.1, 4.3.2 and 4.3.3 in order to discuss and interpret the findings against the research questions and research hypothesis.

4.3.4.1.Hausman Specification Test

Hausman (1978) specification test was used to decide between random effects and fixed effects model. The null hypothesis of the test was that random effects model is more appropriate; that is, the difference in coefficients not systematic and the alternative hypothesis was that fixed effects is appropriate. The result of the test presented in figure 4.9.

Figure 4.9 Hausman test comparing Fixed Effect and Random Effect

```
. hausman fixed random

                ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |    fixed        random       Difference          S.E.
-------------+------------------------------------------------------------
         PRO |   -1.58983    -1.376417       -.2134123         .564662
         LIQ |  -.2918455    -.1605213       -.1313242        .1415846
         AOC |  -.0269508    -.0112926       -.0156581        .0200398
         PYD |   .4137684     .6751342       -.2613658        .0815465
         LEV |   3.766494     2.669822        1.096673        .4447938
         GGR |   .0066823     .0077019       -.0010196               .
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        8.70
                Prob>chi2 =      0.1913
                (V_b-V_B is not positive definite)
```

Source: STATA 12 output

The result of Hausman test (p-value of 0.1913) showed that random effects model was preferred to the fixed effects model.

4.3.4.2. Breusch and Pagan LM Test

The Breusch and Pagan Lagrangian Multiplier (LM) test was used to decide between random effects and POLS model. The null hypothesis was that variance across those banks under study is zero; that is, POLS is an appropriate model. Moreover, the alternative hypothesis was that Random effects model is appropriate. The result of the test presented in figure 4.10.

Figure 4.10 Breusch and Pagan LM Test Comparing POLS and Random Effect

```
Breusch and Pagan Lagrangian multiplier test for random effects

        DPO[Bank,t] = Xb + u[Bank] + e[Bank,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                     DPO |   .0486073       .2204706
                       e |   .0119389       .1092651
                       u |          0              0

        Test:   Var(u) = 0
                             chibar2(01) =     0.00
                          Prob > chibar2 =   1.0000
```

Source: STATA 12 output

The Breusch and Pagan Lagrangian Multiplier (LM) test result show a p-value of one implying that there are no random effects as u is zero. There is no evidence of significant difference across banks. Hence, this test suggested the pooled OLS model estimation over random effects model. Accordingly, the analysis and discussion of results for this study was based on the POLS model estimates.

4.4.Discussion of the Results

Based on previous studies and the findings of this study, this section discussed the general result obtained via POLS regression model as shown in figure 4.6. Referring the literature, the result of each explanatory variable including their influence on the level of dividend payout of commercial banks in Ethiopia was discussed.

4.4.1. Determinants of Dividend Payout Ratio

Taking into consideration that the basic aim of this study was to examine the determinants of dividend payout of private commercial banks in Ethiopia, the estimation results of the regression model that presents the impact of explanatory variables on dividend payout were discussed as follows.

1. Profitability and Dividend Payout

Ho1: *There is no significant relationship between profitability and dividend payout.*

The regression result of the POLS model in figure 4.6 was inconsistent with the hypothesis developed. The study hypothesized that there was no significant relationship between profitability and dividend payout. Contrary to this, the estimated coefficients and p-value of profitability (PRO) found to be -1.38 and 0.018 respectively, which shows that there was negative and statistically significant impact of profitability (PRO) on the amount of dividend payout. The result implies that a unit change in banks profitability measured in terms of return on equity (ROE), keeping other things constant, had resulted 1.38 unit changes on the amount of dividend payout in the opposite direction. Thus, profitability had a negative and significant (at 5% level of significance) effect on dividend payout of private banks of Ethiopia during the study period.

According to the researcher, the result was because of two reasons. First, because the bank's net profit growth rate was less than their shareholders equity growth rate, the profitability of the banks measured by return on equity (ROE) tends to decrease as their capital rises. The dividend payout ratio measured by yearly dividend divided by net profit, on the other hand, was consistently growing as the net profit of banks rises. This situation causes negative relationship between dividend payout ratio and profitability.

Second, Ethiopian banking industry was on growing stage and management of banks during this period prefer to invest their income than distributing dividend to shareholders. This was supported by the work of Myers (1984). The pecking order theory, which explains how companies prioritize their financing sources, states that firms prefer to use internal funds. When internal funds are insufficient to meet financial needs, firms turns to debt (first to risk free, then

risky debt), and finally equity (Myers, 1984; Myers and Majluf, 1994). Myers (1984) suggests that this behavior may be due the cost of issuing new equity. The results, thus, indicated that there was an evidence of a significant negative relationship between profitability of the firm and dividend payout ratio. Baker et al (2001) also stated that in case when a firm needs to plough back a major proportion of its profits to support rapid growth, low dividend might result.

2. Leverage and Dividend payout

Ho2: *There is no significant relationship between leverage and dividend payout.*

The regression result of the POLS model was inconsistent with the hypothesis developed by the author. The estimated coefficients and test statistics of leverage (LEV) were 2.67 and 0.037 respectively. This shows that leverage had positive and statistically significant at 5% level of significance effect on the amount of dividend payout and implies that a unit change in banks leverage measured in terms of total liabilities to total assets ratio, keeping other things constant, had resulted 2.67 unit changes on the amount of dividend payout in the same direction. Therefore, this result rejects the null hypothesis. The empirical evidence regarding the relationship of leverage with dividend payout was mixed. Barclay et al (1995), Eriotis and Vasiliou (2006) and Adedeji (1998) had found similar positive relationship between leverage and dividend payout.

3. Previous Year Dividend and Dividend Payout

Ho3*: There is no significant relationship between previous year dividend and dividend payout.*

The coefficient of previous year dividend had a positive sign and was highly significant at 0.1%. This shows that a bank that paid dividend in the previous year will also most likely to pay dividend in the current year. Previous year dividend had a positive (coefficient of 0.67) and highly significant (p-value of 0.000) relationship with current dividend payout. This finding reflected that previous year dividend payout serve as a signal about future time expectation of the level of dividend payout. Such a dividend payment behavior provides support to the smooth dividend payout policy.

The POLS regression result was inconsistent with the hypothesis developed by the author. The study hypothesized that there was no significant relationship between previous year dividend and

dividend payout. However, the estimated coefficients and p-value of previous year dividend (PYD) were 0.67 and 0.000 respectively. This shows that there was a positive and strong statistically significant at 0.1% significance level effect of previous year dividend (PYD) on the amount of current year dividend payout. It implied that a unit change in banks previous year dividend, keeping other things constant, had resulted a 0.67 unit changes on the amount of dividend payout in the same direction.

So from the result, previous year dividend was also found to be statistically significant determinant variable of the dividend payout ratio in private banks of Ethiopia. The finding was similar to Kesto and Ravi (2015) and Demilie (2016) and many others. It means that current year dividend was influenced by the dividend paid by a firm last year. The positive relationship of previous year dividend provides the support to the smooth dividend payout policy that firms try to maintain previous dividend payout pattern and try to increase not decrease. The finding also shows that Ethiopian private banks might be conscious of the signaling effect of any adverse change in dividend payment. The banks tend to keep their goodwill from the investor and to avoid the negative signal of reduction in dividend payment though they were at growth stage.

4. Age of Company and Dividend Payout

Ho4*: There is no significant relationship between company age and dividend payout.*

The relationship between age of company and dividend payout was negative and statistically significant as indicated in the POLS regression model. Age of company had a negative (coefficient of -0.01) and highly significant relationship (p-value of 0.009) with current dividend payout. It implied that a year change in banks age, keeping other things constant, result a 0.01 unit changes on the amount of dividend payout in the opposite direction. The finding shows that companies with higher growth opportunities pay higher dividends as a means of proving their earnings generating ability (sustainability and stability in earnings) to make their equity issues more attractive.

5. GDP Growth Rate and Dividend Payout

Ho5*: There is no significant relationship between GDP growth rate and dividend payout.*

The coefficient of GDP growth rate had a positive sign and was significant at 1%. This shows that banks dividend payment was affected by the country's GDP growth rate. GDP growth rate had a positive (coefficient of 0.01) and highly significant relationship (p-value of 0.01) with current dividend payout. This finding reflected that GDP growth rate serve as a signal about dividend payout of Ethiopian private banks. The POLS regression result was inconsistent with the hypothesis developed by the author. The study hypothesized that there was no significant relationship between GDP growth rate and dividend payout. The estimated coefficients and p-value of GDP growth rate (GGR) were 0.01 and 0.01 respectively. It implied that a unit change in country's GDP growth rate, keeping other things constant, result a 0.01 unit changes on the amount of dividend payout in the same direction.

6. Liquidity and Dividend Payout

Ho6: *There is no significant relationship between liquidity and dividend payout.*

The relationship between liquidity and dividend payout was found to be insignificant as expected and indicated in the POLS regression model. This implies that the increase or decrease in liquidity had statistically insignificant effect on dividend payout in Ethiopian private banks for the study period. Because Ethiopian private banks were at early growing stage (needs more capital) and NBE capital expansion requirement, most of the dividends declared were reinvested. In the case of poor liquidity position, banks managed the problem by providing a dividend reinvestment options. In case of even high liquidity, companies preferred to invest the money to get high return instead of distributing to shareholders by providing a dividend reinvestment options.

Table 4.4 Summary of the Analysis

No	Hypothesis	Status	Expected Sign	Actual Sign
Ho1	There is no significant relationship between profitability and dividend payout.	Rejected	+	-
Ho2	There is no significant relationship between leverage and dividend payout.	Rejected	-	+
Ho3	There is no significant relationship between previous year dividend and dividend payout.	Rejected	+	+
Ho4	There is no significant relationship between company age and dividend payout.	Rejected	+	-
Ho5	There is no significant relationship between GDP growth rate and dividend payout.	Rejected	+	+
Ho6	There is no significant relationship between liquidity and dividend payout.	Not Rejected	+	-

Table 4.5 presents the null hypotheses of the relationship between Ethiopian private commercial banks dividend payout ratio and determinant factors with different signs. As indicated in the table null hypotheses related with profitability (PRO), leverage (LEV), previous year dividend (PYD), age of company (AOC) and GDP growth rate (GGR) were rejected.

- The null hypothesis for profitability was rejected which indicated that profitability had a negative and statistically significant impact on the dividend payout ratio at 5% significance level.
- The null hypothesis for leverage was rejected with positive and significant at 5% level of significance relationship with dividend payout.
- The null hypothesis for previous year dividend was rejected as it shows positive and highly significant relationship at 0.1% level of significance with current year dividend payout.
- The null hypothesis for age of company was rejected at 1% level of significance. It indicated that there was a negative and statistically significant relationship between age of company and dividend payout ratio.
- The null hypothesis for GDP growth rate was rejected as it shows positive and significant relationship at 1% level of significance with current year dividend payout.
- The null hypothesis for liquidity failed to be rejected with negative but not significant relationship with dividend payout ratio, as expected.

Chapter Five: Conclusions and Recommendations

This chapter discusses the conclusions and relevant recommendations in relation to the study. Suggestion for further research also provided in the last part of chapter.

5.1.Conclusions

The main purpose of the study was to examine the relationship between dividend payout and selected determinant factors of private commercial banks of Ethiopia and to what extent these factors determine the banks dividend payout during the study period. By considering many reasons, key explanatory variables were identified. These variables were profitability, liquidity, leverage, GDP growth rate, age of company and previous year dividend. Six banks were taken as a sample out of sixteen private banks in Ethiopia and six years data (from 2011 to 2016), was collected from annual audited financial reports of the selected banks and National Bank of Ethiopia. In order to test CLRM assumptions and to answer the research questions, the researcher conducted POLS regression analysis, which was appropriate for the study.

The outcome of the study shows that two determinant factors: profitability and age of company negatively related and statistically significant factors that determine dividend payout ratio. The result also indicated that three factors: leverage, previous year dividend and GDP growth rate were statistically significant factors and positively related with dividend payout. The remaining one factor liquidity was negatively related but statistically insignificant determinant factor of dividend payout in private banks of Ethiopia. Thus, based on the result, the determinant factors of dividend payout in Ethiopian private banks were profitability, GDP growth rate, age of company, leverage and previous year dividend during the study period.

- The findings of the negative relationship between profitability and dividend payout was supported by the work of Baker et al (2001) which states that companies that do not pay dividends are not necessarily without profits. If a company thinks that its own growth opportunities are better than investment opportunities available to shareholders elsewhere, the company should keep the profits and reinvest them into the business. The negative relationship also indicates Ethiopian commercial banks reliance on profits to finance their continuous expansion. It is an indication of Ethiopian banks profit being allocated to

undertake investments and to open new branches in different regions. Consistent with the pecking order theory, the Ethiopian commercial banks prefer to rely more on internal funds or retained earnings as a result they are paying less dividend and hence having more retained earnings.

- Leverage had a significant and positive impact on dividend payout. Therefore, it could be argued that Ethiopian private banks were affected by leverage and they have to increase their dividend payout ratio as the leverage increases. This is because, Ethiopian private banks will be in a position to pay dividend as their leverage increases, where its major source is deposit from customers. In order to fund increasing dividend payments firms were willing to increase the level of debt in their capital structure (Barclay et al, 1995). Eriotis and Vasiliou (2006) explored positive relationship of leverage and dividend payout, arguing that these findings were consistent with the expected return pattern at different levels of economic stability. Adedeji (1998) also found positive relationship between leverage and dividend payout ratio.
- Previous year dividend payout was also the most essential variable that affect dividend payout ratio of commercial banks in Ethiopia. The positive relationship shows that banks were conscious of the signaling effect of any reduction in dividend payment could have on the value of the firm. This confirms that current dividend could be relevant for the prediction of dividend payout of banks and future dividend of the firm. This will help the investor to take more appropriate investment decision.
- Age of company had a negative and highly significant impact on dividend payout. The result indicated that companies with higher growth opportunities pay higher dividends as a means of proving their earnings generating ability (sustainability and stability in earnings) to make their equity issues more attractive. Under signaling theory, firms use dividends to signal their future performance to attract potential investors. It was concluded that firms with high investment opportunities tends to pay more dividends to attract the existing as well as potential investors and to boost their trust of shareholders.
- GDP growth rate had a positive and significant effect on dividend payout ratio. This finding reflected that GDP growth rate serve as a signal about dividend payout of Ethiopian private banks. The result was confirmed by Sime et al. (2013). They argued that Ethiopian banks performances are governed largely by macroeconomic performances than competitive

parameters as high (low) performances coincided with good (bad) macroeconomic conditions.

- Liquidity does not have a significant relationship with dividend payout ratio in commercial banks of Ethiopia. According to the researcher, this might be because Ethiopian private banks were at early growing stage (needs more capital) and NBE capital expansion requirement, most of the dividends declared were reinvested. In the case of poor liquidity position, banks managed the problem by providing a dividend reinvestment option. In case of even high liquidity, companies preferred to invest the money to get high return instead of distributing to shareholders by providing a dividend reinvestment option. Adedeji (1998) also explored that liquidity does not have a significant impact on dividend policy.

- Generally, the results of the study show the existing dividend theories do not exhaustively explain dividend payout in Ethiopian Private Banks.

5.2.Recommendations

Since dividend payout policies have been described as a puzzle and only few studies had previously been conducted on Ethiopian banks, it was necessary to conduct a study regarding the determinants of dividend payout ratio in the context of private commercial banks in Ethiopia. Thus, based on the findings of the study, investors, portfolio analysts and other stakeholders were recommended to use the information regarding which factors they should consider for their investment decision and when predicting future dividends. When they want to select dividend-paying firms, they have to consider determinant factors before selecting investment options. Board of directors and directors of finance department of banks are also advised to consider which factors have more determinant impact when they determine dividend payouts. The result of this study suggests investors, board of directors, head of finance department of Ethiopian private banks and all other stakeholders to give consideration to profitability, leverage, previous year dividend, age of company and GDP growth rate before they invest and set dividend payout policy. This will help to decide whether firms should keep retained earnings for future projects, for debt settlement, and/or for dividend payout decisions, which is an efficient, effective, and reasonable dividend payout decision.

The following recommendations were derived from the findings of the study:

- First, the study found that profitability had a negative and significant influence on dividend payout in private banks of Ethiopia during the study period. Ethiopian private banks should use their capital efficiently so as to increase their profitability and dividend-paying ability. In addition, if the company thinks that its own growth opportunities are better than investment opportunities available to shareholders elsewhere, the company should keep the profits and reinvest them into the business.
- Second, because firms use dividends as signaling device to investors and are willing to increase the level of debt in their capital structure in order to fund increasing dividend payments, investors expecting high dividend should invest their capital in highly leveraged firms. Banks are also recommended that leverage should be held at an optimal level, so that firms will be in a position to pay dividends to its shareholders, which is a return for their investments.
- Third, boards of directors of banks are also recommended to consider the impact of previous year dividend on their potential shareholders, good will of the bank and existing shareholders' satisfaction when they set future dividend payout.
- Fourth, newly established firms should pay high dividend as a means of proving their earnings generating ability (sustainability and stability in earnings) and to make their equity issues more attractive for potential investors.
- Fifth, as Ethiopian banks performance governed largely by macroeconomic performances (Sime et al, 2013), GDP growth rate should also be considered before making investing, financing and dividend decisions.

The finding of the POLS regression result and international experiences suggest that profitability, leverage and previous year dividend were not the only factors to be considered. It is advisable to consider age of company and GDP growth rate in order to minimize costs, to attract investors and for banks sustainable growth. In general, the finding of this thesis suggests for investors, bank officials, regulators of banks and other stakeholders to consider the bank's profitability, leverage, previous year dividend, age of company and GDP growth rate when they make investment and dividend payout decisions.

5.3.Suggestions for Further Research

Since dividend is an unsolved puzzle and limited studies have been made in Ethiopian private banks context, it is suggested that further similar studies be conducted covering an extended period, large sample size with more variables which might be determinant factors of dividend payout in commercial banks of Ethiopia. Future researchers can conduct further research using bank specific variables like type of industry, size of the corporation, agency cost, risk, growth, capital adequacy, cash flow, ownership characteristic and other macroeconomic factors like tax, inflation, interest rates, bank regulation, market power and others.

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Appendixes

Appendix 1: Fixed Effects Model Regression Result

```
. xtreg DPO PRO LIQ AOC PYD LEV GGR, fe

Fixed-effects (within) regression               Number of obs      =        36
Group variable: Bank                            Number of groups   =         6

R-sq:  within  = 0.6887                         Obs per group: min =         6
       between = 0.5536                                        avg =       6.0
       overall = 0.6053                                        max =         6

                                                F(6,24)            =      8.85
corr(u_i, Xb)  = -0.3462                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         DPO |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         PRO |   -1.58983   .7856284    -2.02   0.054    -3.211287    .0316276
         LIQ |  -.2918455   .3897868    -0.75   0.461    -1.096326    .5126349
         AOC |  -.0269508   .0204385    -1.32   0.200    -.0691338    .0152322
         PYD |   .4137684    .138337     2.99   0.006     .1282548     .699282
         LEV |   3.766494   1.302342     2.89   0.008     1.078592    6.454397
         GGR |   .0066823   .0027765     2.41   0.024      .000952    .0124126
       _cons |  -2.082382     1.2407    -1.68   0.106    -4.643061    .4782963
-------------+----------------------------------------------------------------
     sigma_u |  .12075012
     sigma_e |   .1092651
         rho |  .54980741   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(5, 24) =     4.38                 Prob > F = 0.0056
```

Source: STATA 12 output

Appendix 2: Random Effects Model Regression Result

```
. xtreg DPO PRO LIQ AOC PYD LEV GGR, re

Random-effects GLS regression                   Number of obs      =        36
Group variable: Bank                            Number of groups   =         6

R-sq:  within  = 0.6513                         Obs per group: min =         6
       between = 0.8967                                        avg =       6.0
       overall = 0.7468                                        max =         6

                                                Wald chi2(6)       =     85.52
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000
```

DPO	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
PRO	-1.376417	.5462315	-2.52	0.012	-2.447011	-.3058234
LIQ	-.1605213	.3631632	-0.44	0.658	-.8723081	.5512656
AOC	-.0112926	.0040176	-2.81	0.005	-.0191669	-.0034183
PYD	.6751342	.1117466	6.04	0.000	.4561149	.8941535
LEV	2.669822	1.224032	2.18	0.029	.2707635	5.06888
GGR	.0077019	.0027778	2.77	0.006	.0022575	.0131463
_cons	-1.705266	1.16703	-1.46	0.144	-3.992603	.5820709
sigma_u	0					
sigma_e	.1092651					
rho	0	(fraction of variance due to u_i)				

Source: STATA 12 output

Bank	Year	DPO	PRO	LIQ	AOC	PYD	LEV	GGR
1	2011	0.00	0.00	0.35	1.00	0.00	0.66	35.86
1	2012	0.59	0.09	0.37	2.00	0.00	0.79	45.09
1	2013	0.74	0.11	0.43	3.00	0.59	0.83	15.33
1	2014	0.74	0.13	0.46	4.00	0.74	0.86	22.41
1	2015	0.60	0.18	0.50	5.00	0.74	0.84	22.40
1	2016	0.74	0.15	0.50	6.00	0.60	0.84	18.20
2	2011	0.70	0.27	0.35	18.00	0.68	0.88	35.86
2	2012	0.71	0.24	0.41	19.00	0.70	0.87	45.09
2	2013	0.30	0.21	0.42	20.00	0.71	0.88	15.33
2	2014	0.12	0.24	0.41	21.00	0.30	0.88	22.41
2	2015	0.17	0.20	0.49	22.00	0.12	0.87	22.40
2	2016	0.14	0.19	0.49	23.00	0.17	0.87	18.20
3	2011	0.50	0.32	0.42	17.00	0.54	0.90	35.86
3	2012	0.61	0.36	0.45	18.00	0.50	0.90	45.09
3	2013	0.56	0.30	0.44	19.00	0.61	0.90	15.33
3	2014	0.56	0.27	0.43	20.00	0.56	0.88	22.41
3	2015	0.40	0.25	0.46	21.00	0.56	0.88	22.40
3	2016	0.40	0.22	0.44	22.00	0.40	0.88	18.20
4	2011	0.69	0.21	0.37	13.00	0.64	0.84	35.86
4	2012	0.71	0.19	0.44	14.00	0.69	0.82	45.09
4	2013	0.75	0.17	0.48	15.00	0.71	0.82	15.33
4	2014	0.55	0.16	0.50	16.00	0.75	0.82	22.41
4	2015	0.69	0.15	0.52	17.00	0.55	0.84	22.40
4	2016	0.65	0.14	0.47	18.00	0.69	0.84	18.20
5	2011	0.68	0.26	0.41	14.00	0.71	0.88	35.86
5	2012	0.68	0.27	0.45	15.00	0.68	0.87	45.09
5	2013	0.78	0.23	0.46	16.00	0.68	0.88	15.33
5	2014	0.91	0.18	0.42	17.00	0.78	0.87	22.41
5	2015	0.84	0.17	0.47	18.00	0.91	0.88	22.40
5	2016	0.77	0.16	0.49	19.00	0.84	0.88	18.20
6	2011	0.67	0.35	0.39	3.00	0.87	0.85	35.86
6	2012	0.87	0.31	0.42	4.00	0.67	0.88	45.09
6	2013	0.75	0.19	0.39	5.00	0.87	0.85	15.33
6	2014	0.75	0.20	0.33	6.00	0.75	0.83	22.41
6	2015	0.75	0.20	0.44	7.00	0.75	0.84	22.40
6	2016	0.75	0.20	0.44	8.00	0.75	0.86	18.20