Determinants of Dividend payout: An Empirical Study on Bank Industry in Ethiopia

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Declaration

I, Theodros Kinfe, hereby declare that the thesis work entitled "Determinants of Dividend payout: An Empirical Study on Bank Industry in Ethiopia" submitted by me for the award of the degree of Master of Accounting and Finance of Addis Ababa University at Addis Ababa Ethiopia, is original work and it hasn't been presented for the award of any other Degree, Diploma, Fellowship or other similar titles of any other university or institution.

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CERTIFICATION

I certify that the thesis work entitled “Determinants of Dividend payout: An Empirical Study on Bank Industry in Ethiopia” is a genuine work of Mr. Theodros Kinfe who carried out the research under my guidance. Certified further, that to the best of my knowledge the work reported herein doesn’t form part of any other project report or dissertation on the bases of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Ato Gebremedhine G/hiwot,(Asst. Professor)

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Abstract

This paper aimed at investigating the factors determining dividend payout policy in Ethiopia bank industry. This study used a panel dataset of audited financial statement of banks between the years of 2006 and 2010. Seven hypotheses were investigated using OLS regression techniques. The models considered the impact of profitability, liquidity, leverage, firm size, growth, and lagged dividend per share on dividend payout ratios. Empirical results verified that the main characteristics of firm dividend payout policy were that dividend payments related strongly and directly to firm size and lagged dividend per share, but negatively to the liquidity ratio. However, there is no relationship of profitability, leverage, and growth as independent variables with dividend payout. The statistically significant variables may indicate that firms pay dividends with the intention of reducing the agency problem. Mangers are reluctant to cut dividend. And, negative relation of liquidity with dividend may indicate inefficient of bank industry. The results of this study have delivered some insights on the determinant factors of dividend in Ethiopia.

Keywords: dividend policy, irrelevant theorem, bird-in-hand theory, tax preference theory, agency conflict and signaling mechanism

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Chapter One: Introduction

This chapter begins with background to the study. This is followed by a discussion of the problem and a definition of the main problem. The purpose summarizes what are expected to be achieved by the end of the thesis. The significant statement, limitations and an outline are presented.

1.1. Background

Dividend policy is one of the questions profitable companies face. Firms are faced with dilemma of distributing income to shareholders or investing back their earnings in operating assets, securities, or used to retire bond so as to foster further growth of the business. The decision of the firm concerning how much earnings should be distributed, how stable should the distribution be, and how much should be retained is the concern of dividend policy decision.

The issue of dividend has attracted the attention of academicians and researchers. Brealey and Myers (2003) listed dividend issue as one of the top ten important unresolved issues in the field of advanced corporate finance. Scholars developed a number of theoretical models describing the factors that corporate managers should consider when setting dividend payout decisions which caused to be the center of debate in the financial literature. Black (1976) argues that the harder we look at the dividends picture, the more it seems like a puzzle, with pieces that do not fit together.

To help explain this puzzle, academicians developed various theories; signaling, tax preference, agency costs, and bird-in-the-hand explanations. These theories led Ang

(1987) to observe, "Thus, we have moved from a position of not enough good reasons to explain why dividends are paid to one of too many." Advocates of behavioral finance, such as Shefrin and Statman (1984), introduced concepts such as prospect theory and mental accounting to explain why investors like dividends. Statman (1997) contends that solving the dividend puzzle is impossible while ignoring the patterns of normal investor behavior. Today, corporate managers are left with a vast and often conflicting body of research about dividends.

One way to enhance our understanding of why corporations pay dividends is to examine the factors determine dividend payout decisions. Past researches have provided important insights into the different factors affecting dividend payout. For example, Lintner (1956) indicate that the dividend payment pattern of a firm is influenced by the current year's profit and previous year's dividend payment; managers prefer stable dividend payout policy. Other researchers including Rozeff (1982), Lloyd, *et al*. (1985), Amidu and Abor (2006) show a significant negative relationship historical sales growth and dividend payout ratio. Such studies complement other types of empirical research on dividend payout policy.

This study will contribute to existing knowledge in several ways. This paper is one of the first studies in the area of dividends of financial firms in Ethiopia, where bank is important and growing sector in Ethiopian economy. This paper will also provide new evidence of determinants influencing the amount of dividends paid by firms from a developing country point of view. This is important, as one would expect that the dividend payout policy in developing country would be different from that of a

developed. Since emerging countries generally share a number of similar characteristics, examining the dividend payout policy of firms operating on Ethiopia could present a rich-base for future comparative research in other firms operating in Ethiopia. Finally, this research highlights the different variables that shall affect dividend payout between the established facts and practice. This has implications for investor's investment decisions.

1.2. Statement of the problem

Ethiopia is in the track of continuous economic growth registering double digit annual GDP growth which resulted from the development of different sectors; service, agriculture, and industry[1]. Corporate investments as an option of investment for individual as well as institutions and numbers of participants are depicting meaning full growth from time to time. Eventually, this augments the need to identify the driving elements of dividend payment policy in Ethiopia through empirical analysis. Therefore, a study on the determinants of dividend payout policy shall be a relevant decision in view of these phenomena.

Many theories and models have been put forth to examine numerous facets of dividend study. The first empirical study of dividend policy was performed by Lintner (1956). He discovered that firms have long-run target dividend payout ratios and place their attention more on dividend changes than on absolute dividend levels. He also found that dividend changes follow shifts in long-run sustainable and managers are hesitant to make dividend changes that may later need to be reversed. Managers also try to stabilize dividends and avoid dividend cuts. The article by Miller and Modigliani is also groundbreaker in the

[1] National bank of Ethiopia annual reports; 2006/07, 2007/08, & 2008/09

theoretical modeling of dividends, which proposed dividend irrelevance. On the other hand, theories which support dividend relevance include tax preference, signaling, and agency explanations.

And researchers have developed and empirically tested various models to explain dividend behavior. Some conducted surveys of corporate managers to learn the most important determinants of corporate dividend payouts. Among a number of researchers, Baker, *et al*. (1986), Pruit and Gitman (1991), Gill, *et al*. (2009) found dividend payout are the function of firm's profitability. Eddy and Seifert (1988), Higgins (1981), Al-kuwari (2007) indicated that large firms distributed a higher amount of their net profit as cash dividend. Liquidity was also additional variable found to be the significant determinant variable of dividend payout Liu and Hu (2005), Mohamed, *et al*. (2006). Rozeff (1982), Jensen, *et al*. (1992), Al-Malkawi and Nazar (2008) affirmed that investment opportunities influence dividend decisions and found a significant negative relationship between dividends and firms investment opportunities. Pruitt and Gitman (1991), Llyod, *et al*. (1985), Collins, *et al*. (1996) indicated that financial leverage (risk) affects firms' dividend payout decision. But, the fact that many researchers have tested these alternative theories of dividend policy but have not obtained conclusive results. Thus, the issue of which explanation of dividend policy are most correct remains unresolved.

The paper also focuses on identifying whether various factors available as per literature influence dividend payout ratio in banking sector in Ethiopia in the existing scenario or not. Statistical techniques of correlation and regression have been used to explore the

relationship between key variables. Thus the main theme of the study is to identify the various factors that influence the dividend payout policy of banking firms in Ethiopia.

1.3. Significant of the study

A number of researches has been conducted on the issues of dividend and different empirical results across countries as well as among industries were witnessed as to the factors that corporate managers should account while deciding dividend payment. Besides, those research results have had immense importance to managers' decision of dividend distribution or otherwise in the eye of different episode; tax, investors' preference, firm value, etc.

But, in Ethiopian case, to the best knowledge of the researcher, no empirical analysis has been conducted on the issue. Therefore, bank sector has been chosen for study purpose because it is important sector of Ethiopian economy which is one of the fast growing industries and relatively the sector has better data and documents which are important for the purpose. Hence, this study shall offer empirical result as to the determinant explanatory variables of dividend payout and trigger the interest of researchers to conduct similar study but in a broad observation.

1.4. Objective of the study

The research aims at enriching the knowledge and understanding of different factors affecting dividend payouts of Ethiopian banking sector. The specific objectives are:

1. To test the stability of dividend payout ratio in case of Ethiopian bank sector using Lintner's (1956) model.

2. To test a hypothesis of a causal relationship between variables and the effect of variables on the bank dividend payout decision.

1.5. Limitation of the study

The quality of the output of this study will be depending the genuine data acquired from the selected representative companies. This implies that, the finding and the analysis of this paper will depend up on companies' authentic data. So that, lack of willingness, for various reasons like suspect of miss use of the companies confidential information for non academic purpose will limits the reliability of the research paper to achieve its objectives. In addition, small number of firms with long dividend history, very limited number of corporations, shortage of pervious similar researches in Ethiopian case, and limited resource may affect the qualities of the study output. Finally, the findings of this study can only generalized to firms similar to those who participated in the research.

1.6. Organization of the study

The research paper is organized in six chapters. Chapter one is the introduction part that addresses; statement of the problem, significant of the study, objective of the study. Chapter two shows background of the organizations, its practice, and tax system in Ethiopian context. Chapter three will deal with related literature including theoretical as well as empirical aspect of dividends are presented. Methodology is presented under chapter three with two parts; intending to answer the question why and what type of research methodology is adopted and hypotheses part. Chapter five presents the empirical study including empirical results with analysis, findings, and discussion. The last chapter of the paper is about conclusions and future research suggestions.

Chapter two: Banking in Ethiopia

This chapter, is the extension of the first chapter, represents the background of the sector on which the study is conducted. Introduces to readers the historical development of bank, functions and role of banks. Subsequently it reports facts on the developments of private banking sector.

2.1. Historical development of banks

Banking activities were sufficiently important in Babylonia in the second millennium *B.C.* obviously; these primitive banking transactions were very different in many ways to their modern-day counterparts. Deposits were not of money but of cattle, grain or other crops and eventually precious metals. Nevertheless, some of the basic concepts underlying today's banking system were present in these ancient arrangements, however. A wide range of deposits was accepted, loans were made, and borrowers paid interest to lenders. Similar banking type arrangements could also be found in ancient Aksum civilization Gedey (2002). These arrangements stemmed from the requirement that coins and precious metals be stored in gold smiths' and crafts men.

We can trace modern-day banking to practices in the Medieval Italian cities of Florence, Venice and Genoa. The Italian bankers made loans to princes to merchants engaged in international trade. In Ethiopia, modern banking system started in 1906 by British owned national bank of Egypt under the management of Egyptian national bank; the bank called bank of Abyssinia Gedey (2002).

In its period of existence, Bank of Abyssinia had been carrying out limited business such as keeping government accounts, some export financing and undertaking various tasks

for the government. By 1931 Bank of Abyssinia was legally replaced by Bank of Ethiopia shortly after Emperor Haile Selassie came to power. The new Bank, Bank of Ethiopia, was established by an official decree on August 29, 1931.The first privately owned bank, Addis Ababa Bank Share Company, was established in 1964 in association with National and Grindlay Bank. Eventually, insurance companies, different financial institutions with specializations on saving, residence construction and agriculture come in to existence until the Derg Regime came to power and started to kill not only human being but also personal initiative and development Yitayew (2006).

After the end of command economy, private bank begun to flourish, Monetary and Banking proclamation of 1994 established the national bank of Ethiopia as a judicial entity, separated from the government and outlined its main function. Monetary and Banking proclamation No.83/1994 and the Licensing and Supervision of Banking Business No.84/1994 laid down the legal basis for investment in the banking sector. The banking system in Ethiopian has undergone several reformatory processes. The National Bank of Ethiopia regulates all the banks, encompassing from licensing up to Revocation of License[2]. So far 15 banks are under operation; three state-owned and twelve privately owned banks. And regarding tax, Banks are subjected to 30 percent tax rate from business income and 10 percent tax rate is levy on dividends upon withdrawals[3].

[2] Banking business proclamation number 592/2000
[3] Income tax proclamation number 286/2002, article 19 and 34

2.2. Functions of bank

Banks play a unique role on the economy. The banking system is the conduit for monetary policy and banks are involved in much of the payments system and in credit allocation acting as intermediaries to smoothly mobilize capital of the country by custodian service to customers at virtually risk free and relatively lower interest to customers and providing loan to customers at relatively higher credit risk to the bank and beyond offsetting loan interest rate to customers. Banks provide risk, maturity, denomination, and liquidity intermediation service to savers, helping to maximize the amount of funds available to potential borrowers.

Traditionally, commercial banks made working capital loans to businesses and accepted commercial and individual checking and saving deposits. Hence, loans are the major asset of all banks and deposits were the primary fund source. But, The composition of the loan portfolio has changed over time and deposits are not as great as percentage of financing as in the past, banks and other depositary institutions are much more diversified and complicated and offer much new type of services that never existed before or uncommon activities such as underwriting securities to companies and offering complex derivative product to customers such as, swap agreements, option contracts, credit derivatives, loan commitments. Globally, due to technology advancement, economic integrity, deregulation, mergers and acquisition dynamism in the service they provide to their respective customer has become typical characteristics and method to competition one from the other of banks. And the trend of banks branch operation cross boarder has

increased from time to time. In Ethiopian modern banking system such as ATM, SMS, internet banking is provided by some of the banks.

2.3. Developments in banking sector

According to 2009's annual report of national bank the total number of branch banks (state and private) operating across the country are 636. But unfortunately out of these branches, 356 of them, constituting about 56 per cent concentrated on the metropolis. The rest 280 branches constituting about 44 per cent are established in different parts of the country, concentrating in major urban centers. It is estimated that one bank branch serves 126,258 people, which is way below even at sub- Saharan standard. This shows the fact that Ethiopia indeed, is under-banked country with limited outreach.

The table below illustrates that the year were banks start operation, total asset of those private banks during the year of 2010 and the number of branches they have all over the country. Total asset of those private banks reached 50.8 billion birr and number of branches are 385 covering about 60 percent of the total banks operating in Ethiopia.

Table 2. 1: Total Asset of Ethiopian private banks (in millions of birr)

No	Bank of name	Established	Total Asset	Number of branches
1	Awash	1994	7,945	60
2	Dashen	1995	12,353	55
3	Wegagen	1997	5,742	50
4	Abyssinia	1996	7,945	48
5	United	1998	5,896	41
6	Nib	1999	5,971	45
7	Cooperative bank of Oromia[4]	2004	1,023	38
8	Lion	2006	952	20
9	Zemen	2008	1,056	1
10	Oromia international bank	2008	1,119	25
11	Buna	2009	480	1
12	Berhan	2009	380	1

Source: www.nbe.or.et surfed at March 20, 2011

[4] cooperate bank of Ormia and lion international banks represents 2009 report

Chapter Three: Literature Review

This chapter has two sections; the theoretical section documents pertinent theories and findings from previous work upon which the study will be anchored. It will explore concepts and theories of different dividend policy and determinant factors of dividend payout. Among the theories of dividend; irrelevant, tax preference, agency cost, birds in hand and signaling are included in this section.

3.1. Theoretical framework

The literature currently advances main theories purporting to explain the methodology of dividend payout policy, each of which centers on the idea of dividend theory the financial literatures documents over time;

3.1.1. Meaning of dividend policy

In discussing the meaning of dividend policy, it is important to highlight what a dividend is. Dividend is simply the money that a company pays out to its shareholders from the profits it has made Droughty (2000). Such payments can be made in cash or by issuing of additional shares as in script dividend. Davies and Pain (2002) however defined it as the amount payable to shareholders from profit or distributable reserves. Companies that are listed in the stock exchange are usually obligated to pay out dividends on a quarterly or semiannual basis. The semiannual or quarterly payment is referred to as the interim dividend. The final payment, which is usually paid at the end of the financial year of the company, is known as the final dividend. Dividends are normally paid after the corporate tax has been deducted.

3.1.1.1. Forms of dividend

Most companies pay a regular cash dividend each quarter, but occasionally this regular dividend is supplemented by a one-off extra or special dividend. Dividends are not always in the form of cash. Frequently companies also declare stock dividends. That means it sends each shareholder some extra shares for every shares currently owned. A stock dividend is very much like a stock split Ehrhaldt and Brigham (2002). Both stock dividends and splits increase the number of shares, but the company's assets, profits, and total value are unaffected. Eventually both reduce value per share. The distinction between the two is technical. A stock dividend is shown in the accounts as a transfer from retained earnings to equity capital, whereas a split is shown as a reduction in the par value of each share.

3.1.1.2. Dividend payers and non payers

Fama and French (2001), who have studied dividend payments in the United States, found that only about a fifth of public companies pay a dividend. Some of the remainder paid dividends in the past but then fell on hard times and were forced to conserve cash. The other non-dividend-payers are mostly growth companies as well as many small, rapidly growing firms that have not yet reached full profitability. Of course, investors hope that these firms will eventually become profitable and that, when their rate of new investment slows down, they will be able to pay a dividend. Fama and French also found that the proportion of dividend payers has declined sharply from a peak of 67 percent in 1978. According to Brealey and Meyers (2003) the main reason for this is that a large number of small growth companies have gone public in the last 20 years. Many of these

newly listed companies were in high-tech industries, had no earnings, and did not pay dividends. But the influx of newly listed growth companies does not fully explain the declining popularity of dividends. It seems that even large and profitable firms are somewhat less likely to pay a dividend than was once the case.

3.1.1.3. Desire for current income

Graham and Dodd (1962) have been argued that many individuals desire current income. The classic example is the group of retired people and others living on a fixed income, the proverbial widows and orphans. It is argued that this group is willing to pay a premium to get a higher dividend yield. It is easy to see, however, that this argument is not relevant according to (Modigliani & Miller, 1958) because an individual preferring high current cash flow but holding low-dividend securities can easily sell off shares to provide the necessary funds. Similarly, an individual desiring a low current cash flow but holding high-dividend securities can just reinvest the dividend. Thus, in a world of no transaction costs, a policy of high current dividends would be of no value to the stockholder.

The current-income argument may have relevance in the real world. Here the sale of low-dividend stocks would involve brokerage fees and other transaction costs. These direct cash expenses could be avoided by an investment in high-dividend securities. In addition, the expenditure of the stockholder's own time in selling securities and the natural (though not necessarily rational) fear of consuming out of principal might further lead many investors to buy high-dividend securities Brealey and Meyers (2003). Even so, to put this argument in perspective, it should be remembered that in the developed market financial

intermediaries such as mutual funds can perform these “repackaging” transactions for individuals at very low cost. Such intermediaries could buy low-dividend stocks, and, through a controlled policy of realizing gains, they could pay their investors at a higher rate.

3.1.1.4. Uncertainty resolution

Gordon (1959) pointed out that investors with substantial current consumption needs will prefer high current dividends. In another classic treatment, Myron Gordon has argued that a high-dividend policy also benefits stockholders because it resolves uncertainty. According to Gordon, investors price a security by forecasting and discounting future dividends. Gordon then argues that forecasts of dividends to be received in the distant future have greater uncertainty than do forecasts of near-term dividends. Because investors dislike uncertainty, the stock price should be low for those companies that pay small dividends now in order to remit higher, less certain dividends at later dates.

3.1.2. Determining firm’s dividend policy

The finance literature contains five standard explanations for paying dividends-signaling, tax-preference, agency costs, and bird-in-the-hand and clientele effect. Brealey and Meyers (2003) argued that dividend increase indicates management’s optimism about earnings and thus affects the stock price. But the jump in stock price that accompanies an unexpected dividend increase would happen eventually anyway as information about future earnings comes out through other channels. A question arises whether the dividend decision *changes* the value of the stock, rather than simply providing a *signal* of stock value.

One endearing feature of economics is that it can always accommodate not just two but three opposing points of view. And so it is with the controversy about dividend policy which paved the road to emerge of different school of thoughts pertaining dividend. On the right there is a conservative group which believes that an increase in dividend payout increases firm value. On the left, there is a radical group which believes that an increase in payout reduces value. And in the center there is a middle-of-the-road party which claims that dividend policy makes no difference on firm value.

The middle-of-the-road party was founded in 1961 by Miller and Modigliani (MM); when they published a theoretical paper showing the irrelevance of dividend policy in a world without taxes, transaction costs, or other market imperfections. By the standards of 1961 MM were leftist radicals, because at that time most people believed that even under idealized assumptions increased dividends made shareholders better off. But now MM's proof is generally accepted as correct, and the argument has shifted to whether taxes or other market imperfections alter the situation. In the process MM have been pushed toward the center by a new leftist party which argues for *low* dividends. The leftists' position is based on MM's argument modified to take account of taxes and costs of issuing securities. The studies carried out by Black and Scholes (1974) and Miller and Scholes (1982) are in line with the propositions of the MM theorem. Those opposing the propositions can be classified into two groups. For instance, one group would be those who argue that a high dividend payment increases share price which in turn increases firm value and therefore decreases the cost of equity (Graham & Dodd, 1951). The other group gave evidence that higher dividend payout lead to higher required rate of returns which adversely impacts on share price Blume (1980).

The review begins discussion of dividend policy with a presentation of MM's dividend irrelevant theory argument. Then it will undertake a critical appraisal of the explanations for paying dividends- the bird in hand theory, agency theory, signaling mechanism, cliental effect, and share repurchase.

3.1.2.1. Dividend irrelevance theory

(Modigliani & Miller,1961) put forward the irrelevance theorems, more commonly known as the MM theorems and argued that dividend policy has no effect on either the price of a firm's stock or its cost of capital; if dividend policy has no significant effects, then it would be *irrelevant*. They argued that the firm's value is determined only by its basic earning power and its business risk. In other words, MM argued that the value of the firm depends only on the income produced by its assets, not on how this income is split between dividends and retained earnings. MM's argument that dividend policy is irrelevant based on that any shareholder can in theory construct his or her own dividend policy. If a firm does not pay dividends, a shareholder who wants dividend can "create" it by selling of his or her stock. Conversely, if a company pays a higher dividend than an investor desires, the investor can use the unwanted dividends to buy additional shares of the company's stock. If investors could buy and sell shares and thus create their own dividend policy without incurring costs, then the firm's dividend policy would truly be irrelevant. Note, though, that investors who want additional dividends must incur brokerage costs to sell shares, and investors who do not want dividends must first pay taxes on the unwanted dividends and then incur brokerage costs to purchase shares with

the after-tax dividends. Because taxes and brokerage costs certainly exist, dividend policy may well be relevant.

In many cases, the MM theorems have been argued to be irrelevant mainly because of the assumptions based on a perfect world without taxes and no market imperfections; they assumed that everyone; investors and managers alike has identical information regarding the firm's future earnings and dividends. In reality, however, different investors have different views on both the level of future dividend payments and the uncertainty inherent in those payments, and managers have better information about future prospects than public stockholders. Hence, in the real world, these assumptions do not hold. For example, companies pay corporate taxes and there are many imperfections which provides arbitrage opportunities. Various theories have been developed with the relaxation of MM assumptions. The theories had with main objective to explain why companies pay dividends. Black (1976) argued that there may be infinite reasons of paying dividends and posed the question,' if dividends are irrelevant, why do corporations pay dividends' and 'why investors' pay attention to dividends'. According to this researcher, dividends may simply represent the return to the investor who faces a particular level of risk when investing in the company. He mentioned, also, that companies pay dividends as a means of rewarding existing shareholders but the main argument was that dividends were paid so that the company is seen as a worthwhile investment.

3.1.2.2. Bird-in-hand theory

The principal conclusion of MM's dividend irrelevance theory is that dividend policy does not affect the required rate of return on equity. This conclusion has been hotly debated in academic circles. In particular, Gordon and Lintner (1956) explained why a firm should pay dividends to its shareholders. Gordon (1963) states that shareholders prefer cash dividends, a $1 dividend in a shareholder's pocket is somehow worth more than that same $1 in a bank account held by the corporation. Moreover when making dividend payouts, the firm gets a higher rating from rating agencies as compared to a firm not making any dividend payout. With a better rating, the firm will be able to raise finance more easily from capital markets since credit institutions will be willing to give loans to the firm since the payout of dividends shows that the firm has the ability to meet its obligations. Moreover, in some cases, the firm will be able to borrow at preferential rates and enjoy better facilities. Gordon (1963) further argues that firms making dividend payouts tend to have an increase in the value of the firm.

On the other hand, Bhattacharya (2002) explains that there is a certain level of risk which is associated with dividends. This risk is based on the micro and macro environment of the firm; that is the business line the firm operates, the location of the business, labor power, human capital, competitive forces, etc. MM disagreed on the theory and argued that return on equity is independent of dividend policy, which implies that investors are indifferent between dividend yield and capital gain. MM called the Gordon-Lintner argument the bird-in-the-hand fallacy because, in MM's view, most investors plan to reinvest their dividends in the stock of the same or similar firms, and, in any event, the

riskiness of the firm's cash flows to investors in the long run is determined by the riskiness of operating cash flows, not by dividend payout policy

3.1.2.3. Tax preference theory

Taxation is one the critical factors that affect firm value and future expected profits. For example, discounted expected after-tax cash flows can be used as a determinant for the market value of a firm. In this respect, differential tax treatment of capital gains relative to the dividends can influence the after-tax returns of investors and in turn affect the willingness of investors to receive dividends (demand for dividends). Brennan (1970) was the one of the first who investigated the relationship between dividend yields and risk adjusted returns in the context of taxation. He proved that using the Capital Asset Pricing Model (CAPM), the pre tax excess return on a security is positively and linearly related with the dividend returns and systematic risk of the security. In other words, the tax disadvantages of dividends faced by investors in general is compensated by higher pre-tax returns. These findings were further supported by Litzenberger and Ramaswamy (1979).

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

higher-taxed dividends. Second, Taxes are not paid on the gain until a stock is sold. Due to time value effects, a dollar of taxes paid in the future has a lower effective cost than a dollar paid today. Third, if a stock is held by someone until he or she dies, no capital gains tax is due at all—the beneficiaries who receive the stock can use the stock's value on the death day as their cost basis and thus completely escape the capital gains tax. Because of these tax advantages, investors may prefer to have companies retain most of their earnings. If so, investors would be willing to pay more for low-payout companies than for otherwise similar high-payout companies.

As a whole, some empirical evidences in this section reveal that there exists a positive relationship between dividend yields and stock returns while other literature oppose this argument. However, the findings remain subjective to one's own understanding. It can be said that capital gains face a lower tax rate as compared to dividend yields. Moreover, capital gains are only taxed when they are realized.

3.1.2.4. Agency cost theory

Dividends can be seen as a tool to reduce agency costs. Agency problem simply refers to the principal-agent problem where the principle is the holder of the stocks or shareholders and the agent is the manager. The main duties of the manager would be to run the firm effectively and efficiently so as to maximize firm value and also maximize returns to the shareholders. However, agency problem arises when managers' and shareholders' interests are not in line with each other. This may arise since the manager is not acting in the interest of the shareholders, for example, the manager is not investing in projects that the shareholders consider to be worth investing. Hence the cost of monitoring the

managers is referred to as the agency costs. However, another problem that exists in this case is that the managers are involve in the daily running of the business and they are more aware about which investment should bring higher positive returns. However, past studies shows, it has been observed that if managers are not monitored properly, they tend to surround themselves with luxury products and also tend to pursue their personal interests which in most cases would be to maximize their wages instead of returns to shareholder Jensen, et al. (1992).

Hence one method which can be argued to help overcome the agency problem is through dividend payouts. It can be said that firms would have to stay in capital markets to keep raising funds. Funds raised are mostly through loans from banks, insurance companies and other credit institutions. These institutions will be acting as a control since, by giving credit, they would be able to monitor the activities of the company to determine whether the company is being able to repay its debt obligations. In this case, Easterbrook (1984) argued that since the credit institutions are actually monitoring the firm, shareholders accept to pay higher tax rates as they do not incur or incur less costs in monitoring the activities of the managers to ensure that firm value is being maximized. On the other hand, with such monitoring, the firm will have to produce positive cash flows thereby generating profits. Hence it can be said that dividend payout not only reduce the agency problem but also convey some information about future earnings.

3.1.2.5. Signaling mechanism

The signaling, or asymmetric information, models for paying dividends, developed by Bhattacharya (2002), John and Williams (1985), and Miller and Rock (1985) suggest that

managers as insiders choose dividend payment levels and dividend increases to signal private information to investors. Managers have an incentive to signal this private information to the investment public when they believe that the current market value of their firm's stock is below its intrinsic value. The increased dividend payment serves as a credible signal when other firms that do not have favorable inside information cannot mimic the dividend increase without unduly increasing the chance of later incurring a dividend cut. Strong support exists for the signaling explanation including research by Aharony and Swary (1980), Asquith and Mullins (1983), Kalay and Lowenstein (1986), Healey and Palepu (1988), and Nissim and Ziv (2001). Modigliani and Miller (1961) on the other he argued that dividend may have a signaling effect. The top management of a firm has more information about the strategy of the firm and can also forecast future earnings of the company. Therefore, people working in the firm have more information as the other investors and the market in general. Thus this leads to the problem of information asymmetry. Hence, firms can use dividends as a signaling mechanism which sends information to investors in the market or to its shareholders. The information may reflect the strategies that the firm is employing in the short run or long run. Managers of the firm can change the expectations of people with regards to its future earnings through dividends. A firm has several ways is sending information to the market. This can include costly methods which will prevent smaller firms from imitating the signal. The methods refer to increasing the price of dividend; that is increasing dividend payout. However, the firm must also be able to sustain the costs of conveying the information.

It has been observed that an increase in the dividend is often accompanied by an increase in the price of a stock, while a dividend cut generally leads to a stock price decline. Some have argued that this indicates that investors prefer dividends to capital gains. However, MM argued differently. They noted the well-established fact that corporations are reluctant to cut dividends, hence do not raise dividends unless they anticipate higher earnings in the future. Thus, MM argued that a higher-than expected dividend increase is a "signal" to investors that the firm's management forecasts good future earnings. Conversely, a dividend reduction, or a smaller-than expected increase, is a signal that management is forecasting poor earnings in the future. Thus, MM argued that investors' reactions to changes in dividend policy do not necessarily show that investors prefer dividends to retained earnings. Rather, they argue that price changes following dividend actions simply indicate that there is important information, or signaling, content in dividend announcements.

Dividends indeed have a signaling role but there are 'dissipative' costs that are involved and these are the firms' investment decisions (Miller & Modigilani, 1961). As mentioned previously, a firm who must pay a level of dividend which is high enough to avoid smaller firms to imitate the same strategy. The increase in dividend should eventually lead a share price increase and similarly, a decrease in the dividend should cause the price of the share to fall. Due to the subjective nature of dividend payout, some studies have actually found out that the relationship between dividend and share price provides support to the hypothesis that dividends do carry information to the market about future expected profits Griffin (1976). However, though managers use dividend to convey information, dividend changes may not be the perfect signal. According to Easterbrook

(1984), dividend increase may be an ambiguous signal unless the market can distinguish between growing firms and disinvesting firms.

3.1.2.6. Clientele effect

Different groups, or *clienteles*, of stockholders prefer different dividend payout policies. For example, retired individuals, pension funds, and university endowment funds generally prefer cash income, so they may want the firm to pay out a high percentage of its earnings. Such investors are often in low or even zero tax brackets, so taxes are of no concern. On the other hand, stockholders in their peak earning years might prefer reinvestment, because they have less need for current investment income and would simply reinvest dividends received, after first paying income taxes on those dividends. The clientele theory describes the intention of investors to invest in firms which common ones is their tax circumstance. It can be said that there is an inverse relationship between stock returns (dividends) and tax levels. For instance, if a firm retains and reinvests income rather than paying dividends, those stockholders who need current income would be disadvantaged. The value of their stock might increase, but they would be forced to go to the trouble and expense of selling off some of their shares to obtain cash. Also, some institutional investors (or trustees for individuals) would be legally precluded from selling stock and then "spending capital." On the other hand, stockholders who are saving rather than spending dividends might favor the low dividend policy, for the less the firm pays out in dividends, the less these stockholders will have to pay in current taxes, and the less trouble and expense they will have to go through to reinvest their after-tax dividends. Therefore, investors who want current investment income should own shares

in high dividend payout firms, while investors with no need for current investment income should own shares in low dividend payout firms. This implies, an investor in a high tax bracket would prefer to invest in stock giving a low rate of return so as to pay less tax. On the other hand, an investor in a low tax bracket would definitely invest in stocks with higher returns as he currently does not have a large tax liability. Pettit (1977) showed that older investors (retired persons) were more likely to hold high dividend shares because they pay lower income tax. In this case we call it the tax clientele effect. Hence the clientele effect refers to firms making their dividend policy decision based the customers they would like to attach to themselves Litzenberger and Ramasawmy (1979).

Brigham and Houston (2004) avowed as stockholders can switch firms based on their specific dividend preference a firm can change from one dividend payout policy to another and then let stockholders who do not like the new policy sell to other investors who do. However, frequent switching would be inefficient due to some constraints-brokerage costs, the likelihood that stockholders who are selling will have to pay capital gains taxes, and a possible shortage of investors who like the firm's newly adopted dividend policy. Thus, management should be hesitant to change its dividend policy, because a change might cause current shareholders to sell their stock, forcing the stock price down. Such a price decline might be temporary, but it might also be permanent—if few new investors are attracted by the new dividend policy, then the stock price would remain depressed. Of course, the new policy might attract an even larger clientele than the firm had before, in which case the stock price would rise.

Evidence from several studies suggests that there is in fact a clientele effect**.** MM and others have argued that one clientele is as good as another, so the existence of a clientele

effect does not necessarily imply that one dividend policy is better than any other. MM may be wrong, though, and neither they nor anyone else can prove that the aggregate makeup of investors permits firms to disregard clientele effects. This issue, like most others in the dividend arena, is still up in the air Brealey and Meyers (2003).

3.1.2.7. Share repurchase

Share repurchasing can arguably be seen as signaling mechanism. Vermaelen (1981) studied the information that share repurchasing conveyed and he has concluded that the information conveyed by increase or decrease in dividend payout does not carry the same information as a share repurchasing. Commonly, the management of a firm can choose to make a stock repurchase as a result of lack of profitable investment opportunities. As a result, if the firm is has not been able to invest in worthwhile projects with positive net present value(NPV), it can be expected that there will be a fall in future expected profits and this information is given by share repurchasing. Also, share repurchasing can have an adverse impact on the company as this might lead to a change in the capital structure. If we assume that a firm has bought back all its shares, in this case, the company will be fully financed through debt. This will dramatically increase the leverage thereby increasing the risk of going bankrupt Jensen, et al. (1992).

3.1.3. Corporate dividend policy decisions

The dividend policy decision for a firm is very important and thus, the way managers go about making dividend policy decisions and whether or not they follow a precise set of guidelines or specific strategies to make these decisions will impact on the value of the firm. It can also have an impact on the future performance of the firm.

Lintner (1956) carried out a research to determine how senior managers (top management level) proceed to formulate the dividend policy decisions. He estimated a model which consisted of the following variables: earnings stability, plant and equipment expenditures, willingness to use external financing, firm size, ownership by control groups and use of stock dividends. A sample of 600 listed companies was used in this study. From his findings, he explains that managers mostly looked at current earnings and target level of dividend payout to make the dividend decision. Marsh and Merton (1987) summarized the findings of Lintner (1956) on how managers determine the level of dividend payout as follows:

- Managers tend not to make dividend decisions that might have to be reversed or changed in the near future.
- The current year's dividend payout will not be affected by the profitability level of the same period (T) but can have an impact on the profitability level of the next period (T+1)
- Managers place their main focus on the change in existing dividend payout level rather than absolute level.
- Firms have longer dividend payout ratios.
- Firms repurchase stocks when they have accumulated a large amount of unwanted cash or wish to change their capital structure.

Based on his findings, Lintner (1956) developed a dividend model. The dividend model described the relationship between the previous period's dividend, the current period's dividend and the future targeted dividend payout in the next period. The estimated equation the model is as follows:

$$DIV_t - DIV_{t-1} = C \times (DIV_{t+1} \times EPS_t - DIV_{t-1})$$

Where:

DIV_t is the dividend for the current period,

DIV_{t-1} is the dividend for the previous period,

C is the adjustment rate

DIV_{t+1} is the target dividend ratio and

EPS_t is the earning per share for the current period.

With regards to the impact of dividend policy decision on investment, it is understood that firms should take all projects with a Net Present Value (NPV). However, an issue is that if management put more emphasis on dividend policy to such an extent that it eventually dominates investment policy decisions, it could be argued that NPV projects or projects creating firm value be cancelled or delayed for a later time. By cancelling or delaying positive NPV projects, this will obviously have an adverse effect on the future expected profits of the company.

3.1.4. Establishing dividend payout ratio

After examining theoretical issues of dividend policy: then how dividend policy is set in practice is the next. Dividend policy, in practice, primarily concerned with the decisions regarding dividend payout and pattern of payment and retention. It is a decision that considers the amount of profits to be retained by the company and that to be distributed to the shareholders of the company Watson and Head (2004). Investors may or may not prefer dividends to capital gains, but that they do prefer predictable to unpredictable

dividends. Given this situation, determining firm's specific percentage of earnings that it will pay out as dividends remains as important task of the manager. Bringham and Houston (2004) argued when deciding how much cash to distribute to stockholders, two points should be kept in mind: The overriding objective is to maximize shareholder value, and the firm's cash flows really belong to its shareholders, so management should refrain from retaining income unless they can reinvest it to produce returns higher than shareholders could themselves earn by investing the cash in investments of equal risk. They also argued internal equity (retained earnings) is cheaper than external equity (new common stock). This encourages firms to retain earnings because they add to the equity base, increase debt capacity, and thus reduce the likelihood that the firm will have to issue common stock at a later date to fund future investment projects. But, several other factors that could affect the dividend decision are identified. These factors shall be exhaustively discussed some of the determinant factors in the empirical section, may be grouped into four broad categories: constraints on dividend payments, investment opportunities, availability and cost of alternative sources of capital, and effects of dividend policy on return of equity.

When establishing a dividend policy, one size does not fit all. Some firms produce a lot of cash but have limited investment opportunities—this is true for firms in profitable but mature industries where few opportunities for growth exist. Such firms typically distribute a large percentage of their cash to shareholders, thereby attracting investment clienteles that prefer high dividends. Other firms generate little or no excess cash but have many good investment opportunities—this is often true of new firms in rapidly growing industries. Such firms generally distribute little or no cash but enjoy rising

earnings and stock prices, thereby attracting investors who prefer capital gains. Theoretically, there are different types of dividend policies of establishing target payout ratio. These include constant payout, progressive policy, residual policy, and zero policy and non-cash policy. Investors are seen to belong to a particular group or clientele. This is because they tend to pitch their tent with a particular policy that might suite them. This is the clientele effect of dividend policy (Hutchinson, 1995, Kolb; Rodriguez, 1996).

I. **Pure residual dividend policy** – states that when the corporation's return on equity capital is greater than the rate of return the investor could obtain by reinvesting those dividends in another investment of equivalent risk, the investor would rather the corporation act on his behalf and reinvest the earnings rather than issue a dividend; the firm can determine which option is better suited to benefiting the investor by first identifying the firm's optimal capital budget, thereby noting the level of equity capital required, and then maintaining the amount of earnings required to finance the equity capital in the capital budget and allowing "residual" funds (earnings not utilized in internal investment) after the mandated reinvestment to be issued as a dividend Droms (1990). Therefore, dividends are a function of earnings fluctuations, and this method allows for significant fluctuations in dividends with changes in earnings and corporate investment opportunities. In effect, all residual earnings are paid out which causes the dividend payout ratio to fluctuate. This policy also results in a dividend that varies from year to year, and when equity investment is greater than earnings, equity financing must be initiated to create a residual Droms (1990).

II. ***Smoothed residual dividend policy*** – suggests that dividend fluctuations are kept to a minimum. Dividend policy changes tend to lag behind earnings fluctuations according to Shapiro, as "Dividends are set equal to the long-run residual between forecasted earnings and investment requirements. Dividend changes, in turn, are made only when this long run residual is expected to change; earnings fluctuations believed to be temporary are ignored in setting dividend payments. The clear preference is for a stable, but increasing, dividend per share" Shapiro (1990). As such, the dividend payout ratio fluctuates significantly with this payment method, and dividends have the potential to exceed the residual if earnings are unexpectedly low.

III. ***Constant or fixed policy*** –the Company pays out a fixed amount of its profit after tax as dividend. Thus, the company maintains a fixed payout ratio of dividend. Pandey (2005) define payout as the ratio of dividend to earnings. A company may as a matter of policy, decide to constantly payout sixty percent of its after tax profit as dividend to its shareholders and retaining the remaining fraction. This type of policy allows the shareholders the opportunity to clearly know the amount of dividend to expect from their investments in the company. However as noted by Watson and Head (2004), the policy could be traumatic to companies experiencing a volatile or fluctuating profit earning. This is because of the uncertainty of its profit. If capital projects are to viable capital projects, the policy can be chaotic.

IV. ***Progressive policy*** – payments on dividend is on a steady increase usually in line with inflation. This could result in increasing dividend in money terms. The firm

uses the policy as a ratchet. Every effort is made to sustain the increase even though marginal. Seldom, the company may be constrained to cut down on dividend payout. This is to enable it sustain its operations. This though not a frequent action as it sends a wrong signal to investors. Firms operating this policy will opt to avoid paying dividends during the period rather than consistently cut down on the dividend (Kolb & Rodriguez, 1996).

V. ***Zero dividend policy*** – 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. Investors who prefer capital gains to dividends because of taxation will naturally be lured by this kind of policy. This type of policy is quite easy to operate and avoids all the costs associated with payment of dividends Watson and Head (2004).

VI. ***Alternative policies*** –in order to give shareholders a choice between dividends or new shares, the company might choose to buy back shares. This is share or stock repurchase. This has a significant advantage in terms of tax to the shareholder. While the dividend is fully taxed just as ordinary income, the stock repurchase or buyback is not taxed until the shares are sold and the shareholder makes a profit or capital gain (Jordan, et al., 2001). There is also the policy of stock dividends and split. Shareholders are given additional shares in lieu of cash to the shareholders Brealey and Myers (2003).

3.1.5. Dividend stability

According to Bringham and Houston (2004) the stability of dividends is important. Profits and cash flows vary over time, as do investment opportunities. Taken alone, this suggests that corporations should vary their dividends over time, increasing them when cash flows are large and the need for funds to invest is low and lowering them when cash is in short supply relative to investment opportunities. However, many stockholders rely on dividends to meet expenses, and they would be seriously inconvenienced if the dividend stream were unstable. Further, reducing dividends to make funds available for capital investment could send incorrect signals to investors, who might push down the stock price because they might interpreted the dividend cut to mean that the company's future earnings prospects have been diminished. Thus, maximizing its stock price requires a firm to balance its internal needs for funds against the needs and desires of its stockholders.

Dividend stability has two components: How dependable is the growth rate, and can we count on at least receiving the current dividend in the future? The most stable policy, from an investor's standpoint, is that of a firm whose dividend growth rate is predictable—such a company's total return (dividend yield plus capital gains yield) would be relatively stable over the long run, and its stock would be a good hedge against inflation. The second most stable policy is where stockholders can be reasonably sure that the current dividend will not be reduced, it may not grow at a steady rate, but management will probably be able to avoid cutting the dividend. The least stable situation is where earnings and cash flows are so volatile that investors cannot count on the current dividend in the future. The following points are relevant regarding how this balance

should be struck; that is, how stable and dependable should a firm attempt to make its dividends Bringham and Houston (2004).

1. Virtually every publicly owned company makes a five- to ten-year financial forecast of earnings and dividends. Such forecasts are never made public—they are used for internal planning purposes only. However, security analysts construct similar forecasts and do make them available to investors; Further, virtually every internal five- to ten-year corporate forecast we have seen for a "normal" company projects a trend of higher earnings and dividends. Both managers and investors know that economic conditions may cause actual results to differ from forecasted results, but "normal" companies expect to grow.
2. When inflation was not persistent, the term "stable dividend policy" meant a policy of paying the same dollar dividend year after year. Today, though, most companies and stockholders expect earnings to grow over time as a result of retained earnings and inflation. Further, dividends are normally expected to grow more or less in line with earnings. Thus, today a "stable dividend policy" generally means increasing the dividend at a reasonably steady rate.
3. Most observers believe that dividend stability is desirable and that investors prefer stocks that pay more predictable dividends to stocks that pay the same average amount of dividends but in a more erratic manner. This means that the cost of equity will be minimized, and the stock price maximized, if a firm stabilizes its dividends as much as possible.

3.2. Empirical Review

In earlier section, the major theories of dividend and some issues concerning the effects of dividend policy on the value of a firm and different dividend policies for setting a firm's long-run target payout ratio were discussed. In this section, in line to the dividend determinant factor to be tested in the Ethiopian banking sector, the determinant factors of dividend payout of previous empirical studies shall be discussed hereafter.

3.2.1. Determinants of dividend policy

Many theories and models have been put forth to examine the numerous facets of dividend study.

The first empirical study of dividend policy was performed by Lintner (1956). Through his interview with managers of 28 selected companies, he discovered that firms have long-run target dividend payout ratios and place their attention more on dividend changes than on absolute dividend levels. He also finds that dividend changes follow shifts in long-run sustainable earnings (managers' smooth earnings) and managers are hesitant to make dividend changes that may later need to be reversed. Managers also try to stabilize dividends and avoid dividend cuts. Lintner developed a partial - adjustment model to describe the dividend decision process that explained 85 percent of year-to year dividend changes.

The seminal article by (Miller & Modigliani, 1961) is groundbreaker in the theoretical modeling of dividends, which first proposed dividend irrelevance. On the other hand, theories which support dividend relevance include tax preference, signaling, and agency explanations. Other researchers have developed and empirically tested various models to

explain dividend behavior. Some conducted surveys of corporate managers to learn the most important determinants of corporate dividend activity. Determinant factors of dividend payouts based on previous empirical studies for different industry of different countries are discussed below:

Company characteristics that affect firms' dividends policy include the firm's profitability, liquidity, size, ownership structure and capital structure, among others. The discussion here will concentrate on profitability, liquidity and size.

3.2.1.1. Profitability

Several surveys provide useful insights into what factors financial managers considered most important in determining their firm's dividend policy. Farrelly, *et al*. (1983) surveyed 562 firms from New York Stock Exchange (NYSE) with "normal" kinds of dividend polices in 1983. Based on their analysis of 318 responses from utility, manufacturing, and wholesale/retail firms, they found that the major determinants of dividend payments were the anticipated level of future earnings and the pattern of past dividends.

Pruitt and Gitman (1991) surveyed financial managers of the 1,000 largest US firms about the interplay among the investment, financing, and dividend decisions in their firms. Their evidence suggested that important influences on the amount of dividends paid were current and past years' profits, the year-to-year variability of earnings, and the growth in earnings. Baker and Powell (2000) found support for their hypothesis that the most important factors influencing a firm's dividend policy are the level of current and expected future earnings and the pattern or continuity of past dividends.

Aivazian, *et al*., (2003) found that emerging market firms exhibit dividend behavior similar to US firms, in the sense that dividends are explained by profitability, debt, and the market-to-book ratio; however, their sensitivity to these variables varies across countries.

DeAngelo, *et al*. (2004) posited that the high/increasing dividend concentration may be the result of high/increasing earnings concentration. Their findings supported this contention and they found that just as dividend concentration had increased; so did the concentration of earnings. Earnings in both 1978 and 2000 of the sample firms are concentrated among a relatively few firms at the top end of the distribution, and that such concentration is notably greater in 2000 than it was in 1978. There was also strong link between losses and the failure to pay dividends. Their findings suggest that earnings do have some impact on dividend payment.

Gill, *et a*l. (2009) analyzed the determinants of dividend payout ratio for 226 financial reports of united state public companies in the year of 2007. Their results showed that profitability were the key determinants of dividend changes. In addition, their findings showed that firms in the service industry the dividend payout ratio is the function of profit margin, sales growth, and debt-to-equity ratio and rot manufacturing companies they found dividend payout ratio is the function of profit margin, tax, and market-to-book ratio.

Baker and Smith (2006) surveyed 309 sample firms exhibiting behavior consistent with a residual dividend policy and their matched counterparts to learn how they set their dividend policies. Their results showed that for the sample and matched firms, the pattern

of past dividends, the level and stability of earnings, and desire to maintain a long-term dividend payout ratio elicit the highest level of agreement from respondents.

Ferris, et al. (2006) found mixed results for the relation between a firm's earnings and its ability to pay dividends. Few U.K. firms with negative earnings pay dividends while 73 percent of comparable Japanese firms do. The UK economy increasingly resembles a two-tier system with a small set of very high earners providing a disproportionate percentage of aggregate dividends.

In Malaysia, Annuar and Shamsher (1993) investigated the dividends and earnings behavior of firms listed on the Kuala Lumpur Stock Exchange (KLSE). The data used consist of annual earnings and dividends for the period 1975 to 1989. Their findings were that the dividend decisions of the firms partially depended on their current earnings and past dividends, and firms have long-term target dividend which is conditioned upon their earnings ability.

In Nageria, Okpara and Chigozie (2010) analyzed the determinant of dividend Payout policy in Nigeria of firms from Nigerian Securities and Exchange Commission. Using factor analytical tool to regress data of annual financial reports for the period of 1980 to 2006 found that earnings (profitability) exert a negative impact on the payout ratio and dividend yield indicating that they are appointed to retention, as they increase, for the growth of the firm. While current ratio (liquidity) and previous year’s dividend exert a positive impact on the payout ratio, showing firstly that firms are more willing to payout dividends when they have no problem with meeting their short term needs for cash, and secondly that firms try to increase their payout ratio from its previous level. Hence, they

conclude that earnings, current ratio, and previous year's divides are good predictors of dividend payout policy in Nigeria.

3.2.1.2. Firm size

Eddy and Seifert (1988), Jensen, *et al*. (1992), Redding (1997), and Fama and French (2001) indicated that large firms distribute a higher amount of their net profits as cash dividends, than do small firms. Several studies have tested the impact of firm size on the dividend-agency relationship. Lloyd, *et al*. (1985) was among the first to modify Rozeff's model by adding "firm size" as an additional variable. They considered it an important explanatory variable, as large companies are more likely to increase their dividend payouts to decrease agency costs. Their findings support Jensen's (1992) argument, that agency costs are associated with firm size. They were of the view that for large firms, widely spread ownership has a greater bargaining control, which, in turn, increases agency costs. Furthermore, Sawicki (2005) illustrated that dividend payouts can help to indirectly monitor the performance of managers in large firms. That is, in large firms, information asymmetry increases due to ownership dispersion, decreasing the shareholders' ability to monitor the internal and external activities of the firm, resulting in the inefficient control by management. Paying large dividends can be a solution for such a problem because large dividends lead to an increase in the need for external financing, and the need for external financing leads to an increase in the monitoring of large firms, because of the existence of creditors.

Larger firms have an advantage in capital markets in raising external funds, and therefore depend less on internal funds Higgins (1981). Furthermore, larger firms have lower

likelihood of bankruptcy and, therefore, should be more likely to pay dividends. This implies an inverse relationship between the size of the firm and its dependence on internal financing Gill, *et al*. (2009). Thus, larger firms are expected to pay more dividends. Furthermore, the effect of firm size on dividends is seen as a proxy for agency problems. The assumption is that the larger the firm, the more difficult (costly) monitoring will be (i.e. the greater the agency problem). Thus, dividends could play a role in alleviating the agency problem. In addition, the positive relationship between dividend yield and size supports the generally accepted principle that larger firms have easier access to capital markets Aivazian, *et al*. (2003).

In Quatar, Al-Kuwari (2007) investigated determinants of dividend policy in emerging market of 119 non financial firms listed on Gulf Co-operation Council (GCC) country stock exchanges from 1999 to 2003. His result showed that firm size as statistically significant variables of dividend payout. The results indicated that the firms in which the government owned a proportion of the shares, paid higher dividends compared to the firms owned completely by the private sector. Furthermore, the results illustrated that the firms chose to pay more dividends when firm size and profitability were high. The model also revealed that the leverage ratio was an additional variable that affected the dividend payout ratio of a firm.

3.2.1.3. Liquidity

Liquidity is usually measured by the firm's cash flow; the cash flow position of a firm is an important determinant of dividend payouts. It is very important to compare a firm's liquidity position in relation to its dividend payment. Logically, a firm will only pay

dividend if it has a strong cash position. Cash dividend distribution not only depends on the profitability of firms but also depends on the free cash flow, which is the amount of operating cash flow left over after payment for capital expenditures. According to Liu and Hu (2005), if the cash dividend is less than the free cash flow, it means the firm has residual cash, if cash dividend is more than the free cash flow then it means the firm needs financing to meet the requirement of cash dividend. A poor liquidity position means less generous dividend due to shortage of cash. Alli, *et al. (*1993) argues that dividend payments depend more on cash flows, which reflect the company's ability to pay dividends, than on current earnings, which are less heavily influenced by accounting practices. They claim that current earnings do not really reflect the firm's ability to pay dividends. Amidu and Abor (2006) found a positive relationship between cash flow and dividend payout ratios. Anil and Kapoor (2008) also indicate that cash flow is an important determinant of dividend payout ratio.

Mohamed, *et al.* (2006) empirically analyzed the determinants of dividend payment for the top 200 companies in terms of market capitalization, listed on the Malaysian share market. Large firms were chosen to increase the likelihood of capturing dividend payers. The findings showed that firms paid out on average, about 40 percent of their earnings as dividends. Furthermore, a quarter of their operating cash flow was used to pay dividend. Lastly, the study confirms the fact that liquidity was important determinants of dividend payment. Liu and Hu (2005) in his study of Chinese listed firms found that cash dividend payout ratio of most firms were between 20 to 50 percent, meaning that cash dividend payment was higher than the accounting profit. However, he found that 50 percent of the sample firms had dividend cash payment higher than the free cash flow. He attributed this

finding to the ruling made by the security commission of China in 2000 which stated that listed companies must have cash dividend payment in the past three years. This shortage of cash was usually financed through selling shares or right issue.

One theory that can be used to explain why firms borrow money to pay for dividends is the agency theory. Agency theory has also been a popular view in the discussion of dividends relevancy, as been advanced by Jensen, et al. (1992), Rozeff (1982) and Easterbrook (1984). Agency theory posits that there is a conflict of interests between the managers (agents) and the outside shareholders (principals). Managers may consume excessive perquisites out of undistributed earnings or they may invest the earnings in less than optimal investments. This conflict of interests is referred to as agency costs. Dividend has been identified as a mechanism that can reduced agency costs. By paying out a large dividend, it reduces the amount of funds available for managers to spend excessively on perquisites. Furthermore, the larger dividend payment forces the firm to seek external financing, which will subject it to the scrutiny of the capital market for new funds and reduces the possibility for suboptimal investments. Therefore, according to the agency theory this will reduce the monitoring costs to the firm. In short, if the costs involved in paying dividends are less than the benefit gained from the additional monitoring, then it makes sense for companies to have large dividend payouts. Rozeff (1982) postulates and finds evidence that firms establish higher dividend payouts when insiders hold a lower fraction of the equity and/or a greater number of stockholders own the outside equity. This evidence supports the view that dividend payments are part of the firm's optimum monitoring and bonding package and serve to reduce agency costs.

3.2.1.4. Growth opportunities

According to (Miller & Modigliani, 1961), in perfect capital markets, corporate investment and dividend decisions are independent. However, in the presence of market imperfections such as taxes, flotation costs, and agency costs, both dividend and investment decisions might be closely related or interdependent. The relationship between investment and dividend policies can be seen from two perspectives. Firstly, by paying dividends a firm is forgoing a relatively cheap source of financing i.e. retained earnings, as compared to debt and new equity issues. Secondly, dividend payments reduce the firm's available funds for investment activities. In other words, dividends and investments are competing for limited and low-cost internal funds Elston (1996).

This suggests that in imperfect capital markets there may be a link between dividends and investments. Intuitively, firms with high growth and investment opportunities will need the internally generated funds to finance those investments, and thus tend to pay little or no dividends. In contrast, firms with slow growth and fewer investment opportunities are likely to pay more dividends. Note that this prediction is consistent with the free cash flow hypothesis. That is, companies with low investment opportunities are likely to have an overinvestment problem; hence by paying dividends companies can limit management's policy of overinvesting (Jensen, 1986) and Lang and Litzenberger (1989). Furthermore, the negative relationship between firms' growth opportunities and dividend payouts is consistent with the pecking order theory of Kanwal and Sujata (2008). Kanwal and Sujata suggested that firms experiencing high growth opportunities will have low payout ratios.

Researchers such as Rozeff (1982), Jensen, *et al*. (1992), Alli, *et al*. (1993), Mohammed, *et al.* (2006), and many others, have found a significant negative relationship between dividends and firms' investment opportunities. Al-Malkawi and Nizar (2008) document that, investment opportunities are a significant determinant of corporate dividend policy. More recently, Fama and French (2001) affirmed that investment opportunities influenced dividend decision. They found that firms with better growth and investments opportunities have lower payouts. Firms that have never paid are smaller and they seem to be less profitable than dividend payers, but they have more investment opportunities, and their investment outlays are much larger than their earnings.

Several studies found that the sales/revenues growth rate was commonly used as a proxy variable for growth opportunities in dividend and investment policy relationship. Sales growth may impact on dividend payout ratios. Dividend payout levels are not totally decided after a firm's investment and financing decisions have been made Amidu and Abor (2006); rather, the dividend decision is taken along investment and financing decisions. (Grill, *et al.*, 1983) pointed out that firms' use of target payout ratios, firms' motives for paying dividends, and the extent to which dividends are determined are independent of investment policy. Higgins (1981) shows a direct link between growth and financing needs of a firm. Rapidly growing firms require external financing because working capital needs normally exceed the incremental cash flows from new sales. In an earlier paper (Higgins, 1972) argues that payout ratio is negatively related to a firm's need for funds to finance growth opportunities. Rozeff (1982), Lloyd, *et al.* (1985), Collins *et*

al. (1996), and recently Amidu and Abor (2006), all show a significantly negative relationship between historical sales growth and dividend payout.

Furthermore, according to the "maturity hypothesis" presented by Grullon, *et al*. (2002), as firms become mature their growth and investment opportunities shrink, resulting in a decline in their capital expenditures. Thus, more free cash flows are available to be paid as dividends. They pointed out that a dividend increase is a sign of "changes in a firm's life cycle, especially as to a firm's transition from higher growth phase to a lower growth phase". Using a large sample of dividend change announcements of US firms for the period 1967 to 1993, Grullon, et al. found that, firms that increase dividends experience decline in their systematic risk and profitability. They stated" according to the maturity hypothesis, an increase in dividends is informative about a shrinking investment opportunity set, declining systematic risk, declining return on assets, and profit growth".

A decline in a firm's risk is perceived as good news, while decrease in profitability is bad news. In their study, Grullon, et al. (2002) showed that the stock market reacts positively to a dividend-increase announcement, which implies that the good news about risk reduction dominates the bad news about declining in profitability. In addition to the good news associated with the decrease in the systematic risk, the market may perceive a dividend increase as helping to reduce the overinvestment problem. They concluded “an increase in dividends may not only convey information about changes in the firm's fundamentals but also about the management's commitment not to overinvest”.

3.2.1.5. Financial leverage

The financial structure of a firm consists of both debt (liabilities) and equity financing. Long-term financing usually refers to the firm's capital structure; the debt-to-equity ratio is a financial ratio that indicates the relative proportion of equity and debt used to finance a company's assets. This ratio is also known as risk, gearing or financial leverage. Pruitt and Gitman (1991) indicate that risk affects firms' dividend policy Firms with high growth rates and high dividend payout ratios utilize debt financing and firms with high leverage compared to their respective industry Chehab (1995).In addition to the tax advantages (interests deduction on income), the use of debt financing can lever-up shareholders' return on equity. However, leverage entails risk; that is, when a firm acquires debt financing it commits itself to fixed financial charges embodied in interest payments and the principal amount, and failure to meet these obligations may lead the firm into liquidation.

The risk associated with high degrees of financial leverage may therefore result in low dividend payments because, ceteris paribus, firms need to maintain their internal cash flow to pay their obligations rather than distributing the cash to shareholders. Moreover, Rozeff (1982) points out that, firms with high financial leverage tend to have low payouts ratios to reduce the transaction costs associated with external financing. Lloyd, *et al.* (1985) and Collins, *et al.* (1996) found statistically significant and negative relationship between firm’s risk and the dividend payout ratios. Their findings suggest that firms having a higher level of risk will pay out dividends at lower rate. D'Souza (1999) also finds statistically significant and negative relationship between risk and dividend payout.

Mohamed, *et al*. (2006) examined an emerging market and found a direct relationship between financial leverage and debt-burden level that increases transaction costs. Thus, firms with high leverage ratios have high transaction costs, and are in a weak position to pay higher dividends to avoid the cost of external financing. Dhillon (1986), however, found conflicting evidence for the relationship between dividend payout ratios and leverage. In some industries payout and leverage ratios are positively related while in other industries the relationship is negative.

Furthermore, as argued by (Jensen, 1986), debt can serve as a substitute device for dividends in reducing the agency costs of free cash flow. That is, when a firm obtains debt, it makes a fixed commitment to creditors, which reduces the discretionary funds available to managers and subjects them to the scrutiny of debt-suppliers. This suggests that, highly levered firms are expected to have low dividend payouts.

3.2.1.6. The effect of previous year's dividends

Previous dividend payments have long been regarded as the primary indicator of a firm's capacity to pay dividends Lintner (1956), because it is assumed that the management will maintain a stable dividend policy. Furthermore, the information asymmetry hypothesis assumes that dividend policy is "sticky" or shows a tendency to remain at the level of previous dividends Baskin (1989).

In Pakistan, Ahmed and Javid (2009) examined the dynamics and determinants of dividend payout policy of 320 non-financial firms listed in Karachi Stock Exchange during the period of 2001 to 2006. The results consistently support that Pakistani listed non-financial firms rely on both current earnings per share and past dividend per share to

set their dividend payments. However, the dividend tends to be more sensitive to current earnings than prior dividends. The listed non- financial firms having the high speed of adjustment and low target payout ratio show the instability in smoothing their dividend payments.

In Saudi Arabia, Al-Ajmi and Abo Hussain (2007) analyzed a sample of 54 Saudi- listed firms during 1990 and 2006. The result contradict to Linter,s stability model; Firms have more flexible dividend policies since they are willing to cut or skip dividends when profit declines and pay no dividends when losses are reported. Lagged dividend payments, profitability, cash flows, and life cycle are determinants of dividend payments.

3.3. Conclusion

The irrelevance theorems argued that dividend policy has no effect on either the price of a firm's stock or its cost of capital. They argued that the firm's value is determined only by its basic earning power and its business risk. In many cases, the MM theorems have been argued to be irrelevant by many researchers mainly because of the assumptions based on a perfect world without taxes and no market imperfections. Hence, they declared these assumptions do not hold. Various theories have been developed with the relaxation of MM assumptions. The theories had with main objective to explain why companies pay dividends. Black (1976) argued that there may be infinite reasons of paying dividends and posed the question,' if dividends are irrelevant, why do corporations pay dividends' and 'why investors' pay attention to dividends'. The academic critics and arguments paved the way to the creations of different theories explaining why dividends are paid or not- but of course relevant.

The finance literature contains mainly four standard explanations for paying dividends; signaling, tax-preference, agency costs, and bird-in-the-hand. The signaling or asymmetric information suggest that managers as insiders choose dividend payment levels and dividend increases to signal private information to investors. Managers have an incentive to signal this private information to the investment public when they believe that the current market value of their firm's stock is below its intrinsic value. The increased dividend payment serves as a credible signal when other firms that do not have favorable inside information cannot mimic the dividend increase without unduly increasing the chance of later incurring a dividend cut.

A second explanation for paying dividends is tax-preference theory. Favorable tax treatment on capital gains (lower capital gains tax rate and deferral of capital gains tax) should cause investors to prefer non dividend-paying stocks. Tests of this tax-preference explanation for paying or not paying dividends according to Brennan's (1970) version of the capital asset pricing model, dividend-paying stocks must offer higher pre-tax returns than non dividend - paying stocks.

Another explanation for why firms might pay dividends is based on agency relationships between various claimholders of the firm. Easterbrook (1984) argues that firms pay dividends to help reduce the agency costs associated with the separation of ownership and control. By paying dividends, managers must raise funds more frequently in the capital markets where they are subjected to scrutiny and the disciplining effects of investment professionals. (Jensen, 1986) makes a similar agency-theory argument where managers pay dividends to reduce the firm's discretionary free cash flow that could be

used to fund suboptimal investments that benefit managers but diminish shareholder wealth.

The bird-in-the-hand explanation asserts that paying higher dividends increases firm value because dividends represent a "sure thing" while future share price appreciation is uncertain. (Miller & Modigliani, 1961) refer to this as the bird-in-the-hand fallacy. Bhattacharya (1979) correctly argues that the riskiness of a project's cash flows determines a firm's risk and an increase in dividend payout today will simply result in an equivalent drop in the stock's ex-dividend price. Thus, increasing the dividend today will not increase a firm's value by reducing the riskiness of future cash flows.

Finally, the empirical review reveals the fact that corporate profitability, cash flow, sales growth, financial leverage, firm size and financial liquidity may impact upon the dividend payout ratio. Although the theories presented in this chapter identified many potential determinants of dividend payments, the question of which of these theories best explains dividend practice are remains puzzle because, all the above mentioned variables representing different dividend theories have had mixed results across industries and countries.

In Ethiopia case previous empirical studies on the nature of dividend practice could not be found directly but inference can be taken from the very few previous studies conducted on the determinants of capital structure on banks and other areas and the result shows inconsistency with that of the capital structure theories.

Chapter Four: Methodology

In this chapter points included are qualitative and quantitative approaches of research. Next, sample procedure and sampling methods are presented. In addition, data analysis is presented along with analysis tools and analysis techniques afterwards. Finally, variable construction and model formulation are presented.

4.1. Quantitative and qualitative approach

When conducting a study the researcher has to make a choice on what method should be used, either a quantitative or a qualitative approach or a combination of the two approaches Creswell (2009). The quantitative approach and quantitative empirical research is often concerned with establishing relationships between variables Theobald, et al. (2002). According to (Patel & Davidsson, 2003), a quantitative method means that measurements are done when collecting data. This is followed up by statistical processing- and analysis method that is based on the collected data. (Aliaga & Gunderson, 2002) defined, in contrast, that "quantitative research is explaining phenomena by collecting numerical data that are analyzed using mathematically based methods".

Bryman (2008) states that qualitative research has as its strength the effective obtaining of a complex specific description of how people experience a given research issue regarding values, opinions, behaviors, emotions and relationships of individuals. However, measurement is the strong point of quantitative research. Its advantages bring consistency to the work which is influenced neither by the timing of its administration nor by the person who administers it, and it allows the researcher to describe the

difference among the samples towards the characteristic or characteristics in question. Moreover, measurement permits the investigator to know the relationship between the concepts Bryman and Bell (2003).

Bryman and Bell (2003) further explained that the concept of the research guides the researcher to know which type of research approach will be employed; qualitative or quantitative. According to this thesis, the purpose is to measure the responsiveness of dividend payouts to different elements. The authors collected numeric data of variables (both dependent and independent) from financial reports of five consecutive years. The SPSS program is used to analyze. Therefore the quantitative approach is employed in analyzing the collected data so as to analyze those characteristics of a company that appear to affect the dividend payout decision; this study employed Ordinary Least Squares (OLS) Regression on the study sample.

4.2. Sample procedure

Tashakkori and Teddlie (2003) defined Purposive sampling techniques are primary used in quantitative studies and may be defined as selecting units based on specific purposes associated with answering a research questions. Maxwell (2003) further defined purposive sampling as a type of sampling in which particular settings or events are deliberately selected for the important of information they can provide that cannot be gotten as well from other choices. Accordingly, in order to test the determinant factors of dividend payouts of banking sector numerical data representing characteristics of the firms need to be collected. The data have the dimensions of both time series and cross-sections, multiple Ordinary Least Squares (OLS) Regression method is used to analyze and test the determinant variables of dividend payouts. The variables of the study are

taken and calculated from the audited financial reports of six banks out of the twelve private banks for the period of 2006 to 2010 the criteria of relatively long period dividend payment record to smooth out variable fluctuations are satisfied.

4.3. Analysis tool and technique

When there are two or more than two independent variables, the analysis concerning relationship is known as multiple correlations and the equation describing such relationship as the multiple regression equation computed with the help of different statistical packages Gujarati (2004). Many Statistical Package has been using widely for statistical analysis in finance studies. This study employed SPSS package version nineteen for analysis purpose. SPSS provides sophisticated data analysis, regression, and forecasting tools on Windows based computers. SPSS allowed the researchers to perform many data management and statistical analysis tasks and permits researchers to analyze quantitative input data in many different features such as a paired-different test and factor analysis. With SPSS you can quickly develop a statistical relation from your data and then use the relation to forecast future values of the data. Areas where SPSS can be useful include; scientific data analysis and evaluation, financial analysis, macroeconomic forecasting, simulation, sales forecasting, and cost analysis. The author, therefore, believe using the SPSS program to analyze quantitative data with the analysis techniques is appropriate to align with the research's purpose.

4.4. Variable Construction

The study examines two models, starting with the basic Lintner model (model I)

Lintner (1956) model represents one of the first attempts to study the dividend behavior of firms. According to his finding the dividend payment pattern of a firm is influenced by

the current years earning and previous year's dividend. The model stipulates that each firm has an unobserved target dividend level in year t, D^*_t, which is a function of current year's profit after tax, E_t, and its target payout rate, r:

$$\Delta D_{t,i} = \alpha + c(D^*_t - D_{t-1}) + \varepsilon_{t,i} \qquad (1)$$

where $D^*_t = rE_t$ and r is the target pay-out ratio, E_t is the current year's profits after taxes, ΔD_t is the change in dividend payments, and D_t and D_{t-1} are the amounts of dividends paid in the years identified by the dating subscripts *t* and D^*_t represents the dividends which the company would have paid in the current year if its dividend were based simply on its fixed target pay-out ratio r applied to current profits. The parameter c indicates the fraction of the difference between this "target" dividend D^*_t, and the actual payment made in the preceding year D_{t-1}, which the company will intend on the average to reflect in its current year's dividend as an increase (or decrease) from the previous year's payment.

In equation (1), the constant term, α, reflects the reluctance on the part of management to curtail dividends and ε_t is an error term. In order to make the model operational, equation $D^*_t = rE_t$ is substituted into equation (2):

$$\Delta D_t = \alpha + c\, rE_t - cD_{t-1} + \varepsilon_t \qquad (2)$$

By rearranging equation (2), one obtains the following empirically testable equation:

$$D_{ti} = \alpha + c\, rE_t - (1-c)\, Dt_{-1} + \varepsilon_t \qquad (3)$$

Finally the equation can be converted in to operational model

$$DPS_{t,i} = \alpha + \beta_0 DPS_{t-1,i} + \beta_1 EPS_{t,i} + \varepsilon_{t,i} \qquad (4)$$

Where:

$\beta_0 = c*r$ and $\beta_1 = (1-c)$, without affecting the error term

DPS_t=Dividend per share in year t

DPS_{t-1}Dividend per share in the previous year[5]

EPS_t= earnings per share in year t

ε_t=error term

The second model (model II) extends linter's model (model I) through the inclusions of more independent variables so as to identify the factors that determine firm's dividend payout. Six major variables that may affect dividend payout (the dependent variable) and their relevant proxies are presented in the table below. The framework of the empirical model test will be:

DPS=*f* (PROF, LIQ, LEVE, SIZE, GROW, LDPS)

Table 4. 1: Proxy variable definition and expected sign

Proxy Variables	Definition	Expected sign
Profitability[PROF]	Earnings After interest and taxes/Total assets	+
Liquidity[LIQ]	Current assets/ current liabilities	+
Leverage[LEVE]	Debt/ Total assets	-
Size[SIZE]	Log of Total assets	+
Sales Growth[GROW]	(Current sales-previous sales)/previous sales	-
Previous Dividend[LDPS]	Lagged dividend per share	+
Dividend Payouts[DPS]	Dividend per share	

[5] $DPS_{t-1}$are changed to the abbreviation of LDPS for the purpose of creating similarity and comparability with the next OLS model.

The dividend payout (DPS) can be modeled and regressed with multiple OLS regression technique as follows:

$DPS_{t,i}=\beta_1+\beta_2*PROF_{t,i}+\beta_3*LIQ_{t,i}+\beta_4*LEVE_{t,i}+\beta_5*SIZE_{t,i}+\beta_6*GROW_{t,i}+_7*LDPS_{t,i}+\mu_{t,i}$

Where β_1 represents the intercept of the regression equation, and β_2, β_3, β_4, β_5, β_6, and β_7 are the regression coefficients of PROF, LIQ, LEVE, SIZE, GROW, and LDPS and μ denotes the disturbance term.

4.5. Hypothesis

The hypothesis tested in this study related to dividend payouts are; profitability, leverage, liquidity, firm size, sales growth, dividend payout of last year. The research has as its main objective, the examination of the effect of different variables on the dividend payout of banks in Ethiopia. The results of the previous researches seem to suggest a strong correlation of each variable on dividend payouts. However, despite the conflicting and mixed evidence existed in the literature concerning the extent and sign of the relationship among those variables across countries (developed and developing) and industries. Hence, in this study, there are two main reasons for testing the relation between the factors and dividend payout policy. Firstly, consistent with prior research the factors should be included in the analysis as a control variable. Secondly, and more importantly, there is lack of research evidence on the impact of the identified variables effects on dividend payouts in Ethiopia. The resulting impact is expected to be very significant. Therefore, a test of the null hypothesis will permit an examination of the significant level of the expectations.

Profitability

Several surveys provide useful insights into what factors financial managers considered most important in determining their firm's dividend policy. Farrelly, *et al*. (1983), surveyed 562 firms with "normal" kinds of dividend polices in 1983. Based on their analysis, responses from utility, manufacturing, and wholesale (retail) firms, they found that the major determinants of dividend payments were the anticipated level of future earnings and the pattern of past dividends.

Pruitt and Gitman (1991) surveyed financial managers of the 1,000 largest US firms about the interplay among the investment, financing, and dividend decisions in their firms. Their evidence suggested that important influences on the amount of dividends paid were current and past years' profits, the year-to-year variability of earnings, and the growth in earnings. Baker and Powell (2000) found support for their hypothesis that the most important factors influencing a firm's dividend policy are the level of current and expected future earnings and the pattern or continuity of past dividends.

Based on the above discussion, profitability is expected to be a key determinant of corporate dividend policy in Ethiopian banking sector. To test this hypothesis, the after tax earnings per total asset is used as a measure of a firm's profitability. The hypothesized relationship between profitability and dividends is positive. Thus, the following hypothesis is formulated:

H_1: There is significant effect of profitability on dividend payout of banks in Ethiopia.

Liquidity

Liquidity is usually measured by the firm's cash flow; the cash flow position of a firm is an important determinant of dividend payouts. It is very important to compare a firm's liquidity position in relation to its dividend payment. Logically, a firm will only pay dividend if it has a strong cash position. Cash dividend distribution not only depends on the profitability of firms but also depends on the free cash flow, which is the amount of operating cash flow left over after payment for capital expenditures. According to Liu and Hu (2005), if the cash dividend is less than the free cash flow, it means the firm has residual cash, if cash dividend is more than the free cash flow then it means the firm needs financing to meet the requirement of cash dividend. A poor liquidity position means less generous dividend due to shortage of cash. Alli, *et al. (*1993) argues that dividend payments depend more on cash flows, which reflect the company's ability to pay dividends, than on current earnings, which are less heavily influenced by accounting practices. They claim that current earnings do not really reflect the firm's ability to pay dividends. Amidu and Abor (2006) found a positive relationship between cash flow and dividend payout ratios. Anil and Kapoor (2008) also indicate that cash flow is an important determinant of dividend payout ratio. Based on the findings of the above studies, it can be speculated that there is a positive relationship between the liquidity and the dividend payout ratio. Therefore, the second hypothesis becomes:

H2: There is a positive relationship between liquidity and dividend payout.

Leverage

The financial structure of a firm consists of both debt (liabilities) and equity financing. Long-term financing usually refers to the firm's capital structure; the debt-to-equity ratio is a financial ratio that indicates the relative proportion of equity and debt used to finance a company's assets. This ratio is also known as risk, gearing or financial leverage. Pruitt and Gitman (1991) indicate that risk affects firms' dividend policy, Firms with high growth rates and high dividend payout ratios utilize debt financing and firms with high leverage compared to their respective industry Chehab (1995).In addition to the tax advantages, the use of debt financing can lever-up shareholders' return on equity.

A growing number of studies have found that the level of financial leverage negatively affects dividend policy Jensen *et al*. (1992), Al- Malkawi and Nazir (2008), Lloyd, *et al*. (1985), D'Souza (1999), and Their studies inferred that highly levered firms look forward to maintaining their internal cash flow to fulfill duties, instead of distributing available cash to shareholders and protect their creditors. However, Mollah, *et al*. (2001) examined an emerging market and found a direct relationship between financial leverage and debt-burden level that increases transaction costs. Thus, firms with high leverage ratios have high transaction costs, and are in a weak position to pay higher dividends to avoid the cost of external financing. To analyze the extent to which debt can affect dividend payouts, this study employed the financial leverage ratio, or ratio of liabilities (deposit) both short-term and long term deposit to total asset. Based on the above arguments, the following hypothesis was formulated for further investigation:

H3: There is negative relationship between dividend payout and leverage.

Firm size

Eddy and Seifert (1988), Jensen, *et al*. (1992), Redding (1997), and Fama and French (2001) indicated that large firms distribute a higher amount of their net profits as cash dividends, than do small firms. Several studies have tested the impact of firm size on the dividend-agency relationship. They found that firm size as important explanatory variable, as large companies are more likely to increase their dividend payouts to decrease agency costs.

Furthermore, Sawicki (2005) illustrated that dividend payouts can help to indirectly monitor the performance of managers in large firms. That is, in large firms, information asymmetry increases due to ownership dispersion, decreasing the shareholders' ability to monitor the internal and external activities of the firm, resulting in the inefficient control by management. Paying large dividends can be a solution for such a problem because large dividends lead to an increase in the need for external financing, and the need for external financing leads to an increase in the monitoring of large firms, because of the existence of creditors. Other studies related the positive association between dividends and firm size to transaction costs. For example, (Holder, *et al*., 1998) revealed that larger firms have better access to capital markets and find it easier to raise funds at lower costs, allowing them to pay higher dividends to shareholders. This demonstrates a positive association between dividend payouts and firm size.

There are different measures of firm size (e.g. employment, sales, assets, and capitalization). In this study, the firm's natural logarithm of total asset is used as a measure for size. This measure has frequently been used by earlier research such as Gill,

et al. (2009). Based on the aforesaid discussion and consistent with previous research the size variable is expected to have a positive relationship with dividend payouts. Therefore, the hypothesis in regard to firm size is formulated:

H4: There is positive relationship between dividend payout and size of the firms.

Growth

According to (Miller & Modigliani, 1961), in perfect capital markets, corporate investment and dividend decisions are independent. However, in the presence of market imperfections such as taxes, flotation costs, and agency costs, both dividend and investment decisions might be closely related or interdependent. The relationship between investment and dividend policies can be seen from two perspectives. Firstly, by paying dividends a firm is forgoing a relatively cheap source of financing as compared to debt and new equity issues. Secondly, dividend payments reduce the firm's available funds for investment activities. In other words, dividends and investments are competing for limited and low-cost internal funds Elston (1996).

In order to test whether investment opportunities affect dividend policy, an adequate proxy should be chosen. Several studies found that the sales (revenues growth) rate was commonly used as a proxy variable for growth opportunities in dividend and investment policy relationship. Sales growth may impact on dividend payout ratios. Higgins (1972) argues that payout ratio is negatively related to a firm's need for funds to finance growth opportunities. Rozeff (1982), Lloyd, *et al.* (1985), Collins, *et al.* (1996), and Amidu and Abor (2006), all show a significantly negative relationship between historical sales

growth and dividend payout. Therefore, a negative relationship between sales growth and dividend payouts is expected. Based on the foregoing discussion, the following hypothesis is proposed:

H5: There is negative relationship between dividend payments and sales growth.

Stability of dividend

Previous year's dividend payment (LDPS) have been regarded as the primary indicator of a firm's capacity to pay dividends (Lintner, 1956), because it is assumed that the management will maintain a stable dividend policy. Furthermore, the information asymmetry hypothesis assumes that dividend policy is "sticky" or shows a tendency to remain at the level of previous dividends (Baskin, 1989).

Ahmed and Javid (2009) examined the dynamics and determinants of dividend payout policy of 320 non-financial firms. The results consistently support that firms rely on both current earnings per share and past dividend per share to set their dividend payments. However, the dividend tends to be more sensitive to current earnings than prior dividends. Therefore, a positive relationship between LDPS and current year's dividend is expected. Based on the foregoing discussion, the following hypothesis is proposed:

H6: Current year's dividend payment is influenced by previous year's dividend payouts

Then, according to the lintner model dividend payout is the function of firm profitability and previous year's dividend payment. When these two variables (*H1 and H6*) are found to be significant determinants of dividend payout of Ethiopian banking sector then we would have reached at the conclusion that Ethiopian banks follow stable dividend policy. The proposed hypothesis is;

H7: Ethiopian banks follow smooth or stable policy in paying dividends.

Chapter Five: Empirical results and discussions

This chapter presents the finding of the study. First, it describes the statically testes of the variables. Second, brief descriptions on tests for fulfillment of basic ordinary least square (OLS) assumptions are presented. Finally, it discusses the statistical analysis of the regression results of the two models.

5.1. Descriptive statistics

Table 5.1 presents the descriptive statistics for the variables, related to firms' characteristics, included in the models to examine the dividend payout policy of Ethiopian banking sector for 2006 to 2010. The table reports the mean, maximum, minimum, standard deviation, coefficient of variation, and the number of observations for each variable.

Table 5. 1: Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Dividend per share	30	.00	49.50	22.9713	11.33594	128.504
Profitability	30	.34	3.90	2.8260	.67710	.458
Liquidity	30	30.00	78.20	53.2520	14.66421	215.039
Leverage	30	81.70	91.51	87.6147	2.77886	7.722
Size	30	21.19	23.24	22.1986	.47515	.226
Lagged dividend per share	30	.00	86.00	26.6223	20.79259	432.332
Growth	30	9.80	53.02	32.4840	13.48521	181.851
Earnings per share	30	5.79	100.10	46.1717	20.11496	404.612
Valid N (listwise)	30					

Source: SPSS OUTPUT

The coefficient of variation indicates that there is a significant variation among the explanatory variables. The table also provides the descriptive statistics for all the

regression variables. This shows the average indicators of variables computed from the financial statements. The average standard dividend payout ratio is 23 percent and the average profitability per share is 46 percent. This indicates that on the average, the six financial firms distributed 50 (23/46) percent of their net profits as dividends. The standard deviation of the dividend payout ratio was 11.33 percent, suggesting that the dividend payout ratio was not highly dispersed. The size determined as natural logarithm of total asset has a mean of 22.19. The average financial liquidity (measured as ratio of current asset by current liability) is 53.25 percent. The average growth rate in sales is 32.48 percent and the average profitability value for the firms is 2.82. The average total deposit to total asset ratio for the firms is 87.61 percent and the average of lagged dividend payout ratio for the firms is 26.62 percent.

5.2. Results of OLS tests

To maintain data validity and robustness of the regressed result of the research under the classical linear regression model (CLRM) there are five basic assumptions required to be satisfied. According to Brooks (2008) when the assumptions are satisfied, it means that we have used all the information available from the patterns. But if there is assumption-violation of that data usually means that there is a pattern of data that we have not included in our model, and we could actually find a model that fits the data better. Given that limitation of enough data (the sector has short dividend history and infant industry) diagnosis of data in line to all the assumption is not appropriate or applicable. But before testing significance of the slopes and analyzing the regressed result, multi-colinearity,

autocorrelation, homoscedasticity, and normality tests are made for identifying and correcting when there are miss specifications of data so as to augment research quality.

5.2.1. Test for homoscedasticity

The assumption of homoscedasticity is that the residuals are approximately equal for all predicted dependent variable scores- the variance of errors is constant, if the assumption are met the pattern of the residuals will have about the same spread on either side of a horizontal line drawn through the average residual wooldridge (2005). Otherwise if the errors do not have a constant variance, they are said to be heteroscedastic. Data are homoscedastic if the residuals plot is the same width for all values of the predicted. Heteroscedasticity is usually shown by a cluster of points that is wider as the values for the predicted dependent variable get larger. Alternatively, figure 1A and 2A are presented in appendix to check for homoscedasticity by looking at a scatter plot of residuals, or pattern of errors when plotted against the predicted values. The residuals plot shows data that are fairly homoscedastic because the clusters of points have approximately the same width all over the average residual. In fact, this residuals plot shows data that meet the assumptions of homoscedasticity, linearity, and normality (because the residual plot is rectangular, with a concentration of points along the center).

5.2.2. Test for multicollinearity

This assumption of multicollinearity is that explanatory variables are not correlated with one another over time or cross sectional - they are said to be orthogonal to one another. But, if the variables are not uncorrelated with one another, it will be the violation of the CLRM assumption of autocorrelation among the independent variables and it would be

stated that the data has multicollinearity problem. Thus, Multicollinearity refers to the situation in which the independent variables are highly correlated. When independent variables are multi collinear, there is overlap or sharing of predictive power. This may lead to the paradoxical effect, whereby the regression model fits the data well, but none of the explanatory variables (individually) has a significant impact in predicting the dependent variable Gujarati (2004). This is because when the predictor variables are highly correlated with one another, they share essentially the same information. Thus, together, they may explain a great deal of the dependent variable, but may not individually contribute significantly to the model. Thus, the impact of multicollinearity is to reduce any individual explanatory variable's predictive power by the extent to which it is associated with the other explanatory variables. That is, none of the predictor variables may contribute uniquely and significantly to the prediction model after the other independent variables is included. Among several ways of multicollinearity tests person correlation and Variance Inflation Factor (VIF) are used for this purpose.The Pearson product-moment correlation matrix is another important technique of testing multicolineartiy of explanatory variables by investigating the relationship of biviariate variables. The correlation matrix is also useful to measure the propensity of how much the independent influences the dependent variable wooldridge (2005).

Table 5. 2: Correlations matrix of explanatory variables

Explanatory variables		PROF	LIQ	LEVE	SIZE	LDPS	GROW
PROF	Pearson Correlation	1	.203	-.487**	-.050	.356	.275
	Sig. (2-tailed)		.281	.006	.792	.053	.141
	N	30	30	30	30	30	30
LIQ	Pearson Correlation	.203	1	-.314	.343	.453*	-.185
	Sig. (2-tailed)	.281		.091	.064	.012	.327
	N	30	30	30	30	30	30
LEVE	Pearson Correlation	-.487**	-.314	1	.372*	-.378*	-.116
	Sig. (2-tailed)	.006	.091		.043	.039	.542
	N	30	30	30	30	30	30
SIZE	Pearson Correlation	-.050	.343	.372*	1	.092	-.395*
	Sig. (2-tailed)	.792	.064	.043		.629	.031
	N	30	30	30	30	30	30
LDPD	Pearson Correlation	.356	.453*	-.378*	.092	1	-.244
	Sig. (2-tailed)	.053	.012	.039	.629		.194
	N	30	30	30	30	30	30
GROW	Pearson Correlation	.275	-.185	-.116	-.395*	-.244	1
	Sig. (2-tailed)	.141	.327	.542	.031	.194	
	N	30	30	30	30	30	30

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS OUTPUT

Table 5.2 presents the correlation matrix for all explanatory variables used in the analysis. The low inter correlations among the explanatory variables used in the regressions indicate no reason to suspect serious multicollinearity. There is correlation between profitability and leverage at 1 percent significance level, leverage and size, liquidity and lagged dividend per share, leverage and lagged divided per share, and size and growth at 5 percent significant level. But this does not necessarily create a multicollinearity problem unless biviatate variables are linearly related. To confirm, the

variance inflation factors (VIF)[6] for the independent variables are computed. Therefore, those independent variables with the values of VIF greater than 10 indicate possible problem of multicollinearity.

Multicollinearity between explanatory variables may result in the wrong signs, or implausible magnitudes, in the estimated model coefficients, and the bias of the standard errors of the coefficients. To avoid this problem, the Variance Inflation Factor (VIF) test was used. The results of this test are presented in next Table 5.3. The mean VIF was 1.74, which is much lower than the threshold of 10. The VIF for individual variables was also very low. This indicates that the explanatory variables included in the model were not substantially correlated with each other.

Table 5. 3: Variance Inflation Factor (VIF) of the explanatory variables

Variables	VIF	Tolerance
PROF	1.68	0.595
LIQ	1.69	0.593
LEVE	2.08	0.481
SIZE	1.91	0.524
LDPS	1.60	0.625
GROWTH	1.51	0.663
Mean VIF	1.74	

Source: SPSS OUTPUT

[6] Tolerance value is an indication of the percentage of variance in the predictor that cannot be accounted for by the other predictor which is computed as $(1- r^2)$ where r^2 is the multiple correlations between the predictor variable and the other predictors. VIF is a measure of the reciprocal of the complement of the inter-correlation among the predictor variables it can be measured by $1/ (1- r^2)$ or 1/tolerance.

5.2.3. Tests for autocorrelation, normality and linearity

The autocorrelation assumption is made of the CLRM's disturbance terms is that the covariance between the error terms over time is zero; it assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are serially correlated. Usually, Durbin-Watson (DW)[7] test is used for first order autocorrelation. It tests a relationship between an error term and its immediately previous value. The next table 5.4 shows DW statistics of problem for Model II is 2.25 and table 3A (see appendix) shows the result for model I is 2.50 which falls in the acceptable range. Therefore, the analysis satisfies the assumption of independent of errors.

Table 5. 4: Regression results of empirical model II

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674[a]	.455	.312	9.40067	2.257

Source: SPSS OUTPUT

Testing whether the residuals are normally distributed requires compromise the estimation of coefficients and the calculation of confidence intervals. Sometimes the error distribution is "skewed" by the presence of a few large outliers. Since parameter estimation is based on the minimization of *squared* error, a few extreme observations can exert a disproportionate influence on parameter estimates. Calculation of confidence intervals and various significance tests for coefficients are all based on the assumptions

[7] The value of DW statistic ranges from 0 to 4. As a general rule of thumb, the residuals are not correlated if the DW result is approximately 2, and the acceptance range is 1.50 to 2.50.

of normally distributed errors. If the error distribution is significantly non-normal, confidence intervals may be too wide or too narrow. There are two main methods of assessing normality - graphically and numerically.

Table 5. 5: Tests of normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Studentized Residual	.078	30	.200*	.980	30	.818

a. Lilliefors Significance Correction

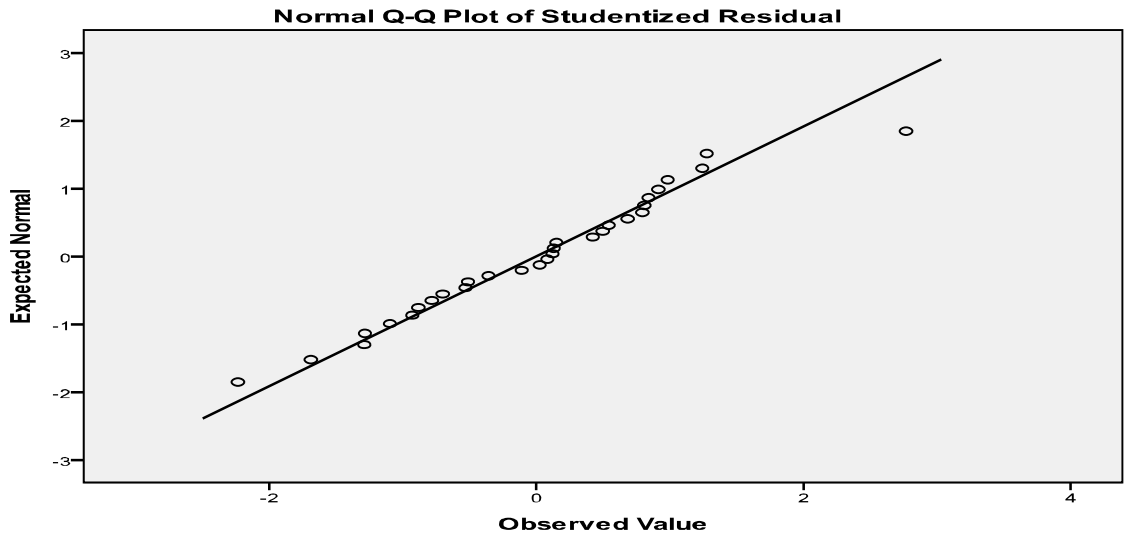
*. This is a lower bound of the true significance.

Source: SPSS OUTPUT

Table 5.5 presents the results from two well-known tests of normality, namely the Kolmogorov-Smirnov Test and the Shapiro-Wilk Test. Shapiro-Wilk Test is more appropriate for small sample sizes (less than 50 samples). Therefore, the Shapiro-Wilk test as a numerical means of assessing normality is used. The Shapiro-Wilk test studentized residuals yielded a statistical value of 0.98 at significant value of 0.82, which is greater than the alpha level for .01. Hence the data is normal

In order to determine normality graphically we can use the output of a normal Q-Q Plot. If the data are normally distributed then the data points will be close to the diagonal (horizontal) line. If the data points stray from the line in an obvious non-linear fashion then the data are not normally distributed. As we can see from the SPSS out put chart, figure 5.1 below and figure 3A (see appendix) the data is normally distributed.

Figure 5. 1: Test of normality



Source: SPSS OUTPUT

Violations of linearity are extremely serious if the model accommodate nonlinear data, predictions are likely to be seriously in error, especially when extrapolate beyond the range of the sample data. Nonlinearity is usually most evident in a plot of the observed versus predicted values or a plot of residuals versus predicted values, which are a part of standard regression output. The points should be symmetrically distributed around a diagonal line in the former plot or a horizontal line in the latter plot. Figure 3A (see appendix) presents P-P plot of regression output for evidence of a linearity pattern of the data.

5.3. Statistical tests

A correlation test of the dependent and independent variable was run to examine whether the dividend payout ratio are affected by the independent variables. As mentioned before,

the Pearson correlation matrix is essential for investigating the relationship between two or more variables where one of the variables is the dependent variable and the other variables are independent variables. The correlation results as shown in table 2A of the appendix, from the six independent variables two variables were found to be statistically significant correlated with dividend payout ratio, profitability was positively correlated to (dividend payout)DPS and lagged dividend per share was also correlated with DPS at 1 percent significance level with (r=0.426 and 0.444) respectively. This initially confirms that both independent variables are strong determinants of dividend payout ratio of Ethiopian banking sector but, to reach in conclusion this has to be supported by the following regression result.

5.4. Regression results

Further test is needed to identify variables that are determinants of dividend payout ratio. OLS regression was done to examine whether such relationship existed. Two regressions were run, the results of which are presented in next tables.

5.4.1 Lintenr's dividend stability model (Model I)

Table 5.6 presents the regression results of Lintner's model and its modified version for the purpose of testing whether Ethiopian banking sector adhere to stable dividend payout policy. The predication statement was both last yeas' dividend amount and profitability is significant explanatory factors of dividend payouts. The results show that the coefficient of lagged dividend payments is positive and statistically significant. These results are similar to numerous studies on emerging markets Al-Ajmi and Abo Hussain (2007) and Ahmed and Javid (2009) that report lagged dividend payments are an important

determinant of dividend payments; however, The coefficient of EPS has a positive sign, as hypothesized, but is statistically insignificant this may infer the sector does not follow stable payout policy . These findings are consistent with those reported by Aivazian, *et al*. (2003) on some emerging capital markets firms do not follow a stable dividend policy. And inconsistent with Baker, *et al*. (1985), Aivazian, *et al*. (2003), Ferris, *et al*. (2006), Amidu and Abor (2006), DeAngelo, *et al.* (2004), Anastassiou (2007), Bodla, *et al*. (2007) and Pruitt and Gitman (1991) witnessed the significant of both variables in dividend payout decision. The results of the modified version of the Lintner's model show that the coefficients of both lagged dividends and EPS are positive but only LDPS is statically significant. These results clearly indicate the importance of lagged dividends for current year's dividend decisions.

A deeper look at the R^2 value of Table 3A (see appendix) reveals that the existing model only explains 41.7 percent of the dividend payout pattern of Ethiopian banking sector. The results of Table 5.7 confirm that the F-value (9.67) was statistically significant at 1 percent levels of significance implying the model fits, the result of the Anova, table 5.7, confirms that this model had explanatory power as to the determining the dividend payout ratio of the sector.

Table 5. 6: Dividend stability test model I

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.477	9.650		.671	.508
	Earning per share	.049	.175	.041	.281	.781
	Lagged dividen per share	.739	.169	.642	4.364	.000

a. Dependent Variable: Dividend per share

Source: SPSS OUTPUT

Table 5. 7:ANOVA Results of Model I

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6929.573	2	3464.787	9.672	.001[a]
	Residual	9672.580	27	358.244		
	Total	16602.154	29			

a. Predictors: (Constant), Lagged dividend per share, Earning per share

b. Dependent Variable: Dividend per share

Source: SPSS OUTPUT

5.4.2. Determinants of dividend payouts (Model II)

The general model (Model 2) aims to investigate determinants of dividend payouts by including six variables with six firm-year observations. The OLS regression was used as an extension of Lintner's model- Model I to examine whether PROF, LIQ, LEVE, SIZE, GROW, and LDPS were significant determinants of dividend payments. The results from regression indicates of the six explanatory variables ,as it can be seen in Table 5.9 the statistically significant variables at the 90(95)% confidence level are financial liquidity (**H_3**), firm size (**H_4**), and lagged dividend per share (**H_6**). In this process result the

insignificant variables, seems to have no influence in dividend payment decisions, were firm profitability ($\mathbf{H_1}$), Leverage ($\mathbf{H_2}$), sales growth ($\mathbf{H_5}$). The interpretation of the significant variables is discussed below.

Table 5. 8: ANOVA results of Model II

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1694.036	6	282.339	3.195	.020[a]
	Residual	2032.568	23	88.373		
	Total	3726.605	29			

a. Predictors: (Constant), Growth, Leverage, Liquidity, Profitability, LDPS, Size

b. Dependent Variable: Dividend per share

Source: SPSS OUTPUT

Table 5.4 above shows that the R value was 0.455. This value is a Pearson correlation coefficient between all independent variables and the dependent variable. The overall strength of the relationship between the set of independent and the dependent variables is reflected by this multiple R statistic. The coefficient of determination or R^2 value provides an indication of the proportion of variance in the dependent variable that is accounted for by the set of independents (Kerr, *et al.,* 2002). This R squared (R^2) value was 0.455 or 46 Percent. The adjusted R^2 value, a conservative indicator of this variance, is used when the sample size is small (less than 60) and the independents are numerous wooldridge (2005). This value was 0.312 or 31.2 percent. As indicated, all the results above were statistically significant from zero at both 5 percent levels of significance and it was concluded that about 46 percent of the dependent variable variance can be explained by the regression in the model.

In order to interpret these results, the regression equation above was tested using the analysis of variance summary output, table 5.8. ANOVA in multiple regressions

appraises the overall significance of the regression equation (Hamburg & Young, 1994).This study uses both the p-value and the F-test to accept or reject that the independent variables has predictive power over the dependent variable. The F-value above is the ratio of the explained or regression variance to the unexplained or error variance, while the p-value represents the probability that, if F value is insignificant, it would be observed that a statistic that deviates by chance from the parameter being tested, by a greater degree than is observed (Hamburg & Young, 1994). Accordingly, the significant F value was higher than one (F = 3.2), while the p-value was 0.02 which was less than 0.05 levels of significance.

This finding indicated that a significant relationship exists between the weighted linear composite of the independent variables, as specified by the model and the dependent variable; dividend payout ratio. If this F-value was not statistically significant (less than 1) it could not be possible to proceed with further analysis because this would indicate that the prediction of the criterion variable by the model occurs purely by chance. Therefore, the model applied is significantly good enough in predicting the outcome variable.

Table 5. 9: OLS Multiple Results Regression

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-85.297	97.377		-.876	.390
	Profitability	5.124	3.343	.306	1.533	.139
	Liquidity	-.329	.155	-.426	-2.131	.044
	Leverage	-1.165	.906	-.286	-1.287	.211
	Size	9.553	5.074	.400	1.883	.072
	Lagged dividend per share	.191	.106	.350	1.797	.086
	Growth	-.114	.159	-.136	-.719	.479

a. Dependent Variable: Dividend per share

Source: SPSS OUTPUT

Liquidity was found to be statistically significant determinant of corporate dividend payout decision in Ethiopia (H2). Although the sign of the coefficient was not as expected, Table 5.9 reports that the coefficients on liquidity are negative and statistically significant at the 5 percent level. This means that if the liquidity ratio of a firm increased, the dividend payout ratio paid by the firm decreased. For a 10 units increase in firm liquidity, as measured by ratio of current asset by current liability, the dividend payout of the firm will decrease by approximately 3.3 units, other things being equal. This result is in line with previous studies that proved cash divided are significantly influenced by firm cash follow but its sign of inverse relationship is inconsistence to studies made by Liu and Hu (2005), Ali, *et al*.(1993), Mohamed, *et al*.(2006). The possible reason for this unusual negative association of dividend payout ratio and liquidity may be efficiency problem of Ethiopian banking sector due to holding excess amount of current asset which eventual lead to decrease profit as well as dividend payout.

Firm size was also found to be a statistically significant determinant of dividend policy as expected, Table 5.9 shows that the slope coefficient of this variable was 9.55 which is positive and statistically significant at the 10 percent level. This result supports the Hypothesis (H4) that predicts that firm size and dividend ratio should have a positive association. The effect of firm size on dividend decision is also economically significant. For a 1 unit increase in firm size as measured by natural logarithm of total asset will increase the dividend payout ratio of the firm by approximately 9.56 units, other things being equal. The results presented here are consistent with the findings of Redding (1997) and Fama and French (2001) who found that the likelihood of paying dividends increases with firm size for US firms. The present results, however, are inconsistent with Aivazian, et al. (2003) who found mixed results regarding the relationship between size and dividend policy for several emerging markets. Larger firms pay a higher cash dividend for several reasons. First, large firms face high agency costs as a result of ownership dispersion, increased complexity, and the inability of shareholders to monitor firm activity closely. Hence, such firms pay a larger dividend to reduce agency costs Rozeff, et al. (1992). Second, as a result of the weak control in monitoring management in large firms, a large dividend payout increases the need for external financing, which, in turn, leads to the increased monitoring of large firms by creditors. This may be a quality that is attractive to the shareholders Easterbrook (2005). Another explanation for this positive association might be related to large firms' easier access to capital markets, and their ability to raise funds with lower issuance costs for external financing. Consequently, large firms are better able than small firms to distribute higher dividends to shareholders. The intuition here is that the larger the firm, the more difficult (costly) is the monitoring,

i.e. the greatest the agency problem (Jensen & Meckling, 1976). Thus, dividends could play a role in helping to alleviate the agency problem. Also, the positive relation between the likelihood to pay dividends and size supports the generally accepted view proposed by many finance scholars that larger firms have easier access to capital markets Lloyd, et al. (1985) and Fama and French (2002), and have lower transaction costs associated with acquiring new financing as compared to small firms Alli, *et al*. (1993).

Firms previous year dividend payment was also found to be statistically determinant variable of dividend payout ratio of Ethiopian banking sector. The predication statement was last yeas' dividend amount is significant explanatory factors of dividend payouts. The results show that the coefficient of lagged dividend payments is positive. As mentioned in the first model, these results are similar to numerous studies on emerging markets Al-Ajmi and Abo Hussain, (2007) and Ahmed and Javid, (2009) that report lagged dividend payments are an important determinant of dividend payments.

From model the coefficients of ***profitability*** was not statistically different from zero, suggesting that industry profitability effect seem to have no influence on the payment of dividends. This finding are consistent with Al-Ajmi (2008), who reports that profitability is not significant in determining dividend payments in Saudi Arabia and Okpara and Chigozie (2010) in Nigeria and partly with Ferris, *et al*. (2003) whom found U.K. firms with negative earnings paid dividends . However, they contradict to Aivizian et al (2003), Amidu and Abor (2006) in Ghana. The reconciliation between the two results may rest on the difference between the samples they used.

Previous empirical studies such as chehab (1995), Llyold, *et al*. (1985) and D'Souza, 1999) reported statistically significant and negative relationship between financial leverage and dividend payout ratio. For Ethiopia bank industry ***leverage*** was not found to be one of the determinants of dividend payments. Dillon (1986) found conflicting evidence for the relationship; in some industries payout and leverage ratios are positively related while in other the relationship is negative. The results can be explained by the fact that Ethiopian banking sectors are generally low geared.

Sales growth, as proxy of investment opportunity, was not also found to be one of the determinants of dividend payments in Ethiopia banking sector. The findings of the paper are inconsistent with previous empirical studies Rozeff (1982) and Gill, *et al*. (2009) document that investment opportunities are a significant determinants corporate dividend payout ratio.

To summarize, the appearance of firm size, liquidity, and previous years dividend payouts as the significant explanatory variables support the idea that the main aim of Ethiopian banks are to reduce agency conflict and maintain firm's reputation. It also shows large firms have easier access to raise fund and distribute dividend to shareholders better than smaller firms. Inverse relationship between liquidity and dividend might show inefficiency of banks for holding excess amount of liquid asset, the inefficiency may be emanated from banks loan to deposit management problem or due to the credit limit imposed on banks by the regulatory body (national bank of Ethiopia in 2008) to slow down the unprecedented price trends and stabilise the macroeconomic environment and increased reserve requirements of the banks which might seriously limited the amount of capital circulating in the economy. But, so as to reach at an exclusive conclusion it has to

be supported by further empirical study. The dividend pattern has partly a stable nature because managers depend on previous year's divided payment to make decision of the current year. However, a number of various variables appeared to be statically insignificant: profitability, financial leverage, and growth. This suggests that these variables do not have a direct influence on dividend payment. In other words, banks in Ethiopia took in to account agency conflict and LDPS and liquidity, more than profitability, leverage and growth when they were making decision to pay dividends.

Chapter Six: Conclusion and Implication

In this chapter the conclusions based on the analysis are presented, policy implication and suggestions for further studies in the investigated area from different perspectives are presented.

6.1. Conclusion

This study propose to execute the primary objective of enriching the knowledge and understanding of different factors affecting dividend payouts of Ethiopian banking sector with specific objectives of testing the stability of dividend payout ratio using Lintner's (1956) model as well as testing a hypotheses of a causal relationship between variables and the effect of variables on the banks' dividend payout decision. This study empirically examined the data for a sample of six firms out of twelve private banks operating in Ethiopia for the period of 2006-2010. Since almost all firms, all of the years with in the study period, chose to distribute cash dividend for the last five years. OLS multiple regression model was an appropriate model for testing the dividend payout policy of firms. Two models were estimated and seven hypotheses were tested.

The statistically significant variables included; firm size, financial liquidity, and previous year's dividend payout ratio. The results indicated that the firms chose to pay more dividends when firm size were large; this supports agency cost theory were divided are used as a tool to agency conflict, it also implies large firms have better access to raise fund and distribute dividend to shareholders better than smaller firms. Furthermore, the results illustrated that the firms in which their liquidity were low paid higher dividend compared to the firms with high liquidity ratio. In contrast to the expected result, in

Ethiopian banking sector dividend is the function of inverse relationship of liquidity; this Inverse relationship might the sigh of inefficiency of banks for holding excess amount of liquid asset, the inefficiency might be due to banks loan to deposit management problem or as a result of government interventions; credit limit were imposed on banks in 2008 as a means of controlling inflation and increased reserve requirements of the banks which eventually lead banks to miss significant amount of interest(income) from uninvited excess liquid asset. The models also revealed that previous year's dividend payout ratio (LDPS) was an additional variable of both models that affected dividend payout ratio of the firms. This would imply that, Ethiopian banks are found to act quickly to increase dividend payments, confirming the traditional view firms have higher propensity to increase dividends compared to their propensity to reduce dividends. But, the statistical significance of LDPS cannot infer that Ethiopian banks strictly adhered to Lintenr's dividend stability. Because, divided stability is the function of profitability as well as LDPS while profitability variable (EPS) were found to be statistically insignificant.

6.2. Implication

In the absence of secondary market, since searching and brokerage costs are high it is difficult for an individual investor to shift easily and construct his or her own dividend policy by buying and/or selling existing stocks. But understanding the determinants of explanatory variable of dividend payouts has significant implication on individual investor's investment policy depending on his/ her dividend preference. For instance, firm size has significant influence on dividend payments of Ethiopian banking sector; this implies an individual investor who prefers current high dividend shall invest on large size

firms. Otherwise, when an investor prefers long term return on investment, the investor can use the unwanted dividends to buy additional shares from small firms.

On the basis of the empirical findings in this study, it can be concluded that further related research would be desirable; further study including dividend paying and non dividend paying firm using other appropriate regression techniques such as Tobit and Probit models to determine the determinant variables of dividend payment decisions of the bank industry. Further research could also examine with wider scope and more variables for instance the impacts of firm's age and capital structure on dividend payouts. In addition research needs to test and analyze dividend payout behavior across industries like banks between insurance companies and banks and construction companies. Finally, another potential research area could involve studying how investors view dividend policy and examining the portfolios of various investors and their demographic attributes companies so as to unravel the mystery of dividend puzzle in a better way.

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Appendices

Appendix A. variable definition

Proxy Variables	Formula
Profitability[PROF]	**Earnings After Taxes/Total assets**
Liquidity[LIQ]	**Liquid Asset/ Deposit**
Leverage[LEVE]	**Debt/ Total assets**
Size[SIZE]	**Log of Total assets**
Sales Growth[GROW]	**(Current Revenue-previous Revenue)/previous Revenue**
Previous Dividend[LDPS]	**Lagged dividend per share**
Dividend Payouts[DPS]	**Divided/ Outstanding shares**
Earnings per share(EPS)	**Earnings After Taxes/ Outstanding shares**

Appendix B. SPSS outputs

Chart 1A: Homoscedsitcity test for model II

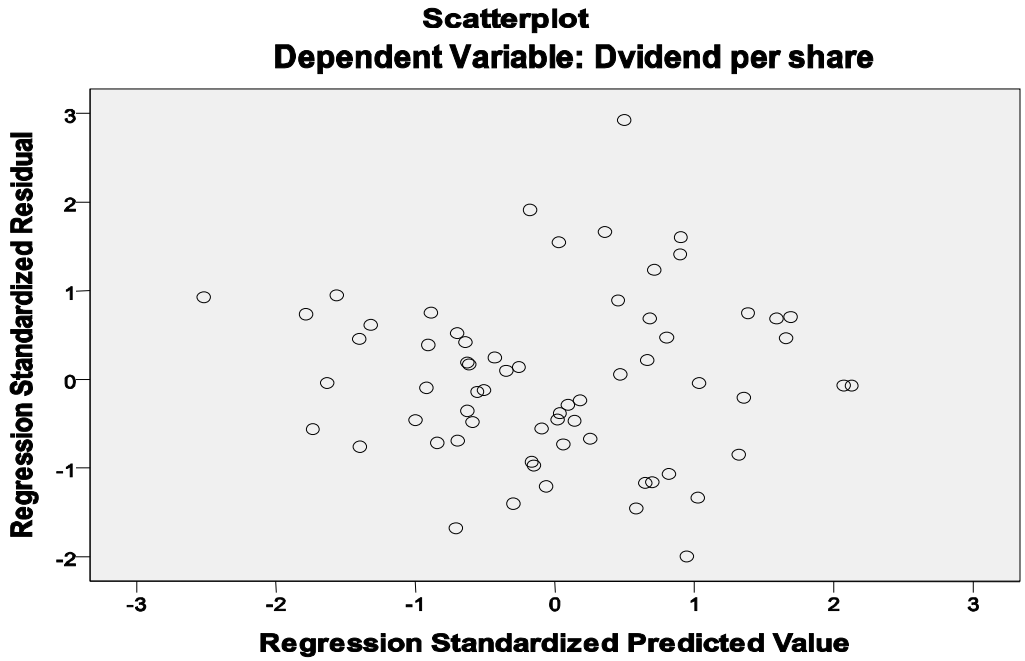

Figure 2A: Homoscedsitcity test for model I

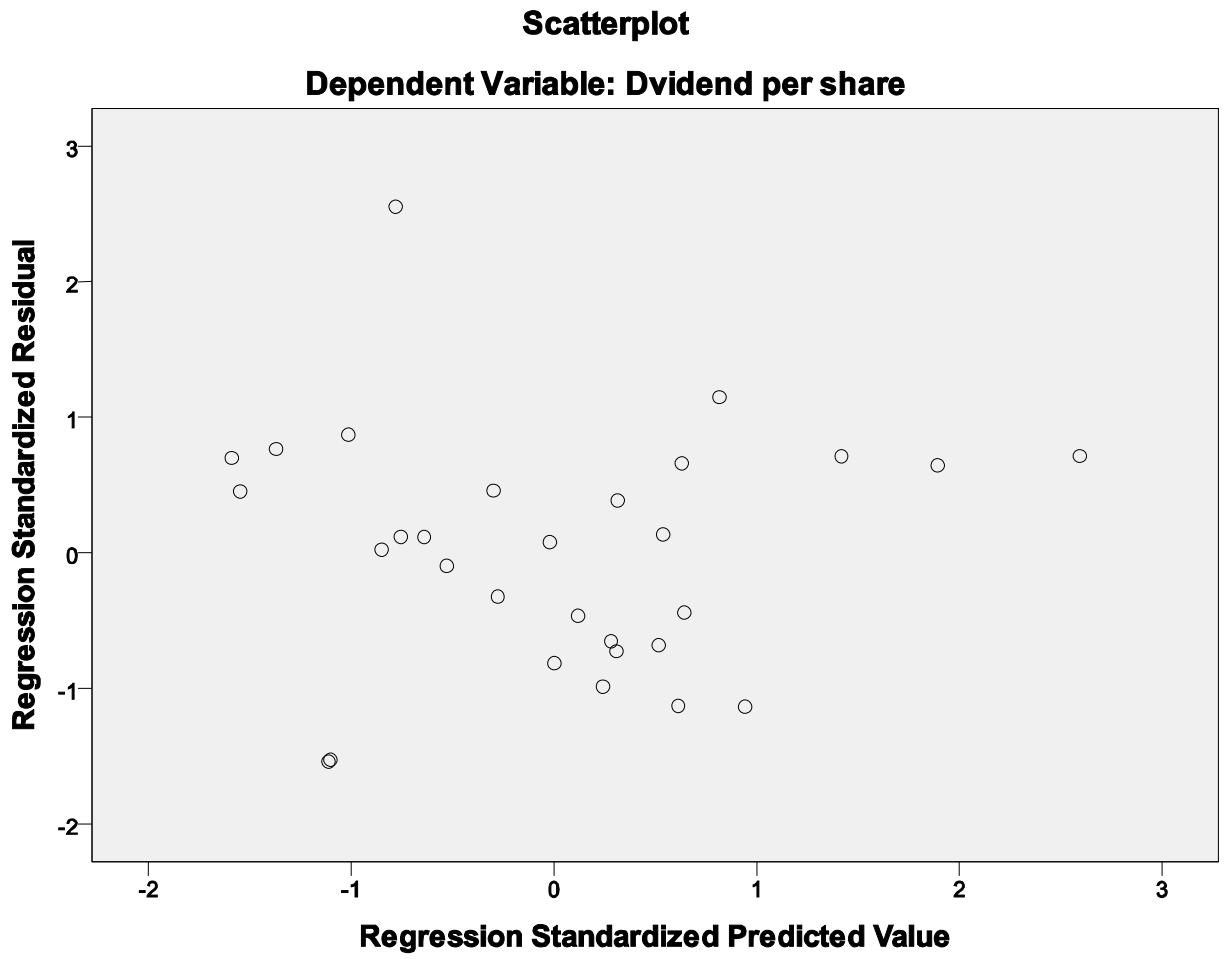

Figure 3A: Test of Normality

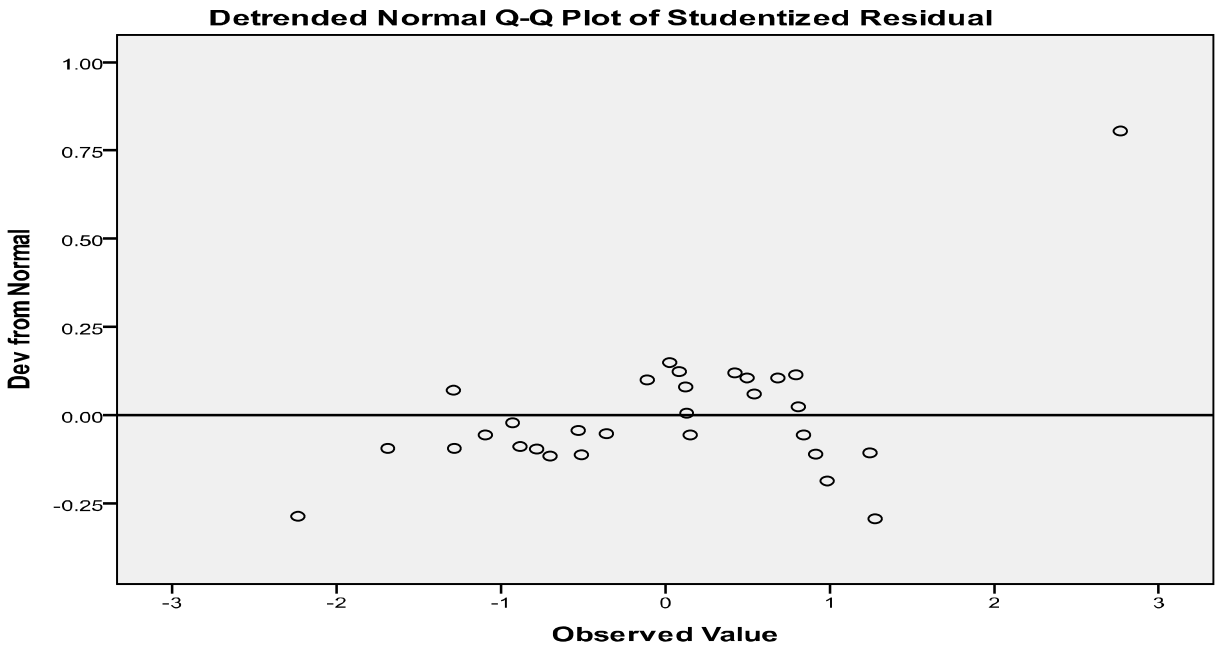

Chart 4A: Test of Linearity

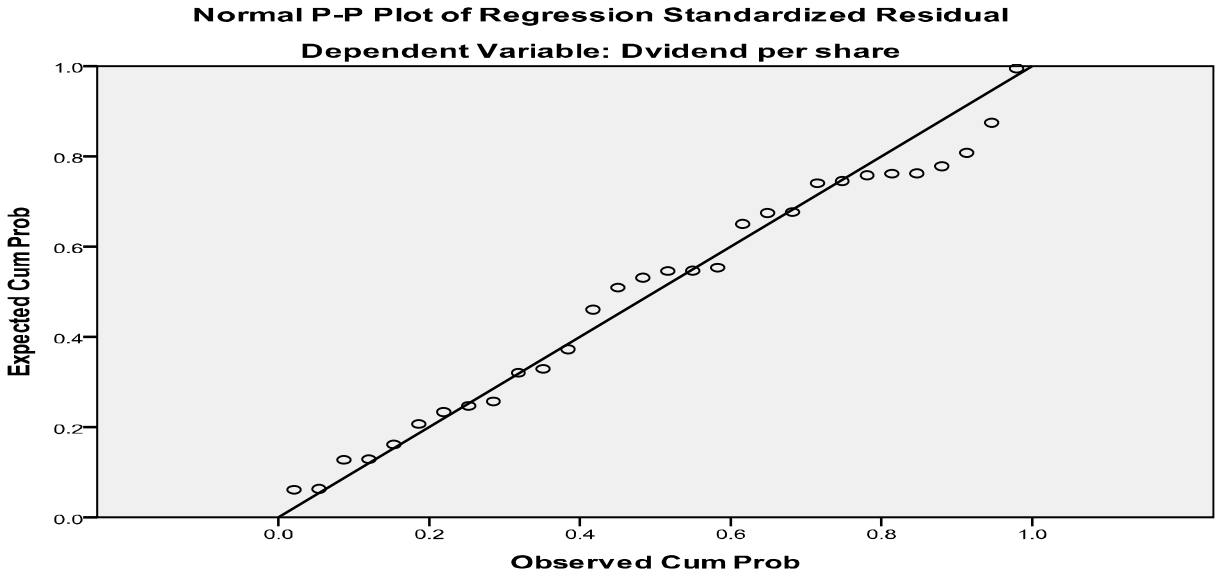

Table 1A: Correlations matrix of dependent and independent variables

		DPS	PROF	LIQ	LEVE	Size	LDP	Grow
DPS	Pearson Correlation	1	.426*	.047	-.268	.219	.444*	-.183
	Sig. (2-tailed)		.019	.805	.152	.246	.014	.332
	N	30	30	30	30	30	30	30
PROF	Pearson Correlation	.426*	1	.203	-.487**	-.050	.356	.275
	Sig. (2-tailed)	.019		.281	.006	.792	.053	.141
	N	30	30	30	30	30	30	30
LIQ	Pearson Correlation	.047	.203	1	-.314	.343	.453*	-.185
	Sig. (2-tailed)	.805	.281		.091	.064	.012	.327
	N	30	30	30	30	30	30	30
LEVE	Pearson Correlation	-.268	-.487**	-.314	1	.372*	-.378*	-.116
	Sig. (2-tailed)	.152	.006	.091		.043	.039	.542
	N	30	30	30	30	30	30	30
Size	Pearson Correlation	.219	-.050	.343	.372*	1	.092	-.395*
	Sig. (2-tailed)	.246	.792	.064	.043		.629	.031
	N	30	30	30	30	30	30	30
LDP	Pearson Correlation	.444*	.356	.453*	-.378*	.092	1	-.244
	Sig. (2-tailed)	.014	.053	.012	.039	.629		.194
	N	30	30	30	30	30	30	30
Grow	Pearson Correlation	-.183	.275	-.185	-.116	-.395*	-.244	1
	Sig. (2-tailed)	.332	.141	.327	.542	.031	.194	
	N	30	30	30	30	30	30	30

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2A: Regression Results of Empirical Model I

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.645[a]	.417	.374	18.92733	2.502

a. Predictors: (Constant), Lagged dividend per share, Earning per share

b. Dependent Variable: Dividend per share