

# FIRM SPECIFIC DETERMINANTS OF DIVIDEND PAYOUT: EVIDENCE FROM SELECTED INSURANCE COMPANIES

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# ABSTRACT

Dividend policy decision has a great influence on financial structure, flows of funds corporate liquidity and wealth of the firms. However it's yet unresolved puzzle. This paper is an effort to identify the firm specific factors that determine dividend payout with reference to selected Ethiopian insurance companies on basis of data covers eight years (2007-2014) period. In light of prior literature, key explanatory variables were identified to disclose their relationship and influence on dividend payout. These variables are profitability, liquidity, leverage, firm's size, growth opportunity, lagged dividend payout ratio and business risk. The assumptions needed to be fulfilled for OLS were tested; and random effect panel least square regression analysis was performed. Result using regressionexhibited that profitability, liquidity, growth opportunity and lagged dividend payout ratiohasa significant relationship with dividend payout ratio. Also the study found that leverage, firm size and business risk were found to be insignificant in dividend payout decision of insurance companies. While designing their dividend payout policy board of directors and managers of insurance companies need to consider the company's profitability as it creates more cash inflow potential, company's liquidity position as inefficiency on it leads to decrease in profitability, the company's growth opportunity so as to be competent in the arena.

### Key Words: Dividend policy; dividend payout; Profitability, Clientele Effect, and Signaling.

# **Background of the study**

Researchers have developed many theoretical models describing the factors that managers of the corporate firms should consider while taking dividend policy decision. Brealey and Myers, (2005) stated the dividend policy as one of the top ten most difficult unsolved problems in financial economics. Dividend decision is one of the major decisions of managerial finance and has a great influence on financial structure, flows of funds and corporate liquidity. Al-Malkawi, (2010), described that, the Relationship between dividend and the value of the share is not yet a clear cut. Financial manager must understand the various conflicting factors which influence the dividend policy before deciding the allocation of its company's earnings into dividends and retain earnings. When the firm retains the earning; its impact can be seen in many factors such as decreased leverage ratio, expansion of activities and increase in profit in succeeding years. Whereas if firm pays dividend, it may need to raise capital, that will effect on risk characteristics of the firm Higgins, (1972). Therefore there are many dimensions to be considered on dividend theories, policies and practices.

Dividend policy has been analyzed for many decades, but no universally accepted explanation for companies' observed dividend behavior has been established. Following the publication of the dividend irrelevance hypothesis of Miller and Modigliani, (1961) the literature on dividend policy has produced a large body of theoretical and empirical research. M&M asserted that in perfect capital markets the value of a firm is independent of its dividend policy. However, the fallacy of their assumption can be explained by various market imperfections (taxes, transaction costs, information asymmetry, agency problems). Hence, these market imperfections have provided the basis for the development of various theories of dividend policy including taxpreference, clientele effects, signaling, and agency costs. Adjacent to the controversy, researchers have developed and empirically tested various models to explain dividend behavior. For instance Rozeff, (1982) found that a negative relationship between dividend payout ratio and the factors such as the growth rate of sales, insider ownership, and the beta of the firm.Contradictory of this,Crutchley and Hansen, (1989)suggested that the greater the size of firm, the greater the risk of firm's operation, and the lower the costs of capitalhas positive relationship with the greater dividend payout ratio of the firm. Moreover, studies that have been conducted on dividend policy in the SSA region have mostly concentrated on the link between dividends and particular variables of interest. For instance, Nnadi & Akpomi, (2008) study the interrelationship between dividends, profits and taxes of Nigerian banks; Abor & Bokpin, (2010)look at the interaction between investment opportunities sets, dividend payout and corporate finance; while Abor & Fiador, (2010) focus on the link between dividend payout and corporate governance. Furthermore, researchers have primarily focused influential factors of dividend policy on developed and emerging markets, while the study in the countries like Ethiopia without active secondary market is not extensively researched. As a result, the subject is not well established in the financial literature. Dividend policy in country without active secondary market is often very different in its nature and characteristics from that of developed and emerging markets. This particular study takes into account the insurance companies in Ethiopia to identify factors who influence dividend payout. Investors need to know factors that affect dividend policy thus research needs to be conducted so as to managers and investors make careful decisions. Therefore, the aim of this study is to identify firm specific factors that determining the dividend policy on two dimensions the decision to pay or not to pay dividend.

**Objectives of the study:** The main objective of this study is to examine firm specific factors that influencing dividend payout of selected insurance companies.

Specifically;

- 1. To examine the effect of profitability on dividend payout of insurance companies.
- 2. To examine the effect of liquidity on dividend payout of insurance companies.
- 3. To examine the effect of leverage on dividend payout of insurance companies.
- 4. To examine the effect of firm growth opportunity on dividend payout of insurance companies.
- 5. To examine the effect of firm's size on dividend payout of insurance companies.
- 6. To examine the effect of lagged dividendon dividend payout of insurance companies.
- 7. To examine the effect of business risk on dividend payout of insurance companies.

### **Research hypothesis**

The study was done based on the following research hypothesizes which were derived from the specific objectives and tested throughout the analysis of the study:

H1: Profitability has a positive effect on dividend payout of insurance companies.

H2: Liquidity has a positive effect on dividend payout of insurance companies.

H3: Leverage has a negative effect on dividend payout of insurance companies.

H4: Growth opportunity has a negative effect on dividend payout of insurance companies.

H5: Firm size has a positive effect on dividend payout of insurance companies.

H6: Lagged dividend payout ratio has a positive effect on dividend payout of insurance companies.

H7: Business risk has a negative effect on dividend payout of insurance companies.

# Literature review

Even if they are not alike in their research output on the dividend policy decision, the term dividend and dividend policy defined in different ways but almost in a similar meaning by numerous scholars. Davies and Pain, (2002), Defined dividend as, the amount payable to shareholders from profit or distributable reserves. Rozeff, (1982), Defined dividend policy as, the policy followed by the firm regarding the dividend versus retention decision. Dividend policy refers to the issue of how much of the total profit a firm should pay to its stockholders and how much to retain for investment so that the combined present and future benefits maximize the wealth of stockholders. However, not only specifies the amount of dividend, but also form of dividend, payment procedure etc. Dividend policy determines the decision of earnings between payment to stockholders and reinvestment in the firm. Retained earnings are one of the most significant sources of funds for financing corporate growth, but dividends constitute the cash flow that accrues to stockholders Weston and Copeland, (1991).

# **Dividend policy theories**

Three main contradictory theories of dividends can be identified. Some argue that increasing dividend payments increases a firm's value. Another view claims that high dividend payouts have the opposite effect on a firm's value; that is, it reduces firm value. The third theoretical approach asserts that dividends should be irrelevant and all effort spent on the dividend decision is wasted. These views are embodied in three theories of dividend policy: high dividends

increase share value theory (or the so-called 'bird-in-the- hand' argument), low dividends increase share value theory (the tax-preference argument), and the dividend irrelevance hypothesis. Dividend debate is not limited to these three approaches. Several other theories of dividend policy have been presented, which further increases the complexity of the dividend puzzle. Some of the more popular of these arguments include the information content of dividends (signaling), the clientele effects, and the agency cost hypotheses. These are discussed in turn below:-

### **Dividend Irrelevance Hypothesis**

The seminal work of Miller and Modigliani, (1961), discussed that, Given that in a perfect market dividend policy has no effect on either the price of a firm's stock or its cost of capital, shareholders wealth is not affected by the dividend decision and therefore they would be indifferent between dividends and capital gains. The reason for their indifference is that shareholder wealth is affected by the income generated by the investment decisions a firm makes, not by how it distributes that income. Therefore, in M&M's world, dividends are irrelevant. M&M argued that regardless of how the firm distributes its income, its value is determined by its basic earning power and its investment decisions. They stated that "given a firm's investment policy, the dividend payout policy it chooses to follow will affect neither the current price of its shares nor the total returns to shareholders". In other words, investors calculate the value of companies based on the capitalized value of their future earnings, and this is not affected by whether firms pay dividends or not and how firms set their dividend policies. M&M go further and suggest that, to an investor, all dividend policies are effectively the same since investors can create "homemade" dividends by adjusting their portfolios in a way that matches their preferences.M&M based their argument upon idealistic assumptions of a perfect capital market and rational investors.

### Bird in the Hand Theory (High Dividends Increase Stock Value)

One alternative and older view about the effect of dividend policy on a firm's value is that dividends increase firm value. In a world of uncertainty and imperfect information, dividends are valued differently to retained earnings (or capital gains). Investors prefer the "bird in the hand" of cash dividends rather than the "two in the bush" of future capital gains. Increasing dividend payments, ceteris paribus, may then be associated with increases in firm value. As a higher current dividend reduces uncertainty about future cash flows, a high payout ratio will reduce the

cost of capital, and hence increase share value (Gordon and Shapiro, 1956).Miller and Modigliani, (1961) Have criticized the bird in the hand hypothesis and argued that the firm's risk is determined by the riskiness of its operating cash flows, not by the way it distributes its earnings. Consequently, M&M called this argument the bird-in-the-hand fallacy. Further, Bhattacharya, (1979) suggested that the reasoning underlying the Bird in the hand hypothesis is fallacious. Moreover, he suggested that the firm's risk affects the level of dividend not the other way around. That is, the riskiness of a firm's cash flow influences its dividend, but increases in dividends will not reduce the risk of the firm.

### **Tax Preference Theory (Low Dividends Increase Stock Value)**

The tax-effect hypothesis suggests that low dividend payout ratios lower the cost of capital and increase the stock price. In other words low dividend payout ratios contribute to maximizing the firm's value. This argument is based on the assumption that dividends are taxed at higher rates than capital gains. In addition, dividends are taxed immediately, while taxes on capital gains are deferred until the stock is actually sold. These tax advantages of capital gains over dividends tend to predispose investors, who have favorable tax treatment on capital gains, to prefer companies that retain most of their earnings rather than pay them out as dividends, and are willing to pay a premium for low-payout companies. Therefore, a low dividend will lower the cost of equity and increases the stock price (Brennan, 1970). In many countries a higher tax rate is applied to dividends as compared to capital gains taxes. Therefore, investors in high tax brackets might require higher pre-tax risk-adjusted returns to hold stocks with higher dividend yield. This relationship between pre-tax returns on stocks and dividend yields is the basis of a posited tax-effect hypothesis.

### **Clientele Effects of Dividends**

Miller and Modigliani, (1961) in their seminal paper noted that the pre-existing dividend clientele effect hypothesis might play a role in dividend policy under certain conditions. They pointed out that the portfolio choices of individual investors might be influenced by certain market imperfections such as transaction costs and differential tax rates to prefer different mixes of capital gains and dividends. M&M argued that these imperfections might cause investors to choose securities that reduce these costs. M&M termed the tendency of investors to be attracted to a certain type of dividend-paying stocks a "dividend clientele effect". Nonetheless, M&M maintained that even though the clientele effect might change a firm's dividend policy to attract

certain clienteles, in a perfect market each clientele is "as good as another"; hence the firm valuation is not affected; that is, dividend policy remains irrelevant. In practice, investors often face different tax treatments for dividend income and capital gains, and incur costs when they trade securities in the form of transaction costs and inconvenience. For these reasons and based on different investors' situations, taxes and transaction costs may create investor clienteles, such as tax minimization induced clientele and transaction cost minimization induced clientele respectively. These clienteles will be attracted to firms that follow dividend policies that best suit their particular situations. Similarly, firms may tend to attract different clienteles by their dividend policies. Allen, Bernardo and Welch, (2000) suggest that clienteles such as institutional investors tend to be attracted to invest in dividend-paying stocks because they have relative tax advantages over individual investors. These institutions are also often subject to restrictions in institutional charters (such as the "prudent man rule"), which, to some extent, prevent them from investing in non-paying or low-dividend stocks. Similarly, good quality firms prefer to attract institutional clienteles (by paying dividends) because institutions are better informed than retail investors and have more ability to monitor or detect firm quality.

### The Information Content of Dividends (Signaling)

Another hypothesis for why M&M's dividend irrelevance hypothesis is inadequate as an explanation of financial market practice is the existence of asymmetric information between insiders (managers and directors) and outsiders (shareholders). But managers who look after the firm usually possess information about its current and future prospects that is not available to outsiders. This informational gap between insiders and outsiders may cause the true intrinsic value of the firm to be unavailable to the market. If so, share price may not always be an accurate measure of the firm's value. In an attempt to close this gap, managers may need to share their knowledge with outsiders so they can more accurately understand the real value of the firm (Al-Malkawi, 2010).Many academics and financial practitioners also suggest that dividends might have implicit information about a firm's prospects. Even (Miller and Modigliani, 1961) suggest that when markets are imperfect share prices may respond to changes in dividends. In other words, dividend announcements may be seen to convey implicit information about the firm's future earnings potential. This proposition has since become known as the "information content of dividends" or signaling hypothesis. However, M&M dismissed the possibility that this

occurred by suggesting that the empirical evidence does not support the notion that investors prefer dividends to retained earnings (Al-Malkawi, 2010). Accordingly, it would not be surprising to find that managers are reluctant to announce a reduction in dividends. (Linter, 1956) Argued that,firms tend to increase dividend when managers believeearnings have permanently will increase.

### Agency Costs and Free Cash Flow Hypothesis

One of the assumptions of Miller and Modigliani, (1961)perfect capital market is that there are no conflicts of interests between managers and shareholders. In practice, however, this assumption is questionable where the owners of the firm are distinct from its management. In these cases managers are always imperfect agents of shareholders (principals). This is because managers' interests are not necessarily the same as shareholders' interests, and they might conduct actions that are costly to shareholders, such as consuming excessive perquisites or overinvesting in managerially rewarding but unprofitable activities. Shareholders therefore incur (agency) costs associated with monitoring managers' behavior, and these agency costs are an implicit cost resulting from the potential conflict of interest among shareholders and corporate managers. The payment of dividends might serve to align the interests and mitigate the agency problems between managers and shareholders, by reducing the discretionary funds available to managers (Rozeff, 1982). Another source of the agency costs problem that may be influenced by dividend policy is the potential conflict between shareholders and bondholders. Shareholders are considered as the agents of bondholders' funds. In this case, excess dividend payments to shareholders may be taken as shareholders expropriating wealth from bondholders (Jensen and Meckling, 1976). However, accepting the notion that increasing dividends will reduce the funds available to managers and force them to be in the market to acquire funds means that shareholders should be willing to tolerate the risk of the firm being more indebted and also accept paying higher personal tax rates on dividends. In other words, shareholders have to tradeoff between the costs and benefits of acquiring more dividends (Al-Malkawi, 2010).

# Empirical review on the determinants of dividend payout

(Lee, 2009), conducted a study to examine what factors significantly affect the dividend policy of Korean banks from 1994 to 2009 using multiple regression technique. The factors used are profit and risk, risk is measured by three variables, capital to asset ratio of the banks, loan to asset ratio of the banks, and non-performing loans to asset ratio of the banks. The finding

indicated that the banks with higher profitability or performance pay more dividends. Furthermore, the finding showed strong significant and consistent evidences that the safer banks pay more dividends.

(Gupta and Banga, 2010), Investigated the determinants of corporate dividend policy of Indian companies. The study was re-examined various factors that ware a bearing on the dividend decision of a firm by using a two-step multivariate procedure. First factor analysis was performed on the data to extract prominent factors from various variables and then multiple regressions conducted on the factors. Results of factor analysis indicated that leverage, liquidity, profitability, growth and ownership structure are the major factors. Regression on these factors showed that leverage and liquidity to be the determinants of the dividend policy for Indian companies. (Imran, 2011), empirically investigated the factors affecting the dividend payout decisions of Pakistan engineering sector using the data of 36 listed firms during 1996–2008. Using various panel data techniques, he found that the dividend payout was positively affected by last year's dividend, earning per share, profitability, sales growth and the size of the firm, whereas it was negatively affected by the cash flow.(Rehman and Takumi, 2012), conducted a study on determinants of dividend payout ratio of Pakistani companies listed on Karachi Stock Exchange for the year 2009 using multiple regression technique. The study used dividend payout ratio as dependent variable and debt to equity ratio, profitability, cash flow, market to book value ratio, current ratio and corporate tax. The finding showed that profitability, debt to equity and market to book value ratio have significant positive impact on dividend payout ratio, the rest of the variables are insignificant.

(Simegn, 2013), Researched the determinants of dividend policy of banks in Ethiopia using multiple regression technique from 2002-2011. The researcher included; current earning, previous year's dividend, liquidity, leverage, loan loss provision and bank's age are as explanatory variables for the dividend policy of Ethiopian banks. The regression result shows that current earning, previous year's dividend, bank's age and loan –loss provisions have positive and statistically significant impact on the banks dividend payments whereas liquidity has negative impacts and leverage is not an important variable for the banks dividend decision.

(Christopher, 2014) Empirically test the Determinants of the Dividend Policy of Lebanese listed banks. The study considered the impact of seven variables, namely, profitability, liquidity, leverage, firm size, growth, firm risk and previous year's dividend payout on the dividend payout

ratios by using an unbalanced panel dataset of listed banks between the years of 2005 and 2011. Empirical results showed that the dividend payout policies are positively affected by the firm size, risk and previous year's dividends, but are negatively affected by the opportunity growth and profitability. (Khan & Asharaf, 2014) Carried out a research entitled "In Pakistani Service Industry: Dividend Payout Ratio as Function of some Factors". The explained variable of the study was that dividend payout ratio and the explanatory variables were of Corporate Profitability, Cash flow, tax, Sales Growth and Debt to Equity ratio. The result of the study showed that dividend payout ratio is not the function of Corporate Profitability, Cash Flow, Tax, and growth opportunity except Debt to Equity ratio.

There exist enormous verge of research on influential factors of dividend payout or policies in developed countries and emerging market. Various research findings on dividend payout reviled that business risk is statistically significant variable on dividend payout decision (Dickens, 2002),(Abor and Amidu, 2006),(Mehta, 2012)and (Christopher, 2014). However, all available previous studies conducted in Ethiopia not incorporate this variable on their research. Risk measured in the stock Beta (Rozeff, 1982) or Price earnings ratio(Sheikh Taher, 2012). However, risk alternatively can be measure in earning volatility as measured by log of standard deviation of revenue (Dickens, 2002)&(Mehta et. al., 2014). This measure is a best fit for the Ethiopian companies as there is no stock market in the country. Hence, this study incorporatedthe risk variable.Previous studies conducted on the topic of determinants of dividend payout were focused mainly in those countries that have established secondary markets.

# **Research Design and Methodology**

According to Creswell (2003), the problem that is going to be investigated in the study is used as a base for determining the research approach. He noted that if the problem is identifying factors that influence an outcome, the utility of an intervention or understanding the best predictors in outcomes, then a quantitative approach is best. Therefore to understand and analyze the possible fir specific determinants of dividend payouts of insurance companies, the study adopts a quantitative research approach.

# Population and sampling technique

Currently there exist sixteen private insurance companies and one public insurance company operated in Ethiopia (NBE, 2015). To make inference about the population a large sample size is

important. Hence, out of the currently operational seventeen insurance companies in Ethiopiathe researcher select eight insurance companies. The sampled insurance companies existence in both macro and micro environmental change of the countryis the basic sample selection criteria (For instance (some of insurance companies started operation recently. Hence, the researcher selected eight insurance companiesbased on the under listed criteria's;

Ownership: - only private insurance companies are included as they are expected to pay dividend to shareholders),

Operation period: -only insurances' who have fully served for more than the past eight years in the insurance industry)

Representativeness to the population: - sampled insurance companies represent 80% of the private insurance companies' total asset and 46% of the insurance industry total assets. In addition, they also reported 80% and 83 % of total private insurance companies revenue and net profit of the year 2014 respectively (NBE, 2015).

### Data type

The type of data used in this study is quantitative in nature and can be best fit to the panel data analysis. The Panel data involves the pooling of observations on a cross section of units over several time periods and provides results that are simply not detectable in pure cross sections or pure time series studies Brooks, (2008). The researcher collected secondary data from National Bank of Ethiopia and published annual reports of eight Ethiopian insurance companies included in the sample for the period of eight years (2007-2014). The expected total number of observation 64 (8\*8). However, the absence of dividend in the middle years and the dropout of outlier figures from the regression by researcher so as to keep the normal distribution of the data setlead the total number of observation decrease into 51 only. Hence, the data also become unbalanced panel.

# Methods of Data analysis

To comply with the objective of this research, the paper is primarily based on quantitative research, which adopted an econometric model to identify and measure the factors influence dividend payout of Ethiopian insurance companies. The researcher adopted multiple linear regression models to identify and measure possible factors that could affect the Dividend Payout

as measured by Dividend Payout Ratio (DPR).Regression is concerned with describing and evaluating the relationship between a given variable (usually called the dependent variable) and one or more other variables (usually known as the independent variables)Brooks, (2008).The data collected for the study has the dimension of both time series and cross sections. Therefore, panel data regression technique is used to conduct the analysis andEViews 8 statistical software has employed.

#### **Model specification**

The data used in this study consists of both cross sectional and time series information; it does not contain equal information of all insurance companies in the sample for the entire period. Therefore, unbalanced panel estimation techniques are used in this study. Panel techniques take into account the heterogeneity present among individual insurance companies, and allow the study of the impact of all factors with less collinearity among variables, more degree of freedom and greater efficiency(Christopher and Rim, 2014). The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationshipsBrooks, (2008).

According to Brooks, (2008), the general multivariate regression model with K independent variables can be written as follows:-

$$Y_{i} = \beta_{0} + \beta_{1}X_{1i} + \beta_{2}X_{2i} + \dots + \beta_{k}X_{ki} + \varepsilon_{i} (i 1, 2, 3, \dots, n)$$

#### Where

Y<sub>i</sub> is the i<sup>th</sup> observation of the dependent variable,

 $X_{1i},...,X_{ki}$  are the i<sup>th</sup> observation of the independent variables,

 $\beta_0, \ldots, \beta_k$  are the regression coefficients,

 $\epsilon_i$  is the  $i^{th}$  observation of the stochastic error term, and n is the number of observations.

Hence, the determinant of dividend payout Ratio (DPR) can be modeled as described below:- $DPR = \beta_0 + \beta_1 PROi, t + \beta_2 LIQi, t + \beta_3 LEVi, t + \beta_4 GROi, t + \beta_5 SIZEi, t + \beta_6 LDPRi, t + \beta_7 RISKi, t + \varepsilon_i, t$ 

Where;-

DPR = Dividend Payout Ratio = Dividend / Net Profit PRO = Profitability = Net Profit / Shareholder's equity LIQ = Liquidity = Current Assets/ Current Liability LEV = Financial Leverage = Total Debt/ Total assets GRO = Growth Opportunity = (Current Rev. - previous Rev.)/ Previous Rev. SIZE = Firm's Size = Natural logarithm of total assets LDPR = Lagged Dividend Payout Ratio = (last year Dividend Payout Ratio) RISK = Business Risk = Natural logarithmic of the standard deviation of revenue  $\beta o$  = Constant term  $\beta 1, 2, 3, \dots 7$  are parameters to be estimated;  $\varepsilon$  = is the error component for company i at time t assumed to have mean zero E [ $\varepsilon$  it] = 0 i = Insurance company i = 1, ..., 8; and

t = the index of time periods and t = 1, ..., 8

# Variables definition and Hypothesis development

According to Creswell, (2009), to make it is clear to readers what groups are receiving the experimental treatment and what outcomes are being measured, the variables need to be specified in quantitative researches.

**Dependent variable:** In line with previous studies that examined the main determinants of dividend payment, the dependent variable used in this study is the dividend payout ratio (DPR), defined as the dividend paid divided by net income (Rozeff, 1982); (Lloyd, 1985). This variable measures the percentage of the company's earning distributed to shareholders(Christopher and Rim, 2014). Payout ratio is calculated by dividing the total dividend to net profit of every stock.

**Independent variables:** Among numerous potential determinants of dividend decisions identified in previous similar studies; profitability, liquidity, leverage, growth opportunity, firm size, lagged dividend payout and business risk are included in this study.

**Profitability:** Profitability, in this study, is measured as Return on Equity or Net income divided by Total equity (Christopher, 2014); (Freeman et al., 1982). It has been found as one of the most essential determinants of dividend payout policy (Linter, 1956),(Amidu & Abor, 2006)(Kinfe, 2011); (Rehman and Takumi, 2012) and (Christopher and Rim, 2014).

**Liquidity:** Liquidity measures the extent to which a firm is able to meet its payment obligations(Rozeff, 1982). Firm liquidity can be measured by its current ratio. Firm's liquidity is an important factor that affects the firm decision to pay cash dividends(Christopher and Rim, 2014). High-liquidity firms pay higher dividends to shareholders than those with insufficient cash (Al-Malkawi et al., 2007).

**Leverage:** To analyze the extent to which debt can affect dividend payouts, the ratio of total debt (both short-term and long term debts) to total assets is used as a proxy for leverage. The empirical evidence regarding the effect of leverage on dividend payout is mixed. Some studies found that firms with high debt ratios are willing to pay fewer dividends (Jensen M. S., 1992); (Al-Malkawi et al., 2007) since they are committed to fixed payments to service their debt, which restrict the distribution of dividends.

**Growth opportunities:** The change in revenues (interest and non-interest revenues) is used as a proxy for growth opportunities. If a firm is growing rapidly, the more is the need for funds to finance the expansion, and the more likely the firm is to retain earning rather than to pay them as dividends (Chang & Rhee, 2003). Consequently, firms with higher growth opportunities are likely to retain a greater portion of their earning, resulting in lower dividend payout ratio (Rozeff, 1982); (Jensen M. S., 1992); (Alli et al, 1993).

**Firm size:** The size of the firms is measured by the natural logarithm of total assets as used by (Christopher, 2014) and is included to account for size variability. Large companies tend to be more competitive, with access to capital, better credit rating, and more customers, which will enhance their profitability and increase their ability to pay higher dividends (Dickens et al., 2002).

Lagged dividend payout ratio: In the real world, it is often believed that companies pay a steady stream of dividends because investors perceive firms with stable dividends as stronger and more valuable. (Linter, 1956)showed that historical dividends are important in determining current dividends. The model was tested and reaffirmed by (Fama and Babiak, 1968), who

concluded that the Lagged dividend payout ratios positively affect the current dividend payout ratio of a company.

**Business risk:** Basil Al-Najjar & Khaled Hussainey , (2009) Defined business risk as the probability of decrease in returns on investment owing to exceptional circumstances. Under transaction cost theory, (Rozeff, 1982) suggested that the transaction costs of external financing will be higher when the firm has higher operating and financial leverage. Thus, a lower dividend policy seems to be applied to riskier companies in order to lessen the transaction expenses from outside finance.

### Data analysis results and Discussion

In this study as mentioned in previous section diagnostic tests were carried out to ensure that the data fits the basic assumptions of classical linear regression model. Regression analysis was conducted and inferences were drawn from it. Regression results from the Eview8 output were presented in a tabular form, from where detailed analysis and discussion of the result was given.

### Choosing Random effect (RE) Vs. fixed effect (FE) models

To determine the kind of estimation (model) in panel data, different tests are used. In this study to know which model (random effect or fixed effect) is suitable for the given data, Hausman specification test was conducted providing evidence in favor of the REM model Baltagi (2005). The null hypothesis for this test is that unobservable heterogeneity term is not correlated or random effect model is appropriate, with the independent variables. If the null hypothesis is rejected then we employ Fixed Effects method. Brooks, (2008).

### The Hausman test hypothesis is

H0= Random effect model is appropriate H1= Fixed effect model is appropriate

# Table-1: Hausman test

Correlated Random Effects - Hausman Test						
Test cross-section random effects						
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.			
Cross-section random	5.247614	7	0.6298			

Source: EViews output

Table=1 above shows Hausman specification test, the P-value of a models is 0.6298, which is more than 5% level of significance. Hence, the null hypothesis of the random effect model is appropriate is failed to reject at 5 percent of significant level. This implying that, random effect model is more appropriate than fixed effect model

**Regression analysis results:** The summary of the regression results from the Eview8 output were presented in table-2, from where detailed analysis and discussion of the result was given.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.733685	0.309724	2.368834	0.0224*
PRO	0.509506	0.136492	3.732850	0.0006**
LIQ	-0.141391	0.034908	-4.050421	0.0002**
LEV	-0.097147	0.108742	-0.893374	0.3766
GRO	-0.096500	0.021971	-4.392229	0.0001**
SIZE	-0.000168	0.022325	-0.007532	0.9940
LDPR	0.366690	0.056000	6.548059	0.0000**
RISK	-0.017661	0.057802	-0.305538	0.7614
Weighted Statistics				
R-squared	0.754637	Mean dependent var		0.580878
Adjusted R-squared	0.714695	S.D. dependent var		0.096026
S.E. of regression	0.051291	Sum squared resid		0.113124
F-statistic	18.89297	Durbin-Watson stat		2.026701
Prob(F-statistic)	0.000000			

Table-2: Random effects model regression results

Source: Regression output of Eview8:

\*correlation coefficient significant at 5% and \*\* correlation coefficient significant at 1% significance level respectively.

The estimation results reported in Table-2 also depicted that, The R-squared and Adjusted R-squared values of 0.75 and 0.71 respectively is an indication that the model is a good fit. This means more than 71% of variations in dividend payout ratio of insurance companies were explained by independent variables included in the model. However, the remaining 29% changes

in dividend payout ratio of insurance companies are caused by other factors that are not included in the model. Furthermore, the F-statistic was 18.89 and the probability of not rejecting the null hypothesis that there is no statistically significant relationship existing between the dependent variable (DPR) and the independent variables, is 0.000000 indicates that the overall model is highly significant at 1% and that all the independent variables are jointly significant in causing variation in dividend payout. The panel random effect estimation regression result in the above table 4.7 shows that, coefficient intercept ( $\alpha$ ) is 0.733685. This means, when all explanatory variables took a value of zero, the average value DPR would be take 0.733685 unit and statistically significant at 5% level of significance.

### Profitability (PRO) and Dividend payout Ratio (DPR)

As the above random effect regression output table-2 presented that, the coefficient of profitability (PRO) measured by return on equity is 0.509506 and its P-value is 0.0006. Holding other independent variables constant at their average value, when profitability (ROE) increase by one percent, dividend payout ratio (DPR) of sampled insurance companies will increase by 51% and statistically significant at 1% of significant level. Therefore, the researcher failed to reject the null hypothesis that profitability has a positive effect on dividend payout. This means, there is no sufficient evidence to support the negative relationship between dividend payout ratio and profitability. The relationship is positive as expected and this positive relationship between profitability and dividend payout could be attributed to the fact that more profitable firms tend to pay more dividend. This finding is similar to the finding of (Amidu & Abor, 2006)and (Al-Malkawi et al., 2007). The possible reason for the significant positive relationship could be the lack of profitable investment opportunity in the country for insurance companies and the restrictions on investable fund for the sector. In addition the finding is consistent with the agency cost and free cash flow hypothesis; managers want to minimize the agency cost of shareholders. This may suggests that Ethiopian insurance companies pay dividend by considering the level of profit.

# Liquidity (LIQ) and Dividend payout Ratio (DPR)

Table-2 also presented that, the coefficient of liquidity (LIQ) measured by current ratio is - 0.141391 and its P-value is 0.0002. Holding other independent variables constant at their average value, when liquidity (LIQ) increased by one percent, dividend payout ratio (DPR) of

sampled insurance companies would be decreased by 14 percent and statistically significant at 1% level of significant. Therefore, the researcher rejects the null hypothesis that liquidity has a positive impact on dividend payout. The sign differs from the initial assumption. This means, there is no sufficient evidence to support the positive relationship between dividend payout ratio and profitability. Against all odds, liquidity displays a negative sign. This negative association between liquidity and dividend payout is supported by prior literature in Ethiopia (Simegn, 2013). This negative association between liquidity and dividend payout could be attributed to the fact that, due to absence of capital market in the country managers of Ethiopian insurance companies obliged to hold excess amount of current assets which eventually lead to decrease in profit as well as dividend payout. Besides, Insurance companies by their nature requiremaintaining high liquidity (current asset) in order to avoid insolvency problem on claim settlement.

### Leverage (LEV) and Dividend payout Ratio (DPR)

As can be seen in the above table -2, the coefficient of leverage (LEV) measured by debt to total asset ratio is 0.097147 and its P-value is 0.3766. Holding other independent variables constant at their average value, when leverage (LEV) increased by one percent, dividend payout ratio (DPR) of sampled Ethiopian insurance companies would be increased by 9.7 percent but statistically insignificant at 5% level of significance. Therefore, the researcher rejects the null hypothesis that there is negative relationship between dividend payout ratio and leverage. This means, there is no sufficient evidence to support the negative relationship between dividend payout ratio and leverage. This negative relationship is in line with the agency theory and could be explained in a way that insurance companies with low debt ratio tend to pay high dividends and increasing leverage is associated with decrease in dividend payout. In this study, leverage is insignificant; suggesting that this variable is not an essential factor in influencing dividend payments in insurance companies' case. The result support the research results of (Kinfe, 2011), (Nuredin, 2012) and (Simegn, 2013). However, contradict with the finding of (Dagnaw, 2009). This negative association between leverage and dividend payout could be attributed to the fact that, Ethiopian insurance companies not allowed to hold long term debt so as to avoid insolvency problem upon claim settlement.

### Growth opportunity (GRO) and Dividend payout Ratio (DPR)

As it presented Table-2 above, the coefficient of growth opportunity (GRO) measured by change in revenue is -0.096500 and its P-value is 0.0001. Holding other independent variables constant at their average value, when Growth opportunity (GRO) increased by one birr, dividend payout ratio (DPR) of sampled Ethiopian insurance companies would be decreased by 9.6% and statistically significant at 1% level of significant. Therefore, the researcher failed to reject the null hypothesis that there is negative relationship between growth opportunity and dividend payout ratio. This means, there is no sufficient evidence to support the positive relationship between dividend payout ratio and growth opportunity. As expected, the relationship between growth opportunity and dividend payout of insurance companies is negative. The result of the regression output supported by the previous works of (Abor and Amidu A. M., 2006) and(Al-Malkawi et al., 2007), Hence, the result is in line with the agency and pecking order theories, that states companies with high growth opportunities tend to pay fewer dividends. This view is supported by (Higgins R., 1972) who noticed that payout ratio is negatively related to a firms need for funds to finance growth opportunity. This negative association between growth opportunity and dividend payout could be attributed to the fact that, Ethiopian insurance industry is on the growth stage and companies under growing sector require an additional investable fund to survive in the competition. As (Chang & Rhee, 2003) stated that the higher the growth opportunities, the more the need for funds to finance expansion, and the more likely the firm is to retain earnings than pay them as dividends.

### Firm's size (SIZE) and Dividend payout Ratio (DPR)

Table 4.7 above depicted that, the coefficient of firm's size (SIZE) measured by natural logarithmic of total asset is -0.000168 and its P-value is 0.9940. Holding other independent variables constant at their average value, when firm's size (SIZE) increased by one birr, dividend payout ratio (DPR) of sampled Ethiopian insurance companies would be decreased by 0.0168%, but statistically insignificant at 5% of significance level. In other words, there is insignificant negative relationship between firm's size and dividend payout ratio of Ethiopian insurance companies. Therefore, the researcher rejects the null hypothesis that there is positive relationship

between firm's size and dividend payout ratio. This means, there is no sufficient evidence to support the positive relationship between dividend payout ratio and firm's size. In contrary to the hypothesis of this research, Firm's size shows a negative relationship with dividend payout of Ethiopian insurance companies. Furthermore, (Rozeff, 1982) concluded that, larger firms pay higher cash dividends to minimize agency costs. The negative association between firm's size and dividend payout could be attributed to the fact that, Ethiopian insurance industry is in growth stage and the big companies are tend to invest their profit on expansion rather than paying dividend so as to increase their market share or to maintain their current status.

#### Lagged dividend payout ratio (LDPR) and Dividend payout Ratio (DPR)

As the above random effect regression output table 4.7 presented that, the coefficient of lagged dividend payout ratio (LDPR) is 0.366690 and its P-value is 0.0000. Holding other independent variables constant at their average value, when lagged dividend payout ratio (LDPR) increased by one percent, dividend payout ratio (DPR) of sampled Ethiopian insurance companies would be increased by 37% percentand statistically significant at 1% level of significant. Therefore, the researcher failed to reject the null hypothesis that there is positive relationship between lagged dividend payout ratio and dividend payout ratio. This means, there is no sufficient evidence to support the negative relationship between dividend payout ratio and lagged dividend payout ratio.As expected, the relationship between lagged dividend payout ratio and dividend payout of Ethiopian insurance companies is positive. The result of the regression output adhered to numerous studies on determinants of dividend payout(Linter, 1956), (Ahmed and Javid, 2009) and (Kinfe, 2011). Hence, the result supports the dividend stability model proposed by (Linter, 1956). Lagged dividend payout ratio payout shown to be statistically significant at 1% significance level in explaining the variation of dividend payout in Ethiopian insurance companies case. Furthermore, the finding of this research supports the signaling theory that states, companies wants to give a positive signal to the market that the company is in good condition continue paying dividends. The positive association between lagged dividend payout ratio and dividend payout ratio could be attributed to the fact that, in the absence of capital market that gives a liquidity option for shareholders in the country and high inflation that deteriorate the purchasing power of money may leads insurance companies managers to pay better dividend in every year on basis of the previous year dividend.

#### Business risk (RISK) and Dividend payout Ratio (DPR)

Table-2 above depicted that, the coefficient of business risk (RISK) measured natural logarithmic of the standard deviation of revenue is -0.017661 and its P-value is 0.7614. Holding other independent variables constant at their average value, when business risk (RISK) increased by 1%, dividend payout ratio (DPR) of sampled Ethiopian insurance companies would be decreased by 1.76% but statistically insignificant at 5% of significance level. Therefore, the researcher failed to reject the null hypothesis that there is negative relationship between business risk and dividend payout ratio. This means, there is no sufficient evidence to support the positive relationship between dividend payout ratio and business risk.(Abor and Amidu A. M., 2006), stated that high-risk firms pay lower dividends to their shareholders. Furthermore, according to the pecking order theory and the trade-off theory, business risk negatively affects the firm's leverage and thus its dividend payout ratio. Moreover, these theories also argue that firms that are highly risky also experience high cash flow volatility (Al-Malkawi et al., 2007). This insignificant negative association between business risk and dividend payout could be attributed to the fact that the volatility in Ethiopian insurance companies but stability in dividend payment to shoulders. The higher the business risk is the more the likelihood that the firm will be bankrupted and hence the lower the possibility for firms to pay dividends. This result is also consistent with agency theory of dividend policy.

### Conclusion

This study has explored the influential factors of dividend payoutof insurance companies in Ethiopia over the period 2007 to 2014. The study variables included in this study are profitability, liquidity, financial leverage, growth opportunity, firm's size, lagged dividend payout ratio and business risk as an independent variable and dividend payout ratio as independent variable. The analysis was conducted using panel data estimation technique of random effect model using EViews8 statistical software. The regression results show that Profitability found to have significant and positive relationship with dividend payout of selected insurance companies. The results suggested that, profitable insurance companies tend to pay high dividend. This result was in line with the pecking order and signaling theories of the dividend. Liquidity is also found to

have significant and negative relationship with dividend payout. A negative relationship between dividend payout and liquidity is against agency theory. The implication of this negative relationship is that the existence of inefficiency problem in insurance companies. Leverage is also found to have insignificant and positive relationship with dividend payout. The increase or decrease in leverage has no significant impact on dividend payout in Ethiopian insurance companies. Insurance companies by their very nature are highly levered firms. They extend borrowers mainly from the deposit they collected from the public.

Growth Opportunities has shown a significant and negative relationship with dividend payout. This finding supports the pecking order theory which says that the companies should use first internal sources to fund different projects and to keep the company growth. Therefore, firms with high growth or investment opportunities tend to retain their income to finance their investments, thus paying less or no dividends. Insurance companies in this study are in growth stage and insurance companies require further investments to fund the growth. Thus, the best alternative for financing this with low cost of capital is to use the profit they generating than distributing it as a dividend. This implies that growth and dividend payout has an inverse relationship. The firm size is negative and insignificant relationship with dividend payout and itcontradict the idea that larger firms have easier access to fund and are able to distribute dividends to shareholders better than smaller firms. The results also suggest that large insurance companies choose to pay few dividends to support the growth of the company. Lagged dividend paid has a significant and positive impact on dividend payout. Insurance companies that pay a high dividend in previous years have a tendency to pay a higher dividend on the coming years holding other things constant, which indicates lagged dividend paid has a positive impact on current year's dividend payout. Moreover, profitability along with the Lagged dividend payout ratio payout was the most essential variable that affected dividend payout ratio of the insurance companies, which means that last year's dividends affect today's dividend payout and insurance companies in this study follow stable dividend policy. Business risk has shown insignificant and negative relationship with dividend payout of Ethiopian insurance companies. The finding showed that the increase in risk will lead to the decrease in dividend; the insignificance of this variable could be due to the fact that the insurance companies are the volatility of insurance companies' revenue and relatively stability in dividend payout.

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