

The Determinants of Dividend Payout: Evidence from Private Banks in Ethiopia

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Abstract

The main objective of this study was investigating factors that determine the dividend payout of private commercial banks in Ethiopia under the study period covering from 2009 to 2017. A balanced panel data set from national bank of Ethiopia and ten private commercial banks annual report was used and analyzed through fixed effects panel data regression technique. Dividend payout was used as a dependent variable and the independent variables covered under this study were both bank specific (profitability, leverage, liquidity, size and last year dividend payout) and macroeconomic factors (inflation rate, real GDP growth rate and foreign exchange rate). The finding shows that from bank specific factor; profitability, liquidity, bank size and last year dividend payout have statistically significant positive effect on dividend payout while leverage shows insignificant positive effect for dividend payout. From macroeconomic variables inflation rate have a positive effect, but the real GDP growth rate, and foreign exchange rate have a negative effect and foreign exchange rate is the only significant macroeconomic factor for dividend payout. The results of this study have delivered some insights on the effects of both bank specific and macroeconomic factor for dividend payout of private commercial banks in Ethiopia and managements and board of directors of those banks need to consider these variables while designing their dividend payout. In addition, government body specially financial sector should have to consider the effect of macroeconomic variables on dividend payout when they are making a policy about macroeconomic issues.

Keywords: Commercial Banks, Bank Specific determinant, dividend payout and macroeconomic determinants.

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1. Introduction

Banks in Ethiopia are an essential part of our economic system. The owners of those banks are Shareholders, and the bank distributes a portion of its earnings to those shareholders which is called dividend. Ishtiaq (2016) described it as the best way of communication for banks to its shareholders.

In banking business, finance managers mostly face two operational decisions at the beginning. What real assets the firm should acquire? (Investment decision) and how these assets should be financed? (financing decision). However, another decision is raised when the firm begins to generate profits which is concerned with whether the firm distributes proportion of earned profits in the form of dividends or should reinvest back into the business (Al-Malkawi, Rafferty, & Pillai, 2010; Alam & Hossain, 2012). Such a decision of the firm about how much earnings should be distributed, how stable the distribution should be, and how much should be retained is the a dividend payout decision (Chekole, 2016).

Different shareholders have different interest in relation to dividend payout. According to Dhanani (2005) certain shareholders may prefer cash dividends while others may prefer capital gain. Therefore, based on the shareholders' preferences, managers and board of directors of the company should decide carefully that how much amount of earnings should be distributed to shareholders and how much portion of earnings should be reinvested in the business. Researchers in corporate finance have developed several theories to explain the dividend payout of firms and their determinants. Profitability, liquidity, risk, leverage, age, financial performance, size, previous dividend and capital adequacy are included in most of prior literatures. But the finding relation to the effect of those variables on dividend payout is inconsistent across different researchers.

Lintner (1956) who found that dividend payout are the function of a firm's profit and last year dividend. Who was also supported by different researchers (Pruit & Gitman 1991, and Gill et al., 2009). But in contrary to this Elias (2015) found the profitability effect for dividend payout is insignificant and Chekole (2016) said it has negative significant effect. Muhammed (2012) founds liquidity as a significant positive factor for dividend payout, but Simegn (2013) found it in the other sign and Elias (2015); Chekole (2016) and Henok (2016) stated it as a negative and insignificant factor for dividend payout of banks. Higgins (1981) state that firm size has a significant positive effect, but Elias (2015) and Henok (2016) found out its effect is negative and significant. Collins, Saxena & Wansley (1996) found that financial leverage affects firms' dividend payout decision, while Elias (2015) found it has a negative insignificant effect.

Since there is continuous change in globalization, regulation, parallel competition and volatile market dynamics, the factor affecting dividend payout in today might differ from the factors for yesterday. So conducting a research on such issue is still important. In Ethiopia different academicians conduct their research on the

determinants of commercial bank dividend payout such as; Theodros (2011); Simegn (2013); Elias (2015) and Chekole (2016). But as to the researchers' knowledge all of them concentrate on bank specific factors of dividend payout. That is why the researcher in this research tries to fill such a gap in the literature by incorporating additional macro-economic factors such as inflation rate, real GDP growth rate and foreign exchange rate.

1.1. Research objective

1.1.1. General Objective

The general objective of the study is to investigate the major determinants of the dividend payout in case of private commercial banks in Ethiopia.

1.1.2. Specific objectives

- To investigate the effect of bank specific factors over the dividend payout of private commercial banks in Ethiopia.
- To investigate the effects of macroeconomic factors over the dividend payout of private commercial banks in Ethiopia.

1.2. Hypothesis of the study

Research hypothesis are developed mainly by reviewing different literature so as to support the theory by empirical evidence. The researcher reviewed several empirical literature which is presented in the literature review part of this paper. Therefore, as per the review of prior literature related to the study area, the researcher has formulated the following research hypothesis.

Ho. There is a significant positive relationship between profitability and dividend payout of private commercial banks in Ethiopia.

Ho. There is a significant negative relationship between leverage and dividend payout of private commercial banks in Ethiopia.

Ho. There is a significant positive relationship between liquidity and dividend payout of private commercial banks in Ethiopia.

Ho. There is a significant positive relationship between Bank size and dividend payout of private commercial banks in Ethiopia.

Ho. The last year dividend has a positive significant relationship with a dividend payout of private commercial banks in Ethiopia.

Ho. There is a significant negative relation between Inflation rate and dividend payout of private commercial banks in Ethiopia.

Ho. There is a significant positive relationship between real GDP growth rate and dividend payout of private commercial banks in Ethiopia.

Ho. There is a significant negative relationship between Exchange rate and dividend payout of private commercial banks in Ethiopia.

2. Research Methodology

2.1. Research Design

The major objective of this paper is to investigate both bank specific and macroeconomic factors affecting dividend payout in Ethiopian private commercial banks. So the researcher follow quantitative approach and a primarily explanatory type of research is used to establish a relationship between a number of explanatory variables and dividend payout. On the other hand before testing the relationship between the dependent and independent variables, all the variables included in the study need to be identified and presented. Therefore descriptive type of studies is combined with explanatory study. According to Marshal (1996) the goal of quantitative research is to test a pre-determined hypothesis and to produce general results. By means of statistical methods, the results of quantitative analysis can prove or disprove hypotheses. Conclusions made from the analysis of quantitative data show how many are affected and where is the greatest area of impact.

2.2. Population and sample size

In this study a total population are all private banks in Ethiopia and a non-random sampling technique was applied, which is purposive or judgmental sampling based on the availability of 9 years data from all private commercial banks. List of banks that are included in the sample are presented in the following table clearly. Those sample present 62.5% of total population.

Table2.1: list private commercial banks(sample size)

No	Name Banks	Starting year	Age of banks
1	Awash International Bank S.C	1994	24
2	Dashen Bank S.C	1995	23
3	Wegagen Bank S.C	1997	21
4	United Bank S.C	1998	20
5	Nib International Bank S.C	1999	19
6	Cooperative Bank of OromiaS.C	2004	15
7	Lion International Bank S.C	2006	13
8	Oromia International Bank S.C	2008	10
9	Zemen BankS.C	2008	10
10	Birhan International Bank S.C	2009	9
Number of sample(10) /total population(16) =62.5% of total population			

Source: National bank of Ethiopia , 2017

2.3. Data Types and Source

In this study, the researcher use 10 private commercial bank financial data and national bank of ethhiopia (NBE) annual reports for subsequent 9 recent years, which covers the period from 2009 to 2017. Therefore, the researcher used secondary data only. Published secondary data were collected from selected private banks and from national bank of Ethiopia. In this the annual audited financial report of national bank of Ethiopia and some older private commercial banks are collected from their head office.

2.4. Method of Data Analysis

Descriptive statistics like mean, minimum, maximum and standard deviation were used to organize, summarize, and describe observations and to compare variables numerically. Second Correlation analysis is used to measure the degree of association between the dependent and independent variable. It also used to indicate the direction and the strength of association between independent and dependent variables (Simegn, 2013). Finally the regression analysis is used to see the relationship between the explanatory variables and the dependent variables and to test the hypothesis. The analysis was accomplished by using quantitative data analysis tool STATA version 12 software.

Table2.2:Variable description and their expected sign

No	Variable	Symbol	Description	Ex-sign
1	Profitability	PRO	PAT/shareholders' equity	+ve
2	Leverage	LEV	Total debt/total asset	-ve
3	Liquidity	LIQ	Current asset/current liability	+ve
4	Bank size	SIZ	Natural logarithm of total asset	+ve
5	Last dividend payout	LDP	Last year dividend payout rate	+ve
6	Inflation rate	INR	Annual inflation rate by NBE	-ve
7	Real GDP growth rate	GDPGR	GDP last- GDP this/GDP last year	+ve
8	Exchange rate	EXR	annual exchange rate Birr/USD	-ve

Source: prior researchers (Mundati, 2011; Theodros, 2011; Elias, 2013, knife, 2015 and Chekolle, 2016)

2.5. Model specification

The panel regression equation differs from a regular time-series or cross-section regression by the double subscript attached to each variable. The general form of the panel data model can be specified more compactly as:

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

From this i , represent the cross-sectional dimension

t , representing the time-series dimension

$Y_{i,t}$ represents the dependent variable ratio

$X_{i,t}$ contains the set of explanatory variables; and

α_i is constant over time t and specific to the individual cross-sectional unit i .

Thus dividend payout rate is expressed as a function of bank specific and macro-economic factors. $DPO = f(pro, liq, lev, ldpo, size, inf, gdpgr \text{ and } fer)$

$$DPO_{i,t} = \alpha_i + \beta_1 PRO_{it} + \beta_2 LEV_{it} + \beta_3 LIQ_{it} + \beta_4 SIZ_{it} + \beta_5 LDP_{it} + \beta_6 INR_{it} + \beta_7 GDPGR_{it} + \beta_8 FER_{it} + \epsilon_{it}$$

Where PRO, represents profitability

LIQ, represents liquidity
 LEV, represents leverage
 SIZ, represent bank size
 LDP, represents last year dividend payout
 INR, represent inflation rate
 GDPGR, represent real GDP growth rate
 FER, represents foreign exchange rate
 $\beta_1 - \beta_8$, represents regression coefficients for each explanatory variable
 a_i , represents the intercept of the regression equation
 i , represents the cross-section dimension (banks)
 t , represents the time series dimension (years)
 ϵ represents the error term which accounts for variables affecting DPO that are not included in the model.

3. RESULTS AND DISCUSSION

3.1. Descriptive analysis

Table 4.1 provides a summary of the descriptive statistics of the dependent and independent variables for ten private commercial banks from year 2009 to 2017 with a total of 90 observations. The table shows the mean, median, standard deviation, minimum and maximum for the independent and dependent variables used in this research. It shows the average indicators of variables computed from the financial statements of each bank and national bank of Ethiopia annual report.

Table 3.1: descriptive statistics of the collected data

Variable	Obs	Mean	Std.Dev.	Min	Max
Dpo	90	.3625578	.252958	0	.8996975
Pro	90	.2417521	.1171031	-.1303632	.5823284
Lev	90	.901583	.8679757	.0045529	8.884677
Liq	90	.8910957	.4500407	.0137874	1.942285
Siz	90	22.35046	1.393415	18.4116	24.46034
Ldp	90	.3392564	.2552299	0	.8996975
Inr	90	.1551111	.1133627	.028	.364
Gdpgr	90	.1037778	.0073252	.087	.114
Fer	90	19.87743	3.688774	13.5321	27.0321

Source: STATA 12 output for summary of the collected data

3.2. Correlation analysis

Table 3.2: Correlation matrix for both dependent and independent variables

var	Dpo	Pro	Lev	Liq	Siz	Ldp	Inr	gdpgr	fer
Dpo	1.0000								
Pro	0.5477	1.0000							
Lev	0.1126	0.1286	1.0000						
Liq	0.5521	0.3264	0.0316	1.0000					
Siz	0.5554	0.4960	0.0614	0.6082	1.0000				
Ldp	0.6938	0.3937	0.1673	0.4203	0.3726	1.0000			
Inr	-0.0413	-0.1298	-0.0633	-0.0816	-0.1808	-0.1931	1.0000		
Gdpgr	-0.0872	-0.0711	0.0594	0.0090	0.0063	0.1184	-0.4767	1.0000	
Fer	0.1640	0.1676	0.2191	0.3274	0.5170	0.3061	-0.5412	0.3353	1.0000

Source: STATA 12 output, correlation matrix

The above table shows the degree of correlation/association between one dependent variable (dividend payout) and eight explanatory variables (profitability, leverage, liquidity, size, last year dividend, inflation rate, real GDP growth rate and foreign exchange rate). The result shows that all bank specific variables are positively correlated with dividend payout. This indicates that when bank specific variables increase dividend payout moves in similar direction. In the other case from macroeconomic variables inflation and real GDP growth rate are negatively correlated with dividend payout. This indicates that when those macroeconomic variables increase, dividend payout goes in the opposite direction. In the other side foreign exchange rate shows a positive correlation with dividend payout.

3.3. Tests for model assumptions

3.3.1. Test for Normality

Table 3.3: Test for normality of residuals.

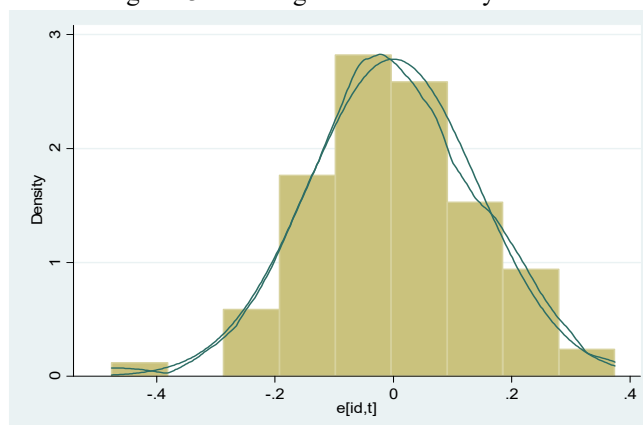
Jarque –Bera Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
Residual	90	0.5720	0.1936	2.07	0.3558

Source: STATA 12 output, test for normality

As shown from the above table the error term is normally distributed, since the p is greater than 0.05 that is 0.3558, the researcher have no reason to reject the null hypothesis which states error terms are normally distributed. The graph for normality test is also shown below.

Figure: 3.1: Histogram for normality curve



Source: STATA 12 output, histogram residual kdensity test for normality

3.3.2. Test for heteroskedasticity

According Breusch & Pagan (1979) from the regressed output if the test statistic has a p – value below an appropriate significant level (0.05) then the null hypothesis of homoskedasticity is rejected and heteroskedasticity is assumed. On the other hand if p – value is greater than 0.05, homoskedasticity is assumed. See table below.

Table 3.4: test for heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of dpo	
chi2(1)	1.45
Prob > chi2	0.2281

Source: STATA 12 output, test for heteroskedasticity

3.3.3 Test for Autocorrelation.

Table 3.5: test for autocorrelation

Breusch-Godfrey LM test for autocorrelation

lags(p)	F	df	Prob
1	0.945	(1, 80)	0.3338

H0: no serial correlation

Source: STATA 12 output, test for autocorrelation

There for as indicated from the table the p- value is above the 5% significant level. There for we have no reason to reject the null hypothesis stated as there is no serial correlation.

3.3.3. Test for multi- collinearity

The values of the correlation coefficient are always between -1 and +1. A correlation coefficient of +1 indicates that the two variables are perfectly related positively; where as a correlation coefficient of -1 indicates that two variables are perfectly related in a negative linear sense. A correlation coefficient of 0, on the other hand indicates that there is no relationship between two variables (Gujarati, 2004).

Table 3.6: pair with correlation matrix for independent variables

Var	Pro	Lev	liq	Size	ldp	Inr	gdpgr	Fer
Pro	1.0000							
Lev	0.1286	1.0000						
Liq	0.3264	0.0316	1.0000					
Siz	0.4960	0.0614	0.6082	1.0000				
Ldp	0.3937	0.1673	0.4203	0.3726	1.0000			
Inr	-0.1298	-0.0633	-0.0816	-0.1808	-0.1931	1.0000		
Gdpgr	-0.0711	-0.0594	0.0090	0.0063	0.1184	0.4767	1.0000	
Fer	0.1676	0.2191	0.3274	0.5170	0.3061	-0.5412	0.3353	1.0000

Source: STATA 12 output, pair with correlation matrix

Furthermore, the variance inflation factor (VIF) can show the existence of a high degree of multicollinearity. According to Gujarati (2004) the benchmark to say there is a problem of multicollinearity among explanatory variables is when the mean value of variance inflation factor for each explanatory variable should be above 10. So, according to the result the measure of VIF shows that each variable has quite below 10 and mean variance inflation factor is 1.68. See the table below.

Table 3.7: Variance inflation factor

Variable	VIF	1/VIF
Siz	2.42	0.414064
Fer	2.16	0.463107
Liq	1.72	0.580753
Inr	1.72	0.582521
pro	1.53	0.655622
Ldp	1.41	0.708064
Gdpgr	1.37	0.730236
Lev	1.10	0.908644
Mean VIF	1.68	

Source: STATA 12 output, variance inflation factor

3.3.4. Hausman specification test

After the basic classical linear regression model assumptions are satisfied, the researcher goes to select the appropriate panel data model by using the Hausman specification tests. The Hausman specification test is a test used to choose between the fixed effect model and random effect models. According to Hausman (1978) the null hypothesis is that the favoured model is a random effect that assumes unobserved variables are not correlated; the alternative hypothesis is that the preferred model is fixed effect. This test recommends the application of Random effect (RE) panel regression if the test statistics (chi2) p-value is above 5%. Otherwise, the fixed effect model (FE) also called within regression is a good estimation tool.

Table 3.8: Hausman specification test result

---- Coefficients ----				
Variables	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
Pro	.7266785	.3852308	.3414477	.1189461
Lev	.0240875	.0088412	.0152463	.0081182
Liq	.1193412	.1013891	.0179522	.0456974
Siz	.0471476	.0490071	-.0018595	.0170114
Ldp	.2791758	.5086423	-.2294666	.0653782
Inr	.0190601	.0060781	.012982	.0177257
Gdpgr	-1.373901	-2.452769	1.078869	.474639
Fer	-.0125174	-.0139182	.0014008	.0036193

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic

$$\text{chi2}(5) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$

$$= 28.83$$
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)

Source: STATA 12 output for Hausman specification test

As presented in table Hausman specification test was providing evidence in favor of the fixed effect model with p-value of 0.0000 which is less than 5% and this supports the fixed effects (FE) method is an efficient estimator for the panel data models.

3.4. Regression analysis

Table 3.9: Results of Regression Analysis

Fixed-effects (within) regression				Number of obs = 90		
Group variable: id				Number of groups = 10		
R-sq: within = 0.6156				Obs per group: min = 9		
Between = 0.6521				avg = 9.0		
overall = 0.6326				max = 9		
				F(8,72) = 14.41		
corr(u_i, Xb) = 0.0278				Prob > F = 0.0000		
Dpo	Coef.	Std.Err.	t	P> t 	[95% Conf.Interval]	
Pro	.7266785	.1741485	4.17	0.000	.3795197	1.073837
Lev	.0240875	.0178199	1.35	0.181	-.0114357	.0596108
Liq	.1193412	.0551344	2.16	0.034	.0094329	.2292496
Siz	.0471476	.0208129	2.27	0.027	.0056579	.0886373
Ldp	.2791758	.0836571	3.34	0.001	.1124084	.4459431
Inr	.0190601	.1564253	0.12	0.903	-.2927681	.3308883
Gdpgr	-1.373901	2.189366	-0.63	0.532	-5.738321	2.99052
fer	-.0125174	.0061798	-2.03	0.047	-.0248367	-.0001981
cons	-.7012238	.4723669	-1.48	0.142	-1.64287	.2404225
sigma_u	.10716443					
sigma_e	.12709266					
rho	.41554131	(fraction of variance due to u_i)				
F test that all u_i=0:			F(9, 72) = 4.56		Prob > F = 0.0001	

Source: STATA 12 output for fixed effect regression analyses

3.5. Discussion

3.5.1. Profitability

Profitability is found out as a significant explanatory variable for dividend payout at 5% significant level with p-value of 0.0000, which has a positive coefficient of .7266785. This indicates holding other things constant a 1 birr increase in profitability of banks will lead to a 72.66 cents increase in current dividend payout and the reverse is true. This finding is supported by the work of (Pruitt & Gitman, 1991; Gill, et al., 2009; Muhammed, 2012 and Simegn, 2013). In the other side the results of this study is not consistent with the finding from (Ferris, et al., 2003; Al-Ajmi, 2008 and Theodros, 2011). The result is consistent with the researcher's early expectation. Therefore the researcher hasn't enough reason to reject hypothesis 1 stated as there is a significant positive relationship between profitability and dividend payout of private commercial banks in Ethiopia.

3.5.2. Liquidity

Liquidity has a positive and statistically significant relationship with dividend payout at p-value of 0.034. The coefficient for liquidity is 0.1193412. This indicates that holding other variables constant a 1 percent increase in liquidity leads to an increase by 0.12 percent to dividend payout of the sampled private commercial banks in Ethiopia and the reverse is also true. The result from this study is consistent with the researcher's expectation. Therefore the researcher hasn't got enough reason to reject hypothesis 3, which stated that there is a significant positive relationship between liquidity and dividend payout private commercial banks in Ethiopia. The finding of this study is consistent to Theodros (2011) and the Jensen's (1986) agency theory which stated that companies with higher free cash flow have higher dividend payout ratios. In the other side there are also a number of studies that have showed a negative or insignificant relationship between liquidity and dividend payout (Imran, 2011; Kinfu, 2011; and Maladjian & El Khoury, 2014).

3.5.3. Bank size

Bank size is a significant factor for dividend payout at 5% significant level with a p-value of 0.027. The coefficient of bank size is 0.0471476. This shows that holding other variables constant a one percent change in bank size leads to about 0.047 percent changes in dividend payout of sampled private commercial banks in Ethiopia. The finding is consistent to the researcher's early expectations. Therefore there is no enough reason to reject the null hypothesis 4, which states that there is a positive relationship between bank size and Ethiopian private banks dividend payout.

The finding of this study is consistent with Theodros (2011) who found out firm size is statistically significant determinant of dividend policy. In the other side in contrary to this finding Elias (2015) suggests that firm size has a negative and statistically significant relationship with dividend payout. In addition to this Medhe et al. (2010) found out size is not a statistical significant factor for firm's dividend payout.

3.5.4. Last year dividend

last year dividend payout has a positive and statistically significant relationship with dividend payout at 5% significance level with p- value of 0.001. The coefficient for last year dividend is 0.2791758. This indicates that holding other variables constant a 1 birr dividend paid in previous year will lead to a 27.9 cents increase in current dividend payout. This indicate that the sampled private commercial banks in Ethiopia paid a consistent dividend for their shareholders. Therefore the researcher haven't enough reason to reject the hypothesis 5, stated that last year dividend has positive and significant relationship with dividend payout of private commercial banks in Ethiopia. The finding is consistent with Lintner, 1956; Bhattacharya, 1979; Javid, 2009; Theodros, 2011; Simegn, 2013 and Henok 2016) those researchers found out liquidity as a positive significant factor for dividend payout. It is also in line with signaling theory of dividend, where companies want to give a positive signal to the market that the company is in good condition by continuing paying dividends.

3.5.5. foreign exchange rate

Foreign exchange rate has p- value of 0.047. which indicates it is significant at 5% significance level. The coefficient of foreign exchange rate is -0.7012238, which shows for one percent change in foreign exchange rate, keeping the other things constant will result -0.7012238 percent changes on dividend payout of sampled private commercial banks in opposite direction. The finding is consistent with the researcher's early expectation Therefore, the researcher haven't got enough reason to reject the predetermined hypothesis 8, which states that there is a significant negative relationship between foreign exchange rate and dividend payout of private commercial banks in Ethiopia. The finding is consistent with Mundati(2013) who found out foreign exchange rate has a negative significant relationship with dividend payout.

3.6. Conclusion

The general objective of this paper is to investigate the determinant of private commercial banks dividend payout by using nine years balanced panel data set covering from 2009 to 2017 across 10 private commercial banks operating in Ethiopia. For this purpose bank specific variables that contain profitability ,leverage, liquidity, bank size and last dividend payout; and macroeconomic variables like inflation rate , real GDP growth rate and foreign exchange rate are incorporated as explanatory variables for dividend payout. To see the effects of the identified explanatory variables over the dependent variable (dividend payout), the researcher applied fixed effect panel data regression models and the results shows that all bank specific variables have a positive effect in determination of dividend payout of private commercial banks in Ethiopia.

In general from bank specific explanatory variables that are incorporated in this study profitability, liquidity, bank size and last year dividends are found out as a positive significant factor for dividend payout of private commercial banks in Ethiopia. However leverage is not a significant factor for dividend payout of private commercial banks in Ethiopia. From macroeconomic variables foreign exchange rate is found out as a significant variable but inflation and real GDP growth rate are not a significant variable for dividend payout of private banks in Ethiopia. Therefore, the major determinants of dividend payout of private commercial banks in Ethiopia are profitability, liquidity, bank size, last year dividends and foreign exchange rate.

3.7. Recommendations

In this part the researcher provides the possible recommendation for all stakeholders, those who should consider the result of this study including both actual and potential investors, Ethiopian private commercial banks and the regulatory body of Ethiopian government or national bank of Ethiopia. Based on the finding of this study the following recommendation is forwarded by the researcher to the above identified stakeholders.

- ❖ The finding related to profitability shows there is a positive significant relationship between profitability and dividend payout. Therefore it is better for private commercial banks, if they make an investement in profitable benture to earn higher profit and to pay a better dividend for their shareholders.
- ❖ The finding in relation to liquidity shows that it has a positive effect for dividend payout. This implies that shareholders expect more dividend from the banks that has higher liquidity position. Therefore it is better for the banks, if they maintain their liquidity position in order to be enough to pay higer dividend for their shareholders.
- ❖ The finding in relation to bank size shows there is a positive significant relationship between bank size and dividend payout. this indicates that the larger the bank size the more dividend payout in Ethiopian private commercial banks. So it is better for banks, if they pay dividends proportionally to their sizes.
- ❖ Last year dividend is found out as a significant factor for dividend payout and this shows that it is considered as a good signal for banks performance on the side of shareholders. Therefore, in order to

keep their loyalty on the side of their shareholders, it is better for Ethiopian private commercial banks, if they pay dividends consistently.

- ❖ Most of the time potential investors who want to invest in the banking sector are seeking information about the bank's profitability and dividend payout rate. But there are also other factors that should be considered in deciding the decision whether to invest or not in that particular bank .So it is better for those investors, if they understand the effect of other bank specific variables like liquidity, size and macro-economic factors like foreign exchange rate.
- ❖ The finding related to macro economic factors shows that exchange rate has a significant effect on dividend payout. So the government body, especially the financial sector regulatory body should consider the effect of macro-economic factors on dividend payout so as to make Ethiopian private commercial banks enough to pay dividends to their investors.
- ❖ In general the result of this study has identified the significant factors that affect the bank's dividend payout. Therefore, it is better if the management and bank's board of directors take consideration of those factors affecting dividend payout.

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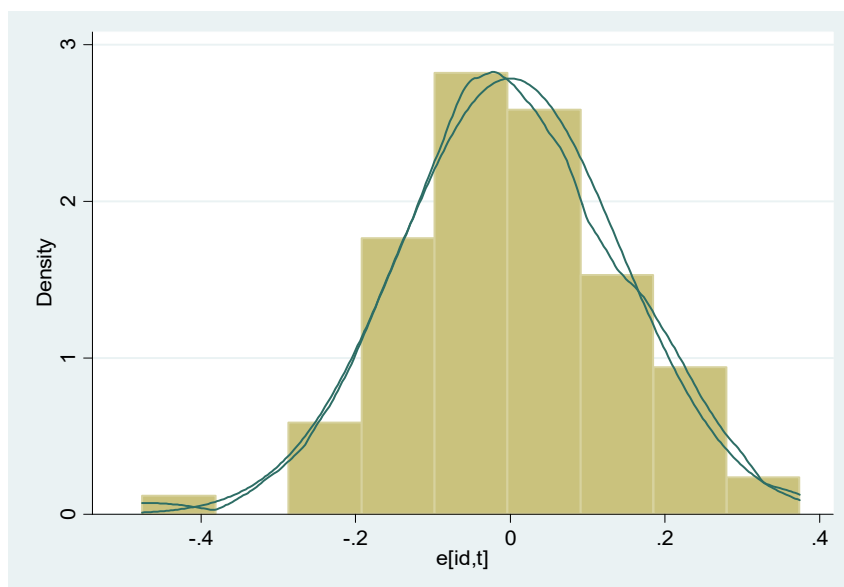
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Appendix
descriptive statistics of collected data

Variable	Obs	Mean	Std. Dev.	Min	Max
dpo	90	.3625578	.252958	0	.8996975
pro	90	.2417521	.1171031	-.1303632	.5823284
lev	90	.901583	.8679757	.0045529	8.884677
liq	90	.8910957	.4500407	.0137874	1.942285
siz	90	22.35046	1.393415	18.4116	24.46034
ldp	90	.3392564	.2552299	0	.8996975
inr	90	.1551111	.1133627	.028	.364
gdpgr	90	.1037778	.0073252	.087	.114
fer	90	19.87743	3.688774	13.5321	27.0321

normality test and graph

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
residual	90	0.5720	0.1936	2.07	0.3558



Heteroskedasticity test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
 Variables: fitted values of dpo
 chi2(1) = 1.45
 Prob > chi2 = 0.2281

Breusch-Godfrey LM test for autocorrelation

lags(p)	F	df	Prob >
1	0.945	(1, 80)	0.3338

H0: no serial correlation

Correlation matrix between dependent and independent variables

	dpro	lev	liq	siz	ldp	inr	gdpr	fer
dpo	1.0000							
pro	0.5477	1.0000						
lev	0.1126	0.1286	1.0000					
liq	0.5521	0.3264	0.0316	1.0000				
siz	0.5554	0.4960	0.0614	0.6082	1.0000			
ldp	0.6938	0.3937	0.1673	0.4203	0.3726	1.0000		
inr	-0.0413	-0.1298	-0.0633	-0.0816	-0.1808	-0.1931	1.0000	
gdpr	-0.0872	-0.0711	0.0594	0.0090	0.0063	0.1184	-0.4767	1.0000
fer	0.1640	0.1676	0.2191	0.3274	0.5170	0.3061	-0.5412	0.3353

Correlation matrix between independent variables

	pro	lev	liq	siz	ldp	inr	gdpr	fer
pro	1.0000							
lev	0.1286	1.0000						
liq	0.3264	0.0316	1.0000					
siz	0.4960	0.0614	0.6082	1.0000				
ldp	0.3937	0.1673	0.4203	0.3726	1.0000			
inr	-0.1298	-0.0633	-0.0816	-0.1808	-0.1931	1.0000		
gdpr	-0.0711	0.0594	0.0090	0.0063	0.1184	-0.4767	1.0000	
fer	0.1676	0.2191	0.3274	0.5170	0.3061	-0.5412	0.3353	1.0000

hausman specification test

---- Coefficients ----

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
pro	.7266785	.3852308	.3414477	.1189461
lev	.0240875	.0088412	.0152463	.0085523
liq	.1193412	.1013891	.0179522	.0456974
siz	.0471476	.0490071	-.0018595	.0170114
ldp	.2791758	.5086423	-.2294666	.0653782
inr	.0190601	.0060781	.012982	.0177257
gdpr	-1.373901	-2.452769	1.078869	.474639
fer	-.0125174	-.0139182	.0014008	.0036193

b = consistent under Ho and Ha; obtained from xtreg

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

Test: Ho: difference in coefficients not systematic

$$\chi^2(5) = (b-B)[(V_b-V_B)^{-1}](b-B) = 28.83$$

Prob>chi2 = 0.0000

(V_b-V_B is not positive definite)

fixed effect regression result

Fixed-effects (within) regression Number of obs = 90
Group variable: id Number of groups = 10

R-sq: within = 0.6156 Obs per group: min = 9
 between = 0.6521 avg = 9.0
 overall = 0.6326 max = 9

 F(8,72) = 14.41
corr(u_i, Xb) = 0.0278 Prob > F = 0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
dpo	.7266785	.1741485	4.17	0.000	.3795197	1.073837
lev	.0240875	.0178199	1.35	0.181	-.0114357	.0596108
liq	.1193412	.0551344	2.16	0.034	.0094329	.2292496
siz	.0471476	.0208129	2.27	0.027	.0056579	.0886373
ldp	.2791758	.0836571	3.34	0.001	.1124084	.4459431
inr	.0190601	.1564253	0.12	0.903	-.2927681	.3308883
gdpgr	-1.373901	2.189366	-0.63	0.532	-5.738321	2.99052
fer	-.0125174	.0061798	-2.03	0.047	-.0248367	-.0001981
_cons	-.7012238	.4723669	-1.48	0.142	-1.64287	.2404225

sigma_u | .10716443
sigma_e | .12709266
rho | .41554131 (fraction of variance due to u_i)

F test that all u_i=0: F(9, 72) = 4.56 Prob > F = 0.0001