



## DETERMINANTS OF DEPOSIT GROWTH IN ETHIOPIAN PRIVATE COMMERCIAL BANKS

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### **Abstract**

*A deposit refers to the most liquid money in the bank's treasury that is ready to be borrowed by somebody in need of funds. The main aim of this study is to empirically examine macroeconomic and bank-specific factors influencing the deposit growth of private commercial banks in Ethiopia. Thirteen private commercial banks were taken as a sample. The researchers have used a purposive sampling technique to select those thirteen private commercial banks in Ethiopia. The data covered from 2010 to 2021 was used for analysis. A longitudinal/panel secondary dataset was used in this study. Since the data is continuous in nature, a quantitative approach was used. For regression analysis, a random estimation technique was applied to multiple linear regression models. Data is analyzed with inferential methods, such as correlation analysis and multiple regression analysis, and descriptive methods using E-Views version 12 software. The study result shows that capital adequacy, deposit rate, and GDP growth rate were statistically significant at the 5% significance level and have a positive impact on deposit growth at private commercial banks in Ethiopia. Whereas, other all variables were statistically insignificant at the 5% significant level but had a positive impact on deposit growth at private commercial banks in Ethiopia. The researchers have concluded that capital adequacy, deposit rate, and GDP growth rate were the most powerful variables that affected the deposit growth rate of private commercial banks in Ethiopia. Finally, the researchers recommend that there be adequate capital, a competitive and attractive deposit interest rate, and stable economic growth.*

**Key Words: Determinants, Deposit, Growth and Private Commercial Banks.**

### **1. Introduction**

Banks act as financial intermediaries, collecting funds from savers and lending them to investors. Basically, the main source of profits for banks can be derived from the difference between the interest rates paid to depositors and those charged to borrowers. Therefore, deposits are the main source of working funds for the economy as well as the main source of funds for the banks. According to Selvaraj (2016), deposits are the lifeblood of a banking institution, as they constitute the chief source of funds to undertake lending operations. In this context, deposits play a vital role for banks.

The size of deposits raised by the general public through current, savings, fixed, time, and other specialized systems is crucial to the success of the bank, making deposit mobilization an important source of working capital for banks and of utmost importance to the banking industry, Garo G (2015). The expansion of deposits was crucial for the banking sector's existence. Banks and other financial institutions may fail to meet their business objectives if they do not have enough deposits Viswanadham, et al. (2015). To maintain an effective economy, banks must be able to raise enough deposits.

Running deposits isn't possible without knowing and monitoring the factors influencing them. In literature, there are macroeconomic and bank-specific factors that are claimed to be determinants of



deposit growth. A few studies on the growth of deposits at private commercial banks in Ethiopia have been done in the past. However, those studies found different results for the same variables. The contradictory results among researchers may be due to the fact that the sample size was inadequate given the number of private commercial banks in Ethiopia.

## 1.2 Objectives

The main objective of this study is to examine the factors that influence deposits in private commercial banks in Ethiopia.

### Specific Objectives

The specific objectives of the study are as follows:

- 1) To examine the effect of macro-economic factors on the deposit growth of Ethiopian private commercial banks.
- 2) To explore the influence of bank-specific factors on deposit growth in Ethiopian private commercial banks.

Thus it aims to assist banks and regulators in maintaining control over the issue of deposit growth by investigating bank-specific and macroeconomic factors of private commercial banks that are critical to the security of the bank's operation as well as the overall wellbeing of the economy.

## 1.3 Significance of the study

This study has a significant role in two dimensions: theoretical contributions and practical implications. Theoretically, the study will fill an essential gap in the literature by investigating the most important macroeconomic and bank specific factors of bank deposits, and it will be expected to serve as an input for future academicians interested in the study area. On the practical side, the study will assist a bank beneficiary party, the country's government body, a bank's management body, and bank depositors in identifying the most important factors that may determine bank deposit and enables them to take appropriate corrective action to alleviate bank deposit problems.

The rest of the paper is designed as follows: Section 2 discusses the previous literature relevant to the topic. Section 3 explains the data and methodology used in this study. Section 4 presents the results of the analysis of this study, and the final section provides the conclusion of the present study along with references.

## 2. Literature Review

**Nishat and Nighat (2019)** who empirically investigated the determinants of bank deposit growth in Pakistan. The result shows that the increase income level increase the demand for deposit and interest rate influence demand and time deposit. **Islam et al. (2019)** performed research on the factors that affect deposit mobilization at private commercial banks in Bangladesh. According to the study's findings, deposit growth is positively impacted by deposit interest rate, loan-to-deposit ratio, inflation rate, and broad money growth rate, while negatively impacted by the number of bank branches, company size, and GDP growth rate.

According to the research conducted by **Yakubu and Abokor(2020)** on the title "Factors determining bank deposit growth in Turkey: an empirical analysis," the results revealed that, bank stability, banking sector efficiency, broad money supply, economic growth and inflation are significant



determinants of deposit growth in the long run. The finding also further shows that, in the short run, only branch expansion and broad money supply are relevant for bank deposit mobilization.

**Mashamba, Magweva, and Gumbo (2014)** examined the relationship between banks' deposit interest rates and deposit mobilization in Zimbabwe for the period 2000–2006, and the result of this study showed that the deposit rate had a positive influence on bank deposits in Zimbabwe.

**Gerawork (2016)** investigates the factors that influence deposit mobilization in six private commercial banks in Ethiopia over the years of 2002 and 2012. The empirical results revealed that bank branches and real gross domestic product had a positive effect on bank deposits, whereas capital adequacy and liquidity had a negative effect on bank deposits.

**Firdawek (2019)** did a study on the topic "Determinants of Deposit in Ethiopian Private Commercial Banks." The result reveals that, disposable income, real GDP growth, branch expansion, is positively and statistically significant on bank deposit growth; whereas, bank's liquidity influence is negatively and statistically significant on bank deposit growth. Deposit rate and profitability had an insignificant positive influence on bank deposit growth, whereas population growth and capital adequacy had an insignificant negative influence on bank deposit growth. The study implies that the stimulation of economic growth is the most important factor that affects bank deposit growth.

The study conducted by **Tenaye (2019)** aimed to find the determinants of private commercial banks' deposit growth in Ethiopia. The final result achieved by applying panel data techniques indicate that, number of bank branches, economic growth (GDP) and age of company had positively and statistically significant influence on private bank deposit growth; whereas, deposit interest rate and net interest margin are negative and statistically significant influence on deposit growth and also, loan to deposit ratio had negative and insignificant influence on private commercial bank deposit growth.

### **3. Research Methodology**

#### **3.1. Research Design and Research Approach**

The research design is purposive in nature with the aim of inspecting the effect of bank-specific factors and macroeconomic factors on the deposit growth of in Ethiopian private commercial banks. In this study, quantitative research approach has been employed to achieve the research objective.

#### **3.2. Data, Sample Size and Sampling Techniques**

Depending on data availability, thirteen private commercial banks in Ethiopia have been selected as a sample. The study uses yearly data, which covers the period of twelve years (from 2010 to 2021). All of the data collected from the annual reports of private commercial banks, the National Bank of Ethiopia's annual report, the Central Statistics Agency, and World Development Indicators.

#### **3.3. Method of Data Analysis**

Both descriptive and inferential analyses are used to meet the objectives of this study. Multiple linear regression models are used to identify and quantify potential factors influencing macroeconomic and bank-specific factors on private commercial bank deposits. To get a comprehensive understanding of the objectives of the study, the E-Views version 12 software was applied to analyze the quantitative data.



### 3.4. Model Specification

The study uses a panel data regression model to assess the effect of bank-specific and macroeconomic factors on the deposit growth of Ethiopian private commercial banks. In this study, to pick the appropriate model, the Hausman test has been applied to select between a fixed and random effects specification. Moreover, to check the unit root of all the panel variables, a panel unit root test has been employed. Diagnostic tests were carried out to ensure that the data fits the fundamental assumptions of a classical linear regression model.

The general form of the equation is:

$$LDGR_{it} = f(GDP, BE, BL, DR, BP, CA, PG, GC, UR)_{it}$$

Where,

Deposit Growth (DG), Real GDP Growth (GDP), Branch Expansion (BE), Bank's Liquidity (BL), Deposit Rate (DR), Bank Profitability (BP), Capital Adequacy (CA), Population Growth (PG), Government Consumption (GC), Unemployment Rate (UR). Therefore, the regression model specified as follow,

$$LDGR_{it} = \beta_0 + \beta_1(GDP_{it}) + \beta_2(BE_{it}) + \beta_3(BL_{it}) + \beta_4(DR_{it}) + \beta_5(BP_{it}) + \beta_6(CA_{it}) + \beta_7(POP_{it}) + \beta_8(GC_{it}) + \beta_9(UR_{it}) + \varepsilon_{it}$$

Where;

DGR----- Deposit Growth,

$\beta_0$  - - - - -  $\beta_{10}$  Coefficients of independent variables,

i=1-----13 (Private commercial banks),

t=1-----12 Years (2010-----2021),

$\varepsilon$ = the error term

As a result, regression coefficients (estimated) measure how much units of deposit growth (DG) change with a unit change in the model's independent variables.

## 4. Results and Analysis

### 4.1. Descriptive Statistics

The dependent variable used in this study was bank deposit growth, and the explanatory variables were branch expansion, bank liquidity, bank profitability, capital adequacy, deposit interest rate, government consumption, GDP growth, population growth, and unemployment rate.

**Table 4-1 Summary of descriptive statistics for private commercial banks**

LDGR		0.565	0.560	1.283	0.066	0.213
BE	156	0.251	0.243	0.760	0.017	0.130
BL	156	0.587	0.591	0.779	0.362	0.064
BP	156	0.230	0.223	0.424	0.027	0.065
CA	156	0.277	0.253	0.786	0.051	0.111
DR	156	1.352	1.327	1.647	1.110	0.146



<b>GC</b>	156	0.980	0.965	1.047	0.919	0.039
<b>GDP</b>	156	0.948	0.978	1.099	0.751	0.104
<b>POP</b>	156	0.435	0.433	0.455	0.416	0.012
<b>UR</b>	156	0.391	0.363	0.567	0.352	0.068

**Source: Computation in E-Views 12**

As shown in Table 4.1 above, displays the descriptive statistics including mean, median, minimum, maximum, and standard deviation of all the variables. In the table, all the variables have positive mean values. The mean value of the private commercial bank's deposit growth was 56.5 percent for the period 2010–2021. This implies that private commercial banks achieved 56.5 percent of the average deposit growth during the given period of time. It was additionally noticed that the bank deposit growth was fluctuating between 6.6 and 128.3 percent. The standard deviation for the bank's deposit growth was 21.3 percent which is high whereas the rest of variables bear lower standard deviation value. This confirms that there were few varieties of deposit growth among private commercial bank`s during the study period. Because the bank's deposit growth had a standard deviation that was lower than the mean.

#### 4.2. Correlation Matrix

The sample size is the basic component used to decide whether or not the relationship coefficient is distinctive from zero or statistically critical. The values of the relationship coefficient are always between -1 and +1. The following table predicts the likely relationship among variables within the study.

**Table 4-2 Correlation matrix**

	<b>LDGR</b>	<b>BE</b>	<b>BL</b>	<b>BP</b>	<b>CA</b>	<b>DR</b>	<b>GC</b>	<b>GDP</b>	<b>POP</b>	<b>UR</b>
<b>DGR</b>	1.000									
<b>BE</b>	0.143	1.000								
<b>BL</b>	0.124	0.117	1.000							
<b>BP</b>	0.026	-0.057	-0.015	1.000						
<b>CA</b>	0.279	0.338	0.142	-0.035	1.000					
<b>DR</b>	0.185	-0.091	0.160	-0.071	-0.109	1.000				
<b>GC</b>	0.154	-0.078	-0.196	-0.265	0.035	0.099	1.000			
<b>GDP</b>	-0.041	-0.073	-0.165	0.015	0.067	-0.823	0.191	1.000		
<b>POP</b>	0.007	-0.043	-0.223	0.184	0.259	-0.739	0.082	0.742	1.000	
<b>UR</b>	0.056	0.026	0.017	-0.050	-0.073	0.744	-0.154	-0.865	-0.794	1.000

**Source: Computation in E-Views 12**

The correlation matrix within the above Table 4.2 demonstrates a positive relationship between deposit growth and explanatory factors (branch expansion, bank liquidity, bank liquidity, capital adequacy, deposit rate government consumption population growth and unemployment rate). On the



other hand, there was a negative relationship between deposit growth and the explanatory variables GDP growth.

### 4.3. Panel Unit Root Tests

Levin–Lin–Chu (Levin–Lin–Chu) Breitung, and Im, Pesaran and Shi-square, ADF–Fisher Chi-Square, and PP–Fisher Chi-Square tests were used.

**Table 4-3 Panel Unit Root Test**

Variable	Levin–Lin–Chu	Im, Pesaran and Shi-square	ADF-Fisher Chi-Square	PP-Fisher-Square
<b>LDGR</b>	-1.85690	-3.21926*	54.5133*	181.412*
<b>CA</b>	0.93416	-2.37829*	44.7365*	164.787*
<b>BP</b>	-8.92352*	-5.01136*	74.6428*	127.598*
<b>BL</b>	-7.09954*	-5.12053*	77.4687*	179.072*
<b>BE</b>	-6.36147*	-4.93762*	75.4217*	207.968*
<b>DR</b>	-5.07886*	-1.93084**	39.1417**	86.8598*
<b>GC</b>	-6.0459*	-2.37802*	43.8170*	91.3734*
<b>GDP</b>	-2.16600	-4.85099*	74.5153*	161.274*
<b>POP</b>	-11.7825*	-6.01256*	89.2011*	55.4802*
<b>At Second Level</b>				
<b>UR</b>	9.29112	-2.76991*	52.4099*	227.239*
*, **, *** imply statistical significance level at 1%, 5%, and 10% respectively				

Source: Computation in E-Views 12

Table 4.3 displayed the results of the Levin–Lin–Chu (Levin–Lin–Chu) Breitung, Im, Pesaran and Shi-square tests, the ADF–Fisher Chi-Square, and the PP–Fisher Chi-Square panel unit root test. Here it is observed that the probability values of the t statistic for all the variables are very low, and accordingly, the null hypothesis is rejected for all variables at a 5 percent level of significance. Therefore, Im, Pesaran and Shi-square, ADF–Fisher Chi-Square, and PP–Fisher Chi-Square panel unit root test results suggested that all the variables are stationary.

### 4.4. Fixed Effect vs. Random Effect Model Test

The fixed-effect model permits heterogeneity or individuality among the private commercial banks by allowing them to have their intercept value, but this intercept for each private commercial bank is time-invariant. On the other hand, the random effect model of panel data analysis permits heterogeneity in private commercial banks, both cross-sectional and timely. This model assumes that the private commercial banks vary in terms of time.

To decide which estimator to best connected for this model, the random effects Hausman test was employed. The following table shows Hausman Test result.





**Table 4-4 Hausman Test**

Correlated random Effects – Hausman Test				
Test Summary	Chi-Sq. statistic	Chi-Sq.	d.f.	Prob.
Cross-section random	0.00000	9		1.0000

Source: Computation in E-Views 12

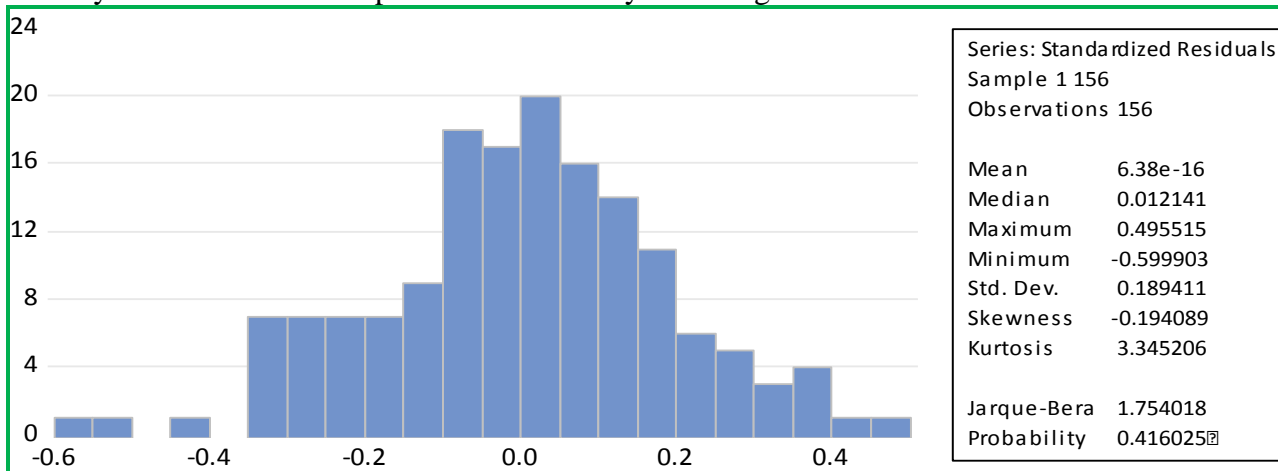
According to Table 4.4, it is possible to decide to use either a fixed-effect or random-effect model to analyze the panel data. The null hypothesis explains that the random effect model is an appropriate estimator, whereas the alternative hypothesis is that the fixed effect model is appropriate. The decision is determined by examining the p-value. Accordingly, if the p-value is higher than 5, the random effect is preferable, whereas if the p-value is less than 0.05, the fixed effect is preferable. As can be seen from Table 4.4, the p-value is greater than 5 percent, which means that the null hypothesis is accepted and the alternative hypothesis is rejected. So, the random-effects model is appropriate to analyze the collected panel data.

#### 4.5. Model Diagnostic test

Diagnostic tests were carried out to ensure that the data fits the fundamental assumptions of a classical linear regression model. Consequently, the results for model misspecification tests are displayed as follows:

##### 4.5.1. Test for Normality

Among those methods, the researcher used the Jarque-Bera test due to its well-knowingness for normality test. The researcher performed normality test using E-View12 software as follow:



**Figure 4-1 Normality test for residuals**

Source: Computation in E-Views 12

Based on the above figure, the normality test of this study shows that the probability value (p value) for the Jarque-Bera test is greater than the alpha value of 0.05, its skewness is between -1 and +1, and its kurtosis is close to 3, which shows the residuals were normally distributed.

##### 4.5.2. Test for Heteroscedasticity

Even though there are numerous methods to detect the existence of heteroscedasticity, the researcher used the Breusch-Pagan-Godfrey test. The following table shows Heteroscedasticity Test for model specification.



**Table 4-5 Heteroscedasticity Test**

<b>Heteroscedasticity test: Breush-Pagan-Godfrey</b>			
<b>F-statistics</b>	1.294168	Prob. F(9,146)	0.2448
<b>Obs* R-squared</b>	11.52579	Prob. Chi-Square (9)	0.2414
<b>Scaled explained SS</b>	11.83799	Prob. Chi-Square (9)	0.2226

Source: Computation in E-Views 12

As displayed in the above on Table 4.5. Both the F-statistic and prob. Chi-square test statistics provided the same conclusion: there is no significant evidence for the existence of heteroscedasticity. The F-statistic Prob. Value of 0.2448 and the Prob. Value Chi-Square of 0.2414 indicate that there was homoscedasticity in the model. Since the p-values in all of the cases were over 0.05, the null hypothesis of homoscedasticity failed to reject at the 5 percent level of significance.

#### 4.5.3. Test for Multicollinearity

The Variance Inflation Factor was used to test the multicollinearity assumption (VIF). The result shows that a VIF average of 3.15 indicates that there is no multicollinearity (Table 6).

**Table 4-6 Multi Collinearity Test**

<b>Variable</b>	<b>VIF</b>	<b>1/VIF</b>
<b>BE</b>	1.304478	0.76659
<b>BL</b>	1.210902	0.825831
<b>BP</b>	1.188013	0.841742
<b>CA</b>	1.437317	0.695741
<b>DR</b>	5.061080	0.197586
<b>GC</b>	1.525504	0.655521
<b>GDP</b>	6.917754	0.144556
<b>POP</b>	4.334801	0.230691
<b>UR</b>	5.458011	0.183217
<b>Mean VIF3.159762</b>		

Source: Computation in E-Views 12

#### 4.5.4. Test for Model Specification: - Ramsey Reset Test

The Ramsey Reset Test is also known as a test for model specification. Since it is helpful to test whether there are any overlooked factors within the model. The following table shows Ramsey Reset Test for model specification.

**Table 4-7 Ramsey RESET Test**

	<b>Value</b>	<b>df</b>	<b>Probability</b>
<b>t-statistics</b>	0.761156	145	0.4478
<b>F-statistics</b>	0.579358	(1,145)	0.4478
<b>Likelihood ratio</b>	0.622068	1	0.4303

Source: Computation in E-Views 12

As presented in the above table, the probability values of the t-statistic, F-statistic, and likelihood ratio were insignificant. This shows 0.4478, 0.4478, and 0.4303, respectively, which is more than p-value. This implies that we fail to reject the null hypothesis, which says there is no misspecification in the model or that there is an omitted variable in the model. From this, we conclude that the model was correctly specified or that there was no specification error in the model.





#### 4.5.5. Test for Serial correlation

The researcher used the Breusch–Godfrey LM test for testing the existence of serial correlation with insufficient error terms. The following table shows Serial correlation test for existence of serial correlation.

**Table 4-8 Breusch-Godfrey Serial Correlation LM Test**

<b>Breusch-Pagan-Godfrey Serial Correlation LM Test</b>			
<b>F-statistics</b>	2.852108	Prob. F(2,142)	0.0610
<b>Obs* R-squared</b>	5.985973	Prob. Chi-Square (2)	0.0501

Source: Computation in E-Views 12

Based on the preceding table, the Breusch-Godfrey Serial Correlation LM Test of F-Statistic probability value was 0.061, and its prob. of chi-square was 0.0501. This indicates that the absence of serial correlation is indicative of errors in the model. So, we fail to reject null hypotheses, which say that there is no serial correlation with errors in the model.

#### 4.6. Results of Regression Analysis

Table 4.9 shows the regression results of a multiple linear regression model that examines the impact of bank-specific factors and macroeconomic factors on the deposit growth of a private commercial bank in Ethiopia. The relationship between one dependent variable and nine independent variables was regressed using econometric software called E-Views 12. Multiple linear regression models used to estimate the statistically significant determinants of Ethiopian private commercial bank’s deposit growth was:

$$LDGR_{it} = \beta_0 + \beta_1(RGDP_{it}) + \beta_2(BE_{it}) + \beta_3(BL_{it}) + \beta_4(DR_{it}) + \beta_5(BP_{it}) + \beta_6(CA_{it}) + \beta_7(POP_{it}) + \beta_8(GC_{it}) + \beta_9(UR_{it}) + \epsilon_{it}$$

Where:  $LDGR_{it}$  = Logarith of deposit growth

$\beta_0$  = Coefficient of constant term,  $\beta_1$  = Coefficient of real GDP,  $\beta_2$  = Branch Expansion,  $\beta_3$  = Bank Liquidity,  $\beta_4$  = Deposit Rate

$\beta_5$  = Bank Profitability,  $\beta_6$  = Capital Adequacy,  $\beta_7$  = Population Growth,

$\beta_8$  = Government Consumption, and  $\beta_9$  = Unemployment Rate

t = 1 ... 2 ... 12 years (2010 – 2021 Years)

i = 1 ... 2 ... 13 (Private commercial banks of Ethiopia)

$\epsilon$  = the error term

**Table 4-9 Regression Analysis**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<b>BE</b>	0.091647	0.110606	0.828588	0.4087
<b>BL</b>	0.119838	0.318347	0.376437	0.7071
<b>BP</b>	0.244477	0.230465	1.060802	0.2905
<b>CA</b>	0.681743	0.150009	4.544691	0.0000
<b>DR</b>	11.03609	2.485371	4.440421	0.0000
<b>GC</b>	0.010841	0.017460	0.620907	0.5356
<b>GDP</b>	0.045251	0.015584	2.903761	0.0043



<b>POP</b>	0.297340	0.351273	0.846466	0.3987
<b>UR</b>	0.293120	0.326730	0.897134	0.3711
<b>C</b>	-2.994375	1.171874	-2.555201	0.0116

**Source: Computation in E-Views 12**

Based on the above regression result the case and effect relationship among dependent (LDGR) and explanatory variables (BE, BL, BP, CA, DR, GC, GDP, POP, and UR) was displayed as follow:

$$LDGR = -2.994375 + 0.091647BE + 0.119838BL + 0.244477BP + 0.681743CA + 11.03609DR + 0.010841GC + 0.045251GDP + 0.297340POP + 0.293120UR + \epsilon_{it}$$

#### 4.6.1. Interpretation the result of the explanatory variables

##### A. Branch expansion on deposit growth

The result in Table 4.9 indicates that the bank branch expansion was statistically insignificant; 5 percent is a significant level and has a positive impact on bank deposit growth. This result contradicts the argument of Islam et al. (2019), which says bank branch expansion has a negative impact on deposit growth. On the other side, this finding supports the results of Dereje (2017), Firdawek (2019), Okere and Ndugbu (2015), and Zewde et al. (2018), which say branch expansion has a positive impact on deposit growth at private commercial banks. The previous supported studies conclude that branch expansion has a positive and significant impact on deposit growth. But this study concludes that branch expansion has a positive but insignificant impact on deposit growth. Thus, the hypothesis, branch expansion has positive and significant impact on banks deposit should be rejected.

##### B. Bank liquidity on deposit growth

The regression results of this study demonstrate that the explanatory variable, bank liquidity, was statistically insignificant at the 5 percent significant level and had a positive impact on deposit growth at private commercial banks in Ethiopia. This positive relationship between the Bank's liquidity and deposits is consistent with the findings of Vong et al. (2009) and Bahredin (2016). This result contradicts the argument of Tenaye (2019), which says bank liquidity has a negative impact on deposit growth. Therefore, the study reject the hypothesis of bank liquidity has significant impact on bank's deposit.

##### C. Bank profitability on deposit growth

The result in Table 4.9 indicates that the bank's profitability was statistically insignificant at the 5 percent significant level and has a positive impact on bank deposit growth. This result supports the argument of Erna and Ekki (2004), who say there is a longer positive relationship between profitability and deposit growth at commercial banks. On the other hand, the study contradicts the finding of Tenaye (2019), which says profitability has a negative and statistically significant effect on deposit growth at private commercial banks. Thus, the hypothesis, bank profitability has positive and significant impact on banks deposit should be rejected.

##### D. Capital adequacy on deposit growth

The regression results of this study demonstrate that the explanatory variable capital adequacy ratio was statistically significant at the 5 percent significant level and had a positive impact on deposit growth at private commercial banks in Ethiopia. This study is supported by the finding of Zewde et al. (2018) that capital adequacy had a positive and statistically significant impact on deposit growth at private commercial banks. But this study contradicts Dereje (2017) and Firdawek (2019), who connect



their justification with the financial fragility crowding out theories, which predict that higher capital reduces liquidity creation and lower capital tends to favour liquidity creation. They said there will be a little fee for the intermediate service of lending out depositors' individual deposits. As a result, the study fails to disprove the hypothesis that adequate capital has a positive and significant impact on bank deposits.

#### **E. Deposit Interest rate on deposit growth**

This study found that the deposit interest rate has a positive relationship with deposit growth at private commercial banks, and the relationship is significant at the 5 percent level. As a conclusion, the deposit interest rate significantly contributes to bank deposit growth. The findings of Boadi et al. (2015), Jibrin et al. (2014), and Ongeti (2016), which came to the same conclusion that the deposit interest rate has a significant and positive impact on the increase of deposits at private commercial banks, provide support for this result. On the other hand, the result of this study contradicts the finding of Tenaye (2019), which demonstrated that deposit growth rate has a negative and significant effect on private commercial bank deposit growth, and also contradicts the findings of Ketema (2017), which explain that deposit interest rate has a positive but insignificant effect on the deposit growth of private commercial banks.

In general, this study concluded that the deposit interest rate has a positive and significant effect on the deposit growth of private commercial banks in Ethiopia. This implies that the deposit interest rate is a major factor in explaining the private commercial bank's deposit growth in Ethiopia. The interest rate plays a more important role in deposit growth. In fact, there is competition between private commercial banks in terms of attracting customers using deposit interest rates. Therefore, the study fails to reject the hypothesis of deposit rate has positive and significant impact on bank's deposit.

#### **F. Government consumption on deposit growth**

The regression results of this study demonstrate that the explanatory variable, government consumption, was statistically insignificant at the 5 percent significant level and had a positive impact on deposit growth at private commercial banks in Ethiopia. This positive relationship between government consumption and deposits is consistent with the findings of Azolibe (2019). Therefore, the study reject the hypothesis of government consumption has significant impact on bank's deposit.

#### **G. GDP growth on deposit growth**

The regression result in Table 4.9 indicates that the GDP growth rate was statistically significant at the 5 percent significant level and has a positive impact on bank deposit growth. This finding was supported by Firdawek (2019), Tenaye (2019), Yakubu and Abokor (2020), which concluded that GDP growth, has a positive and significant effect on deposit growth at private commercial banks. In contrast, the regression results of Islam et al. (2019), which concluded that GDP growth has a negative impact on private commercial banks in Bangladesh. Therefore, the study fails to reject the hypothesis of real GDP has positive and significant impact on bank's deposit.

#### **H. Population growth on deposit growth**

The regression results of this study demonstrate that the explanatory variable, population growth, was statistically insignificant at the 5 percent significant level and had a positive impact on deposit growth at private commercial banks in Ethiopia. This positive relationship between population growth and deposits is consistent with the findings of Matuselam (2020). This finding contradicts the regression result of Dereje (2017), which concluded that population growth has a negative impact on private



commercial bank deposits. Thus, the hypothesis, population growth has positive and significant impact on bank's deposit should be rejected.

### **I. Unemployment rate on deposit growth**

The result in Table 4.9 indicates that the unemployment rate has a positive effect on the deposit growth of private commercial banks in Ethiopia. The results so clearly demonstrate that a very high unemployment rate has a positive impact on deposit growth at private commercial banks. The result is contrary to prior research by Turhani, A., and Hoda, H. (2016). The possible justification for the result is associated with the high level of remittance flow to the country that mostly occurs through the banks, which encourage the receivers to save the portion in the bank through the persuasion of a prize for the level of deposit in the form of a lottery. Thus, the hypothesis, unemployment rate has positive and significant impact on bank's deposit should be rejected.

## **5. Conclusion and Recommendation**

### **5.1. Conclusions**

The survival of each private commercial bank in Ethiopia mainly depends on deposits made by loyal customers, because mobilizing deposits for private commercial banks is a matter of survival. Without having a sufficient deposit, private commercial banks can't survive as a bank.

The main objective of this research was to examine the factors affecting deposit growth in private commercial banks in Ethiopia. The regression analysis of this study showed that all explanatory variables have affected deposit growth at private commercial banks positively. Among those explanatory variables, capital adequacy, deposit rate, and GDP have a significant effect on the deposit growth of private commercial banks. It was portrayed that branch expansion, bank liquidity, bank profitability, population growth, government consumption, and the unemployment rate have a statistically insignificant effect on the deposit growth of private commercial banks.

Based on the regression analysis, both bank-specific factors and macroeconomic factors are important determinants of private commercial banks deposit growth. Finally, the researchers concluded that capital adequacy, deposit interest rate, and GDP growth rate were the most powerful variables that affected the deposit growth of private commercial banks in Ethiopia.

### **5.2. Recommendations**

This study was intended to identify the empirical determinants of deposit in Ethiopian private commercial banks, and hence, on the basis of the findings of the study, the following recommendations are made:

- Banks should place high priority on its deposit mobilization activities as it is an essential resource for survival.
- Deposit interest rate to be increased as it is a motivator for bank depositors and encourages people to deposit more, when there is a high deposit interest rate. Therefore, policies should be made accordingly to increase the deposit interest rate to minimize the impact of inflation on depositors, which in turn increase national saving.
- Since the most important source of finance for banks is a deposit, those private commercial banks should give more attention and exert more effort to mobilize their deposits by using their profitability and capital as instruments. Because capital adequacy is one of the most significant factors for deposit growth in private commercial banks in Ethiopia.



- There is a well-established positive relationship between economic growth and deposit growth. This calls for continued policy support and investment in enhancing economic growth that would not only increase the capacity of banks to mobilize resources but also trigger the overall growth of the economy.
- In general, this study suggested that a well-organized and sound banking structure is essential for consistent economic development in Ethiopia.

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