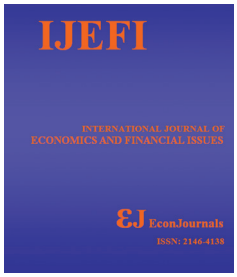

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Loan Loss Provisioning and Profitability of the Private Commercial Banks of Bangladesh

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ABSTRACT

Loan Loss Provisioning is a major regulatory requirement for banks to maintain the stability of financial performance. In Bangladesh, non-performing loans (NPLs), are considered as the biggest challenge of the banking sector. Thus, loan loss provisioning has been an obligatory as well as financial risk management tool for the banks. This study aims to find out the impact of loan loss provisioning on the banks' profitability measured in terms of ROA and ROE. The study covers twenty private commercial banks operating in Bangladesh. The study concentrated the bank specific variables such as bank size, the proportion of total loans and advances disbursed of total assets, current liabilities to total assets, total deposits to total assets. Besides, the control variables include the governance index and the inflation level. The findings demonstrate loan loss provision has significant impact on the banks' profitability in Bangladesh.

Keywords: Loan Loss Provisioning, Private Banks, Profitability, ROE, ROA, Bangladesh
JEL Classifications: G21, E42, E44

1. INTRODUCTION

Commercial banks play the role of financial intermediary to manage the funds of the depositors by providing loans to the deficit unit of an economy. In order to sustain in the businesses and to earn profit, banks tend to lend the deposits to the borrowers through loans and advances. In turn, this creates accountability to ensure the return of the fund from the borrowers in order to safeguard the money of the depositors. In line with this objective, banks tend to maintain a reserve/provision so that the depositors are well assured about their funds in the banks. So, loan loss provisioning acts as the cushion for each bank to handle any losses driven by default in the amount of loans, thus securing the depositors' interest as well.

The unique international guidelines especially designed for the banking sector, BASEL Accords, proposes the maintenance of loan loss provisioning in order to maintain the safety of the bank's capital (Ozili and Outa, 2017). The upgrade in the latest version of these guidelines (BASEL III) also considered the management of banks' risk-weighted assets in such a way that will be capable of absorbing any losses. The loan loss provisioning requirement under BASEL I and BASEL II was 1.25% which were procyclical but under Basel III, banks are required to reserve Loan loss provisioning (LLP) in alignment with the disbursement of loans on the basis of probability of default (PD) and expected losses (EL) and this system is continued as through-the-cycle of banking business (Wezel et al., 2012; Ozili and Outa, 2017).

In accordance with BASEL III, the banks operating in Bangladesh are required to maintain general provisions at minimum rates based on the types of loans. The general provisioning rates include 0.25% for the Cottage, Micro, Small and Medium enterprises (CMSME) loans, 2% for the loans disbursed to subsidiaries/sister concerns/merchant bankers etc., 1% for all other types of loans except CMSME and loans to subsidiaries/sister concerns/merchant

bankers, 5% for loans in the special mention account (SMA), 1% on the off-balance sheet exposures.

Besides, under the guidelines provided by the central bank of the country, the banks are required to maintain certain levels of specific provisions for classified loans (loans with irregular installment payment). Bangladesh Bank, the central bank of the country, has issued guidelines for the banks to reserve 20% provision for substandard loans, 50% provision for the doubtful category and 100% for the bad/loss category of classified loans. The base for maintaining the provision is determined as the highest amount between the two figures; (i) Outstanding amount of total loans/ lease minus (total of interest suspense amount) minus (the value of collaterals for the loans) or (ii) 15% of the total outstanding balance of the loans/lease.

Currently, 61 banks are operating in Bangladesh, among which 43 banks are private commercial banks. Though there are regulatory requirements - BASEL III and central bank's guidelines - in maintaining the loan loss provisions by the banks of Bangladesh, banks are still lagging to meet the requirements.

The Charts 1 and 2 below demonstrate the scenario of Loan Loss Provision maintenance of all the banks of Bangladesh in the last 10 years. The charts indicate that the banks operating in Bangladesh are unable to maintain the loan loss provisioning properly over the last few years.

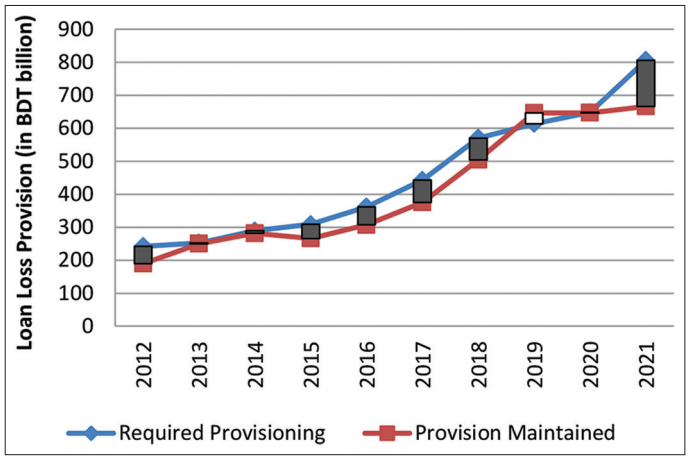
The study aims to identify the relationship between loan loss provisioning and the profitability of the private commercial banks in Bangladesh. Thus, the implication of the study is to find out and justify whether banks maintain lower loan loss reserves than the required amount to smoothen the income of the banks or for other reasons.

2. LITERATURE REVIEW

Loan loss provision is set aside from the profit to manage the potential financial losses from the classified and unclassified assets of the banks (Ozili and Outa, 2017). To cushion against the losses arising from default loans, a bank immediately keeps a "provision" in the income statement by reducing its profit and a loan loss provision (LLP) account is also set up in the balance sheet. Thus, the amount of the loan balance in the balance sheet is decreased by charging the LLPs, which is then maintained as a reserve, if the principal and interest on a loan turn out to be bad debts (Angklomkliew et al., 2009).

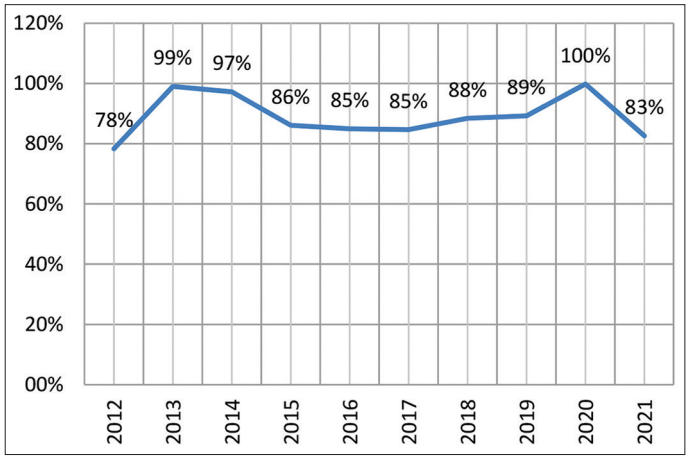
Ul Mustafa et al. (2012) showed that loan loss provisioning is a crucial element to determine the profitability of the banks because lower provision in loan loss preservation will lead to higher profitability. Ahmad et al. (2014) also supported that although other bank-specific factors contribute to the profitability, loan loss provision affects profitability of the banks to a greater extent. Islam (2018) analyzed the impact of LLP on the non-performing loans and on the profitability of the banks measured in terms of interest and non-interest based earnings of the banks and found that LLP has substantial impact on the profitability of the banks.

Chart 1: Required amount of loan loss provisioning (LLP) and LLP maintainted by all banks



Source of data: Annual Reports of Bangladesh Bank

Chart 2: Provision maitaintenance ratio



Source of data: Annual reports of Bangladesh Bank

Despite loan loss provisioning is primarily a regulatory compliance that a bank must follow, but a bank has the discretion to maintain loan loss provisions (LLPs) (Norden and Stoian, 2014). Leventis et al. (2011) demonstrated IFRS's (international financial reporting standards) stringent regime on maintenance of LLP for the banks and specified the relationship among the LLP maintenance along with earnings and capital management of the banks. The results suggested that LLP maintenance according to IFRS requirements strengthens the banks' earnings management quality over time. Balla and Rose (2015) also conducted the analysis to find out the relationship between LLPs and earning management in the USA and found that the regulation has weakened the earnings management by dint of LLPs for publicly traded and privately held banks. The findings are consistent with the study conducted by Gebhardt and Novotny-Farkas (2011), whereby they showed that regulation in European Union (EU) has contributed to reducing the discretionary earning management through LLP.

On the contrary, Norden and Stoian (2014) argued in their study that the LLP for the banks is still a double-edged sword, it is because the banks with highly volatile earnings keep high LLP,

at the same time banks with less volatile capital requirements can maintain lower LLPs. But the core objective of maintaining the LLP is to decrease the volatility in earnings. For managing profitability, banks often use the amount as income smoothening tool. Islam (2018) also agreed that loan loss provisioning is a major tool for income smoothing, whereas income smoothing is a constituent of managing profitability in other ways. Bryce et al. (2015) also showed that in concern to the relationship between loan loss provisioning and net income, there is a positive impact on income smoothing. Ghosh (2007) examined the behavior of banks to maintain and manage earnings through loan loss provisioning and found that loan loss provisioning is used as an income-smoothing tool in many banks. However, an earlier study by Scheiner (1981) declined the concept of using loan loss provisioning by the banks to smoothen the income, rather the study demonstrated that there is a positive impact of loan loss provisioning on the profitability of the banks. The prior studies examined the indirect impact of the LLP on the profitability maintenance of the banks.

Alhadab and Alsahawneh (2016) found a negative impact of loan loss provision on the profitability of commercial banks of Jordan. Tahir et al. (2014) also examined the impact of loan loss provisioning on Pakistani Banks and revealed that there is a negative relationship between the amount of loan loss maintained by the banks and the profit of the same bank. Samad (2015) conducted a study to describe the factors affecting banks' profitability in Bangladesh and showed that loan loss provisioning is an important factor to determine the banks' profitability. The study concluded that there is a negative relationship between the banks' loan loss provisioning and the profitability measured in terms of ROA.

Veríssimo et al. (2021). Justified that loan loss provision has a negative impact on the profitability of the banks whereas the return on average assets and return on average equity have been taken into consideration as the profitability indicator of the banks. Pelealu and Worang (2017) examined the impact of LLP on Indonesian banks and concluded the LLP has no significant positive effect on the banks' profitability. Their analysis also considered profitability in terms of ROA and ROE of the selected banks. Morris et al. (2016) observed the roles of LLP in earnings management during the financial crisis of the USA and found that LLP maintenance negatively affects the reported earnings.

From the context of Bangladesh, the loan loss provisioning maintenance is mandatory for the scheduled banks in the country. There is a dearth of studies specifying the relationship between LLP and profitability of the banks. However, several studies described the loan loss provisioning system in Bangladesh and several identified the factors determining banks' profitability in the country (Podder and Mamun, 2004; Samad, 2015). Hence, the study aims to find the relationship between the loan loss provisioning and the profitability of the private commercial banks operating in Bangladesh. The study is relevant in the case that there is a dearth of studies on the impact of LLP on banks' profitability from the context of Bangladesh. Besides, the study considers panel data of a period of 10 years for the twenty private commercial banks established in the last three generations which is also particularly significant for the aforementioned content.

Based on the related and discussed literature and the objective of the research, the following hypotheses are developed for the analytical purpose of the study;

H_1: Maintenance of Loan Loss Provisioning (LLP) has a negative impact on the profitability of the banks.

3. METHODOLOGY

To investigate the relationship between loan loss provisioning and the profitability of the private commercial banks in Bangladesh, the study utilizes secondary data and relied on a panel data analysis. The following empirical model is specified by the authors;

$$P_{it} = \alpha_0 + \beta_1 LLP_{it} + \sum_2^K \beta_n X_{it} + \varepsilon_{it} \quad (1)$$

Where: P_{it} is the profitability of private commercial bank i at time t, LLP_{it} is loan loss provision of bank i at time t, X_{it} is a vector of control variables of bank i at time t, derived from theory and related studies. α_0 is a constant or the intercept, β_1 is the coefficient or parameter to be estimated of the independent variable of interest (LLP), β_n are the parameters of the control variables to be estimated with $n = 2, 3, \ldots, K$, and ε is the error term which is assumed to be normally distributed.

3.1. Estimators

For the purpose of analysis, a static panel estimation approach is employed. Three main estimators are generally used for static panel data analysis. These estimators include the pooled ordinary least squares (POLS), random effect model (REM) and fixed effect model (FEM). The POLS is a linear regression method that combines all observations across units and time periods to estimate a single set of regression coefficients. The POLS assumes no individual-specific effects, making it efficient only when such effects are negligible. However, if significant heterogeneity (individual-specific effect) exists among individual units, the POLS estimator may yield biased estimates. In such a situation, the POLS could be inefficient and unreliable.

In the event that the POLS become inefficient, the FEM and REM are considered. The FEM controls for unobserved individual-specific characteristics that remain constant over time (see equation 2). By including fixed effects for each individual, the model accounts for individual-specific effects and focuses on the variation within each individual over time (Wooldridge, 2010). FEM helps to remove the effects of variables that do not change over time, thus focusing on changes within each individual unit over time. Through this, the model effectively helps in mitigating issues related to endogeneity, as it controls for time-invariant unobservable factors that might be correlated with the independent variables.

$$P_{it} = \alpha_0 + \beta_1 LLP_{it} + \sum_2^K \beta_n X_{it} + \vartheta_i + \varepsilon_{it} \quad (2)$$

Where: ϑ_i is the individual-specific effects of bank i.

Unlike the FEM, the REM assumes that the time-invariant individual-specific effects are uncorrelated with the explanatory variables. In that, $Cov\ (Z_{it}\ \vartheta_i) = 0$ where Z_{it} represents all the explanatory variables. In such a situation, the REM becomes more appropriate, otherwise the FEM prevails.

However, it is important to note that the Hausman test is used to determine whether the FEM or REM is more appropriate for panel data analysis when individual-specific effects exist. The null hypothesis in the Hausman test is that the preferred model is the REM, while the alternative hypothesis is that the preferred model is the FEM.

Meanwhile, should the FEM or REM suffer from issues of heteroskedasticity and serial correlation, the study propose using the panel-corrected standard errors (PCSE) estimator. This estimator is robust to issues of heteroskedasticity and serial correlation thus, making it more reliable and efficient (Beck and Katz, 1995). The PCSE is estimated using the ordinary least squares (OLS) or Prais-Wintsen estimator.

3.2. Model Expansion

To incorporate the control variables, the empirical model in equation (1) is expanded. Also, it is worthy to note that similar to Pelealu and Worang (2017) and Veríssimo et al. (2021), the study considers return on equity (ROE) and Return on Assets (ROA) as proxy measures for the banks' profitability. Consequentially, two models are estimated in the study.

Accordingly;

Model 1

$$ROA_{it} = \alpha_0 + \beta_1 LLP_{it} + \beta_2\left(\frac{CL}{TA}\right)_{it} + \beta_3\left(\frac{TL}{TA}\right)_{it} + \beta_4\left(\frac{TD}{TA}\right)_{it} + \beta_5 lnsize_{it} + \beta_6 Gov_{it} + \beta_7 lnInf_{it} + \varepsilon_{it} \quad (3)$$

Model 2

$$ROE_{it} = \alpha_0 + \beta_1 LLP_{it} + \beta_2\left(\frac{CL}{TA}\right)_{it} + \beta_3\left(\frac{TL}{TA}\right)_{it}\ \beta_4\left(\frac{TD}{TA}\right)_{it} + \beta_5 lnsize_{it} + \beta_6 Gov_{it} + \beta_{6are\ expected\ to\ be\ positive.whereas\ 7} lnInf_{it} + \varepsilon_{it} \quad (4)$$

Where: ROA_{it} is return on asset for bank i at time t, ROE_{it} is return on equity for bank i at time t, *LLP*'s definition remains unchanged, and it is measured as the proportion of LLP against total Assets for bank i at time t, $\left(\frac{CL}{TA}\right)_{it}$ is the ratio of Current Liabilities to Total Assets for bank i at time t, $\left(\frac{TL}{TA}\right)_{it}$ is the ratio of Total Loans to Total Assets for bank i at time t, $\left(\frac{TD}{TA}\right)_{it}$ is the ratio of Total Deposit to Total Assets for bank i at time t, $lnsize_{it}$ is Bank Size measured in terms of Total Assets for bank i at time t, Gov_{it} is Governance Index of Bangladesh, Inf_{it} is the level of inflation. The coefficients β_1, β_4 and β_7 are expected to be negative whereas β_3, β_5 and β_6 are expected to be positive. The coefficient β_2 is inconclusive since the utilization of the current liabilities to generate profitability solely depends on the efficiency of the banks.

3.3. Data

At present, 61 scheduled commercial banks are operating in Bangladesh among which 43 banks are private commercial banks. Due to the data period considered for this study (2012-2021), only banks established before 2013 are selected. As a result, the study covers only 20 private commercial banks. The selected banks include the first generation banks (established in between 1971 and 1990), second-generation banks (established in between 1991 and 2000) and third-generation banks (introduced from 2001 till 2012) in the country. The data for this study were primarily sourced from the online database of the World Bank and the central bank of Bangladesh (Appendix 1 for data summary).

4. RESULTS AND ANALYSIS

4.1. Descriptive Statistics

Table 1 displays the descriptive statistics of the variables. This table provides information about the variable's mean, standard deviation, minimum and maximum values. The series exhibit significant variability around the mean, as evidenced by the distinct mean values.

4.2. Correlation Matrix

Table 2 provides details regarding the correlation matrix. This table illustrates the degree of correlation between variables, serving as a valuable tool for assessing the redundancy of variables within a model. The outcomes suggest that the correlation scores among the series were generally suitable for inclusion within the same model.

4.3. Estimation Results

After performing various estimations (Appendixs 2 and 3), it was determined that the PCSE was appropriate for analysis due to the identification of autocorrelation and heteroskedasticity issues in the model. Consequently, the estimation results presented in Table 3 are based on the PCSE.

As previously mentioned, two models are estimated: Model 1 and Model 2. The result from Model 1 showed LLP, (CL/TA), (TL/TA), and (TD/TA) to be statistically significant at the 1%, 5% and 10% levels. However, size of banks, Gov and Inf were found to

Table 1: Descriptive statistics

Variable	Mean	SD	Min	Max
ROA	0.009	0.004	0.0001	0.027
ROE	0.116	0.043	0.007	0.234
LLP	0.007	0.004	−0.0005	0.029
(CL/TA)	0.822	0.042	0.666	0.893
(TL/TA)	0.715	0.203	0.491	1.978
(TD/TA)	0.812	0.222	0.596	2.102
Size	12.33	0.421	11.31	13.25
Gov	−0.889	0.055	−0.950	−0.804
Inf	1.795	0.104	1.707	2.019

Source: Authors computation
SD: Standard deviation

Table 2: Correlation matrix

	ROA	ROE	LLP	(CL/TA)	(TL/TA)	(TD/TA)	Size	Gov	Inf
ROA	1.000								
ROE	0.756	1.000							
LLP	−0.256	−0.346	1.000						
(CL/TA)	0.254	0.249	−0.254	1.000					
(TL/TA)	0.111	−0.169	−0.115	0.211	1.000				
(TD/TA)	0.123	−0.121	−0.148	0.418	0.178	1.000			
Size	−0.199	−0.096	−0.081	−0.475	−0.086	−0.299	1.000		
Gov	−0.043	0.048	−0.087	−0.115	0.096	−0.046	0.394	1.000	
Inf	0.175	0.094	0.045	0.193	−0.116	0.072	−0.606	−0.610	1.000

Source: Authors computation

Table 3: Panel corrected standard errors estimation results

Variables	Model 1 (ROA)	Model 2 (ROE)
LLP	−0.235*** (0.0815)	−3.522*** (0.786)
(CL/TA)	0.021** (0.008)	0.269*** (0.081)
(TL/TA)	0.012** (0.005)	0.016 (0.045)
(TD/TA)	−0.011** (0.004)	−0.074* (0.042)
Size	−0.001 (0.001)	−0.008 (0.012)
Gov	0.005 (0.008)	0.113 (0.077)
Inf	0.009* (0.005)	0.058 (0.047)
_Cons	−0.002 (0.022)	0.061 (0.235)
Obs	200	200

***P<0.01, **P<0.05, *P<0.1
Values in parenthesis indicates Panel-corrected standard errors
Source: Authors computation

be statistically insignificant. In Model 2, only LLP, (CL/TA), and (TD/TA) demonstrated statistically significance.

Continuing, the discussion of results proceeds as follows: Consistent with the study's expectation, a 1% increase in LLP was found to reduce the profitability of banks in Bangladesh measured by ROA by 0.24% and 3.5% when measured as ROE, ceteris paribus. The results (Model 1 and Model 2) suggest that banks' profitability is negatively influenced by the allocation of resources to cover potential loan losses. This observation is plausible since LLP is often recorded as expenditure in a bank's financial statement, directly reducing net income of the bank. Therefore, the negative associating between LLP and bank's profitability arises from the direct impact of loan provisions on the reported earnings of the bank, as well as reduction in accessible capital for lending activities. The study lends support to the findings drawn by Mustafa et al. (2012) and Tahir et al. (2014).

Other bank specific variables including current liabilities and total loans as proportions of total assets pose a positive effect on the profitability of banks in Bangladesh. All things being equal, the result revealed that for a 1% increase in (CL/TA) bank's profitability measured as ROA increases by 0.02% and 0.27% when measured as ROE. The positive associating between (CL/TA) and banks' profitability aligns with the study's prediction. This suggests that banks in Bangladesh are adept at proficiently handling their immediate financial commitments. It is possible that they achieve this by effectively and efficiently matching short-term loans with short-term funding, as well as aligning interest income and interest expense. Such strategic approach empowers banks to minimize the associated cost of financing current liabilities, thus providing them the capacity for generating profits.

Similarly, the study showed that a 1% increase in (TL/TA) increase banks profitability in Model 1 and Model 2 by 0.12% and 0.02% respectively, ceteris paribus. Loans are considered the prime source of earning interests for banks. When the proportion of total loans to total asset is higher, banks have more assets generating interest income, which can considerably contribute to their profitability. However, it of paramount importance for banks to manage risk prudently and to avoid possible overexposure to loan-related risks. Meanwhile, only the result in Model 1 was found to be statistically significant.

In contrast, increase in total deposits was found to reduce banks profitability in both Model 1 and Model 2. Generally, deposits are the prime source of banks' funds and hence deposits are considered as a core liability that incurs interest costs to the bank. All else the same, the result established that a 1% increase in (TD/TA) reduces bank's profitability in Bangladesh by 0.01% and 0.07% in Model 1 and Model 2, respectively. The result suggests that higher deposits lead to the reduction of the banks' profitability. This is likely if the interest paid to depositors is higher than the interest earned on banks loans and investment. Consequently, this can narrow the interest rate spread and reduce the bank's income and profitability.

However, although in general, total assets put positive influence on the banks' profitability, the analysis in this study on the relationship between ROA and bank size is inconclusive, as the estimation result is not statistically significant in both Model 1and Model 2. Equally, in both Models, the study found the influence of *Gov* and *Inf* on banks' profitability to be statistically insignificant for the case of Bangladesh.

5. CONCLUSION

A key motive of private commercial banks is to earn profit through investment of assets in the form of loans and advances. These activities are highly susceptible to credit or default risk from the borrowers' side. To mitigate these risks, regulatory bodies often impose on the banks to maintain a provision for potential loan losses in order to safeguard the sources of funds. This study examined the impact of such provisioning on the profitability of the private commercial banks in Bangladesh. Analyzing the last 10 years' data, the study found that regardless of the measure of profitability, (either in terms of ROA or ROE), loan loss

provisioning exerts a significant negative effect on commercial bank's profitability. This is because, loan loss provisions are generally maintained as expenses and thus, directly has an influence on the profits of the banks.

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APPENDIXS

Appendix 1: Summary Statistics of the Data

Variable	Observations	Mean	Std. Dev	Min	Max
ROE	200	0.116403	0.0439063	0.0008	0.234
ROA	200	0.0094836	0.0040675	0.0001	0.027
lnSize	200	12.33309	0.4214883	11.31121	13.25414
LLP_TA	200	0.0073581	0.0040762	-.0004552	0.029104
LLP	200	1788.698	1183.567	-94.28	5855
CL_TA	200	0.8222296	0.0421476	0.6657007	0.8931951
TLOANS_TA	200	0.7150005	0.2032454	0.4907199	1.97831
TD_TA	200	0.8124544	0.2216256	0.5959308	2.10189
INF	200	6.052177	0.6638817	5.513526	7.530406
GovIND	200	-.8887384	0.0548773	-.9594725	-.8042462

Appendix 2: Model 1 (ROA)

Variable	POLS	REM	FEM
LLP	−0.235*** (0.070)	−2.240*** (0.065)	−0.244*** (0.066)
(CL/TA)	0.021** (0.009)	0.014* (0.009)	0.014 (0.009)
(TL/TA)	0.013*** (0.004)	0.005 (0.005)	0.001 (0.005)
(TD/TA)	−0.011*** (0.004)	−0.005 (0.005)	−0.002 (0.006)
Size	−0.001 (0.001)	−0.002** (0.001)	−0.002** (0.001)
Gov	0.005 (0.006)	0.006 (0.006)	0.007 (0.005)
Inf	0.009** (0.004)	0.005 (0.004)	0.003 (0.004)
_Cons	−0.004 (0.020)	0.020 (0.020)	0.029 (0.021)
Obs	200	200	200
Breusch and Pagan Lagrangian Multiplier test		chibar2 (01)=44.54 Prob>chibar2=0.000	
Hausman test		Chi2 (7)=11.86 Prob>chi2=0.105	
Heteroskedasticity		Chi2 (20)=966.13 Prob.>chi2=0.000	

***P<0.01, **P<0.05, *P<0.1
Values in parenthesis indicates standard errors
Source: Author's computation
LLP: Loan loss provisioning

Appendix 3: Model 2 (ROE)

Variable	POLS	REM	FEM
LLP	−3.522*** (0.729)	−3.001*** (0.683)	−2.682*** (0.694)
(CL/TA)	0.269*** (0.089)	0.175* (0.090)	0.125 (0.097)
(TL/TA)	0.016 (0.043)	−0.036 (0.047)	−0.081 (0.055)
(TD/TA)	−0.074* (0.042)	−0.025 (0.047)	−0.038 (0.066)
Size	−0.008 (0.010)	−0.005 (0.011)	−0.001 (0.012)
Gov	0.113* (0.065)	0.124** (0.058)	0.132** (0.058)
Inf	0.058 (0.041)	0.055 (0.039)	0.064 (0.041)
_Cons	0.061 (0.205)	0.121 (0.205)	0.134 (0.217)
Obs	200	200	200
Breusch and Pagan Lagrangian Multiplier test		chibar2 (01)=33.21 Prob>chibar2=0.000	
Hausman test		Chi2 (7)=16.50 Prob>chi2=0.021	
Heteroskedasticity		Chi2 (20)=577.34 Prob.>chi2=0.000	

***P<0.01, **P<0.05, *P<0.1
Values in parenthesis indicates standard errors
Source: Authors computation
LLP: Loan loss provisioning