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Impact of government ownership on banks' profitability: Empirical evidence from commercial banks in Uzbekistan

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Abstract

The banking system of a country plays a pivotal role in achieving sustainable economic growth in a country. Recent transformations and reforms in the economic policies of the Republic of Uzbekistan have led to significant changes in the banking sector. Studying the key factors which contribute to the profitability of commercial banks in Uzbekistan is becoming increasingly important. Thus, this research paper examines the main determinants of banking profitability in the Republic of Uzbekistan. For this, various indicators of the bank's effectiveness, such as specific banking characteristics, as well as macroeconomic determinants, were considered to investigate their influence on the profitability of Uzbek banks. To be more accurate liquidity, capital, size, government ownership, operational expenses, inflation, and gross domestic product (GDP), were included as explanatory variables. In turn, the return on assets (ROA) and the return on equity (ROE) were used as proxy indices of profitability for Uzbek banks. Panel data for the period from 2017 to 2021 have been employed on 32 commercial banks of Uzbekistan. Empirical conclusions have shown that the profit of the bank is largely determined by specific factors affecting its activities. The regression results have shown that government ownership and operating costs have negative and statistically significant relationship with the profitability of a bank. Surprisingly, GDP growth rate is negatively associated with ROE and ROA of commercial banks in Uzbekistan. Inflation and liquidity rates were found to have positive relationship with ROE. Other internal determinants, such as capital, and size have shown statistically insignificant impact on the bank's profitability.

Keywords: *Banking; Uzbekistan; Profitability; Privatization.*

JEL Classification: *G21, G32.*

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1. Introduction

Banks are one of the important financial institutions in both domestic and international economy as they play a significant role in facilitating the transfer of capital and funds from investors to entrepreneurs and producers of goods and services. The role of the banking system in the modern economy can hardly be overestimated. The economic well-being of the country, its standard of living, economic growth, the relevance of the modern economic model, and the efficiency of the country's economy depend on how successfully the banking system works.

In recent years, Uzbekistan, as a developing country, has made significant progress in transforming its economy. As Fitzgeorge-Parker (2019) stated "Nearly 30 years after the collapse of the Soviet Union, state creditors still account for more than 80% of all banking assets in Uzbekistan." Under the former leader, most of them were used as political banks, funneling subsidized funding to government projects and state enterprises. However, positive trends in Uzbekistan's banking sector emerged in 2017, when the new president's government began a major overhaul of the banking sector as part of a broader campaign to revive Uzbekistan's economy. The strategy for reforming the banking system includes increasing the efficiency of banks, increasing the level of financial intermediation in the economy, ensuring competition in the banking sector and in the financial services market, and reducing the state's share in the banking system, which includes full rather than partial privatization of banks, provide a high degree of transparency and market discipline of banks (Vestnik, 2019).

Figure 1 presents review of Uzbek banking system as of January 1st 2022: the total assets of Uzbek bank exceeded 41 billion dollars (444,922 billion Uzbek som), while 85% is accounted for by state-owned banks. Bank liabilities reached 34.5 billion dollars, of which 40% consist of bank deposits, 23% are external borrowings, 40% funds of the Ministry of Finance and 17% are other liabilities. The total capital of banks is at the level of approximately 6.6 billion dollars, of which 84% is the capital of state-owned banks and 16% belongs to private banks[1].

Figure 2 presents the 5-year period change in the composition balance sheet of the commercial banks in Uzbekistan. According to the figure, the total assets of commercial banks in Uzbekistan have doubled in USD from January 2018 (20.568 billion USD) to January 2022 period (41.122 billion USD).

[1] Central Bank of Uzbekistan (2022). Information on the main indicators of commercial banks. The Central Bank of the Republic of Uzbekistan. Available from https://cbu.uz/en/statistics/bankstats/

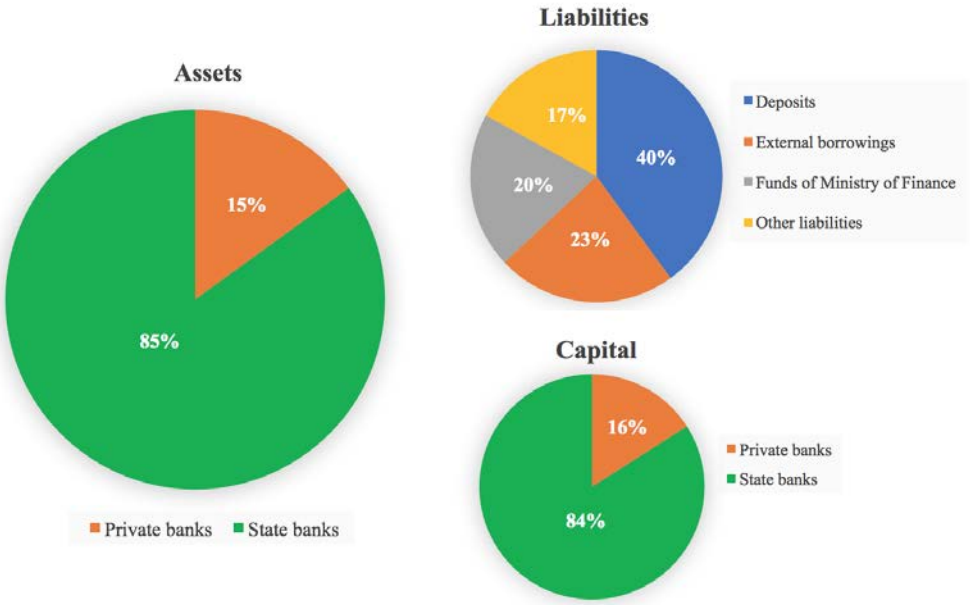

Figure 1. Current State of the Banking System in Uzbekistan

A brief overview of the reforms that have taken place in recent years makes one realize a significant change in the position and role of banks in Uzbekistan. The changes, in turn, have led to the fact that banks have strengthened their position in the financial sector and now can further influence the regulation of growth and the structure of the country's economy.

The development of the banking system is influenced by several internal and external factors. The concept of these factors affecting the activities of banks has shown its importance, and knowledge of the main indicators of bank profitability will help to counter adverse obstacles in further reforms of the financial sector (Uralov, 2020).

In turn, this research paper attempts to investigate the main factors that affect Uzbek banks profitability. Bank profitability is expressed as a function of internal and external determinants. Internal determinants include factors derived from internal information on banking activities while external determinants are macroeconomic factors.

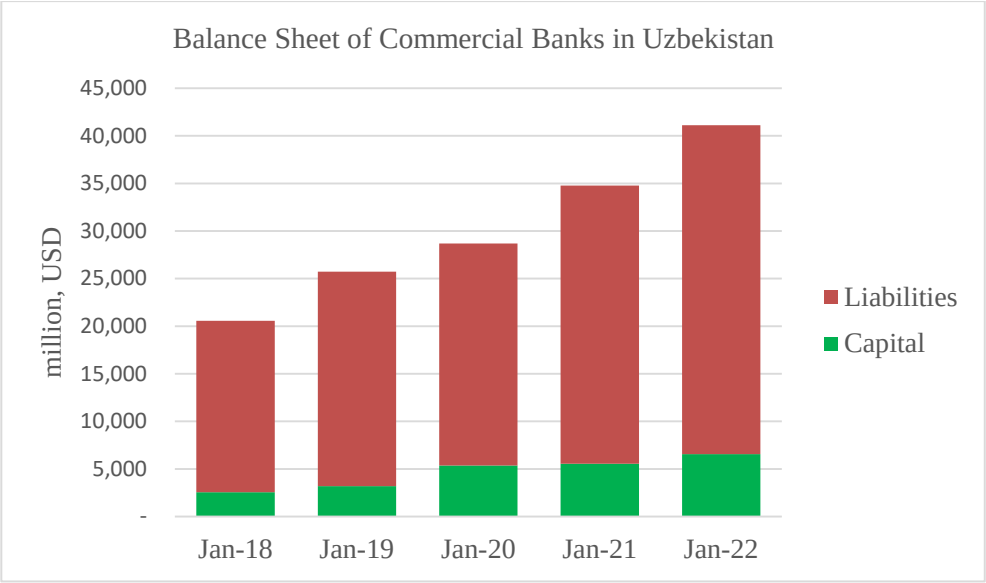

Figure 2. The Composition of Balance Sheet of Commercial Banks in Uzbekistan

Consequently, this study will answer one crucial question: "What determines the profitability of commercial banks in Uzbekistan".

Given the absence of empirical study, it is expected that this research will fill the gap and provide an understanding of the determinants of profitability of commercial banks in Uzbekistan. For this the following objectives were identified:

- To evaluate the profitability performance of commercial banks in Uzbekistan.
- To analyze the important internal and external factors that affect bank's profitability.
- To examine the nature of the impact of the government ownership on the performance of banking operations.

The rest of the paper is organized as follows: Section 2 presents the literature of previous studies. Section 3 discusses the data and methodology, while Section 4 illustrates the empirical evidence and discusses it in detail. Finally, Section 5 gives the concluding remarks of the study.

2. Literature Review

Based on previous studies, the factors affecting the profitability of banks can be classified into 2 groups, dividing them into internal and external factors. Internal factors are specific to each bank that include liquidity, capital, size, and operating expenses. The second group is external determinants that include the relationship between profitability and the macroeconomic environment of the country in which the banking system operates, for example, economic growth and inflation rate. Other interesting variables that also can influence bank profitability are government ownership and exchange rate within a country. Consequently, this study aims to assess the impact of these indicators on banks profitability and better understand the main mechanisms of the banking systems.

2.1. Liquidity

The liquidity of banks concerns the cash and assets available in banks to meet financial liabilities when they arise. Effective liquidity management aims to ensure that, the bank even in unfavorable conditions has access to the funds to meet its obligations and customer needs. The liquidity parameters largely depend on the scale: the larger the bank's capital, the smaller the share of liquid assets in the total assets. Liquidity is measured by the ratio of total loans to total deposits (Doan and Bui, 2021). Sahyouni and Wang (2018) analyzed the impact of liquidity creation on bank profitability for 6 developed and 5 emerging countries using the panel data for 2011- 2015 years. They found a positive relationship between liquidity and capital for large banks, negative for small banks and insignificant for medium banks. The same conclusion was done by Horvath, Seidler, and Weill (2014) investigated that in small banks the creation of liquidity leads to a decrease in capital.

2.2. Size

The size of banks affects competitiveness, profit from economies of scale and capacity development. According to Flamini et al (2009), the larger the banks, the smaller the need for profit. However, if the country's major banks control most of the domestic market, lending rates can be high. Although larger banks are usually associated with lower costs and usually make more profit than smaller banks but there is evidence that smaller banks also earn high returns. To capture its effect logarithm of bank total assets has been used as a measure of bank size (Nguyen et al., 2018). Almost all past studies reached controversial results in the case of bank

size effect on its profit. For instance, the study of the former author where ROE and ROA were used as dependent variables, did not find any statistical relationship between bank size and profit. However, the empirical study of Aladwan (2015) on determinants of bank profitability in Jordanian commercial banks concluded that the size effect exists. These results support the hypothesis: the smaller the bank's assets, the higher its profitability. Another study made by Sahyouni and Wang (2018) investigated that size and profit have a significantly positive relationship in developed and developing markets. The bigger the bank size higher its profit. Consequently, larger banks were able to get profit from opportunities for diversification of loans.

2.3. Capital

The capital adequacy ratio is an important internal determinant of the commercial banks profitability, as it shows how well banks are capitalized and high-cap banks are expected to be safer because of their lower risk profile. By themselves, equity ratios measure banks' ability to withstand future losses, and the ratio of equity capital to total assets is used as a measure of capital. Most of the literature investigated the positive relationship between banking capital and profits. Aburime (2008) noted that bank's safety level is achieved from high capital requirements, which bring positive results. Capital adequacy is usually aimed at improving the stability of the banks by reducing the likelihood of their failure and some negative externalities in the banking sector, which cause the risk of systematic underpricing. Mendes and Abreu (2002) also found that well-cap banks are expected to face lower bankruptcy that increases profits, thereby demonstrating a positive relationship between the two variables (cited in Wasiuzzaman and Tarmizi, 2010, p. 56). The empirical study of Al-Jafari and Alchami (2014) where the GMM technique with panel data used for the period from 2004 until 2011 for Syria showed positive and significant relationship of capital with bank profitability ratios.

2.4. Operating Expenses

Operating costs or effective costs include employee salaries, occupancy expenses, office supplies and other benefits. This variable alone is a result of bank management and expressed as a ratio of operating costs to income or assets. The paper investigated negative but significant relationship between operating costs and profitability in a study of banks in South East Europe (Athanasoglou et al., 2008). In a research conducted to determine the profitability of banks in the

Republic of Macedonia, operating costs are considered the most important variable among other internal factors in the profitability of banks. The result showed that operating expenses negatively and significantly correlated with return on assets. In turn, improved management of operating costs, means lower asset values, leads to higher efficiency and, ultimately, higher profits (Curak, Poposki, and Pepur, 2012). Another paper that advocated the to find determinants of bank profitability noted that Kenya has a same negative and statistically significant result as a previous author (Wycliffe, 2019). On the other hand, certain scholars have found, using multicollinearity test that operating expenses to total assets ratio has a positive and significant relationship with changes in return on equity in the case of Nigeria (Eze, 2014).

2.5. GDP

External factors are determinants that reflect the macroeconomic environment, which affects the performance of banks in different ways. Authors such as Athanasoglou, Delis, and Staikouras (2006) examined macroeconomic determinants and found that GDP growth play role in shaping the performance of the banking sector. GDP as a measure of input that is expected to have a positive relationship with a profitability of banks. The higher the economic growth, the more banks lend and allow them to charge relatively high margins as well as improve asset quality. Otherwise, if GDP growth slows down, the quality of credit will worsen, which will lead to an increase in the number of defaults, in turn it will reduce profits. On the other hand, Li (2007) investigated that economic growth has insignificant effect on bank performance. Similarly, the results of Ramadan et al. (2011) showed that the banks have not benefited from the GDP growth and other business opportunities to make more profit (Al-Jafari and Alchami, 2014, p. 20-21).

2.6. Inflation

The inflation rate is used as a measure of how micro environmental risk can affect the profits made by banks. Wong and Hoi (2009) suggested that high inflation is associated with higher incomes and higher costs. It is predicted that if revenue increases more than costs, there will be a positive relationship between inflation and profit. However, if spending grows faster than income, there will be a negative correlation (cited in Wasiuzzaman and Tarmizi, 2010, p. 59). The research conducted by Molyneux and Thornton (1992) for 18 European countries over the period 1986-1989 also supported the view of previous author. A similar

outcome of the results confirmed that if inflation level expected by bank management in turn, banks can regulate interest rates to increase their income faster than expenses. The extent to which inflation affects a bank's financial performance depends on whether inflation is expected or not. Other authors reviewed in the study of Syria noted that developing countries tend to be less profitable in the face of inflation (cited in Al-Jafari and Alchami , 2014, p. 20).

2.7. Government Ownership

Ownership structure influences the culture of management, business strategy, operational process, level of market access and several other factors that can affect the ability of commercial banks to make a profit. Research by Berhane Hagos (2011) found that a large proportion of government ownership is associated with less developed financial performance. State-owned banks are less likely to take risks because politicians control banks, have incentives to maintain bank solvency, and use the opportunity to use state-owned banks as a policy tool. Verbrugge et al. (1999) studied bank privatization in more than 25 countries and found that state ownership negatively affects the banking system. They conclude that state ownership not only leads to the politicization of resource allocation where the government fund projects that are politically desirable but also insulates bank managers from the market discipline (cited in Fernández et al., 2001, p 6). However, Nora and Anis (2015) found in their research that state-owned banks perform better than private ones. The authors noted that investors confidently do business with government-owned banks rather that private banks, because they believe that the state will support banks if it has a trouble.

3. Data and Methodology

3.1. Data

For this study, 32 commercial banks of the Republic of Uzbekistan were taken for the annual periods from January 2018 to January 2022. Financial data on individual indicators of the banks are obtained from the financial statements of the annual reports of banks and from the official website of the Central Bank of the Republic of Uzbekistan (CBU). Data on macroeconomic variables are obtained from the official website of the European Bank for Reconstruction and Development (EBRD) and the World Bank. Based on the revised literature, quantitative panel data regression is more informative. In addition, panel data is a reasonable method for our study that has the advantages of partially overcoming

collinearity, increasing the number of data points, providing degrees of freedom, and helping to answer questions that cannot be solved with time series and cross-sectional analysis. It also allows the uncertainty and heterogeneity issues of each bank to be explored, leading to more efficient results (Nguyen et al., 2018).

3.2. Model Specification

To empirically evaluate the indicators that most affect the profitability of banks, econometric models were used, and it takes the following general formula:

$$Y_{it} = \beta_0 + \sum_{i=1}^{k} \beta_i X_{it} + \varepsilon$$

where commercial banks are presented by i-index, t - time variant in a year and j-control variables. Y_{it} - shows observation of dependent variable, β_0 - intercept, β_i is a coefficient of independent variable, X_{it} stands for Independent variable and ε presents the error term.

After converting model above to the specified variables, the following linear regression equations were performed to assess the relationship between internal and external variables and the bank's returns:

$$ROA_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 CAPA_{it} + \beta_3 SIZE_{it} + \beta_4 OPEX_{it} + \beta_5 GDP_{it} + \beta_6 INF_{it} + \beta_7 GOV_{it} + \varepsilon \quad (1)$$

$$ROE_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 CAPA_{it} + \beta_3 SIZE_{it} + \beta_4 OPEX_{it} + \beta_5 GDP_{it} + \beta_6 INF_{it} + \beta_7 GOV_{it} + \varepsilon \quad (2)$$

The following Table 1 was created to show the definition, designation, dimension and expected sign of variables.

Table 1. Data Description of Variables

Variable	Acronym	Definition	Type
Return on Assets	*ROA*	Net profit over total assets (in %)	Dependent
Return on Equity	*ROE*	Net profit over total equity (in %)	Dependent
Liquidity	*LIQ*	Current assets to current liabilities ratio	Independent and internal
Capital to Asset ratio	*CAPA*	The ratio of total capital to total assets	Independent and internal

Bank Size	*SIZE*	Log of total assets	Independent and internal
Operating Expenses	*OPEX*	Ratio of operating expenses to total revenue	Independent and internal
Gross Domestic Product	*GDP*	Annual GDP growth (in %)	Independent and external
Inflation	*INF*	Annual inflation rate (in %)	Independent and external
Government Ownership	*GOV*	Dummy variable for government ownership	Independent and external

3.2. Data Description

The reviewed literature provided some basis for identifying important study variables. The two most common measures of bank profitability were return on assets (ROA) and return on equity (ROE). Previous authors in their studies have indicated several times that ROA is one of the key indicators in assessing the profitability of a bank. ROA shows how well banks manage its assets and uses real investments to make a profit. ROA is measured by net interest income divided to average total assets. However, the problem with ROA is that it tends to be positively biased in evaluating a bank's performance since it eliminates the bank's off-balance sheet items (Tsehay Amare, 2012). Another measure of a bank's profitability is the return on equity (ROE). This indicator shows how well the bank uses the funds received from investors to make a profit. Often, banks with higher equity ratios report higher ROA but lower ROE. However, a high return on equity may hide risks associated with the effect of capital regulation and greater leverage (Kohlscheen, Murcia and Contreras, 2018).

The seven independent variables represent internal and external factors. Internal variables define management decisions of bank that specifically affect policy objectives such as liquidity, capital, size, and operating costs. External variables arise under the influence of macroeconomic factors, including gross domestic product, inflation and state ownership.

The ratio of total loans to deposits is included to show the impact of a deposit on a bank's profit. If banks have a higher share of demand deposits, in turns their efficiency level increases as banks can use this source of core deposits without higher interest rates. The ratio of total loans to deposits is considered for the liquidity in banks. Intuitively, one can expect a positive effect on the bank's profitability (Eze, 2014).

The level of capitalization is another factor that influences the bank's profitability. A high level of capital increases the share of loans, which leads to higher profitability (Garcia Herrero et al. 2009). A positive correlation between profit and capital is expected, which was also demonstrated in studies of Al-Jafari and Alchami (2014).

The size coefficient, measured by the logarithm of banks' assets, is positive and has a high significance. Due to the economies of scale theory, changes in the bank's size positively affects the bank's profitability (Tadesse, 2016; Ben Moussa and Boubaker, 2020).

Operating expenses is a result of bank management. In turns, if the banks have a good governance it will rise efficiency and increase profits; thus, this indicator is predicted to have a negative sign in the regression (Tsehay Amare, 2012).

GDP control variable which has a positive relationship with bank profitability. High rates of economic growth lead to an increase in demand for interest-bearing and interest-free financial services. In addition, positive GDP growth results in higher incomes, which improves the borrower's ability to service debt and lead to lower probability of loan default (Ben Moussa and Boubaker,2020).

Inflation is another control variable that affects bank performance. However, the relationship with bank profitability indicators is ambiguous and largely depends on whether inflation is expected or not. It also affects whether wages and other non-interest expenses rise faster than the rate of inflation. In the regression the inflation rate expected to have slightly positive effect on profitability ratios of commercial banks (Al-Jafari and Alchami, 2014).

Government ownership is included as a dummy variable in the regression to determine its relationship with bank profitability. In general, the ownership structure is expected to have a negative impact on the bank's operations, as it isolates the activities and free development of bank managers in the financial market. The larger the state's share in banks, the worse bank performs (Gupta and Mahakud, 2020).

Firstly, multicollinearity test will be applied to check correlation of variables. For this Variance Inflation Factor (VIF) test will be performed to check if the variables included in the regressions are collinear. If the results show less than 5, then multicollinearity is not a problem for the study. The test is commonly used to assess the degree of stability of the relationship between independent and dependent variables. By using the correlation coefficient of variables, we will be able to establish which of the variables will be relevant for the analysis of our

model and we will also be able to avoid the double effect of the independent variable. If there is multicollinearity between variables, then it will be difficult to estimate all coefficients of the model. A low correlation coefficient indicates that there are no problems with multicollinearity. So, if the correlation coefficient between two variables is high and greater than 0.8, then multicollinearity is a problem (Tadesse, 2016).

Secondly, relevant variables will be fitted to the panel analytic study model to see whether the effect is random or fixed. For this, the Houseman test will be used to find which of the models is the most suitable. The test determines whether the beta is a random effect or a fixed effect. The random effects assumes that the variables in the estimate do not follow any predictive model and are not correlated with independent variables, so time-independent characteristics can be included in the model. A fixed effects model is often controlled for time-invariant variables that will occur in the model. If the Houseman probability value is statistically significant if p-value is less than 0.05, the fixed effect will be better, otherwise the random effect (Eze, 2014).

4. Results and Discussions

4.1. Results

The multicollinearity assumption was checked by correlation matrix (see Table 2) and variance inflation factor. The results can be seen below.

Table 2. Matrix of correlations between independent variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Operexp	1.000					
(2) Liquidity	0.115	1.000				
(3) Size	-0.044	-0.583	1.000			
(4) Gownership	0.246	0.036	0.157	1.000		
(5) GDP	0.354	-0.496	0.630	-0.005	1.000	
(6) Inflation	-0.261	-0.348	0.620	0.011	0.133	1.000

The matrix of correlation results show that all correlations that occurred between independent variables are not much correlated with each other, since all values are less than 0.8. This indicates the absence of multicollinearity in the model.

Table 3. Variance Inflation Factor (VIF)

	VIF	1/VIF
OPEX	3.88	0.2574
LIQ	3.62	0.2760
SIZE	2.79	0.3578
CAPA	1.89	0.5281
GOV	1.55	0.6461
INF	1.09	0.9203
GDP	1.05	0.9557
Mean VIF	2.27	

To test whether variables are collinear, we perform a Variance Inflation Factor (VIF) test on each independent variable in the regression models. As can be seen in Table 3, all the figures and mean of VIF (2.27) in the table are less than five, indicating that multicollinearity problem is not present.

Table 4. ROA and ROE model Regression Results RE

VARIABLES	**ROA**	**ROE**
CAPA	-1.094 (1.732)	-11.252 (14.052)
OPEX	-13.871*** (0.176)	-37.670** (16.696)
LIQ	0.004** (0.002)	0.021 (0.017)
SIZE	-0.970 (0.684)	7.267 (5.325)
GOV	-1.482* (0.777)	-22.881*** (5.957)
INF	0.148** (0.071)	0.164 (0.698)
GDP	-0.211* (0.113)	-2.848** (1.159)
Intercept	8.958*** (3.222)	22.780*** (25.904)
Observations	145	145
Number of Banks	32	32

According to the results of the Hausman test the p-value for the test is greater than 0.05, indicating that a fixed effect specification is not appropriate, and a random effect model is preferred for this study.

4.2. Discussion

The empirical results of regression analysis of models presented in the table above in which dependent variables such as return on assets (ROA) and return on equity (ROE) were used as profitability ratios to test for seven independent variables. Below are analyses of the results obtained, as indicated in the method adopted for the study.

Capital: The results highlight that coefficient of the capital is positive and its statistically insignificant in determining the profitability of ROA and ROE ratios. This finding is consistent with expectations and previous studies of Al-Jafari and Alchami (2014).

Operating Expenses: The regression results for the ratio of operating expenses to total revenue showed a negative and significant relationship with both profitability ratios. It presents inefficient quality of bank cost management which in turns reflecting negatively on profitability of Uzbek banks. As previously expected, a percentage point increase in operating expense ratio would result in a bank's ROA and ROE falling by 13.87 and 37.67 percentage points, respectively, with all other variables held constant.

Liquidity: The results on the ratio of total loans to total deposits are consistent with the expectations and conclusions of the previously mentioned authors. The empirical results of the study support the findings of Pasiuras and Kosmidou (2007), as well as Sufian and Habibullah (2009), whose work is cited in Al-Jafari and Alchami (2014) and Eze (2014), where all studies have examined positive and insignificant impact of liquidity on the bank's profitability indicators.

Size (log of assets): According to both valuation models, bank size has a positive but insignificant relationship with ROA and ROE of Uzbek banks.

Government Ownership: In line with the expectations and findings of Tadesse (2016) and Gupta and Mahakud (2020), government ownership has a negative and significant relationship with bank performance. Thus, government owned banks had, on average, 1.48 percentage points lower ROA and 22.88 percentage points lower ROE compared to private banks while all else being equal.

It can be noted that privatization practice of the commercial banks in Uzbekistan leads to an increase in the efficiency of Uzbek commercial banks.

Inflation: Macroeconomic control of the variable inflation showed a positive and significant impact on ROA, but insignificant effect on ROE. This may indicate that due to the responsive ability of Uzbek banks to adjust interest rates, commercial banks are benefiting from the inflationary environment, and this is causing their revenues rise faster than costs. In turn, it turns out that an increase in inflation by one percentage points is associated with 0.15 percentage point increase in ROA while holding other variables constant.

Gross Domestic Products: Another macroeconomic factor that determines the profitability of banks, GDP, gives somewhat unexpected results. Negative relationship between GDP growth and profitability of the banks are in contrary to many early findings. This can be explained by the fact that even though Uzbekistan saw lower growth rates during the pandemic years, the profitability of the banks has grown by providing more loans during this period and enjoying the tax benefits provided by the government. In terms of ROA, the negative effect could be that in good times, when demand for loans is high, therefore commercial banks can afford to lower interest margins to gain market share.

5. Conclusion

This study examined the factors that determine the profitability of banks in Uzbekistan. It used all 32 commercial banks operating in Uzbekistan for calendar end years 2017 to 2021. The paper conducted a multicollinearity test along with a Hausman test to see which regression is best for this model. The results of empirical study, bank internal determinants, explained a significant part of the profitability of banks in Uzbekistan. The performance of a bank in this paper is measured by return on assets (ROA) and return on equity (ROE). The results of the regression revealed a negative and significant relationship between state ownership and operating expenses with bank ratios. The data obtained suggests that the type of bank and the effectiveness of management are considered as an important indicator in determining the profitability of the bank. Thus, as a policy, the authorities can introduce a phased privatization of banks, which in turn will have a positive effect on the effective management of the bank performance. On the other hand, the bank's management can effectively pursue a policy that will improve balance sheet position without considering external influences, which will have a positive impact on the bank's performance in the future.

Turning to other independent variables, size and capital did not show any significant effects on the profitability ratios. The liquidity ratio showed positive significant correlation with only ROA ratio. Since the inflation rate is relatively high in Uzbekistan, the banks who maintain higher proportion of assets in liquid form make higher profit in relation to total assets. As for the size which is a logarithm of bank total assets, the results do not fully support the economies of scale theory.

This study attempts to fill a gap in the literature of banks profit with internal and macroeconomic factors that determine the profitability of Uzbek commercial banks by providing new empirical evidence and recommendations. The findings have had a significant impact on the literature describing and studying the current situation with the profitability of Uzbek commercial banks, especially during the period of economic transformation in the country.

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