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## Factors affecting performance of commercial banks in Albania

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### Abstract

The functioning of the banking system is an important factor for the transferring of funds in economy. The Albanian economy has changed from a contracted into a democratic one in 1991, which was followed by a change into the banking system. So the bank leaders and the government established a new banking system. In 1992 in Albania operated three state owned banks while in 2014 into the banking system operate sixteen totally private banks. This study attempts to explore the factors that mostly affect financial performance of commercial banks which operate in Albania. The study population consisted of 16 commercial banks with domestic and foreign capital, during the period 2010-2013 with a total of 48 data. The investigation uses cross-sectional time series data which are collected from the Balance Sheet Annual Reports. Based on literature review, performance is defined in different ways but this study seeks to establish the underlying factors responsible on determine the return on assets (ROA) of the sample selected.

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**Keywords:** Commercial banks; performance; factors affecting.

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## **1. Introduction**

### *1.1 Background*

The Albanian banking system has been transformed from 1991 to 2015 in every aspect and as we know the well functioning of the banking system is a very important factor for the transferring of the funds in an efficient way. The number of private banks (domestic or foreign owned) in Albania has increased. In 1992 in Albania operated three state owned banks while in 2015 the banking system is operating with sixteen totally private banks. Even after the fall of communism the prosperity of the Albanian banking system was set back by the financial crisis of 1997, but due to interventions from the Albanian government, the crisis did not last long and bank stability was again established (Bushati, 2008, p. 26). Also despite the effects of the global financial crises (2008) the Albanian banking system has reacted positively to its negative effects. Now banks offer a variety of products and services. Deposits are secured by the government and the procedures of loans for businesses and consumers are easier. The Bank of Albania also played a major role by putting in place many regulations to protect consumers from being taken advantage from non-secure banks and at the same time keeping banks under control with their loans and lines of credit (Bushati, 2008, p. 24).

The Albanian banking system is the most important sector of financial intermediation system in Albania. This sector dominates the financial sector with over 90 percent of all financial intermediaries' assets with assets as of end-2004 amounting to 52 percent of GDP (Gjergji, 2006, p. 7). The ratio of the total assets of the financial system and GDP in 2011 is 89.4% while the ratio of total assets of the banking system and the total assets of the financial system in 2011 is 94.7%. The ratio of total assets of the banking system and GDP in 2011 is 84.7 % (Shingjergji & Shingjergji, 2012). Albanian banking system is dominated by foreign capital banking market and they have played an important role in providing financial services and modernizing the banking system. Foreign ownership in Albanian banks started with Banka di Roma, which was co-owner at Italian-Albanian Bank (BIA), and then continued with foreign banks, such as: IFC, EBRD, Raiffeisen Bank (which privatized Savings Bank in April 2004), San Paolo IMI, National Bank of Greece, Bank of Piraeus etc. (Gjergji, 2006, p. 9).

The non-bank financial sector is less developed in Albania than the banking one. The insurance industry started developing after liberalization of the market in 1999. Actually into the Albanian insurance market operate eight non-life insurance companies which are: Insig, Sigma Inter-Albanian Vienna Insurance Group, Sigal Uniga Group Austria, Atlantik, Intersig Vienna Insurance Group, Albsig, Eurosig and Ansig; three life insurance companies: Insig, Sicred and Sigal Life Uniqa Group Austria and only one reinsurance company which is Sigal Uniqa Reinsurance Group Austria (AMF, 2015). Insig is the only fully state owned insurance company that operates from more than 20 years in the Albanian market and carries out activities in classes of non-life and life, which is established in 1991 and the other companies are established after the year 1999. Ansig is the last company which operates into this industry from 2012.

The study seeks to analyze the underlying factors responsible of performance of 16 commercial banks which operate in Albania during the four year period 2010-2013. The factors analyzed are:

bank size, capital adequacy, bank liquidity, bank age. The data are taken from the annual reports of the Albanian Association of Banks of the studied period.

### *1.2 Objective, significance and organization of the study*

Specifically, the study intends to establish the impact of four internal factors that affect the performance of 16 commercial banks in Albania during 2010-2013.

The investigation to establish the internal factors responsible for the performance (measured through return on assets) of commercial banks in Albania is important, given the quick transformations and different reforms of the commercial banking industry. The study provides some indications for bank shareholders and other interested subjects, on which are the factors that determine bank performance, in order to use in a more efficient way the bank's resources. Thus this study contributes on analyzing of the factors that have an impact on commercial bank performance in Albania in order to be more competitive businesses. Also this study is important because the data used are recent and because empirical researches on performance of Albania banking system are very few or inexistent.

This study is organized as follows; Section one provides a background of the study, main objective and significance of the study. The rest of the paper is organized as follows; Section two presents empirical literature on factors which influence the performance of commercial banks; Section three describes the methodology used in the study; Section four presents the findings and discussions on the underlying key factors responsible of bank's performance in Albania and Section five presents some of the conclusions.

## **2. Literature review**

The determinants of banks' profitability are usually assorted into internal and external factors (Gui et al., 2011). Internal factors are influenced by a bank's management decisions, whereas external factors are the macroeconomic variables, which reflect the economic environment where banks operate like GDP, inflation rate etc. Some of the recent studies on bank's performance are those of: Gul et al. (2011), Syafri (2012), Obamuyi (2013), Ongore & Kusa (2013), Frederic (2014) etc.

Gul et al. (2011) research was focused on examine the relationship between bank specific and macroeconomic factors on bank profitability by using data of top 15 Pakistan commercial banks over the period 2005-2009. The Pooled Ordinary Least Square (POLS) method was used to investigate the impact of assets, loans, equity, deposits, economic growth, inflation and market capitalization on profitability, measured through return on asset (ROA), return on equity (ROE), return on capital employed (ROCE) and net interest margin (NIM). The results found evidence that both internal and external factors have a strong influence on profitability.

Syafri (2012) study analyzed the factors that affect the profit of commercial banks in Indonesia, using polling data from commercial banks listed on the Indonesia Stock Exchange between 2002 and 2011. Bank profitability was measured by return on assets and results showed that loan to total assets, total equity to total assets and loan loss provision to total loan have positive effect on profitability.

Obamuyi (2013) used panel secondary data (cross-sectional and time-series data) for studying 20 Nigerian commercial banks during the period 2006-2012, finding same key determinants of bank profitability.

Ongore & Kusa (2013) study examined the effects of bank specific factors and macroeconomic factors on the performance of commercial banks in Kenya during the period from 2001 to 2010. They analyzed ten years panel data for 37 commercial banks, using linear multiple regression model.

The study of Frederic (2014) examined the factors responsible for determining the performance of domestic commercial banks in Uganda. The study used linear multiple regression analysis over the period 2000-2011 to analyze the data of all licensed domestic and foreign commercial banks. The study found that, management efficiency; asset quality; interest income; capital adequacy and inflation influence on the bank's performance in Uganda.

#### *Studies in Albania:*

Gremi (2013) study is focused on the relationship between the internal factors and bank profitability in Albania over the time period from 2005 to 2012 for 12 commercial banks in Albania. Bank profitability was measured by return on assets (ROA) as a function of some important determinants taken in consideration in this research.

Shingjergji & Idrizi (2014) studied bank' performance in Albania during the period 2002-2013 using return on asset as a measure of profitability, while as independent variables used: the capital adequacy ratio, exchange rate between euro and Albanian Lek, total loans, NPL ratio and interest rate spread.

### **3. Metodology**

The study population included all 16 licensed commercial banks in Albania (Albanian Association of Banks, 2013). Data was collected from published annual reports of the Albanian Association of Banks during 2010-2013. The source provided a higher quality data guaranteed by the serious work of this agency. The banks which are taken in consideration are: Alpha, BKT, Credins, CBA, Credit Agricole, Fibank, International Comercial, Intesa Sanpaolo, NBG, ProCredit, Raiffeisen, Societe General Albania, Tirana, Union, UBA and Veneto Bank. The average of total assets of the 16 banks during 2010-2013 is approximately 517.776 Euro. Raiffeisen bank is the biggest bank referring to total assets with an average of approximately 2.162.620 Euros during the period of the study followed by BKT with approximately 1.571.525 Euros. The smallest bank is CBA with an average of total assets of 9.873 Euros followed by UBA with an average of 43.420 Euros during 2010-2013 (Albanian Association of Banks, 2010-2013).

### **4. Hypotheses and the econometric model**

The objective of this study is to find out the relationship between internal factors and bank's profitability in Albania. Bank's profitability or performance (ROA) in this study is measured through the ratio of net income to total assets (Gul et al., 2011; Syafri, 2012; Obamuyi, 2013; Ongore & Kusa, 2013; Frederic, 2014). ROA measures the ability of the bank management to

generate income by utilizing company assets at their disposal. In other words, it shows how efficiently the resources of the company are used to generate the income (Ongore & Kusa, 2013, p. 239). Based on the objective, we conclude at the following research hypothesis:

*H1: There is a significant impact of internal factors on the performance of commercial banks in Albania.*

In order to analyze the effect of each factor the study uses the following four sub hypothesis:

*H1a: There is a significant positive impact of size on the performance of commercial banks in Albania.*

Size (SIZE) is calculated as the natural logarithm of total assets (Gul et al., 2011; Syafri, 2012; Obamuyi, 2013; Frederic, 2014). The impact of bank's size on profitability cannot be necessary positive. It can be positive up to a certain limit, because of greater opportunity to diversify but this doesn't mean that heightened diversification leads always into increased profits. So Gul et al. (2011) used size to analyze if larger banks are better placed than smaller banks because of economies of scale in transactions. Gul et al. (2011) found that "bigger" banks tend to enjoy a higher level of profits and we expect the same result from this study.

*H1b: There is a significant positive impact of capital adequacy on the performance of commercial banks in Albania.*

Capital adequacy (CAP) is calculated as the ratio of total equity to total assets (Gul et al., 2011; Syafri, 2012; Obamuyi, 2013; Ongore & Kusa, 2013; Frederic, 2014). According to Syafri (2012) capital adequacy should capture the general safety and soundness of the financial institution. We expect that the increasing of this ratio will cause higher profitability, because a bank can easily adhere to regulatory capital standards so that excess capital can be provided as loans.

*H1c: There is a significant positive impact of liquidity on the performance of commercial banks in Albania.*

Liquidity (LIQ) is calculated as the ratio of total loans to total assets (Gul et al., 2011; Syafri, 2012; Obamuyi, 2013; Ongore & Kusa, 2013; Frederic, 2014). Loans provide to banks the main source of income. So we expect a positive relation between this indicator and bank's profitability, because if more deposits are transformed into loans, the higher the profits from the interest. But higher liquidity (loan to asset ratio) also means higher risk undertaken from the bank and profits may decrease.

*H1d: There is a significant positive impact of age on the performance of commercial banks in Albania.*

Age (AGE) is calculated as difference of the years from the analyzed period to the foundation year. We expect that bank's age influence positively on performance, because the business has more experience to deal with the consumers, employers, shareholders etc.

**Table 1:** Correlation coefficients, using the observations 1:1 - 16:4, 5% critical value (two-tailed) = 0.2461 for n = 64

ROA	SIZE	CAP	LIQ	AGE	
1.0000	0.5414	-0.9765	0.0160	0.0954	ROA
	1.0000	-0.5590	-0.0160	0.3405	SIZE
		1.0000	-0.0611	-0.1059	CAP
			1.0000	-0.2917	LIQ
				1.0000	AGE

Table 1 shows the correlation between the explanatory variables specifically with respect to ROA. As we can notice ROA is negatively correlated with CAP (97.65 percent). Also it is demonstrated that ROA is positively correlated with SIZE (54.14 percent) and has a more weak positive correlation with LIQ (1.60 percent) and AGE (9.54 percent).

**Table 2:** Summary statistics, using the observations 1:1 – 16:4.

Variable	Mean	Median	Minimum	Maximum	Std. Dev.	C.V.	Variable
ROA	-0.0087	0.0037	-0.6216	0.0219	0.0796	9.1850	ROA
SIZE	12.4144	12.5785	7.1763	14.6536	1.4605	0.1176	SIZE
CAP	0.2456	0.1292	0.0741	5.5298	0.6827	2.7790	CAP
LIQ	0.6800	0.5876	0.3151	1.8503	0.3045	0.4478	LIQ
AGE	12.7500	13.0000	4.0000	22.0000	4.6257	0.3628	AGE

Note: ROA = Return on assets; SIZE = Natural logarithm of total assets; CAP= Total equity to total assets; LIQ= Total loans to total assets; AGE = Number of years.

Table 2 reports summary statistics for the variables used in our study. It shows that the average return on assets (ROA) for the sample as a whole is -0.0087, the average of SIZE is 12.4144, the average of CAP is 0.2456, the average of LIQ 0.6800 and of AGE is 12.75 years.

Before we analyze the data we should detect if there is any multicollinearity between the variable chosen. The variance inflation factor (VIF) is performed to support the validity of the regression results. In case of VIF, if the result is below the 10, suggest no multicollinearity (Gujarati, 2004).

**Table 3:** Values of Variance Inflation Factor (VIF).

Variable	VIF
SIZE	1.650
CAP	1.476
LIQ	1.106
AGE	1.256

Note: Values > 10.0 may indicate a collinearity problem.

In Table 3 results of VIF is reasonably good. The values of variance inflation factor for the variables in the model ranges from 1.106 to 1.650 for LIQ to SIZE suggesting the absence of multicollinearity among the variables of the model.

Employing panel data (cross pooled sectional data) analysis (Gujarati, 2004) and using Gretl (2012) statistical package we obtain the following results:

**Table 4:** Results from the regression analyses.

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-ratio</b>	<b>p-value</b>	
CONST	0.0126	0.0108	1.1678	0.2476	
SIZE	0.0008	0.0008	0.9535	0.3442	
CAP	-0.1151	0.0015	-76.0416	<0.00001	***
LIQ	-0.0091	0.0044	-2.0816	0.0417	**
AGE	0.0002	0.0003	0.8426	0.4029	

Note: \*\*\* 1% level of significance, \*\* 5% level of significance.

**Table 5:** Statistics based on the weighted data.

<b>Indicator</b>	<b>Value</b>
R-squared	0.8935
Adjusted R-squared	0.8931
P-value (F)	7.14e-64

The value for the R-squared in the model (Table 5) is 0.8935, which demonstrate that 89.35% of the variation in the dependent variable is explained by the independent variables of the model. The P-value for the F-statistic is 7.14e-64 and is significant supporting the validity and stability of the model of the study.

The results suggest that SIZE has a positive but not significant relation with ROA. This result shows that the size of the bank has not a very strong impact on profitability and we are not able to say that larger banks achieve a higher return on assets. Same results is been found by Frederic (2014). This study result is not consistent with the findings of Gul et al. (2011) which found a significant positive relation of size with ROA and with the studies of Syafri (2012) and Obamuyi (2013) which found a significant negative relation of size with ROA.

Capital adequacy has a negative and significant impact on the profitability of the bank. This result is consistent with the result of Frederic (2014), but not of some other previous researches (Syafri, 2012; Obamuy, 2013; Ongore and Kusa, 2013). The result shows that CAP has a strong negative impact on profitability of banks. This indicates that with more equity the chances of return on assets will be lower.

Liquidity has a negative and significant influence on profitability, which is not consistent with the study of Gul et al. (2011). It shows that the increase of loans with reduce the profitability of banks.

Age is the last factor examined and its coefficient resulted positive, but not significant to determine bank's profitability. So the growing in age of banks doesn't influence on their profitability.

According to Table 4, two variables are statistically significant and two are statistically insignificant and the regression obtained is:

$$ROA = 0.0126 + 0.0008 * SIZE - 0.1151 * CAP - 0.0081 * LIQ + 0.0002 * AGE + \varepsilon \quad (1)$$

With regard to the hypotheses tested, H1b and H1c are valid; H1a and H1d are rejected because the respective variables have not significant impact on the bank's performance.

## 5. Conclusions

**Table 6:** Variables definition, expected sight and results with respect to ROA.

Variables	Measurement	Reference	Expected sight	Results of this study
ROA	Net income to total assets	Frederic (2014), Obamuyi (2013), Ongore and Kusa (2013), Gul et al. (2011)		
SIZE	Natural logarithm of total assets	Frederic (2014), Obamuyi (2013), Gul et al. (2011)	+	+
CAP	Total equity to total assets	Frederic (2014), Obamuyi (2013), Ongore and Kusa (2013), Gul et al. (2011)	+	-(***)
LIQ	Total loans to total assets	Frederic (2014), Gul et al. (2011)	+	-(**)
AGE	Number of years from the foundation		+	+

Note: \*\*\* 1% level of significance, \*\* 5% level of significance.

- Bank size has a negative but statistically insignificant effect on banks.
- Capital adequacy is one of the bank specific factors that influence the level of bank profitability. It shows is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential losses and protect the bank's debtors (Ongore & Kusa, 2013). Capital adequacy ratio demonstrates the internal strength of the bank to support losses during crisis periods. According to results capital adequacy (CAP) has a negative impact on performance of commercial banks in Albania, which is statistically significant contrary to expectations. The result suggests that a higher capital ratio leads to or predicts lower profitability, consistent with the findings of Frederic (2014), who found a negative impact of capital-assets ratio among banking sector over the period of the study.
- Liquidity is negatively related with profitability, meaning that Albanian banks should be very careful in raising the amount of loans because it brings the reduction of profitability. This happens because the Albanian banks have experienced big amount of loss from increasing rate of non-performing loans. Actually banks have much liquidity, but little opportunities to invest



their funds. Many businesses have failed and banks have classified their loans as “bad credits” without the opportunity to gather them.

- Age is not a significant factor to take into consideration in analyzing bank performance in Albania.

### 5.1 Recommendations and limitations of the study

A policy on efficient management should be put in place for bank the determination of equity capital and amount of loans by finding ways to obtain the optimal utilization of resources. The study used multiple regression analysis due to the nature of the study, yet, it possesses assumptions which may not hold often. However, these assumptions were tested and found to be holding. The study adopted ratio analysis in evaluating the strength and weakness of commercial banks performance. Normally published financial statements do not give a complete picture of the activities of commercial banks performance. It would be better if we operate with market data in order to have a better picture of the situation. But in Albania the trade markets are inexistent and we are not able to operate with market indicators for the variable chosen.

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