

# The Determinants of Non Banking Financial Institutions Profitability

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## Abstract

This paper is focused on the development of Non-Banking Financial Institutions and the role and importance of their growing on Albanian Financial System. The role and the importance they have in the Albanian economy are great for the fact that most of them have the mission of self-employment growth and welfare in urban and rural areas. The financial performance of a financial institution essentially depends on several key financial factors. Factors that are taken in the study are: Loans / Total Assets; Loan Provisions / Total Loan ratio; Liabilities / Assets ratio; Operating expenses / Operating income and the Size of each institution. The most important variable, which affects more the ROE, is the Loans / Assets ratio, normally increasing the assets of an institution, increase the basis for the granting of loans and consequently the lending interest income. The second variable is the most important; with a high impact on the dependent variable is the ratio of operating expenses / operating income, followed later by the ratio liabilities / assets. Different statistical techniques such as regression and correlation were used to determine relationships between variables taken into consideration as well as the dependent variable impact on ROE. This research is an attempt to find out how many variables are statistically significant and what their impact on net profit of these institutions is.

**Keywords:** ROE, Non Banking Institutions, Profitability

**JEL Code:** G21; G33; E44;

## 1. Introduction

The banking sector is the most important part of the financial system in Albania, which occupies about 95% of total assets financial system. But the weight of non-bank financial institutions is not less important. They account for about 5% of the total financial system and noted the fact that their activity and role in the financial system is coming growing.

NBFIs industry is considered the higher second source of loan and various financial service providers behind the banking sector. Increasing financial performance of this sector has a significant effect on the performance of the Albanian economy as a whole, this due to the fact that financial sector refers mainly to the banking sector of each country. Their object of activity takes place mainly in areas not covered by the banking system. In this way the system is supplemented with new players that come to the market to meet customer requirements by increasing the competition. Their clients are mainly individuals and small businesses, more oriented to urban and rural areas. It is important to note the fact that their activity is making a continuous strengthening of the the financial situation and consolidates financial stability of the system. These institutions are taking a good position of those sectors that are not covered by banks and also should be noted that the future of many of these institutions is and will be very positive.

This paper also presents the determinants of non-bank financial institutions (NBFIs) profitability, which operate in Albania. The financial performance of a financial institution essentially depends on several key financial factors. Factors that are taken in the study are; Loans / Total Assets; Loan Provisions / Total Loan ratio; Liabilities / Assets ratio; Operating expenses / Operating income and the Size of each institution.

## 2. Literature Review

There are many studies that have been conducted to get an accurate picture of the profitability indicators. Most of these studies were conducted in connection with commercial banks and very few of them about Non-Bank Financial Institutions, it's probably due to the fact that the banking system is highly developed and has a very wide spread.

Fadzlan Sufian, and Royfaizal Razali Chong (2008) analyzed the determinants of profitability of banks Philippines during 1990-2005. Their empirical findings show that in all banks determinant variables have a statistically significant impact on the profitability of the bank. They also found that the size, credit risk, and operational costs are negatively correlated with the profitability of banks, while operating income and capital have a positive impact. According to their analysis of inflation has a negative impact on the profitability of banks, while the impact of economic growth, money supply, and the market capitalization of the stock significantly did not explain the changes in the profitability of Philippine banks.

Fadzlan Sufian (2009) paper, entitled "Determinants of profitability of financial institutions bank" empirical evidence from Malaysia "analyzed the determinants of profitability in Non-Bank Financial Institutions in developed countries. It found that Non-Bank Financial Institutions of Malaysia with a higher risk of exposure

reduce the level of profitability. He also suggested that specialization has no significant relationship with the profitability of Non-Bank Financial Institutions.

James W. Scott and José Carlos Arias (2011) in their study on the determinants of profitability of banks surveyed five largest banking companies concluded that the factors of profitability for the banking industry include positive relationship between return on equity and equity assets ratio and annual changes in the percentage of income per capita foreign. There was also a consensus virtual to identify the effect that the internal factor of the size of one of the organizations, measured by total assets has been its ability to compete more effectively with other banks, even in times of economic downturns.

K. Christos Staikouras & Geoffrey E. Wood (2011) examined the factors affecting the profitability of financial institutions in the research study on the determinants of the profitability of the European Bank. Their main finding was the rate of return earned by a financial institution is influenced by numerous factors. These factors include the internal elements of any financial institution and some important external forces in shaping the performance and revenue. Type explanation will determine the possible implications of the policy to be followed and should be taken seriously. Their research estimates that as determining the internal and external factors contributing to the performance of the banking industry in the EU as a whole in 1994-1998.

Balchandher K. Guru, J. Staunton & B Shanmugam (2009) in the research study "Determinants of profitability of commercial banks in Malaysia" have examined to what extent are inequalities performance profitability due to changes in the internal factors controllable management, and external factors. He received net profit as a variable his hanging and composition of assets, capital, the composition of deposits, management expenses, liquidity, firm size, rate of inflation, market growth, market interest rates, market share and regulation as variables independent. He suggested that all variables have a significant bearing on the net profit. And he also added that in order to increase profitability, cost management must be efficient, since the variability of this variable is very high and with a significant impact on net profit.

Demirguc-Kunt and Huizinga (2001) and Bikker and Hu (2002) found a negative relationship between market capitalization of the stock and the profitability of banks, this means that the capital and acts of bank financing serving as a substitute in place Additional factors. In the case of industry, specific factors as the structure-conduct-performance are the premise of increasing the strength of the banking market and increased profitability (income) them.

Sogir Hossain Khandoker, Professor Dr. RK Raul Galibur SM Rahman (2011) in their research on the factors that determine profitability in the non-bank financial institutions in countries in the Human Development and mainly in Bangladesh shows that the financial performance of a non-banking financial institution essentially depends on several key financial factors. Particularly operating efficiency is the main factor which is calculated through operating income. In addition it is shown that the composition of the capital structure and obligations, operating expenses, total assets significantly affect the profitability of any company Non-Bank Financial Institutions s. In addition deposits also it affects the profitability although it is not statistically significant.

Prof Hafiz Farhan Akhtar and Zafar Ahmed (2011) have surveyed 22 commercial banks, public and private sector of Pakistan in the period of 2006 to 2009 and concluded that effective management of assets and create economic growth and significant positive relationship with profitability (measured by ROA and ROE). They also found that high credit risk and capitalization will lead to lower profit, as measured by return on assets (ROA). Operating efficiency tends to feature the highest impact on the level of profitability, measured by return on equity.

According to their study in front of independent variables, profitability appears to have been positively affected by the size, operational efficiency, the composition of the portfolio, asset management and adversely from the capital and credit risk in the case of profitability as measured by return on assets (ROA). In the case when profitability is measured by return on equity (ROE) profitability proves to be positively influenced by the composition of the portfolio equity, and asset management and adversely size, operating efficiency and credit risk.

### 3. Methodology

To view better and to identify econometric links also is important ROE econometric relationship with variables such as; ratio Loans / Total Assets; Loan Provisions / Total Loan ratio; Liabilities / Assets ratio; Operating expenses / Operating income and the Size. For this purpose should hve made also a connection, the equation to show or deny this relationship. The methodology used in this case is that of a multiple regression, return on equity ROE is a dependent variable, and the aforementioned variables are independent in our econometric model.

Data for this study were collected from the annual financial reports audited and published by six institutions. Annual data for all NBFIs listed during 2007 to 2014 were used in order to assess the profitability of financial institutions.

Also are used as auxiliary sources, economic magazines, brochures, newsletters, website, etc., which have been required for data collection. The number of observations is 33 observations that belong to the period

2007-2014 for each institution to study. In data processing are using different statistical methods such as regression methods and the correlation between variables. In addition to analyzing the relationship of variables, their significance and impact on the dependent variable is used econometric model using econometric program Microfit 4 to process the collected data.

### 3.1 Econometric model study and data analyses

In this part of the study, a great effort was made to find the variables and their relationship with the profitability and financial performance, realized that even with the help of statistical methods. In this study, is taken a dependent variable (net profit related to financial performance and depends on several independent variables that are :

The dependent variable (*financial performance*):

1. ROE (return on equity)

The independent variables:

1. Loans/Total assets
2. Loan Provisions / Total Loan
3. Total Liabilities /Total Assets
4. Operating expenses / Operating income
5. Institutions Size

Statistical or econometric model that shows us the relationship between the dependent variable ROE and other independent variables is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

This equation represents a multi linear regression model where the dependent variable ROE, is linearly related to the explanatory variables, independent.

Where:  $Y$ , represents therefore the return on equity ROE

$\alpha$  is a constant dependent variable

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  are relevant coefficient of independent variables

$X_1$  = Loans/Total assets

$X_2$  = Loan Provisions / Total Loan

$X_3$  = Total Liabilities /Total Assets

$X_4$  = Institutions Size

$X_5$  = Operating expenses / Operating income

$\epsilon$ , known as a standart error,

**$X_1$  (Loans/Total assets)**, this variable puts in relation total loans disbursed which is an active, with total assets of the institution. By increasing the total assets of an institution, the loans disbursed would be increased to, which lead to higher interest income and also increase their profit.

**$X_2$  (Loan Provisions / Total Loan)**, this variable puts in relation loan provisions with total loan of institutions. Increasing lending also increase provisions for bad loans, which leads to less funds used for the the benefit of interests and also reduce the ROE.

**$X_3$  (Total Liabilities /Total Assets)**, the variable who puts in relation total liabilities with total assets and shows what part of assets constituting the total liabilities of the entity. Increasing this ratio means increased liabilities, which leads to increased costs and a decline in net profit.

**$X_4$  (Institutions Size)**, this variable measured by its assets has a positive impact on ROE ratio in the Albanian NBFI. This means that large sized institutions have higher investment funds and consequently higher returns.

**$X_5$  (Operating expenses / Operating income)**, the variable who puts in relation Operating expenses with Operating income and it is expected to have a negative impact on the dependent variable, because increasing this ratio lower ROE. This ratio would be enhanced if would decrease operating income or operating expenses would increase.

**$\epsilon$  (Standart error)**, represents all the factors that influence on the profit of equity ROE but are not taken into consideration Explicitly. The impact of these variables is insensitive to our dependent variable.

We expect that the sign about relationship between the dependent variable and explanatory can be positive, negative, but not zero. It is important to note that this connection or regression risks to suffering from correlation of independent variables with each other or otherwise the determinant variables (controller regression) with each other.

To obtain the results is used the MICROFIT 4 econometric program.

### 3.2 Regression results

Results of the model by the method of least squares

The dependent variable ROE 33 observations

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Regressor	coefficient	Standard Error	T-Ratio	[Prob]
CONST	-.94330	.51399	-1.8352	[.079]
TL/TA	.35913	.10613	3.3839	[.003]
LP/TL	-.08673	1.1093	-2.0781	[.007]
LIAB/TA	-.12158	.17485	-3.6953	[.003]
SIZE	.063148	.02951	3.1396	[.003]
OE/OI	-.18704	.075924	-2.4635	[.012]
ROE (-1)	.28694	.16341	1.7559	[.092]

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R-Squared	.79581	R-Bar-Squared	.70795
S.E. of Regression	.09961	F-stat.	F (5, 27) 7.9076[.000]
Mean of Dependent Variable	.11678	S.D. of Dependent Variable	.15687
Residual Sum of Squares	.21827	Equation Log-likelihood	29.7460
Akaike Info. Criterion	22.7460	Schwarz Bayesian Criterion	17.9605
DW-statistic	1.8963	Durbin's h-statistic	.48062 [.631]

<b>Y= -0.94330 + 0.35913L/A– 0.086731Pr/L– 0.12158 Lia/A + 0.063148Size - 0.18704Eks/Inc</b>						
St.error.	(0.51399)	(0.10613)	(1.1093)	(0.17485)	(0.029513)	(0.075924)
T-ratio	(-1.8352)	(-3.3839)	(-2.0781)	(-3.6953)	(3.1396)	(-2.4635)
Prb.	[0.07]	[0.003]	[0.007]	[0.003]	[0.003]	[0.012]

R<sup>2</sup> = 0.79581 (79.58%) df = 27 F( 5, 27) = 7.9076 [0.001]

R<sup>2</sup> (corrected) = 0.70795 (70.79%)

Coeff. β<sub>1</sub> which expresses the connection of ratio loans / total assets, with ROE

H<sub>0</sub>: β<sub>1</sub> = 0 (the coefficient is not statistically significant)

H<sub>a</sub>: β<sub>1</sub> ≠ 0 (the coefficient is statistically significant)

By comparing the probabilities of the normal distribution of random variables with α = 0.05, we see that for the first coefficient β<sub>1</sub>, 0.003 < 0.05, which wins alternative hypothesis, so the coefficient is statistically significant and is explaining ROE variable.

Coeff. β<sub>2</sub> which expresses the connection of ratio Loan Provisions / Total Loan, with ROE

H<sub>0</sub>: β<sub>2</sub> = 0 (the coefficient is not statistically significant)

H<sub>a</sub>: β<sub>2</sub> ≠ 0 (the coefficient is statistically significant)

Comparing the probabilities we see that 0.007 < 0.05, wins alternative hypothesis, so the coefficient is statistically significant and is explaining ROE variable.

Coeff. β<sub>3</sub> which expresses the connection of ratio (Total Liabilities / Total Assets), with ROE

H<sub>0</sub>: β<sub>3</sub> = 0 (the coefficient is not statistically significant)

H<sub>a</sub>: β<sub>3</sub> ≠ 0 (the coefficient is statistically significant)

For this coefficient we have 0.003 < 0.05, wins alternative hypothesis, so the coefficient is statistically significant and is explaining ROE variable.

Coeff. β<sub>4</sub> which expresses the connection of institutions size with ROE

H<sub>0</sub>: β<sub>4</sub> = 0 (the coefficient is not statistically significant)

H<sub>a</sub>: β<sub>4</sub> ≠ 0 (the coefficient is statistically significant)

The probability is 0.003 < 0.05, wins alternative hypothesis, so the coefficient is statistically significant and is explaining ROE variable.

Coeff. β<sub>5</sub> which expresses the connection of ratio Op. expenses / Op. income, with ROE

H<sub>0</sub>: β<sub>5</sub> = 0 (the coefficient is not statistically significant)

H<sub>a</sub>: β<sub>5</sub> ≠ 0 (the coefficient is statistically significant)

For this coefficient we see that 0.012 < 0.05, wins alternative hypothesis, so the coefficient is statistically significant and is explaining ROE variable.

The most important variable, which affects more the ROE, is the Loans / Assets ratio, normally increasing the assets of an institution, increase the basis for the granting of loans and consequently the lending interest income. The second variable is the most important; with a high impact on the dependent variable is the ratio of operating expenses / operating income, followed later by the ratio liabilities / assets. Lastly, but no less important are

provisions / loans variables and size of the institutions. Their influence on the dependent variable is sensitive but not at the level of the variables mentioned above.

#### 4. Conclusion and recommendations

The banking sector is the most important part of the financial system in Albania, which is the main voice of his weight, about 95%. But the weight of non-bank financial institutions is no less important. They account for about 5% of the total financial system and noted the fact that their activity and role in the financial system is coming growing.

✍ Banking developments in 2007-2015 were a typical feature growth with lower rates of loan portfolio compared to recent years and the growth of non-performing loans.

✍ NBFIs industry is considered the second source of higher loan and service providers of various financial after the banking sector. Increasing financial performance of this sector has a colossal effect on the performance of the Albanian economy as a whole, this due to the fact that financial sector refers mainly to the banking sector of each country.

✍ The object of the activity of these institutions takes place mainly in areas not covered by the banking system, adding new players in the market and increasing competition in the financial system.

✍ NBFIs enable diversification of investment risk, which increases production and economic growth. According to this view, the differences in the quantity and quality of services provided by financial institutions partly explain why countries grow at different rates.

✍ Despite the addition of new entities, the total assets of non-bank financial entities represented by a slight decline compared to year-end 2012. This trend was mainly driven by the contraction of credit entities' assets and financial leasing.

✍ Loan portfolio constitutes the major part of the assets of non-bank financial entities, with 62.1%. He dominated from lending and microcredit portfolio (56.8%), followed by financial leasing portfolio (42.8%) and a handful of voice factoring portfolio (0.4%).

✍ Bank lending procedures are longer and require more time to be approved. While NBFIs are more flexible in lending, the procedure faster and less demanding clients documentation.

✍ Banks have several sources of their income, as the services they provide to customers are diverse, while NBFIs as the main source of income are interests from lending. This explains the fact that interest rates on loans to NBFIs are higher than interest rates on bank loans.

✍ The financial performance of a financial institution essentially depends on several key financial factors.

Factors that are taken in the first study their impact on the profitability of NBFIs've been; the loan / income ratio provisions / loan portfolio, the ratio liabilities / assets ratio Operating expenses / operating income and the size of each institution. The study conducted by statistical and econometric methods showed that these variables are statistically significant at the global level and can be used for other studies.

✍ Also the model results that F observed is greater than the F critical (theoretical), which means that the model is globally important and serves as the representative of the whole population, and can be used as a model for studies significant other.

✍ Under the second evaluation, by comparing the probabilities of the normal distribution of random variables with  $\alpha = 0.05$ , we see that all the coefficients  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ , are smaller than 0.05. Consequently alternative hypothesis is winning, so coefficients are statistically significant and are explanatory variable connection with ROE.

✍ reference to the correlation matrix between the variables, we can say that all independent variables have a strong relationship with the dependent variable, and three of these variables have a higher impact on ROE.

✍ The most important variable that influences more and ROE is the ratio of loans / assets normally increasing an institution's assets, increase basis for credit and therefore interest income of lending. The second variable is the most important, with a high impact on the dependent variable is the ratio of operating expenses / operating income, followed later by the report liabilities / assets.

✍ There are all legal opportunities for a vast increase of the activity of these institutions in all areas of the country, an increase that is seems more and more and also needs to be emphasized that the future of many of these institutions is and will be very positive.

✍ Governments should also be involved in microfinance by building a regulatory framework that affects the ability of a wide area of financial actors to provide services within the financial.

✍ Willingness microfinance institutions to cooperate, to share information on a further development of the market; higher ownership levels; low level of competition for the foreseeable future.

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