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The Impact of Interest Rate on Bank Deposit: Evidence from the Albanian Banking Sector (Jan 2005 – Dec 2014)

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Abstract

This paper focuses on analyzing the Relationship between Interest Rates and the level of deposits in the Albanian banking sector. High interest rate should affect the bank customers to become more willing to deposit their funds there. While, low interest rate should discourage them. The paper consists in analyzing the effects of variables to identify the progress of the deposits in the period 2005- 2014. The data are sourced from the Central Bank of Albania and the Institute of Statistics. The model of study has as dependent variable level of deposits, while the explanatory variables are the deposit interest rate and Gross Domestic Product (GDP). Meanwhile, ordinary Least square (OLS) is used as the statistical method to analyze the data. The result of the paper indicates that interest rates have a significant impact in explaining the level of deposits over the years. In addition, interest rates on foreign currency deposits have a positive impact, assessing the level of growth in foreign currency deposits in the banking system during period 2005-2014. This study recommends that banks should be careful in attracting the depositors; banks should give them full information and educate on interest rates for depositing funds in banks.

Keywords: *Interest Rates, Banking System, Deposits, Gross Domestic Product.*

1. Introduction

The banking system plays an important role in the economy of a country, helping in accepting deposits and granting loans to finance the economy. This action helps in the allocation of resources in the economy, while the spread between the interest to depositors and creditors would be for the benefit of a bank. This process will be known as financial intermediation process and the efficiency of its implementation will contribute to economic development.

Banks have the main responsibility in taking free funds from market and providing them to economic agents. Meanwhile, an important role plays the interest rates and the rate of financial sector developments. In other words, a key priority is the education of economic agents on the role of a bank and information on its products. Thus it shall be understood the behavior of agents toward banks activity.

An important aspect in this process is the interest rate. It plays an important role in the economy because it affects the orientation of funds. If interest rates are valued by agents, then they will deposit their funds, if not they will try to have a more profitable plan for their use. Also, the difference between deposit and lending norms plays an important role in the economy. Thus, in the case of lower rates, individuals will be aimed at obtaining additional funds and increase their investments. In contrast, if the cost of acquiring debt is high, then individuals can take aim at the establishment of funds in the form of deposits, developing saving behavior.

Given the importance of this activity in the economy, the central bank's role is important. Thus, in a banking system similar to Albania, the central bank helps to maintain financial stability in the country. The approach used by the appropriate authority includes rules, procedures, controls, etc. However, the approach of the track will depend on the economic situation in the country, but also in relation to developments in the international economy.

On the other hand, low interest rates are important for creating an environment for the provision of low cost funds for businesses. Low interest rates would mean lowering costs of a business processes, resulting in expansion. So, note that the performance of interest rates is important both for individuals who need to file, but also for those agents who seek sources for financing.

Studying the impact of interest rates on the deposits performance is important because it will affect the behavior of economic agents, orienting them in making a decision to deposit or not. However, in the decisions of an agent to act affect a number of factors, which are influenced by the structure of the banking sector development.

A number of factors affect the behavior of an individual to deposit its funds in a designated bank. Some of the factors are: deposit interest rates which affect the behavior of customers to save; the wage level in the country which affects the evaluation of budget requirements for the agents; the performance of financial indicators of a bank that will affect perceptions of the effectiveness of the bank's management decisions; the power of the relevant institutions in the management and control of the effectiveness of different processes; etc. However, these factors will be taken in directly to their role in the change of the interest rates, because they are not subject in this research study.

In this way, the study of the impact of interest rates appears important in the assessment of the level of deposits. The main research question is: Is there any significant relationship between interest rate and bank deposits? What effect have interest rates at the level of deposits in the banking system in Albania?

Research methodology is based on assessment of a sample panel of 16 banks in the period from the first quarter of 2005 to the last quarter of 2014. The main aim of the research is to analyze impact of interest rates on the progress of the deposits in the banking system in Albania. The results obtained can help in understanding the behaviour of interest rates to depositor behaviour, by promoting the creation of effective policies in attracting deposits.

The research is structured in this way. In Section 2 will take place in a literature review. Section 3 describes the performance indicators under study in the banking system in Albania. Section 4 coincides with the description of the data obtained in the study and the methodology used, while in Section 5 will be presented the main results identified through linear regression model. In section 6 will discuss the results of the study, and in section 7 will be presented the conclusions of the research.

2. Literature Review

Banks play an important role in the financial market. However, to function normally, they must be safe and be perceived as such. In contrast, depositors will seek to withdraw their deposits, creating a panic situation for the bank. Diamond and Dybvig (1983) argue that the way the depositors make their decisions are different, making important to study their behavior and the effect they have on the assessment of a bank.

In their paper, the authors Iyer and Puri (2007) point out that the relationship established between an agent and the bank is important in explaining the decision making for the future actions. Several factors such as: the influence of other persons; depositors life expectancy agreement with the bank in connection with bank products; the perception of the deposit insurance system; the performance of interest rates; etc. influence the decision making of depositors in the assessment of a bank. In this way, the study of the decision making of depositor matter in explaining the evolution of the deposits level over the years.

A certain number of factors affecting the confidence to put deposit fund to a bank, are influenced by agents characteristic. Thus, an important factor is the level of income. Also, an important factor is the benefit you will receive, and the individual decides whether to invest his funds in a bank. The benefit obtained will be the deposit interest rate. In other words, a higher interest rate will offer more benefits, affecting his behavior to save.

Another aspect has to do with changing the bank and invest the money in other banks. According to Kemplerer, change can be a difficult process, because the costs to be paid in this case (Klemperer, 1987). In his paper, the author identifies that a depositor, on average, holds his deposits in a bank, for a period of about 10 years. This conclusion means that the establishment of the deposit agreement is a long-term source of funding for the bank.

A negative aspect of treatment not to change banks, can affect the returns received for depositors. Consequently, it is identified that banks offer higher interest rates on new opened deposits, than to depositors who have established a long-term relationship with the bank. One factor that affects the decision making of depositors in the presence of information asymmetry is to operate, in addition to knowledge of the costs that may be faced (Stiglitz and Weiss, 1981).

Thus, the determination of interest rates is a complex process, due to the effects or consequences of future developments in the banking market. Several studies in the literature are based on the model presented in the papers of authors Diamond and Dybvig (1983) to assess the relationship between different economic variables over the years. For example, Waldo (1985) aims to explain the economic changes observed by Friedman and Schwartz, based on the model presented in the paper of the authors Diamond and Dybvig.

According to the results of the paper, the aim of increasing the interest rate on short-term is to meet deposit withdrawals by investing in securities with long-term maturities. Meanwhile, the decline in the ratio of total deposits to the level of currency deposits results because the losses of banks in the early sale of securities. Depositors intend to invest in foreign currency to avoid or to protect against a possible exchange risk. So, in a period of panic, conversion of deposits in foreign currency serves as a protective measure to changes in the local currency.

D'Amato et al. (1997) identifies that the depositors will be encouraged to convert their deposits into foreign currency, avoiding the continued decline in the value of assets. So, an important factor would be the change of the exchange rate. Also, the change of the exchange rate can lead to higher credit risk, affecting the solvency of the bank's creditors or by changing the interest rate required for economic agents.

Numerous studies identified in literature were conducted in developed countries. Their goal is focused on explaining the decision making of depositors to the bank in explaining the crisis period, and to indentify the policies pursued to attract funds available in the market which will affect bank's liquidity. However, numerous studies have been carried out even in developing countries, aiming to assess the behavior of depositors against the risk decisions undertaken by the management of the bank.

Developments in the global market and the importance of financial market development in developing countries stimulate the empirical studies in these countries. Some studies focus on the treatment of depositors by analyzing the behaviour of change in the price level, respectively interest rate deposit (Flannery, 1998). Studies by this methodology identifies the depositors (mainly uninsured depositors) require higher rates of interest. Flannery (1998) argues that interest rates will serve as additional benefits required to cover part of the additional risk management undertaken by the respective banks. It was also identified that banks which have a lower rating system, and provide more speculative financial instruments, they should be offered a higher interest rate.

Other studies conducted in America have given similar results. Thus, Cook and Spellman (1994) concluded that the interest rate on deposits will reflect the changes in the main financial indicators of the bank (the ratio of the low capital on assets, increase the ratio of non-performing loans and the reduction ratio return on assets total). Changes in deposit interest rates will affect the decisions of depositors to change the level of their deposits in the bank, and take action in order to save their resources.

An important work, according to this methodology, the paper identified Martinez Peria and Schmukler, published in 2001. The work consists of analyzing the change of the amount of deposits in three Latin American countries (Argentina, Chile and Mexico). In conclusion, the paper verified a reduction in the amount of deposits, as well as increasing the interest rate on deposits under the banking indicators increased report on problem loans and reduced liquidity. An important recommendation of the paper is related to the growing importance of the decisions of the bank by depositors, who can influence the emergence of a banking panic in the case of decisions with high risk by banks.

An important aspect in the treatment of the deposit market relates to the decisions of various banks to promote the attraction of depositors in order to increase their capital. Meanwhile, each bank may run on other banks of the system, ensuring a fixed rate of return to depositors. In this way, banks can invest resources in certain risk investments. If these investments will be successful, then the banks can offer higher rates of return; otherwise, they would constitute the cost of investment, plus the cost of claims of depositors (Berger et al., 2005).

In this way, the deposit interest rates can serve as information for the affectivity of bank decisions. Berger et al. (2005) in their paper analyzed the relationship between a bank capital and decisions on the amount of loans granted. Results identified the banks that have sufficient resources to invest carefully, keep a fixed rate of capital reserve to cover the negative results from investments. Thus, higher interest rates, or moderate risk investments may be negatively evaluated signals from depositors.

The relationship between the bank's capital and deposit rates will reflect in their investment decisions. These actions will affect the bank's ability to attract deposits. Small capital banks may affect the withdrawal of depositors) offering a higher interest rate on their deposits. However, the high interest rates charged by banks may serve as information on the activities of bank depositors. Meanwhile, depositors would react if bank capital to assets ratio low; which, to avoid the negative behavior of depositors, will react by increasing the level of the report.

Studies conducted in developing countries assess the problems of the banking market, or factors affecting financial stability. Mostly, agent's decision in the financial market is based on incomplete information. Vives (2006) argues that various factors, such as lack of information and the high cost of providing it, not strong rules or the size of the bank, affect the problem of incomplete information. These decisions, if taken by depositors will not fully reflect changes in the level of risk accepted by banks.

An important aspect of the existence of asymmetric information means that banks are seen as institutions that focus on providing security. According to this view, the role of banks is to provide valuable services, such as by depositors to preserve their deposits, as by creditors to bring funding opportunities under appropriate financial conditions. So, banks are likely to attract a high level of deposits and to convert them into loans, from which it will provide financial returns with a fixed rate of profit. Based on this assessment, asymmetric information between banks and depositors will be reflected in the monitoring and influencing the decisions of bank management (Kindleberger, 1978).

Demands for more transparency in providing information on the activities of the bank, led to increased attention to the discipline of the market not only in academic studies, but also in policy on the bank's viability. Specifically, market discipline is considered one of the three pillars of the Basel II agreement (Bank for International Settlements, 2003). The purpose of Pillar 3, according to BIS (2013, p 154), is "*to ensure that market discipline meet minimum capital requirements* (Pillar 1-Top) *and through the review process management* (Pillar 2nd)".

In conclusion, the relationship between depositors and banks is a mutually beneficial relationship. The importance of this relationship will be expressed in the case of a potential crisis to a bank, where depositors reliability is a promoter element of improved financial ratios. This behavior will affect the promotion or slowing down the action of other depositors, according to the adhesive effect of their behaviour (Kindleberger, 1978).

3. A Brief Review of the Developments in the Domestic Banking System

Historical developments in changing the structure of banks in the banking system, implemented in order to create a financial stability in the country. Creating a situation of instability (global financial crisis of 2008) could affect not only the banking sector but also other sectors of the economy. In this context the role of stability is an important issue of a country's economic performance.

Bank of Albania, as the central bank, urged implementation of a series of policies aimed at normalizing the situation. Policies have to the control the activity of each bank and short-term financing at low cost and to avoid the problem of liquidity. Other policies related to changes in interest rates on borrowing for banks, or change the required reserve ratio. These policies, in general, has affected the performance of the banking system towards increased sustainability.

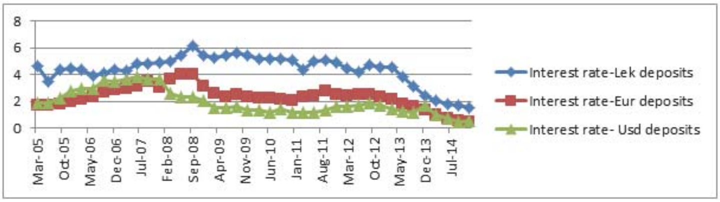
A valid policy is the increased cooperation with the Central Bank in the market agents themselves. This relationship can be created by increasing public communication by the bank, as well as initiatives for their financial education. Such behavior increases the transparency of the bank, as well as agents to enhance the credibility of the entire banking system. During 2008, the Central Bank conducted a series of seminars in different districts topic "*Central Bank in everyday life*" (p 139).

In this way, public information on banking products is a policy worth the financial risk management. Also, this situation will be a positive impact on the decision of depositors for placing their funds in the banking system, analyzing interest rates and exchange rates in the future. In this way, the main factors affecting the performance level of deposits are (Sheqeri and Abazi, 2000, p 274): a) the level of interest on deposits in domestic and foreign currency; b) the level of inflation; c) financial stability in the country; and d) changes in foreign exchange rates; etc.

Negative developments in the financial markets after 2008 contributed to the emergence of liquidity problems for the banks of the second level. In this way, the intervention of the Bank of Albania was a necessary alternative for improving the situation. In this way, the Central Bank has chosen a policy that offers lower interest rates based on the aim of increasing domestic demand for money. Base interest rate decreased to 5.0% in 2010, which represents the lowest historical rate until that time (the Bank of Albania, 2010, p 36). Meanwhile, long-term rates on loans have remained high due to higher risk premiums charged by banks.

Meanwhile, banks aim to increase interest rates on deposits in foreign currency, in order to provide sufficient resources to finance the business sector credit. But, over periods of such a policy was not very positive, due to the reduction of credit quality in the country; and the presence of foreign currency loans associated with uncertainty about exchange rate volatility. So, financial developments constitute cost for banks and uncertainty for depositors.

The chart below shows the trend growth rate of 12-month deposits. In the graph are identified deposits by three main currencies in the domestic banking system, which are: USD, Euro and Lek. It is noted that after 2005, the performance of interest rates continued to rise until 2008. The performance of interest rates has a direct impact on the positive performance of total deposits.

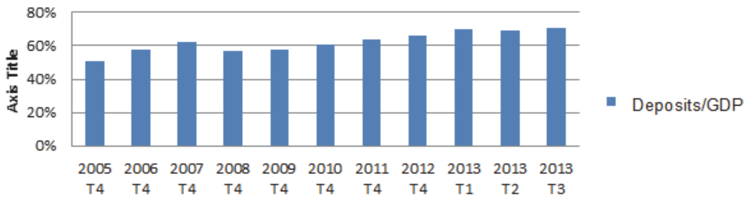


Graph 1: Interest rate on the average 12-month deposits in 2004-2014. Source: Bank of Albania (2005-2014).

Meanwhile, developments in the international market have contributed to the progress of economic indicators in the banking market. It is noted that deposit rates have been reduced at the end of 2008. The higher interest rates now would constitute a cost for the banks, resulting in the increase of insecurity in their payment in the future.

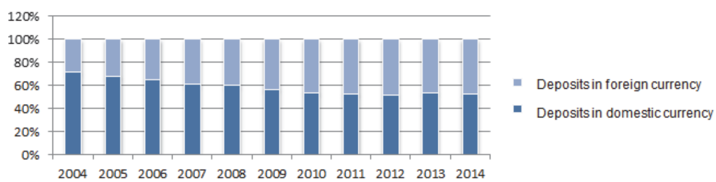
Finding themselves in such a situation, it was necessary the intervention of the central bank. Some policies will correlate with rising interest rates, measures to increase liquidity for banks, as well as in increasing the confidence of agents on the performance of the financial system. Improving regulation and increased supervision over the bank's operations contributed positively to creating a new level of sustainability in the country.

During 2005-2007 the stock of deposits in the banking system has suffered a significant growth. While in the next two years, he has slowed down his. The main factors related to the decrease of the activity in this period due to the impact of the global crisis, fueling the growth of attractiveness of a portion of deposits in the three month period. In continuation, the ratio of deposits to GDP is rising, but in 2013 another facing a slowdown



Graph 2: Performance of the deposits ratio to GDP. Source: Bank of Albania (2013).

Meanwhile, an important aspect of the impact of the situation created was to increase the level of foreign currency deposits. Such an event is influenced by numerous factors, such as high interest rates on deposits in value because banks were seeking resources to finance the foreign currency loan applications from new businesses; protection from fluctuations in foreign currency exchange rates compared to the national currency, etc. The chart below shows the trend of changing the structure of deposits in the period 2005-2014. It is noted that after 2008 the level of foreign currency deposits has been increasing rapidly. Thus, in 2013 the deposits in domestic households make up 53% of total deposits, while foreign currency account for 46% (40% in euros, 6% in USD and other currencies 1%).



Graph 3: Dynamics of deposits in domestic and foreign currency.

An important issue of the banking system in Albania has been the level of deposit concentration in some major banks. So, in 2014 two large banks control about 45% of the deposit market. Such an indicator is also reflected in the value of Herdinahl Index, which in 2014 was 0.14 by presenting a moderately concentrated market.

4. Data and Methodology

4.1 Methodology

The primary objective of this study is to identify and evaluate an econometric model to assess the links between dependent and independent variables. Primary data in this study are derived from secondary sources, mainly identified from annual reports and statistics published by the Bank of Albania, the audited reports of banks and by INSTAT.

The data used are based on three-month period for banks operating in the banking system in Albania in the period identified. Data collected include the period under study by the first quarter of 2005 to the last quarter of 2014. Data are collected for all banks in the banking system in Albania. The choice of variables in this work is influenced by the approach applied in several other works. Thus, this approach means taking the relevant data for a long period of time, giving the opportunity to evaluate their performance in the period studied (Brooks, 2008).

After setting the equation econometric data will be tested to evaluate the link between them. Test data will be explained on the hypothesis raised by the target-oriented information from the data included in the study. They will be processed with statistical program SPSS 20.0. Thus, the dependent variable is the performance of the deposits, while independent variables are interest rates of foreign currency deposits, interest rates of domestic currency deposits and the level of GDP.

The interest rate is an important variable which assesses effectively of the bank's management decisions, assessing the profitability of some banks comes from the difference between incomes on lending and interest expenses on storage of deposits. Barajas and Steiner (2000) argue that the interest rate change will affect the performance of deposits. In this way, banks will affect the delivery of higher rates of interest to bring more deposits, boosting their level of liquidity. So, in the case of a low rate of deposits, depositors will aim to reduce the level of deposits or performance of new deposits to be lower in subsequent periods.

Depending on the currency of income, depositors can evaluate which deposits offer a higher rate of return, by modifying their behavior. In this study, the behavior of depositors is estimated by studying the relationship between interest rates on deposits compared the performance of total deposits. So, the study of factors that influence the choice between foreign currency deposits are not the focus of this study. The reaction to the interest rate will be expressed as a function of the final values of the variables in the three-month period.

So, study the performance model of the deposit will be such:

$$\mathbf{Y}_{\mathbf{i,t}} = \alpha_{\mathbf{i}} + \beta \mathbf{X}_{\mathbf{i,t}} + \mu_{\mathbf{i,t}}$$

Where: **i** - The number of banks throughout the study period **t** (2005-2014);

$\mathbf{Y}_{\mathbf{i,t}}$ - The level of deposits in the banking system during the period t;

$\mathbf{X}_{\mathbf{i,t}}$ - Interest rates in the banking system during the period **t**; and, GBP performance during the period **t**;

In this way, this study relies on the establishment of several key assumptions which are expected to be confirmed by linear regression model. Meanwhile, the null hypothesis (H0) will be of the form: none of macroeconomic variables and bank identified will affect the performance of deposits in different periods of time. While alternative hypothesis (Ha) will be final, at least one of the macroeconomic variables affect the performance or bank deposits identified periods, respectively in normal period and the period of crisis.

Hypothesis:

H0: The interest rate has no effect on the level of deposits;

H1: The interest rate has an impact on the level of deposits;

H0: GDP growth has no impact on the level of deposits;

H1: GDP growth has an impact on the level of deposits.

4.2 Data sources

Identified data are based on time series, to evaluate the deposit series of indicators during the study. They are presented in the form of quarterly from 2005 - 2014. Meanwhile, global financial developments after 2008 affected the performance of several variables. The degree of impact of the crisis will be reflected in the relevant coefficients value of independent variables.

Using quarterly time series helps improve the study of the effect of independent variables in the performance level of deposits in the entire banking system. Thus, the data obtained in shorter periods impact on increasing the number of observations and can explain better the effects on variables. The research model is built based on secondary research, which according to Creswell (2007) means a re-analysis of previous research works on the purpose of the relevant topic. The choice of variables must have a strong theoretical base, which can be achieved through the identification of empirical studies. In this way, the results generated will be reasoned and statistically significant.

The key data are identified in official publications in the Bank of Albania and the Institute of Statistics (INSTAT). Getting data from official reports, affects the availability of a high level of confidence in them. So, since the data are public and verified, they can be accessed in a second moment and the results will be similar.

5. Empirical Results

Identified data are processed by the statistical program SPSS 20.0. Initially, the relevant tests have been developed for evaluation of variables and construction of the final model of linear equation. Relevant tests identified are: the test of autocorrelation and multicollinearity test.

Multicolinearity test serves to evaluate the linear relationship between the variables. A suitable method is to perform a VIF test, to assess the results generated on the connection variables. If the index value is greater than 10, it is estimated that variable has a high colinearity, suggesting his departure from the model. The result of VIF values are shown in table 1, which suggests that multicolinearity does not exist.

Autocorrelation is tested by Durbin-Watson test. Autocorrelation in the regression analysis is related to the presence of the correlation between accidental errors; that is, the assumption is that the value of the accidental error for one observation is not correlated to the value of the accidental error for any other observation.

Meanwhile, the relevant test values shall conform to the identified level of reliability, to discuss the event that positive autocorrelation. In other words, the test values will vary in a particular segment based on the percentage of reliability. Thus, the 95% confidence level test values fluctuate DWL (lower) = 1.34 and DWu (upper) = 1,66. Durbin-Watson test The Durbin-Watson test is the most popular test used for testing of autocorrelation at the first level. The Durbin-Watson statistic value for variables is 1.414. The result suggest that positive autocorrelation is not significant and to continue with data analysis.

5.1 Linear regression model results

In this section will appear relevant results of linear regression model (OLS), testing the identified factors and their impact on final performance level of deposits in the banking system. The data were tested by means of statistical program SPSS 20.0.

Thus, the final econometric model identified to analyse level of deposits appear in this form:

$$\mathbf{Deposits_{i,t} = 7.881_{i,t} - 0.03_{\,1} * \; Int\ on\ Lek\ deposists_{i,t} + 0.054_{2} \; Int\ on\ Eur\ deposists_{i,t} + 1.614_{3} * \; GDP_{i,t}}$$

The following will appear statistical tables of results in total deposits. It is noted that the variables involved in the study may explain about 96.5% of deposits in years 2005-2014. Also, Anova test evaluates whether the model is statistically significant. Fisher's F value is 333. 524, more than critical F= 2,047, estimating that the model is statistically significant.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.982[a]	.965	.962	.02592	1.414

a. Predictors: (Constant), log_GDP, Interest rate on lek deposits, Interest rate on currency deposits
b. Dependent Variable: log_deposits

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.672	3	.224	333.524	.000[b]
	Residual	.024	36	.001		
	Total	.696	39			

a. Dependent Variable: log_deposits
b. Predictors: (Constant), log_GDP, Interest rate on lek deposits, interest rate on currency deposits

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7.881	.658		11.975	.000		
	log_GDP	1.614	.054	1.042	29.725	.000	.786	1.273
	Interest rate on lek deposits	-.030	.005	-.265	-5.515	.000	.418	2.390
	Interest rate on currency deposits	.054	.009	.328	6.322	.000	.358	2.792

a. Dependent Variable: log_deposits

The results generated from the linear regression shows that all of three have impact in level of deposits and they are statistically significant. It is noted that the variable "interest rates for deposits in domestic currency" has a negative impact, while the other two variables have a positive impact in dependent variable. Such behavior can be explained by the fact that the level of deposits in domestic currency had declined in this period, as a result of the continuous increase of the deposits in foreign currency. So, the research confirms that interest rates on foreign currency deposits have had greater impact on the behavior of depositors to save their own funds.

Meanwhile, in the following table are presented in summary which of the hypotheses raised in the case confirmed the level of total deposits.

Table 2: Summary of the study hypotheses for depended variable total deposits

Hypothesis	Decision*	Impact
1: The interest rate has an impact on the level of deposits (domestic currency)	Accepted	Negative
1': The interest rate has an impact on the level of deposits (Foreign currency)	Accepted	Positive
2: GDP growth has an impact on the level of deposits	Accepted	Positive

* Hypothesis is accepted if the value of p is less than 0.05, for each variable.

Also, testing is conducted by identifying as dependent variable deposits in foreign currency. Statistical tests tables are presented in Appendix A. It is noted that the results are similar when as dependent variable was the level of deposits in total. Such behavior confirms the importance of foreign currency deposits in the period under study in Albania.

6. Discussion of Results

The results of the paper have identified significant results for deposits in the banking sector in Albania in the years 2005-2014. The study has analyzed the evolution of the relationship between the deposits and interest rates. Meanwhile, an important variable is included in the model and the level of GDP over the years. The idea is to express the linear equation if in different periods of growth and change in interest rates will affect the change of the deposits in the banking sector. Meanwhile, the model can explain about 96.2% of the level of deposits.

Historical development of the banking sector suggests that banks offer higher rates of interest for deposits in foreign currency, in order to provide funds for financing requests for funds in foreign currency to the business sector. It is noted that the level of deposits in foreign currency has been increasing over the years. However, D'Amato et al. (1997) argue that the conversion of foreign currency deposits will contribute to increasing the risk undertaken by the bank's management, mainly to credit risk or exchange rates.

Well, the evidence suggests that after 2008 the banks started to have problems with liquidity as a result of the financial problems of many businesses. Such behavior has affected the performance of the loans, which have affected results also in the interest rates for deposit-taking banks, which require them low cost. In other words, interest rates can serve as information for decisions undertaken by banks (Flannery, 1998).

However, analysis of the impact of interest rates requires more detailed studies in developing countries. Such reasoning is based on the fact that the complete lack of information on banking activity and the products they offer. In this way, interest rates do not provide complete information on the progress of the deposits (Vives, 2006).

7. Conclusion

In this paper is discussed the impact of interest rates on the progress of the deposits in the banking system in Albania in the period 2005-2014. Research suggests that interest rates are not determined randomly, but they express (so incomplete) the level of risk undertaken by the bank management. In this way, the study of changes in interest rates is important to assess the future behavior of economic agents.

One of the important issues to be discussed is the impact of interest rates is not easy to be analyzed in developing countries. A number of factors, such as: the characteristics of the banking system in developing countries, the characteristics of depositors, expectations for the future of the economy etc., make it difficulty to understanding the relationship between interest rates and changes in the level of deposits (Iyer and Puri, 2007).

Also, the banking system in developing countries is characterized by a high degree of concentration of deposits in some major banks. This situation affects the behaviors of depositors. Meanwhile, the cost of changing banks is high in developing countries, affecting the performance of the deposits structure (Kemplerer, 1987). Meanwhile, this structure can be used as a method from Central Bank to ensure financial stability in the country.

Global developments have affected the banking system of each country, whether belonging to the developed countries or developing countries. This situation has led to an increased role of the authorities responsible for maintaining stability, resulting in taking appropriate policies for the management of negative situations. Thus, an important issue is based on increasing the level of transparency of information on activities and banking products. Such a policy will help in analyzing situations and making reasonable decisions (BIS, 2003).

In the end, the relationship between depositors and the bank is a mutually important and profitable relationship. In this way, the banking system needs to appear as credible at economic agents. In such situations, the management of financial stability is easier in a country.

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Appendix A

Table 3: Statistical results of linear regression for dependent variable: deposits in foreign currency.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.985[a]	.969	.967	.03873	1.480

a. Predictors: (Constant), Interest rate on currency deposits, Interest rate on lek deposits, log_GDP
b. Dependent Variable: log_currency_deposits

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.711	3	.570	380.241	.000[b]
	Residual	.054	36	.002		
	Total	1.765	39			

a. Dependent Variable: log_currency_deposits
b. Predictors: (Constant), Interest rate on eur deposits, Interest rate on lek deposits, log_GDP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	20.182	.984		20.519	.000		
	log_GDP	2.633	.081	1.067	32.452	.000	.786	1.273
	Interest rate on lek deposits	-.034	.008	-.193	-4.275	.000	.418	2.390
	Interest rate on currency deposits	.090	.013	.347	7.117	.000	.358	2.792

a. Dependent Variable: log_currency_deposits