An Analysis of the Nonperforming Loans in the Albanian Banking System

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Abstract

The purpose of this paper it to analyze the nonperforming loans in the Albanian banking system and in the same time the relation that exists between macroeconomic situation and nonperforming loans. From the analyze is found out that the effect of the macroeconomic situation plays an important role in the determination of nonperforming loans level. To understand the reasons of the ongoing growth of the nonperforming loans in this paper is used a simple regression model. In the model are taken into consideration some macroeconomic and banking factors that have contributed to increase the nonperforming loans level. Also the real effective exchange rate is positively related with the nonperforming loans according to which the international competition of the economy of a country is an important determinant of the credit risk. In other words any time there is a deterioration of the competition in a country's economy the nonperforming loans level that derive from the main export sectors is likely to increase.

Keywords: bank, credit, economy, loan, macroeconomic

JEL: G2, G21

1. Introduction

"It is clear that Albania is affected by a high level of nonperforming loans[i]", said Michael Edwards responsible for operations in the financial sector of the World Bank.

The aim of this study is to contribute to the treatment of a current and interesting topic like the non-performing loans in the Albanian Economy which have been increasing in the recent years. The weight of nonperforming loans to the total number of loans in the Albanian banking system is worrying because it shows that individuals and businesses have difficulties of payments, thus increasing the risk of the whole economic system of our country. Speaking of nonperforming loans means treating a very current and rumored problem for the Albanian economy. This is why briefly is presented the meaning of the nonperforming loans and mostly concentrate on analyzing the factors that led to the increasing number of these loans.

Nonperforming loans were one of the most serious obstacles that banks in the transition countries faced. They are still present in many transitional places. If in the first period of transition the causes of nonperforming loans were mainly in the inefficiency of state owned banks and enterprises, now the attention is more focused on the micro and macroeconomic environmental factors where banks operate.

1.1 Non-performing loans in Albania from 2009 – 2012

A simple definition of nonperforming loans: A loan which does not provide incomes anymore and: (1) full payment of the principal and interest is not provided, (2) their payment is 90 or more days late, (3) the maturity date has passed and the payment has not been completed. According to experts a loan is considered non-performing when the person or the entity that has obtained it at the bank becomes a problem for its repayment. At the beginning they are the daily delays, then they become weekly and monthly ones. In such cases banks are obliged to inform customers many times, they are even forced to impose "fines" which are added to the monthly amount they have to pay based on the set percentage for the loan. The nonperforming loans have been increasing in the recent years. However the accelerated level growth of nonperforming loans in the banking system remains a major problem for the economy as well as a main threat for the banking system in the years to come.

According to the Supervisory report of the Bank of Albania during 2009 the nonperforming loans arose. The nonperforming loans have had a rapid increase and the loan portfolio quality deteriorated significantly. According to the report the nonperforming loans by the end of December 2009 resulted in 86.7 million ALL[ii]. Where, according to experts this sum is really concerning.

The numbers for the 2010 are still problematic. The loan's portfolio should be monitored nearly all the time. The loan's portfolio quality will deteriorate as a result of internal factors, as well as a result of problems that could be imported by the Greek economy developments, where many workers in agricultural and tourism field are Albanian immigrants who bring a considerable contribute in the remittances level in Albania. These developments will naturally affect even the income base.

The nonperforming loans for the 2011 have nearly reached 18.8%. This figure shows a continuous increase in these loans number. However the Governor of the Bank of Albania said that a significant part of nonperforming loans is covered by collateral which reaches about 85%.

Nonperforming loans for the first quarter of the 2012 reached the amount of 20.1 %. Comparing it to the first quarter of 2011 where the level of these loans reached 14.4% so we see that from year to year we have an increase of about 6%. However in order to cope this situation the bank should increase its reserve

funds, so assure more hardened money, less given loans and higher interest rates. The increasing number of nonperforming loans is a real evidence of the difficult economical conditions that businesses and the customer are going through. Even though banks after the crises appearance have been trying to tighten the loans giving through increasing the interest rates for the loans, they have still been having an increasing trend.

1.2 The factors that have influenced the nonperforming loans in Albania

The situation of the nonperforming loan is concrete in Albania. It is known that these loans have been growing year after year. And the question rises spontaneously. Which are the main factors that made this situation happen? The banks have identified the main factors that brought the rapid increase of these loans, starting from the problems caused by the economic crisis, the decline of the incomes coming from emigration up to the reduction of incomes as a result of individuals being fired from their work. Noticing that the deposits and exports are growing and that the country is having a positive development, the only indicator that is not recovering is that of the nonperforming loan. Its increase has been continuous, starting from the end of 2008 when the country started to suffer the consequences of the economic crisis. Even though it seems that the economic situation is recovering, the number of the nonperforming loans is still high. First of all, this situation affects the financial performance of the banks. Secondly, it puts them aside regarding the delivery of loans. The falling number of loans are: standard loans, are counted as being 1 to 30 days late, but the quality loan too, the one that includes the standard and the proceeding loan (the latter being classified as such after a delay of 3 months) has decreased. Since the value of the good loans is falling, the nonperforming one is increasing. All the three categories of the nonperforming loan, substandard (180 days of delay), doubtful (365 days of delay) and lost (above 365 days of delay) have been continuously increasing. The rapid increase of lost loans is problematic, that of the ones about which the banks do not hope to recover and the fact that they will be endangered. In order to understand the increase of these loans we must examine the factors: Firstly, the consequences of the economic crisis, which have affected the business sales and the addition of liquidity problems, what affects the economy as a whole. This inconvenient situation in business, despite of conditioning the lack of returning the money to the banks, has been transferred to the individuals as well. The loss of the workplace and the reduction of working hours are the main factors identified as responsible for the increase of the nonperforming loan. Another cause is related to the decrease of income coming from emigrants. The change of the value of the country's currency automatically increased the payment of those who paid loans in euro and worked with ALL. But except the consequences of the crisis, there have been other reasons that have affected the growing number of problematic loans, such as banks being aggressive, especially regarding the loans in mortgages with cheap interest rates. The providing of non-studied loans is having consequences now. On the other hand, a few years ago, there wasn't a loan register. This causes the situation where individuals and businesses have taken more than one loan, without being able to pay it. Even the businesses that before the crisis intended to expand are suffering the results of their non-studied decisions.

The main reasons of the nonperforming loans growth are as follows:

General reasons:

- The economical crises consequences;
- The currency depreciation;
- The ownership problems;
- The high costs of re - financing.

Businesses Reasons:

- The slowdown in the construction sector;
- The unstudied expansion of businesses;
- The general lack of liquidity in the market;
- The liquidity problems that go from one business to another as a chain;
- The exports' contraction;
- The sales decline as a result of the purchasing power reduction;
- The loans overload.

Individuals Reasons:

- The remittance decline;
- The interruption of the employment relationship, especially in the private sector;
- The reduction of personal and familiar incomes;
- The unreliable incomes certificates;
- The high rate of unemployment;
- The slow pace of wage growth.

What measures should be taken in order to manage these nonperforming loans:

- ➢ A reform in the banking system is needed. It should manage the structures responsible for the permition of loans.

- ➢ The Bank of Albania should offer some training for the loans officers, who being busy with their files do not have the time to be trained individually. In the USA, banks offer 15- 30 days of training every year.

- ➢ The Bank of Albania should organize classes for the loan officers by establishing a training centre. Years ago a similar centre existed and it gave classes for the banks' employees. These courses were not just based on loan providing but in general aspects of banking.

- ➢ We should be careful with the providing of new loans. If they are proper loans, the quality of the loans portfolio will improve gradually. So despite of the situation, the loan process in banks should not be stopped.

- ➢ The loan officers should conduct controls in the companies at least once a year. This control should help for a better understanding of the situation in order for the banks to take measures for the payment of the loan.

> The banks should compile and improve the manuals of loans to make these manuals a complete document that can be followed by the loan officers. They should provide the introduction of the new services that the bank offers, as well as concrete situations in our country. These procedures will prevent the allowance of nonperforming loans.

> Regarding the individuals that buy houses, they should be very strict in relation to their work stability. They should be conservative in relation to seasonal workers and individuals that have unstable jobs.

> These are the measures that should be taken but the most important aspect is, how serious will the banks be in dealing with this situation, because this ratio (nonperforming loans/total loans) is very serious.

2. Econometric Model and Estimation Procedure

The growth of nonperforming loans depends on macroeconomic and banking factors. In order to better understand the connection which exists between these variables is used a simple regression model. *The hypothesis that is supported during the treatment of this subject is: the portfolio quality of nonperforming loans has increased as a result of macroeconomic and banking factors.*

The general regression equation is:

lnNPKt = ß0 + ß1lnNBRt + ß2 LnKASt + ß3 ΔKt + ß4 ΔKt-1 + ß5 ΔKt-2 + ß6 lnINFLt + ß7 lnREERt + ß8 ΔGDPt + ß9 ΔGDPt-1

Where:

lnNPKt the natural logarithm of the nonperforming loans in period t;

lnNBRt the natural logarithm of the real interest rate in period t;

lnKASt the natural logarithm of the total loan (ALL and foreign currency) on the bank's assets;

ΔKt The credit growth in % in period t;

ΔKt-1 the total credit growth in % with one period of three months difference;

ΔKt-2 the total credit growth in % with two periods of three months difference;

lnINFLt the natural logarithm of the inflation rate in period t;

lnREERt the natural logarithm of the real exchange rate in period t;

ΔGDPt the growth in % of GDP in period t;

ΔGDP t-1 the growth in % of the GDP growth period 3 month's difference.

2.1 Motivation and Description of the Variables

The macroeconomic variables

Some macroeconomic variables which are considered important are: The annual increase of the GDP, the increase of the loan, the annual rate of inflation, the real exchange rate, the annual rate of unemployment. The study consists in analyzing in the % growth of the GDP, annual inflation and the real exchange rate. The positive increase of the GDP is generally translated in incomes. He who takes the loan is more capable of paying the debts. On the other hand, when the economy slows down, the GDP has a lower

increase; the level of nonperforming loans increases. There is a direct connection between the nonperforming loans and the inflation rate.

The banking variables

Except the macroeconomic variables, there exist some particular banking factors too (such as, the margin of the income, the loan terms, the real base interest rate, the % growth of the loans, the ratio between loans and total of assets etc). The study conducted consists of just three special banking variables thanks to the provided data. These are: the real interest rate, the ratio of loans and the bank's assets, the % growth of the loans.

The dependent variable

In the study of this model the ratio between the nonperforming loans and the total of loans is considered as the dependent variable.

Data issues

In this study are used data that cover a period that goes from the first quarter of 2000 until the first quarter of 2012. All these data are were obtained from the Annual Reports of the Bank of Albania. This period is selected because in the Albanian banking system before the year 2000 was not very developed and consisted mainly on state owned banks. Only after the year 2000 the Albanian banking system has made a radical transformation and now is operating with 16 private banks.

2.2 Regression Results

In table 2.1 is noticed that:

$$R \text{ Square} +0.952 \qquad \text{Adjusted R Square} +0.931 \qquad Dw= 1.192$$

According to this test coefficient of determination given in % they give the explained variation. So the coefficient of determination should be greater than 60% taken directly from model table 2.1. Is seen that the result is sufficient than R Square 0.952 = 95.2% so the coefficient of determination is more that 60%. As the coefficient Dw turns out to be 1.192 than it is to say that Ho wins and so we do not have autocorrelation of the residuals and this is a very good thing statistically. Since Sig. Regression is .000 or so, it is less than 0.05, Ha wins and we have a very good situation.

The values of the requested equation are:

$LnNPKt = -22.662 - 0.293lnNBR_t + 0.353lnKAS_t - 0.003\Delta K_t - 0.035\Delta K_{t-1} - 0.032\Delta K_{t-2} - 0.368lnINFL_t + 5.241lnREER_t - 0.006\Delta GDP_t + 0.010\Delta GDP_{t-1}$

The results show a positive connection between the ratio of the loans on the bank's assets lnKASt and the nonperforming loans. Anyway, the connection between the real interest rate and the ratio of the nonperforming loans is weak, as it is reflected in the coefficient of the correlation which is low. Relying on these results, with the 1% growth of the real interest rate, the ratio of the nonperforming loans against the total of loans falls with 29.3%. It is important to stress that our results go against the international ones. According to them there is a positive relation between the growth of the loans and the nonperforming loans. In this example, with 1% growth of the loan, the ratio of the nonperforming loans against the total of loans falls with 3%. The real exchange rate (REERt) is positively connected with the nonperforming loans according to which the international competition of a country's is an important determinant of the credit risk.

In other words, every time there is a worsening of the competition in local economy, the level of nonperforming loans coming from the export sectors may have a chance to grow. From previous studies there is a negative relation between the nonperforming loans and the GDP. Even in these results, if the GDP grows in period t with 1%, the ratio of nonperforming loans against the total of loans falls with 6%. But this ratio has a positive effect in the time of GDPt-1. These results show a negative relation between the inflation and the nonperforming loans. This means that if the inflation is high in the actual period then there is a reduction of nonperforming loans. Anyway, high inflation from previous periods causes higher interest rates from the banks. The table 2.4 shows how strong the relations of the independent and dependent variables are. There are strong relations between the ratio of nonperforming loans to the total of loans and growth in % of the loans, and with the rate of the real exchange rate too. Inflation is not an important determinant for the nonperforming loans.

3. Conclusions and Recommendations

The macroeconomic situation in Albania is an important factor in the accumulation of new nonperforming loans.

The increasing number of nonperforming loans is an evidence of the difficult economical conditions that businesses and the customer are going through.

Even though banks, after the financial crises appeared, have been trying to tighten the loans providing through increasing the interest rates for the loans, they have still been having an increasing trend.

Despite the positive developments in the banking system, the banks are pretended to play a more important role in the future economical development.

The objective of the bank should be the trinomi: support and development of the Albanian economy, support and respect for the monetary policy of the Bank of Albania, their development and adaptation with the best standarts of the banking industry.

The Bank of Albania should do more trainings for the loan officers, and why not by setting up a training center.

Particular care should be given to new loans, because if they were good ones they will result in the gradual improvement of the loan portfolio quality.

So regardless of the actual situation the lending process in the banks should not be held because will have negative effects on the nonperforming loans.

Special care must be taken while completing the documents, as for example the loan giving for the seasonal workers should be seen with caution. Loan officers must carry out checks to all the loans at least once a year.

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Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.976(a)	.952	.931	.18315	1.192

Table 2.1 Model Summary (b)

Source: Regression Model

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.330	9	1.481	44.155	.000(a)
	Residual	.671	20	.034		
	Total	14.001	29			

Table 2.2 - ANOVA (b)

Source: Regression Model

	Unstandardized Coefficients		T	Sig.
	ß	Std. Error	ß	Std. Error
Banking Factors				
$lnNBR_t$	-.293	.258	-1.138	.013
$lnKAS_t$	.353	.185	1.909	.071
ΔK_t	-.003	.015	-.190	.851
ΔK_{t-1}	-.035	.012	-2.848	.010
ΔK_{t-2}	-.032	.012	-2.630	.016
Macro Factors				
$lnINFL_t$	-.368	.305	-1.207	.242
$lnREER_t$	5.241	1.754	2.989	.007
ΔGDP_t	-.006	.012	-.468	.645
ΔGDP_{t-1}	.010	.014	.715	.483
Constant	-22.662	8.308	-2.728	.013

Table 2.3 – Banking factors & Macro factors Coefficients and Std. Error; Dependent Variable: lnNKP;

Source: Regression Model

		lnNKP	lnNBR	lnKAS	ΔK_t	ΔK_{t-1}	ΔK_{t-2}	lnINFL	lnREER	ΔGDP_t	ΔGDP_{t-1}
lnNKP	Pearson Correlation	1	-	-	-	-	-	-	-	-	-
	Sig. (2-tailed)										
	N	46									
lnNBR	Pearson Correlation	-.379(*)	1	-	-	-	-	-	-	-	-
	Sig. (2-tailed)	.019									
	N	38	38								
lnKAS	Pearson Correlation	.004	-.563(**)	1	-	-	-	-	-	-	-
	Sig. (2-tailed)	.978	.000								
	N	46	38	46							
ΔK_t	Pearson Correlation	-.649(**)	.218	-.274	1	-	-	-	-	-	-
	Sig. (2-tailed)	.000	.189	.068							
	N	45	38	45	45						
ΔK_{t-1}	Pearson Correlation	-.657(**)	.256	-.224	.368(*)	1	-	-	-	-	-
	Sig. (2-tailed)	.000	.120	.144	.014						
	N	44	38	44	44	44					
ΔK_{t-2}	Pearson Correlation	-.670(**)	.299	-.155	.577(**)	.357(*)	1	-	-	-	-
	Sig. (2-tailed)	.000	.068	.322	.000	.019					
	N	43	38	43	43	43	43				
lnINFL	Pearson Correlation	.068	-.650(**)	-.110	-.075	.027	-.127	1	-	-	-
	Sig. (2-tailed)	.652	.000	.469	.623	.860	.418				
	N	46	38	46	45	44	43	46			
lnREER	Pearson Correlation	.592(**)	-.119	.092	-.597(**)	-.503(**)	-.371(*)	.013	1	-	-
	Sig. (2-tailed)	.000	.476	.542	.000	.001	.014	.932			
	N	46	38	46	45	44	43	46	49		
ΔGDP_t	Pearson Correlation	-.175	-.064	-.139	.255	-.015	.103	.105	-.189	1	-
	Sig. (2-tailed)	.347	.731	.456	.167	.935	.580	.574	.309		
	N	31	31	31	31	31	31	31	31	31	
ΔGDP_{t-1}	Pearson Correlation	-.116	.078	-.154	-.041	.255	-.015	.132	-.108	-.352	1
	Sig. (2-tailed)	.534	.675	.408	.828	.167	.935	.479	.564	.056	
	N	31	31	31	31	31	31	31	31	30	31

Table 2.4 – Coefficient of Correlation between LnNKP and independent variables

Source: Regression Model

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed)

Note [1] Sejdarsi B, (2012), Banks and "Pandoras' Box", JAVA.

Note [2] Albanian Lek