

Financial mediation and its impact on the Albanian economy

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Abstract

This article aims to present the importance of financial intermediation to real economic growth in the case of Albania. The article analyses the main indicators of financial intermediation and through the application of statistical and econometric methods gives their impact on economic growth. Findings show that there is a mutual relationship between economic growth and private sector credit growth. Also, the effect is a chain, because the positive impact that one indicator gives on another indicator is associated with a positive effect on the indicator itself that gave this effect earlier. On the other hand, besides the positive performance of financial intermediation indicators in Albania, as a result of the growth of lending to the economy, deposits in the Albanian banking system have increased throughout the period of study. The recent financial and economic crisis had its negative impact mainly on the growth of problem loans but not on the deposit market that continued to grow.

Keywords: Financial intermediary, Economic growth, Loans, Deposits, Albania

1. Introduction

The financial system is said to be the main engine of the market economy. To get a clear idea about this phenomenon, we need to clarify the role of the financial system in a market economy. This system provides the means of payment to the economy and influences its real activity through the realization of financial intermediation and the transfer of monetary policy.

Given that in emerging economies including Albania, the financial system is often in line with the banking system, the treatment of this topic aims at drawing some conclusions that may apply to the entire financial system.

The financial system has an irreplaceable role in economic activity. This system performs two main functions:

- Financial system realizes the financial intermediation process:
- Channellings savings (usually households) on loans and investments (usually firms).

Financial institutions in Albania and above all banking institutions are the most developed component of the Financial System in Albania.

1. Performance and analysis of the Albanian Banking System.

Financial sector reforms marked significant progress in this period. They relate to the privatization of state-owned banks and to the entry of new private banks, which have affected the deepening of financial intermediation and the enhancement of the quality of banking services.

Characteristics of these developments was the increase in the number of banks through new private banks, which currently reach 16. The banking activity has been expanding along with the expansion of banks in the market, increasing both banks'

assets and deposits. At the end of 2003, total assets of the system amounted to ALL 373.6 billion or about 50% of GDP. On the other hand, the level of deposits has continuously increased from ALL 178.2 billion in 1998 to ALL 323.2 billion in 2003. The level of financial intermediation has further deepened reflecting the positive trend of developments in the banking sector. The ratio of total deposits to GDP, which is one of the main indicators of the level and depth of financial intermediation, has been increasing throughout the transition period and especially after 1998, marking a 43% level in 2003. The same tendency has the ratio of time deposits to GDP, as the most significant indicator of intermediation, which increased significantly from 12.8% in 1994 to 29.3% in 1998 and 35.3% in 2003. Another characteristic of positive developments in the banking sector is the improvement of the credit market. Two are the most positive trends seen in this market: firstly the continuous growth of private sector lending and secondly the reduction of non-performing loans to total credit. The continuous improvement of banking infrastructure, the establishment and functioning of the Deposit Insurance Agency in 2002, the improvement of banking supervision increased confidence in the banking system Cani (2004).

Albanians had negative experiences of the 1997 pyramid schemes and the banking panic of 2002, where their confidence in the financial system was shaken. Again, when they saw the global financial crisis of 2007-2008 hit financial institutions worldwide, Albanian depositors began deposit withdrawals by the end of 2008, which reduced the funding sources available to banks to give credit. The crisis curbed the banks' tendency to credit the business. It affected the real sector and slammed the economic growth rates, bringing a downward slump in the borrower's solvency, which made banks more sceptical about lending new loans during that period;

The growth of credit risk, which was also materialized in the increase of the percentage of non-performing loans in the loan portfolio, may have been caused by two main phenomena. First, the exchange rate fluctuation, as about 50% of foreign currency loans were unprotected from exchange rate risk. Consequently, the borrowers found themselves vulnerable to the immediate exchange rate changes, causing their solvency to fall. Secondly, the emergence of problems in the loan portfolio came as a result of its maturity and this was an expected phenomenon, which probably just coincided with the global crisis but had no direct connection with it.

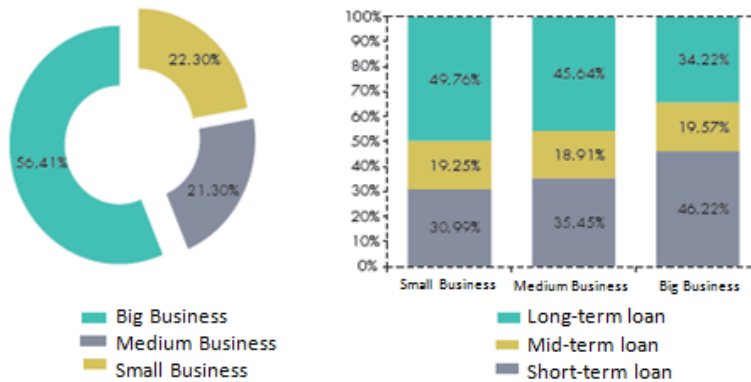
During this period, the banking system continued to be characterized by a **lack of liquidity**. The Bank of Albania has injected liquidity through its open market operations by means of weekly repurchase agreements. Interest rates on euro-denominated time deposits generally followed the same seasonal movement, though not with the same margin.

During 2016, the banking sector has been stable. Compared to the previous year, the activity of the sector has expanded at higher rates, mainly based on the growth of stock of securities investments. In annual terms, the growth rate of total banking sector assets was 6.8%, compared to 1.9% a year earlier. The ongoing process of delisting loans lost from banks' balances has slowed down the pace of rising non-performing loans. Despite this development, the banking sector continues to be exposed to credit risk. Exposure to market risks remains controllable, but requires regular monitoring and evaluation.

Financing of banking activity is mainly ensured by deposits, which account for about 82% of total assets. Loan / deposit ratio marks 52%. The deposit base has grown almost at the same levels in both semi-annual and annual terms (about 5.2%), supported by foreign currency deposits. Depending on maturity, there is a shift of deposits to current accounts. This development poses a potential weakness in the banking sector's financing structure, which, however, is mitigated by the fact that 83% of deposits are held by individuals and, as a whole, the residual maturity of liabilities has increased due to growth of the value of deposits with maturity over one year. Banks have maintained the ratio of their use of capital to finance the activity, while respecting the relevant requirements of the regulatory framework.

The banking sector has accelerated lending to individuals, but has lowered the lending rate for businesses. In annual terms, the credit balance for households has expanded by 3.7%, while for businesses it has expanded by 2.4%. During the period, the new household loan increased by 14.3% over the same period of the previous year, with the main contribution to the expansion (about 60%) being the loan for real estate purchase. Compared with the same period of the previous year, its share in new loans to individuals increased by 3 pp to 39%. By contrast, during the period, the new credit to businesses narrowed by 12.2%, driven by narrowing lending to "purchase of equipment", "working capital" and "overdraft". The public sector credit outstanding accounts for a low share of 4.8% of the total, but the new credit granted during the period for this sector accounts for 12.6% of the total.

Grafic 4.5. Business credit structure by size



Source: Bank of Albania

This graphic is a clearer idea that the credit structure tends to go from long-term to short-term. This can be considered positive because the short-term credit risk is lower than in the long run. The problem we think is that banks thinking of credit risk are not financing enough domestic business, which could give breathing to the economy.

The aggregate index of key indicators used to track the performance and the banking stability situation has deteriorated since the end of 2015.

1. Methodology used and findings of the study

This study was conducted based on partial analysis of the financial intermediation indicators presented in Table 1. The indicators are disclosed by reference to publications made by the Bank of Albania for the period 2002-2017 for a series of time based on 3-month data. Some other indicators such as the amount of bad credit loans is based on authors' calculations. The data were analysed from the first quarter of 2002 to the first three months of 2017. The project was carried out by making analyses and relevant econometric models depending on dependent and independent variables being considered according to the respective boxes.

Table 1. Indicators used in the model

Box number	Variables	Measures	Data Source 2002 to 2017
Box Nr.1	Dependent Variable: Y- GDP Independent Variable X1- The amount of credit extended to the government X2- The amount of credit extended private sector	Data	BoA
Box Nr.2	Dependent variable: Credit granted to the private sector / GDP Independent Variable X ₁ - Economic Growth X ₂ - Deposits/GDP X ₃ - Loans/Deposits; X ₄ - (Interest Rate x NPL)	Data Calculation	BoA

Source: Authors' processing

Economic Growth is the indicator that is widely used in measuring economic performance. In this study this indicator was used as a dependent variable. The data were obtained from the Bank of Albania publications. The database is 3-month.

Deposits / GDP refers to the depth of the financial system referred to Crowley (2008). This indicator expresses in the first place the level of public confidence in the banking system. Apportion of deposits with GDP is also done to eliminate possible "overtakings" of the model indicator.

Loans / Deposits, expresses the level of use of bank deposits and, above all, of time deposits which are the most likely sources of credit. Sa (2006) best describes the linkage of lending rates to the welfare of a country. When the economic situation is optimistic and expectations for the future are better, expecting more revenue and profits, is being optimistic, also leads to an overestimation of assets, real estate prices. This increases the net worth of firms, reduces external finance premiums, and increases their ability to borrow and spend.

(Private sector credit x NPL) is an indicator derived from the calculations as factor interaction to see if it has an impact on the dependent variable. It was not used for further analysis since it did not result stylistically important during model testing.

Based on the objective of the study we have formulated two hypotheses;

➤ **Hypothesis 1:** The higher the lending to the private sector, the better the economic performance of a country is expected to be.

Based on the least squares method we have the following results

Table 2: Government credit extended to private sector credit

Dependent Variable: Y
Method: Least Squares
Date: 06/24/17 Time: 11:11
Sample(adjusted): 2002:1 2016:4
Included observations: 36 after adjusting endpoints
 $Y=C(1)+C(2)*X_1+C(3)*X_2$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	11879.86	49958.50	0.237795	0.8135
C(2)	0.593173	0.305531	1.941447	0.0608
C(3)	0.284390	0.125852	2.259720	0.0306
R-squared	0.754706	Mean dependent var		326597.8
Adjusted R-squared	0.733780	S.D. dependent var		38575.94
S.E. of regression	2.675543	Akaike info criterion		23.03378
Sum squared resid	1.80E+10	Schwarz criterion		23.16574
Log likelihood	-411.6081	F-statistic		31.28543
Durbin-Watson stat	2.352455	Prob(F-statistic)		0.000000

Source: Authors' processing

Preliminary explanations:

- Y- GDP
- X₁- The amount of credit extended to the government
- X₂- The amount of credit extended to the private sector.

By submitting the above, the loan granted to the government does not result in an important variable.

According to Student's test "t", since the probability near the variables of this variable results in Prob = 0.0608 > 0.05 then it can be said that this variable is not significant. Otherwise it happens with the private sector lending variable which can not be removed from the model as it turns out important.

Secondly, according to the Fisher model test, it generally results significant as Prob (F-statistic) = 0.000000 < 0.05. However, this is not the best possible model.

Lastly, referring to the above model, it can be said that private sector credit has had a positive impact on the growth of Albanian GDP for the years studied.

- **Hypothesis 2:** The economic growth and public confidence in banks are expected to have an impact on the magnitude of credit extended to the private sector.

Based on the least squares method we have the following results

The impact of various factors on the development of credit extended to the private sector has been tested by means of the least squares method. Initially, four independent variables were taken into consideration (see Table 1), but only two of them proved to be significant during the test.

Table 3. Factors that have had an impact on the development of private sector credit.

Dependent Variable: Y
Method: Least Squares
Date: 06/23/17 Time: 01:19
Sample: 2002 2016
Included observations: 15
 $Y=C(1)+C(2)*X_1+C(3)*X_2$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.646665	0.098155	6.588177	0.0000
C(2)	0.012191	0.001171	10.40827	0.0000
C(3)	0.357367	0.038666	9.242538	0.0000
R-squared	0.919061	Mean dependent var		1.557333
Adjusted R-squared	0.905571	S.D. dependent var		0.136144
S.E. of regression	0.041836	Akaike info criterion		-3.333258
Sum squared resid	0.021003	Schwarz criterion		-3.191648
Log likelihood	27.99943	F-statistic		68.12998
Durbin-Eaton stat	1.711532	Prob(F-statistic)		0.000000

Source: Authors' processing

The variables under consideration were:

Dependent variable:

- Y- Credit to Private Sector / GDP

Independent Variables:

- X1 - Economic growth; X2 - Deposits / GDP; X3-loans / deposits; X4 - (Interest rate x NPL)

Model:

$$Y=0.646665+0.012191X_1+0.357367X_2$$

Firstly, an economic growth of 1% , provided that the factor X2 does not change, would affect the growth of 0.012191 units of private sector / GDP credit.

Second, an increase of 1% of the Deposit / GDP indicator, provided that constant X1, would affect the growth with 0.35736 units of the dependent variables. So the size with which financial intermediaries in Albania have credited the private sector over the years under analysis is largely determined by the size of deposits.

Conclusions:

- Referring to the analyses carried out based on the data above, it can be said that private sector credit has had a positive impact on the growth of Albanian GDP from 2002 to 2017. At the same time, economic growth affects the growth of the private credit sector. Therefore, the effect seems to be a chain, where the positive feedback that one factor gives over another factor is associated with a positive effect on the factor that gave this effect earlier.

- For the years under review, the size with which the financial intermediaries in Albania have credited the private sector is mainly determined by the size of deposits. So, the impetus that banks create in the economy depends on the amount they receive as deposit.
- According to the model presented, there is an inverse relation between interest rates on ALL deposits and the size of deposits in ALL. The testing of the model resulted that the increase in the size of deposits in ALL would affect the reduction of the interest rate on ALL deposits.

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