Albanian banking system under international supervisions standards, Basel III emprirical evaluation of macroeconomic effects

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Abstract

The aim of this article is to measure the positive and negative effects of the implementation of Basel III in the Albanian economy. The study proposes a model of evaluation of the probability of banking crises in the context of bank equity indices and long-term liquidity. The proposed model gives the opportunity of evaluating the benefits in terms of GDP by implementing rules Basel as in the short term, as well as in the long term that in the case of Albania turns out to be only 0.22% in the short term and 5% in the long term concerning the implementation of the capital requirements are expected to reduce the probability of crises with 3,06%. While meeting the requirements for liquidity reduces the probability of banking crises with 0,14%, while benefits are calculated minimum. Taking into consideration the negative effects, the basic hypothesis is that the implementation of Basel III will be associated with costs in the economy. Banks can implement the increased capital and liquidity requirements under Basel III using different strategies. The goal is to predict the impact of these new macro strategies of banks in the framework of Basel III. From the study it can be said that there is not a direct relationship between the level of capital and GDP, and the same for liquidity and GDP level connection. It is proved the link between the level of liquidity and interest rates as well as the link between the lending and interest rates.

Key words: *Basel III, Costs, benefits ,Albanian Banks, banking crisis.*

1. Introduction

The recent global economic anf financial crisis brought the necessity of improving or increasing requirements for banks with the aim to manage not only the specific risk, but also systemic risks that threaten the whole economy. For the first time in the history of international supervision, emphasis was placed on macro-prudential policies in order to instill effect on the macroeconomic level.

This article consists of an empirical analysis to assess the importance or the impact of banking indicators on the probability of the banking crisis and then financial crises. According to Walter 2010, the probability of crisis moves between 4-5% for developed economies as well as emergence economies. Despite the fact that emergent countries such as Albania, not directly affected by the crisis, they feel and show the serious consequences for their economies. This was evident years after the crisis of 2008-2009, which did not appear immediately in our country, but brought its negative consequences in the years that followed, specifically in 2010-2012. Many experts even believe that its effects continue to be felt yet. In this context, my goal is getting to know the importance of having a well-capitalized banking system , but also liquid with a view to highlighting their importance in the avoidance of potential crises.

As in an analysis carried out by the Basel Committee and Angelini et al, 2011, for banking supervision, the benefits of the new Basel requirements are precede losses (expressed in terms of GDP) from the banking crisis. So initially I calculated how change the probability of crises in the context of new requirements for capital and liquidity and then I calculated the expected losses from a potential crisis by multiplying the benefits of this "reduction of probability".

2. Empirical Literature

Efforts to assess this aspect of regulative Basel have been numerous and have been proposed different models regarding the evaluation of measurable benefits of Basel III.

Most of the studies consist of a cost-benefit analysis of the implementation of Basel III or specifically on an analysis of the economic impact. (EDI).

I am referring to empirical analysis which aim to assess the impact of bank capital and liquidity in the probability of crises and empirical analysis on the best approaches which allow to be evaluated in order to approximate losses of GDP that accompanies a banking crisis.

Regarding the importance of banking capital and liquidity on crises probability i am referring to a model implemented by Yan Meilin, which accounts the reduction in the probability assuming full implementation of Basel rules. According to his study, meeting the requirements of Basel, for capital and liquidity are expected to reduce the probability of banking crises in the case of Britain with 4.996% and 2036% respectively.

Studies with a similar purpose, but applying different methods are held by Barrel et al (2009), according to which, the increase to 1% of bank capital and liquidity would reduce the probability of crises in the UK with more than 6% and less in other eurozone countries. With the same method Kato et al, 2010 and Wong et al (2010) in the case of janponeze economy have estimated that the increase of 1% in the level of capital, the probability of occurrence of a crisis falls to 10.3% without any increase in liquidity level and the probability of a crisis falls by 2.8% when a 1% increase of the level of capital associated with 10% increase in the ratio deposits / total assets. By Wong et al also, increased over 7% of banking capital is not expected to bring significant reduction in the probability of banking crises. Marginal benefits become apparent zero, when the ratio of the banking capital to risk-weighted assets tends to be higher than 11%.

Also Gauthier et al (2010) using a "stress test" model has estimated that the increase of capital of 7% to 8%, without any increase in liquidity reduces the likelihood of a systemic crisis with two-thirds (ie from 4.7% to 1.7%) in the case of Canada.

Also there are numerous studies concerning the calculation of losses in terms of GDP by the crisis. Methods and variables included, vary from study to study. Below I'm presenting a part of the studies, to which I have been referred.

The main channel through which changes in capital and liquidity regulation affect_economic activity is via an increase in the cost of bank intermediation. Banks will increase lending rates to compensate for the cost of holding more capital and liquidity. Owing to imperfect substitutability between bank credit and other forms of market financing, this leads to lower investment and lower output.

According to the researcher Miles et al doubling of the level of capital of 8.4% to 16.8% is expected to decrease the level of output by 15% for the British economy. While the researcher Moran on his analysis about the impact that provides recapitalization under the new Basel III in the United States finds that banking capital increases the ability of an economy to minimize collisions and after shocks, well-capitalized banking sectors experience a small reduction in bank lending. While according to Gambacorta (2010) by applying a VECM model and analyzing the effect of the two main indicators, the capital and liquidity impact of changes in capital and liquidity ratios to GDP are quite small long-term, calculated for the American economy as well.

3. Data descriptions

It is very important to clarify the variables used for empirical analysis, which I designed in two parts:

- An evaluation of the probability of crises
- And evaluations of potential losses.

Estimation of the economic benefits

To calculate the probability of occurrence of a banking crisis, I am referring to a dummy dependent variable that takes only two replies, crisis or no crisis. I identified as crise the period from the first quarter of 2010 and until the first quarter of 2012. The reasons for the identification of this period as crises is mainly related to the analysis of macroeconomic variables such as GDP, inflation, unemployment, depreciation in local currency compared with the currencies, the decline in investment, reduced remittances, reduced creditworthiness or increased non-performing loans, etc.

While as explanatory variables in this model is used the average level of capitalization banking TCE / RWA per the entire banking system, the average level of funding stable of banks (NSFR), the index of the prices of real estate RPI and the ratio of current account to GDP (CA). The reason for the inclusion of the index of real estate prices is explained by Barrell et al (2009). Substantially according to him this indicator has much larger predictive capabilities of crisis than other factors such as interest rates, or the ratio of return on assets. While the reason for the inclusion ratio of the current account to GDP as forecast economic crisis is that history has shown that a banking crisis is always accompanied by a crisis of exchange rates. So that a current account deficit may herald a crisis of exchange rates and as such could serve to model the probability of banking crises. All data are organized in quarterly and belong to the period: first quarter of 2005 to the fourth quarter of 2015. Sources of data are specified in the appendix to the paper.

Definition of liquidity and capital

In most similar studies total banking capital is variable used to represent the level of bank capitalization. Also, the loan to deposit ratio has been used to report with regard to the level of liquidity. But as the new rules of Basel III focus on other indicators I have used indicator as follows:

To express the level of bank capitalization i have referred to the ratio of tangible bank capital to assets weighted by risk TCE/RWA, being that the tangible bank capital includes only the share capital paid and retained earnings is qualitative indicator of the level of capitalization.

$$TCE/RWA = \frac{\text{Banking paid-up capital + Retained earnings}}{\text{Total risk-weighted assets}}$$

This indicator has been calculated for the purposes of this study through the formula above .

Regarding the Basel III Liquidity refers to a long-term liquidity indicator which is showing the adequacy of liquidity available funds report stable to stable funding required.

This indicator was found not ready on the data published. For its calculation I have applied the following formula:

$$NSFR = \frac{\text{Capital + liabilities owing 1yr + 85\% deposit <1yr + 70\% Other deposits <1yr}}{\text{5\% + 50\% state debts \&loan businesses <1yr + 85\% private loans <1yr + 100\% Other assets}}$$

Estimation of the economic costs

To calculate the costs I have used the following variables: real GDP, the amount of loans to the private sector (comprising lending only by the banking sector), the real interest rate in short term, which we have calculated as the quarterly average 3-month interbank rate minus quarterly inflation rate, the spread of interest rates calculated as the difference between the quarterly average 3 month lending rate to quarterly average 3-month interbank rate, the quarterly average return on equity ratio (ROE) for banks and the the quarterly average ratio of tangible common equity to risk weighted assets (TCE / RWA) and the quarterly average net stable funding ratio (NSFR). Data belongs to the period 2010 Q1 2000 -T4 with the goal to avoid the period where the crisis was felt in our country because this period is difficult to prove long-term relationship between the variables.

4. Methodology and results

Measuring the economic benefits from the implementation of capital and liquidity requirements for Basel III:

As benefits of the implementation of Basel requirements for capital and liquidity i have considered reducing the possibility of occurrence of a banking crisis and multiplying it with the expected losses from the occurrence of a crisis.

Benifits = ΔPr * expected losses from the crisis

So assessment of benefits benefits requires double calculations, including calculation of the probability of a crisis, but also evaluation of losses expected if the crisis occurs.

As explained above the probability of crises is related with some independent variable as the following:

$Pr=f(\alpha_i*TCE/RWA+ \beta i*RFNS+\gamma_i*Zi)$

Where TCE / RWA represent bank capitalization level

NFRS represents net stable funding to banks

While Zi is a vector of the macroeconomic variables, comprising the index of real estate prices and the ratio of current account in terms of GDP.

According to the calculation of losses caused by a crisis, I am referring to data on real GDP throughout the period under consideration. As mentioned in the literature a crisis is associated with temporary loss and permanent loss , so i have estimated potential losses in both cases. As temporary losses i have considered total collapse of GDP during the crisis as a ratio to GDP before the crisis.

To estimate the probability of occurrence of a banking crisis i have used probit statistical model which is a model that is widely used in similar cases. I am referring to a nonlinear probit model with the aim to assess the impact of factors together, not separately. This is because the expected requirements of Basel for capital and liquidity are set to be implemented together and my goal is not to assess only the individual impact of each factor, but also the impact of their combinations on probability of crises.

The results of the measurements made by probit are shown in Table No. 3. I consider like more convenient model number 11.

TABLE 1: Relationship between e-marketing and company's effectiveness

	Combined				Only in linear terms				Only nonlinear term			
Variabli/ Specifikimi	1	2	3	4	5	6	7	8	9	10	11	12
TCE_RW A*NSRF	217.51	161.67	4.68	-168.76					-32.96 **	-36.58 **	-31.37 **	-29.09 **
TCE_RW A	-121.13 *	-91.03	-22.14	58.75	-29.42 *	-24.53 *	-20.14	-12.44				
NSRF	1.89	-0.08	2.44	2.41	4.39	2.48	2.49	-0.23				
RPI	-75.88	-97.47	-184.50 **	-231.51 **	-49.93	-88.60	-184.29 **	-219.01 **	-54.47	-89.00	-169.51 **	-220.71 **
CA	-15.15 *	-18.03 **	-13.76	-12.10	-11.65	-15.03 *	-13.68 *	-16.23 *	-11.87 *	-15.08 **	-15.57 **	-16.09 **
Lag	0	1	2	3	0	1	2	3	0	1	2	3
Log likelihood	-14.90	-14.20	-13.02	-11.73	-16.01	-14.70	-13.02	-12.16	-17.34	-15.35	-13.28	-12.02

Note: The level of confidence probability: * 90%, ** 95%, *** 99%.

Model 11 is the best, because the three coefficients are important with level of significance 95% (all three have **). Also model 12 satisfies this condition , but there Log likelihood is -12.02, while the model 11 has -13.28. In addition, the model 12 has lag 3, while model 11 has lag 2. In general, high lag is not preferably, especially when the results are the same. So model 11 is the best.

From the analysis of the model 11 we see that all resulting significant coefficients have received the expected mark. Negative signs of non linear variable TCE / RWA and NSFR taken together shows that higher capital and liquidity in the banking system may prevent the emergence of a crisis. The positive signs of coefficient before RPI variable (the variable that indicates the real estate prices) shows that high rates of inflation in this market are predisposition for banking crises. Also negative sign before the coefficient of CA variable indicates that a experienced positive current account reduces the probability of crisis.

The purpose of building the probit model in assessing the probability of a crisis in our banking system, was not only to estimate the impact of variables of consern, but to estimate the benefits from the implementation of regulatory requirements. Table 2 shows the connection between the levels of TCE / RWA or NSFR variable and changes in the probability of crisis.Initially i have calculated the probability of a crisis based on the average of all variables. Keeping other factors unchanged, increasing by 1% of banking capital in our banking system turns out to reduce the probability of crises around 3.34%. Probability of crises resulting to reduce

about 2.87% to 12% level of the equity ratio. As if liquidity NSFR ratio of 1 right approach, the probability reduced by 0.14%.

TABLE 2: based on model 11

TCE/RWA	Cumulative probability of probit function	The reduction of probability	NSFR	Cumulative probability of probit function	The reduction of probability
11%	17.15%	3.45%	0.50	11.44%	3.54%
12%	14.09%	3.06%	0.55	8.54%	2.90%
13%	11.43%	2.66%	0.60	6.23%	2.31%
14%	9.14%	2.28%	0.65	4.44%	1.79%
15%	7.22%	1.93%	0.70	3.09%	1.35%
16%	5.62%	1.60%	0.75	2.09%	0.99%
17%	4.31%	1.31%	0.80	1.39%	0.71%
18%	3.26%	1.05%	0.85	0.90%	0.49%
			0.90	0.56%	0.33%
			0.95	0.35%	0.22%
			1	0.21%	0.14%

Note: NSFR is taken as the value in the last quarter, 0.40785 and TCE / RWA is the value of the last quarter, 0.106.

From the calculations on the loss or decline in the level of real GDP for the period of crisis with results that crisis (though not directly in Albania) have caused a decrease by 7.7% of GDP level relative to GDP in the first crisis, as short-term loss. To calculate long-term cumulative loss of'm referring to formulas proposed by BCBS 2010 b, which turns out 161.7% for the occasion of our economy. In this regard I have estimated the marginal benefit from increased capital requirements and likuiditet. Tabela No. 3 shows these calculations where noted that the banking capital stands at 12% of capital levels expected in the short-term benefits are only 0.22% and 5% in the long term.

TABLE NO. 3

TCE/RWA	Cumulative probability of probit function	The reduction of probability	The expected profits in ASH	The expected profits in AGJ
10%	10.52	3.89%	0.30%	6%
11%	17.15%	3.45%	0.26%	5%
12%	14.09%	3.06%	0.22%	5%

13%	11.43%	2.66%	0.19%	4%
14%	9.14%	2.28%	0.15%	3%
15%	7.22%	1.93%	0.12%	3%
16%	5.62%	1.60%	0.10%	2%
17%	4.31%	1.31%	0.08%	2%
18%	3.26%	1.05%	0.06%	1%

We have calculated the same way and the benefits of increased liquidity requirements as in Table No. 4: As can be seen as the expected benefits of short-term as well as long term we are very small, which shows a liquid banking system.

TABLE NO. 4

NSFR	Cumulative probability of probit function	The reduction of probability	The expected profits in ASH	The expected profits in AGJ
0.50	2.98%	1.97%	0.152%	3.185%
0.55	1.71%	1.27%	0.098%	2.054%
0.60	0.93%	0.77%	0.059%	1.245%
0.65	0.48%	0.45%	0.035%	0.728%
0.70	0.24%	0.24%	0.018%	0.388%
0.75	0.11%	0.13%	0.010%	0.210%
0.80	0.05%	0.06%	0.005%	0.097%
0.85	0.02%	0.03%	0.002%	0.049%
0.90	0.01%	0.01%	0.001%	0.016%
0.95	0.00%	0.01%	0.001%	0.016%
1	0.00%	0.00%	0.000%	0.000%

Methodology for second part of the study-Estimation of costs

To test the long-term relationships between variables I have referred to a VAR model which in a generalized form can be written:

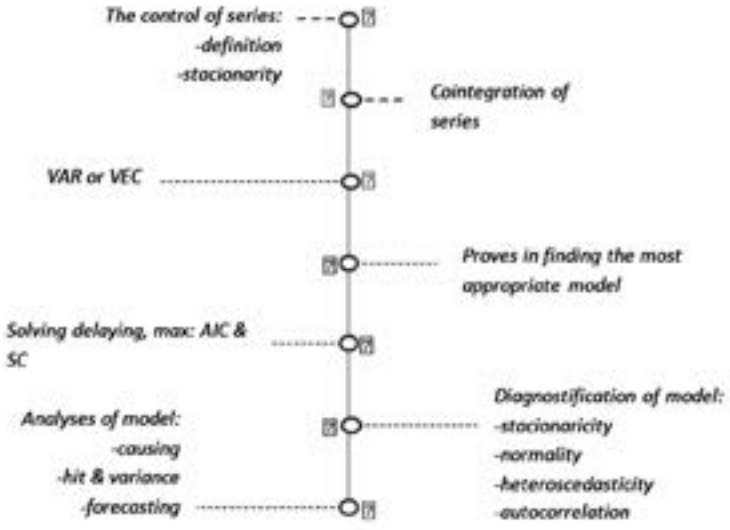
$$Y_t = C + \sum_{i=1}^{\rho} A_i Y_{t-i} + U_t$$

Where:
Yr -is vector backbone of endogenous variables with n rows, at the time t,
n is the number of endogenous variables.
C is the vector of free parameters n 1 size.

size matrix A is the matrix n□n regressors model coefficients in the i-th delay, where the delay is the maximum value of ρ.

Construction of VAR model passing through a follow several steps. The literature of the field can deduce the following map for this. Since the process steps are similar to a ride with stops in metro, using the analogy of the terms of a subway map. "Departure station" is control data making descriptive statistics and investigation unit root or stationarity for each of them. Descriptive statistics helps us become acquainted with certain moments of data, for example, average, higher values of those smaller, standard deviation etc. Stationarity has to do with the time series. The series must be stationary or identified in order to be used in the modeling. If they are not stationary, then it handled the operation of differentiation to turn it into a stationary process.

FIGURE 1. Map and "stations" analysis VAR / VEC.



The next stop is the cointegration of the series. Time series can often perform trend similar to each other in the long run, therefore tend to a common long-term average. This means that there is a combination of a linear equation between series, which in the VAR's language is known as cointegrating equation. That may be unsettling for evaluating empirical model as a downgrading ignoring the results, suggested by statistical test of student and Fisher.

In simple terms, this translates into a problem for modeling the series. Literature reference model for these cases VAR model suggests passing Vector Error Correction (VEC). This model is VAR model but with a condition where

his conditioning is cointegrating series equation. According to the literature (Lütkepohl, 2005; Lada & Wójcik, 2007; QMS, 2009; Osman, 2010) if between series x and y is an equation cointegrating Final simply $y = \beta \cdot x$, then performed differentiation .To be noted is that the parameters $\alpha 1$ and $\alpha 2$ express right balance adjustment speed long series, and εt expressed avoiding long-term equilibrium.

Verification of cointegration series presents important and requires special attention. If series cointegrate, then we should not use VAR and VEC model. Johansen procedure is commonly used to investigate the cointegration of the series. A detailed summary of this procedure is given by Enders in Econometrica Applied Time Series. Osmani (2010) gives a simple explanation for cointegration testing. While the view of the execution of this test is explained in the second guide EViews 7 (FV. 685-692) and in Time series data analysis using EViews (Agung, 2009).

After verifying the cointegration of the series, comes the decision to use the VAR or VEC model, which, as explained above, are different between them. Three stations constitute the first stage in being nourished done with the aim of bringing the series as ready for model building. Further, the station hotline number 4 is the evidence of numerous different service of finding the most appropriate model. Here discussed what factors should be included in modeling and reconciliation and what form should be required (Linar, of what shape power, logarithmic or other). This can be solved on the basis of suggestions of literature, avoiding multiple trials.

The next stop is what gives the answer what should be the maximum delay, then order parameter . Here it helps the criteria used Akaike information (AIC) and Schwarz (Schwarz - SC), where the required minimum value of them, that model has the smallest value of these criteria, it is the right model to autoregresivit order. The sixth station is diagnostification of VAR analysis of the selected model. Here you answer the question how healthy, if we may say so, is the model. To achieve this control stationarity model (judged on roots inverse of the characteristic polynomial AR, which should be within the segment in the community of complex numbers, known as "county unit"), the normality of the term of error (judged on criteria of Jarque-Bera, where its probability is required to be higher than 0.05); heteroscedasticity of the error term (term stock should have to attribute homoscedasticity error) and autocorrelation (term error model should not depend on ourselves and investigated with serial correlation test criteria Lagrange multiplicator-LM).

Arrival station "metro" is our own analysis model that has passed the tests of a diagnostic control. At first it is important to judge about the underlying factors using Greinxherit causality test (Granger-cause), which shows which series can be used to forecast the next series.

Clive Granger, has argued that there is an interpretation of a set of tests to discover 'something' on causality. It would be more correct to state that this set

of tests show us which series appear earlier in time than other series. And if this test is passed, then x causes y, then it is correct to say that the series x helps in predicting the series y (Gujarati, 2004; Agung, 2009; QMS, 2009).

Analysis of shock constitutes perhaps the most important part of VAR analysis. It traces the response / reaction of endogenous shocks factor / factor exogenous impulses. A striking feature of response tracks the impact of a blow to one of the remaining terms on current and future values of the endogenous variables. Variances dissolved answers p + jes explained how a certain fluctuation of endogenous factor from other elements of the system. It provides information about the relative importance of each stroke affecting variables in the VAR. More simply, the answer the question what is the importance of the system as a whole one of the factors explaining the current fluctuation of endogenous factor. The forecast is a strong point of VAR models. Usually they used several different scenarios to create an idea for the next trend factors. Simple explanation for forecasting using VAR models is provided by Gujarati (2004). The essence is to use the values of parameters to evaluate the method of least squares for alleged levels of factors found in the right side of each equation of the system.

After going through these "filters" statistical series are ready to be used in the construction of VAR model. Upon the first time that VAR model is built, we check if it has cointegration relationship between the variables. For this helps us the Johansen cointegration test. As shown in the test, VAR model built characterized by some cointegrating equations. Trace criterion are 4 cointegrating equations, while based on the criterion of maximum property values (Maximum Eigenvalue) result 2 cointegrating equations. In the literature there is no definitive explanation which of these criteria are used (Trace or characteristic value). Although preferred and Trace criterion most frequently used, again the selection criteria of this test is in the hands of researchers. In the case of our paper, since the number of records is not very large, we prefer and select the maximum characteristic value criteria. This criterion reports 2 cointegrating equations.

For the reason that series cointegrate, the VAR model is not suitable for the analysis of the phenomenon. In this case, as explained in detail elsewhere above, built model VEC (vector error correction). Akaike and Schwarz criteria used to determine the extent of lag and it resulted that the lag = 2. And in explaining the values of the current quarter attend the previous two quarters.

VEC model built (2) with two cointegrating equations. Cointegrating equations have the wording:

$$X = \alpha_1 Y + \alpha_2 L + \alpha_3 (r - i) + \alpha_4 ROE + \alpha_5 NSFR + \alpha_6 TCE / RWA$$

The first cointegrating equation that links the current account deficit (CA) other factors:

$$CA = 1.39Y + 6.33L + 19.08(r - i) - 7.77ROE - 64.57NSFR - 7.76TCE / RWA$$

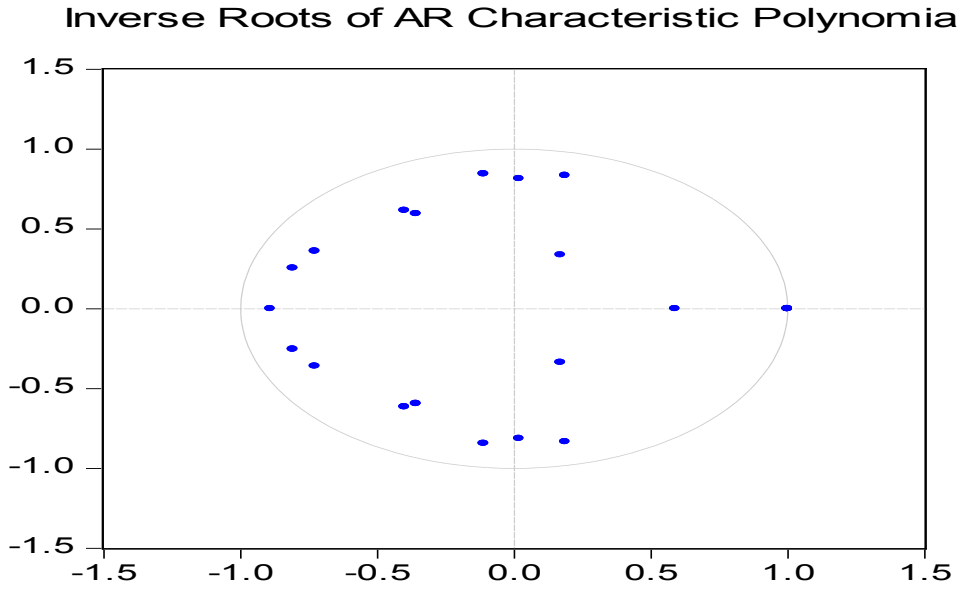
On the other hand, the second cointegrating equation connecting factor of - π other factors model:

$$i - \pi = 0.16Y + 0.81L + 5.58(r - i) - 1.002ROE - 7.71NSFR + 0.23TCE / RWA$$

Also, the chart of cointegrating equations presented in the best as well. As seen from the graphs, cointegrating equations are stationary processes because they revolve value 0 and have no trend.

VEC model thereafter execute and try to calculate the value of his lagu. This is accomplished by establishing and tried on lageve number, from 1 until accept the model. Akaike criterion based on the model already look lag = 2 is the most appropriate model.

VEC model (ρ = 2) is a model that has stationed error term. This is proven by the fact that all its roots inside the circle fall by 1 unit. For more pictures below.



Further, the model has term error which "enjoys" the features of a series of normal distribution. Jarque Berra test helps us, likeliness of which is 0.1142. We remind that for this test we are interested for a much higher probability than 0.05.

5. Analysis of Results

From the results of the model, we see that it is not proved a cointegrating relation between the level of output and capital ratio or liquidity. Our aim in the second part of the analysis was to prove whether such a bond is calculated change in output (GDP) as a result of change 1% of the TCE / RWA and NSFR and generated the results that compare the benefits found in the first analysis. Albanian economic reality does not show long-term relationship between the variables of interest in this model. However the VEC model results serve to analyze a good part of our working hypothesis. An important part of our thesis is the analysis and Granger-Causality tests after building the model, the results of which allow me to reach the following conclusions regarding the hypotheses.

Dependent variable: D(Y)			
Excluded	Chi-sq	df	Prob.
D(CA)	5.761797	2	0.0561
D(I_P,2)	9.565858	2	0.0084
D(L,2)	1.719536	2	0.4233
D(R_I,2)	6.528551	2	0.0382
D(ROE,2)	0.670823	2	0.7150
D(NSRF,3)	0.663971	2	0.7175 H1
D(TCE_RWA,2)	2.290167	2	0.3182 H2
All	30.50959	14	0.0065

Dependent variable: D(I_π,2)			
Excluded	Chi-sq	df	Prob.
D(CA)	6.816818	2	0.0331
D(Y)	6.032664	2	0.0490
D(L,2)	18.75587	2	0.0001 H5
D(R_I,2)	0.503383	2	0.7775
D(ROE,2)	1.497190	2	0.4730
D(NSRF,3)	5.082241	2	0.0788 H3
D(TCE_RWA,2)	3.125038	2	0.2096 H4
All	36.95542	14	0.0007

Conclusions

5/1- For the first part

In conclusion of all this, we see that capital ratios and liquidity is important for their impact on banking crises. The probability of crises is negatively correlated with the level of capitalization and liquidity.

Variable	Expected result	Result received
TCE/RWA & NSFR	negative	negative
CA	negative	negative
RPI	negative	negative

This means that the higher is the level of capitalization and more liquid is the banking system, the lower is the probability of crises and therefore prevent losses that brings a typical banking crisis. Implementation of the growing requirements for Basel III proposes especially for bank capital brings significant benefits in terms of GDP. Specifically, if we refer to Table 3 it results that the number of benefits are about 0.22% on short-term and in long-term is ranked about 4.64%. Regarding the importance of the level of liquidity in the probability of crisis, we see that the benefits are very small, almost negligible (refere table nr. 4). If we analyze table nr. 2.2 we can see that the ratio of liquidity if the value goes to 1, the probability of crisis reduced by 12:14%. If all other variables are held at their average and unchanged may conclude that the probability of banking crises, the estimated model probit, if you will refer to the values of the last quarter to take review (Q4 2015) for variable TCE / RWA is 17:15% on average. While the consider the probability of crisis , when all other factors are kept and only NSFR average level of the last quarter, it turns to be 14.98%. We see clearly, a system which has predisposition to be the exhibited to risks, and a non-sustainable system. All these make us understand the importance of implementing the new rules proposed by Basel III, with aim to strengthen the banking system and to avoid possible losses from potential crisis. Finally I can say that this article empirically examines the benefits of Implementation of Basel.

5/2 Second part of the study

- Capital Banking and NSFR ratio resulted not affecting in real GDP, so we can not predict the expected negative correlation between them.

- Lack of a long-term connection allows us to forecast that costs will be negligible from the Implementation of Basel III on the banking system.
- Level of Banking capital does not show causation with interest rate. So the real rate implementation of growing capital requirements are not expected to raise interest rates.
- Sustainable level of liquidity is negatively correlated with the real rate of interest. The more it reaches the recommended value 1, the more it decreases (concretely 1% --- 7.7% decrease).
- Level of creditlanding affects the real interest rate indicating a positive relationship that can be explained by the concept: credit risk (concretely 1% --- 0.81%.
- The level of creditlending does not explain GDP, showing that panorama of the Albanian economy, that has to do with the high level of non-performing loans.

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