



Capital of Commercial Banks and Mechanisms of its Management

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Abstract: *In the article, the elements of capital of commercial banks, regulatory requirements for their adequacy are revealed based on econometric analysis. The state of capital of commercial banks is analyzed and practical proposals are made to improve the efficiency of income-generating assets.*

Keywords: *commercial bank, state share, capital, asset, liability, loan, net profit, liquidity.*

Date of Submission: 09-7-2022

Date of Acceptance: 10-8-2022

Introduction

International financial and credit relations and the globalization of the world economy, as well as the intensification of competition between banks in the international and domestic spheres, bring to light the urgent issues of increasing their level of capitalization. Because capital is the main financial source for protection against losses that may occur unexpectedly in the activity of banks and for determining the appropriate norms for asset operations. In international practice, after the global financial and economic crisis, despite the fact that serious attention is paid to this issue, a number of problematic situations are occurring. In particular, "the International Basel Committee has increased the conservation buffer of capital from 1.8% to 2.5% in 2020, the requirement for core capital from 6.3% to 7.0%, and the requirement for total capital from 9.8% to 10.5%." 58 bln. EUR and 65 bln. exceeding the euro, indicates that this issue is even more serious.

Among the effective economic reforms implemented in the banking system of Uzbekistan, the Decree of the President of the Republic of Uzbekistan dated May 12, 2020 No. PF-5992 "On the strategy of reforming the banking system of the Republic of Uzbekistan for 2020-2025" - a number of measures were implemented during the consistent reform of the financial sector it is determined to increase, conduct advanced banking business and create necessary conditions for strengthening the competitive environment in this sector. In particular, the Laws of the Republic of Uzbekistan "On the Central Bank of the Republic of Uzbekistan", "On Banks and Banking Activities", "On Currency Regulation" and "Payments and Payment Systems" which conform to international standards and create an attractive legal environment for foreign investments in the financial sector on" was adopted. The main attention is paid to solving the problems related to increasing the level of capitalization of commercial banks, in particular, increasing the capital of banks at the expense of sustainable sources, increasing the role of income, reducing the state share in the capital structure of banks, introducing the mechanism of selling bank shares to the population and legal organizations, and increasing their transparency. In this case, identifying existing problems and finding a solution for increasing the level of capitalization of commercial banks is defined as one of the important issues.

Literature review

The essence of the capital of commercial banks, its structure, its adequacy, and issues of improving the level of capitalization are discussed by foreign classical and modern economists - A. Smith, K. Marks, I. Trakhtenberg, S. Lukash, V. Kiselev, O. Lavrushin, J. Matuk, Dj. Barlton, D. MacNaughton, E. Reid researched in depth.

There is no consensus on the economic nature, functions and sources of bank capital. In our opinion, the main reason for this is that in a market economy, economic and financial relations are constantly changing under the influence of available resources and traditions. This, in turn, is reflected in bank capital, capitalization and other processes. For example, A. Smith described that "the bank turns the full capital of individual entrepreneurs, which is considered extremely valuable for society, but temporarily unused for them, into an asset and productive capital."

So, banks accept investment risks by collecting temporarily idle funds of businessmen, turning them into capital, i.e., a new value creator.

K. Marks, in the process of defining the essence of banks, specifically mentioned that they accumulate a large amount of loan capital in their hands. Also, in his famous work "Capital", K. Marx emphasized the fact that banks accumulate savings of commercial and industrial capital in exchange for the emergence of loan capital.

One-sided views on bank capital were also expressed by American scholars Chris D. Barlton and Diana McNaughton. According to them, the bank capital is a sufficient reserve to prevent various contingencies arising in the banking activity, and it helps to eliminate the inability to pay while adapting to the changing conditions. We partially agree with this opinion, but we want to admit that the basis of the bank's capital's activity and the coordinating nature of its activity have been left out of consideration.

Professor I.O. Lavrushin briefly described bank capital as a "protective cushion". Here, as well as the above points, the bank's capital should be protected from the point of view of its compensation and solvency recovery if it suffers an unexpected loss.

In our opinion, when talking about the capital of the bank, first of all, it is necessary not to forget the funds that should be organized by its founders before obtaining a special license for operation.

Research methodology

During the study, econometric analyzes were made on increasing the efficiency of the capital of commercial banks through the monographic research method. Also, with the help of the economic-statistical method, practical proposals were made for increasing the capital efficiency of commercial banks, and methodologies were developed in this direction.

Analysis and results

The period of econometric analysis of commercial banks of our country covers the period from 2013 to 2020, and they are brought to the same unit. This prevents an increase in the standard error in the results of the analysis.

An increase in the volume of commercial bank loans leads to an increase in the value of goods and services provided by them. In order to verify this hypothesis, in this paragraph below, we will perform a correlational relationship between the factors and a regression analysis of this relationship.

We will carry out an econometric analysis, specifying the following sequence of tasks:

- We construct a linear correlation equation;

- We determine the correlation coefficient, determination coefficient;
- We evaluate the adequacy of the regression equation according to Fisher's F-criterion.

Using the data from the table above, we determine the correlation coefficient that describes the relationship of all factors.

$$r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}} = 0,9008$$

Therefore, there is a very strong close relationship between the private correlation coefficients between the factors, that is, the influencing factor (Xi) and the resulting factor (Y).

So, there is a strong relationship between the value of the goods produced by the commercial bank and the value of the services it provides.

We will create an econometric model representing the impact of the volume of loans allocated by commercial banks on the value of goods and services. In general, it is expressed as follows for a linear regression relationship in practice:

$$y = a + b \cdot x \quad (1)$$

In order to determine the unknown parameters a and b, we enter data on 8 observations covering the years 2013-2021 mentioned in the table above into the Excel program and perform regression analysis.

The results of the regression analysis are presented in the table below, the data in it will be useful in building our model and evaluating the importance of the built model (Table 1).

Table 1. The result of the econometric analysis of the factors affecting the growth of the value of goods and services

Dependent variable: Value of goods and services of business entities (Y)				
Method: Least squares method				
Selection (Customized): 2013-2021				
Included observations: 8 ra				
Variable	Coefficient	Standard error	t- statistics	P- value
Constanta	63531,8528	11838,7290	5,3664	0,0017
X	2,4169	0,4757	5,0804	0,0023
In the plural R		0,9008		
R- square		0,8114		
Adjusted R-squared		0,7799		
Standard erro		20990,8987		

Source: Based on regression analysis results.

The above figure shows the results of the regression analysis.

According to the analysis result, the correlation coefficient R (or r_{xy}) was equal to 0.9008. The dependence characteristic of the dependence density is very strong (falls in the range of 0.9-0.99). We determine that the coefficient of determination is equal to 0.8114.

$$Y = 63531,85 + 2,42 \cdot X \quad (2)$$

We will analyze the quality indicators of the model (2) based on the increase in the value of goods and services.

We use Fisher's F-test to check the statistical significance of the econometric model (2) based on the growth of the value of goods and services or its relevance to the process being studied..

Then Fisher's F-criterion can be expressed as follows:

$$F = \frac{R^2}{1 - R^2} \cdot (n - 2), \quad (3)$$

where: R^2 - coefficient of determination;

n - coefficient of determination.

F- the calculated value of the criterion $F_{\text{нкоб}} = 25,81$ is equal to. If F- if the calculated value of the criterion is greater than the value in the table, then the constructed multifactor econometric model is called statistically significant or adequate to the process being studied.

$$25,81 > 3,87 \quad (t_r > t_f)$$

The inequality is confirmed, so the correlational link is significant.

We check the adequacy of the regression equation using the coefficient of determination R^2 .

We check the adequacy of the regression equation using the coefficient of determination.

$$R^2 = 1 - \frac{\sum(y_i - y_x)^2}{\sum(y_i - \bar{y})^2} = 0,8114$$

It can be seen that the coefficient of determination is equal to the square of the correlation coefficient, which confirms the correctness of the determined regression equation and the existence of a linear relationship.

Conclusions and suggestions

A number of limitations occurred during the research process. The following can be included among them:

1. Update of the requirements for the structure of writing a dissertation from this year. This update was manifested mainly in the addition of new requirements, such as conducting econometric analyzes within the scope of the topic, reviewing previously conducted research on the research topic, and conducting a literature review. However, it was definitely beneficial for the listeners. Because, during the writing of the dissertation, some skills were formed in the implementation of econometric analyzes.
2. Difficulties in finding the necessary data for analysis. Due to the fact that the level of study of the subject is not high, there were some difficulties in collecting theoretical data and obtaining data for analysis.

However, despite the limitations of the existing coverage, I believe that the essence of the topic has been revealed. In the future scientific research, the existing shortcomings will definitely be eliminated and researched in a wider scope.

Among the measures to be implemented in future research on this topic, it would be appropriate if the following were implemented:

- ✓ Forming data sources before starting the work, having studied the research topic in depth;
- ✓ Studying the recommendations and conclusions of previous scientific researches;
- ✓ Taking a larger time period for econometric analyzes to be more accurate;

- ✓ Use of more advanced methods of econometric modeling.

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