KULLIEV ISTAM YANGIMURODOVICH (May 2023 THE MECHANISM OF THE FORMATION OF THE PRICE OF RETAIL LOANS IN COMMERCIAL BANKS OF THE REPUBLIC OF UZBEKISTAN AND ITS IMPROVEMENT
***International Journal of Economic Perspectives*,17(05) 28-37**
Retrieved from https://ijeponline.com/index.php/journal

THE MECHANISM OF THE FORMATION OF THE PRICE OF RETAIL LOANS IN COMMERCIAL BANKS OF THE REPUBLIC OF UZBEKISTAN AND ITS IMPROVEMENT.

KULLIEV ISTAM YANGIMURODOVICH

Abstract

In the increasingly competitive financial services market, the share of commercial banks in a number of areas of retail business is decreasing. As a competitor to commercial banks, the increase in the volume and turnover of business entities that offer goods and services (housing, cars, household appliances, etc.) on the basis of term payment has a negative impact on the income of banks in the market of retail credit services. Credit efficiency was evaluated based on the average interest rates on deposits and loans of the banks of the Republic of Uzbekistan. Proposals are made regarding the formation of the price of retail loans of commercial banks and the improvement of lending efficiency .

Keywords:
Interest Rate, average interest rates,credit scoring, police rate , retail loan , interest income, deposit, credit provision.

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INTRODUCTION

All over the world, banks operate in a very complex and competitive environment. With the advancement of the Internet and social media, financial consumers are becoming more knowledgeable and demanding competitive pricing from commercial banks. As a result, the level of brand loyalty of bank customers is decreasing.

Recent changes and crises in the global financial sector are causing strict regulation and restrictions to be imposed by the regulator. Capital requirements for commercial banks are increasing, and difficulties are observed in ensuring income growth in the context of complex macroeconomic conditions. In order to achieve stable profitability and increase business efficiency, commercial banks require a favorable tariff policy for customers, taking into account competition for the services provided. In particular, improving the formation of the assessment of loans, which make up the main part of the assets of commercial banks, shows the relevance of the research topic. In the banks of the Republic of Uzbekistan, it has become necessary to revise the traditional methodology of forming loan prices and develop proposals and recommendations based on a special approach to customers using modern analytical tools.

The traditional method of evaluating the effectiveness of lending in banks is net interest income. However, net interest income does not provide a complete assessment of how efficiently a bank is performing relative to its size. This is because banks cannot be compared based on the absolute value of their net interest income and do not fully reflect the efficiency of bank loans. Today, in addition to interest income from loans, the share of commission income related to credit operations has a tendency to increase.

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Submitted: 27March2023, Revised: 09 April 2023, Accepted: 18 April 2023, Published: May 2023

Commercial banks should analyze the composition of costs from the point of view of customers and services when forming a pricing policy in order to increase efficiency and ensure its minimum limit. In most cases, a bank has a situation where 20% of customers and 20% of services bring 80% of the bank's income. Therefore, it is better to constantly increase the customer base and types of services, instead of offering them to everyone on the same terms (in the end, increasing costs, not profits), simplifying the service or analyzing the types of services.

In the credit market, risk and profit have a complex relationship. On the one hand, banks may offer their products to individuals with higher creditworthiness, paying more attention to the probability of default. The disadvantage of such a policy is that the bank limits its profitability. For example, credit cards issued to customers with high creditworthiness may not be used at all or may be returned early.

On the other hand, individuals with a high risk of loan repayment are willing to borrow at a high interest rate, and the bank's profit potential is high. Also, a person with an unstable income stream is more likely to use a credit card. However, such an approach creates the risk that the client will not be able to repay the borrowed funds. This leads to losses for the bank. Therefore, credit organizations must find a balance point between profitability and risk.

The article presents scientifically based proposals and recommendations for improving the efficiency of commercial banks' retail lending and achieving the goals set in the bank's strategy.

LITERATURE REVIEW

In the literature review of this article, we will analyze the scientific views on retail loans and their assessment.

In the economic dictionary, the loan price is recorded as the sum of interest payments for the use of the loan. It is in this source that the credit interest rate is the payment that the creditor receives from the debtor for using the loan, and the amount of interest is set by the bank. [2]

expressed the opinion about the interest rate and its rate in the classical theory : "The rate of interest is defined as the price paid for the use of capital in the market . " [5]The author studied the mechanism of formation of the interest rate from a macroeconomic point of view and proved that it has the ability to directly influence the investment processes in the economy.

The popular website https://www.investopedia.com defines the interest rate as follows: "Interest rates represent the cost of borrowing and the return on savings and investing. They're expressed as a percentage of the total amount of a loan or investment. They can be the total return lenders receive when they offer loans or the return people earn when they save and invest." [7]

Real Interest Rate = Nominal Interest Rate - Projected Rate of Inflation

The formula above is derived from the Fisher Effect . Developed by economist Irving Fisher in the 1930s, it's the theory that interest rates rise and fall in direct relationship to changes in inflation rates. It suggests that the real interest rate—or the return received by lenders and borrowers—drops as inflation rises, until nominal interest rates rise in conjunction with inflation.[7]

Hypothesis Friedman estimated the change in demand for credit in terms of consumer spending. The Permanent Income Hypothesis Friedman (1957): This theory, developed by economist Milton Friedman, suggests that consumer spending is not solely

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driven by current disposable income, but also by the individual's expected lifetime income. According to this theory, consumers will adjust their spending to match their expected lifetime income, rather than just their current income. [4]

Magri, Silvia and Pico, Raffaella "The Rise of Risk-Based Pricing of Mortgage Interest Rates in Italy" assess the relationship between the credit risk pricing of mortgage rates in Italy and the probability of household mortgage defaults, calculated using the EU-Silc database. According to his research, the value of mortgage loans for Italian households was evaluated using credit scoring methods more widely. The formation of Italian commercial banks taking credit risk into account when setting mortgage loan interest rates is causing an increase in loan prices. In the analysis, between 2000 and 2007, a 1 percent increase in the probability of default on mortgage loans was caused by a 21 basis point increase in mortgage interest rates. [6]

In studies by Cerqueiro, Geraldo and Degryse, Hans and Ongena, Steven RG, credit scores for borrowers with similar performance often show significant dispersion. Factors determining the dispersion of interest rates on loans given by banks to small and medium-sized enterprises were analyzed and it was proved that the dispersion is related to the use of "discretion" by credit specialists in the process of determining the credit rate. If the amount of loans provided is small and unsecured; if firms are small and their information is not transparent; if the firm operates in a large and highly concentrated banking market; discretion is considered the most important factor when the firm is located far from the creditor. Although widely used in credit pricing, discretion plays only a minor role in lending decisions. [3]

Allen N. Berger, W. Scott Frame and Nathan H. Miller's research focused on the role of observable default risk in credit conditions and the consequences of household defaults. This article explores the reasons why lenders used risk-based pricing of interest rates widely in consumer credit markets in the mid-1990s. The study tests three outcome predictions:

First, an increase in the premium paid per unit of risk.

Second, debt levels respond accordingly.

Third, the denial of credit to less risky households.

The premium paid per unit of risk for people taking out loans has increased significantly since the mid-1990s. For example, a 0.01 increase in the probability of PD default increased interest rates by up to 3 times for first mortgages, 2 times for auto loans, and almost 6 times for second mortgages.

In addition, changes in borrowing levels and access to debt have evolved risk-based credit scoring practices. Borrowing increased more for low-risk households, who saw the relative cost of borrowing fall. Moreover, even as high-risk households have expanded their access to credit, the rise in their risk premiums means that their overall borrowing has grown less, or sometimes even declined.[1]

Commercial banks are constantly looking for ways to generate income and at the same time monitor risk. Notably, banks are moving away from default-oriented credit ratings. In the past, banks evaluated performance by evaluating the margin (difference) between resources drawn and resources deployed. Currently, it uses methods of evaluating performance indicators by determining the profit for each loan product.

Estimating the benefit of the product : The benefit that the bank receives from the customer depends on the nature of the product, for example, it evaluates the cost incurred and the income received on a credit card, mortgage loan, etc.

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ANALYSIS AND RESULTS

In recent decades, interest rates on loans have generally tended to decrease. This made borrowing cheaper and encouraged people to spend more. It also reduced the attractiveness of savings and had a positive effect on the increase in consumption. A decrease in the interest rate on household loans leads to an increase in consumption (a significant increase in consumption in the short term), which decreases over time, and consumption fully adjusts to the value of the new interest rate. The increase in consumption is achieved by increasing the debt burden.

An important direction of increasing the activity of commercial banks in the market of credit services and strengthening the customer base is the formation of credit evaluation based on the results of accurate calculations and analysis. Formation of credit assessment in commercial banks on the basis of in-depth analysis creates a basis for achieving high efficiency of credit operations and strengthening the position in the market of credit services.

A number of factors influence the formation of credit ratings in commercial banks. In banks, the level of loan price is influenced by the price of funds involved, the bank's operational costs for lending, the credit risk premium, and the bank's margin. Also, the loan price includes additional fees set by the bank in accordance with the loan agreement concluded between the bank and the client in the provision of credit services. We express the calculation of the loan price according to this approach in the following formula:

$$RLR=Dr+Do+P+S+A\ ;$$

Here:

RLR – bank loan rate for retail loans;

Dr - estimate of the bank's resources;

Do - the relevant part of commercial bank operating expenses;

P - credit risk premium;

S is the bank's minimum margin;

A- additional commission payments determined by the bank.

The formation of the credit price in commercial banks is significantly influenced by the price of the bank's attracted resources, operational costs, including employee salary costs, loan processing, account opening, credit monitoring, and other costs related to special reserves that can be established for loans. At the same time, it is desirable to identify risky sectors based on the analysis of the credit portfolio of commercial banks and take into account the credit risk premium in the formation of the credit assessment.

In banking practice of foreign countries, several models are used to determine the credit price. These models are based on the characteristics of bank activity, lending methods, customer categorization and other aspects. In our research, we focus mainly on the methods and models used in the practice of US commercial banks to determine the credit price. In countries with a developed credit system, the following models are widely used to determine the credit rating:

– "Value plus" model;

– "Price leadership" model;

- "Value-benefit" model.

1. "Value plus" model.

A simple model of credit rating formation in commercial banks is "Value Plus", where the credit rating is formed taking into account the funds attracted by the bank and the operational costs of the bank in terms of credit practice. The following components are

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taken into account in the formation of the credit rating according to this model, and the total value is determined as their sum:

- the value of funds raised for the purpose of lending to the borrower for the bank;
- operational expenses of the bank, including monthly salaries of credit department employees, loan processing, account opening, credit monitoring and other expenses related to loan extinguishment;
- payment for the level of risk of obligations that may not be fulfilled (risk premium of the bank);

– the bank's margin on the loan or the bank's minimum income.

We express this by the following formula:

Loan price	=	The value of funds raised for lending	+	Bank's operating expenses	+	Bank's risk premium	+	Interest margin of the bank

Each of the specified components can be reflected in the form of annual interest in relation to the loan amount. The "Value Plus" model is distinguished by its simplicity and speed. However, the disadvantages of the "Value Plus" model are the technical complexity of the process of determining the bank's costs and the interest rates offered by other lenders, that is, the competitive factor is not taken into account. Interest rates on loans issued by commercial banks are determined by adding the appropriate percentages of the above components to the refinancing rate of the Central Bank

2. "Value leadership" model.

The shortcomings of the "Value Plus" model led to the emergence of another model of credit rating formation, that is, the "Rating Leadership" (rating leadership) model. During the Great Depression of the 1930s, the largest U.S. banks established a unified interest rate on loans known as the Prime Rate (sometimes called the prime or reference rate) and the lowest rate offered to creditworthy customers on short-term loans. introduced the procedure.

Currently, the "prime-right" rate in the US is the leading rate in the practice of commercial banks, and it is the rate announced by large banks, that is, "money centers", which constantly announce their rates on loans. For many years, this rate was stable, but in the context of the rapid development of the stock market and inflation, a floating rate of "prime write" began to be used.

3. "Value-benefit" model .

In the banking practice in the USA, complex models of loan pricing that can cover all the costs of commercial banks and risks arising in lending activities and provide sufficient income for the bank have been developed and are widely used in practice. One such model is the "Value-benefit" model. In accordance with this model, it is expected that the bank will attract the necessary financial resources, cover the costs of lending operations and, as a result, achieve sufficient profit.

The cost-benefit approach to setting loan interest rates is one aspect of a concept known as customer profitability analysis. The loan price is formed based on the analysis of the income of the borrower. When studying customers who order a loan, the main attention is paid to the analysis of the relationship between the borrower and the bank.

Loans allocated to individuals by commercial banks of the Republic of Uzbekistan have a high growth rate. It increased by 2.5 times in 4 years from 2019 to 2022.

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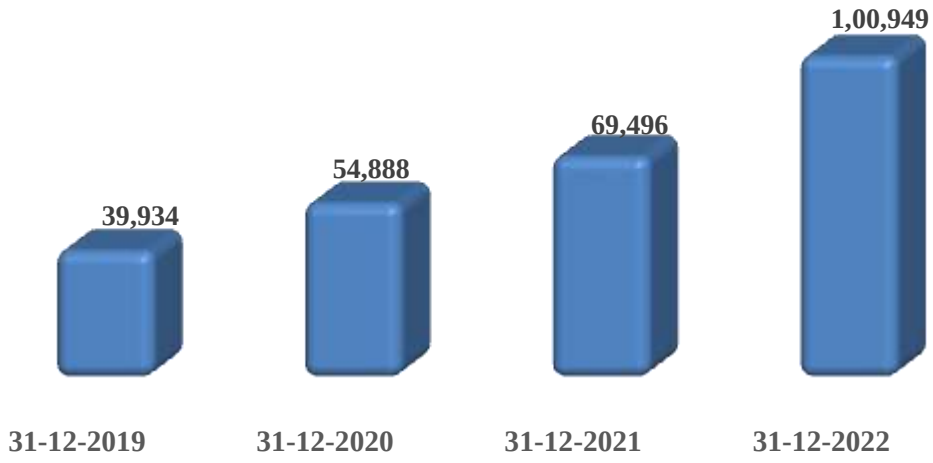
Dynamics in the balance remainderhousehold debts of commercial banks of the Republic of Uzbekistan

(billion soums)



In such a process, as a result of the introduction of modern technologies into the activities of banks, the automation of service processes and the expansion of the provision of digital services without the human factor, loans allocated to physical persons showed a high growth. By the end of 2022, it amounted to 101,949 billion soums.

Table 1

Dynamics in the household debts of commercial banks by types and its change

Type of loan	**31.12.2019**	**31.12.2020**	**31.12.2021**	**31.12.2022**
Mortage loans	50.9%	51.6%	51.7%	46.0%
Microloan	8.0%	10.5%	13.6%	14.5%
Consumer loans	13.8%	22.3%	18.4%	25.0%
Loans for business development	27.4%	15.7%	16.3%	14.4%
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**

From the analysis data, it can be seen that at the end of 2019, mortgage loans (50.9%) and loans for business development (27.4%) of banks accounted for a high share during the analysis period, while at the end of 2022, mortgage loans (46.0%) and The share of consumer loans (25.0%) in the total retail credit portfolio has increased.

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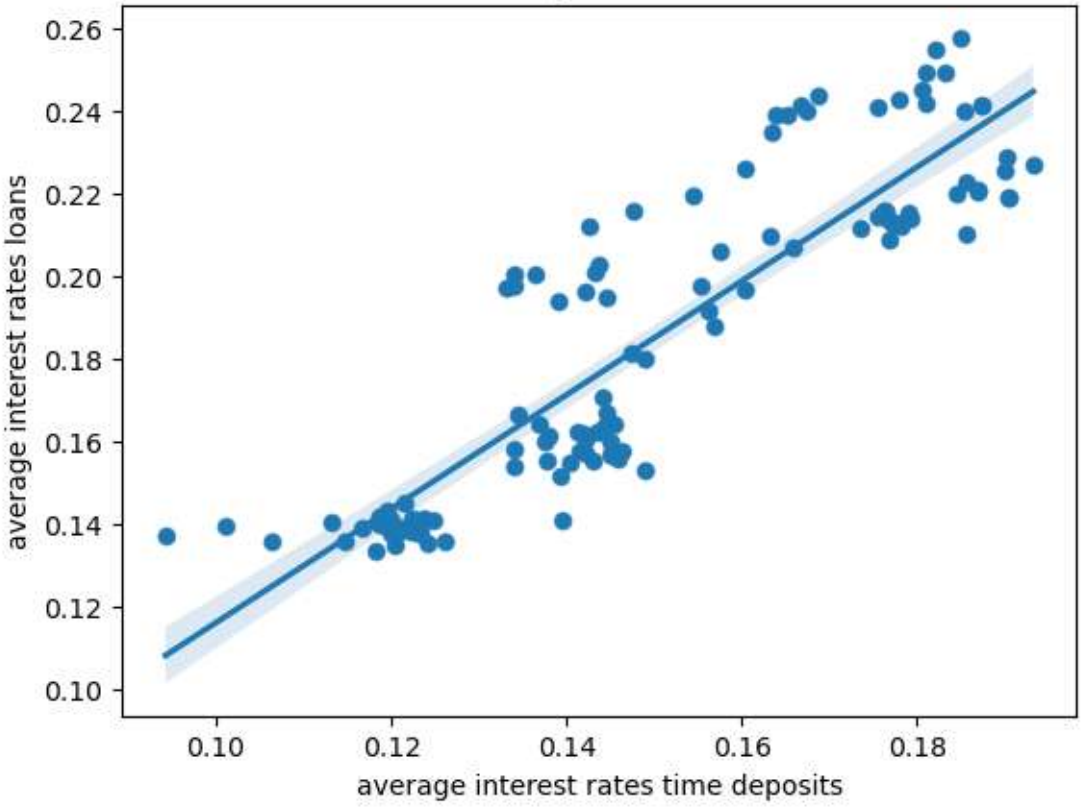
1-Pic. Dynamics of average interest rates on term deposits and loans of commercial banks of the Republic of Uzbekistan in 2013-2022



that the relationship between the average interest rates on term deposits and loans of commercial banks of the Republic of Uzbekistan in 2013-2022 was evaluated.Commercea high correlation was observed between the average interest rates on term deposits and loans of banks. We evaluate these data using the Pooled OLS statistical method and determine the relationship between them.

```
================================= Pooled OLS ==================================
                            OLS Regression Results
==============================================================================
Dep. Variable:     average interest rates loans   R-squared:                       0.793
Model:                                     OLS   Adj. R-squared:                  0.792
Method:                          Least Squares   F-statistic:                     453.2
Date:                         Wed, 10 May 2023   Prob (F-statistic):           3.21e-42
Time:                                 10:33:01   Log-Likelihood:                 316.31
No. Observations:                          120   AIC:                            -628.6
Df Residuals:                              118   BIC:                            -623.0
Df Model:                                    1
Covariance Type:                     nonrobust
=================================================================================================
                                    coef    std err          t      P>|t|      [0.025      0.975]
-------------------------------------------------------------------------------------------------
const                             -0.0214      0.010     -2.183      0.031      -0.041      -0.002
average interest rates time deposits     1.3769      0.065     21.287      0.000       1.249       1.505
==============================================================================
Omnibus:                       12.267   Durbin-Watson:                   0.258
Prob(Omnibus):                  0.002   Jarque-Bera (JB):               12.550
Skew:                           0.743   Prob(JB):                      0.00188
Kurtosis:                       2.449   Cond. No.                         41.4
==============================================================================

Notes:
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.
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2-Pic. Statistical analysis of the relationship between the average interest rates on term deposits and loans of commercial banks.

Multiple linear regression is a very general thing that can be applied in many different settings. Meanwhile, pooled OLS comes from a panel data context and thus it is not as general. However, by specifying pooled OLS you are specifying a multiple linear regression. That is, pooled OLS could be treated as a special case of multiple linear regression. Pooled OLS can be used to derive unbiased and consistent estimates of parameters even when time constant attributes are present, but random effects will be more efficient.

CONCLUSIONS

The following conclusions were formed from the results of the analysis of credit evaluation processes in retail lending practices of commercial banks:

In commercial banks of the Republic of Uzbekistan, in the practice of retail lending, the loan price was formed in accordance with the offer rate of competitors in the market;

Currently, the increase in the number of banks of different ownership forms and the increase in competition in the market of retail credit services, setting the price of retail loans is being formed based on a special approach, taking into account strategic goals and other factors;

The development of the market of mortgage loans in the Republic of Uzbekistan has contributed to the fact that over the last 5 years, the share of loans allocated to individuals has exceeded 50 percent.

The correlation between the average interest rates on term deposits and loans of commercial banks is high for 120 observations from the analysis of indicators for the period 2013-2022 by the pooled OLS method.

It is necessary to implement the following proposals and recommendations in the activities of banks to improve the formation of retail credit evaluations of commercial banks:

1. Using the method of Funds Transfer Pricing (FTP) in commercial banks, estimate how funding is adding to the overall profitability of a commercial bank. FTP sees its most significant use in the banking industry where financial institutions use FTP as a way to analyze the strengths and failings of the firm within the institution. Funds transfer pricing may also help with determining the profitability of various product lines the bank offers, the performance of branch outlets, and judge the effectiveness of processes.

2. Credit assessment by classifying customers based on credit rating. Setting a credit rating at a lower or bank's base rate limit in the practice of lending to high-rated customers. Forming a credit assessment for customers with a low credit rating, taking into account the risk premium and other default factors.

3. It is necessary for commercial banks to determine the probability of default (PD) for each loan product and to introduce the formulation of the assessment based on the PD of the loan product offered to customers. Then products with high PD are expensive or products with low PD are offered at low prices.

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