IMPROVING INVESTMENT LOAN PROCESSING OF COMMERCIAL BANKS

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ABSTRACT

Investment loans of commercial banks are a necessary condition for modernization, technical and technological re-equipment of companies. To do this, commercial banks must have a resource base, liquidity and experience in organizing investment lending to a level that will allow companies to meet their demand for loans. This, in turn, creates the need to improve the practice of commercial lending by commercial banks. The article identifies current problems related to improving the practice of issuing investment loans by commercial banks of the country and develops scientific proposals to address them.

CCS CONCEPTS

• **commercial bank**; • **loan**; • **investment loan**; • **investment**; • **interest rate**; • **refinancing rate**; • **inflation**; • **reserve**; • **certificate of deposit.**;

1 INTRODUCTION

In the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021, the expansion of promising investment projects by commercial banks and lending to small businesses and private entrepreneurship is recognized as one of the priorities to strengthen macroeconomic stability and maintain high economic growth [1]. This creates a need to improve the practice of investment lending by commercial banks in the country.

At present, there are pressing issues related to improving the practice of issuing investment loans by commercial banks of the country. In particular, there is a lack of long-term resources in commercial banks. Also, the amount of overdue indebtedness on investment loans issued by banks is large.

2 LITERATURE REVIEW

According to G. Beloglazova, an investment loan is a long-term loan that serves the movement of fixed capital and is used in construction and reconstruction, development of new industries, introduction of modern technologies and other measures related to the expansion of reproduction of fixed assets [2].

According to E. Babushkin and A. Osipova, an investment loan is a loan aimed at legal entities for the modernization of the enterprise and production processes. The source of liability for it is all the business activities of the borrower, including income from the investment project [3].

According to Matovnikov, the main factor hindering the improvement of long-term lending practices of commercial banks is the lack of long-term resources in banks. A simple and realistic way to solve this problem is to get a loan from the Central Bank with the pledge of liquid assets [4].

According to T. Mazurina, the following conditions should be created for the development of investment lending by banks in the real sector of the economy:

- availability of effective state investment and industrial policy;

- development of investment infrastructure, which will reduce the level of risks associated with the implementation of investment projects;

- Increasing the investment attractiveness of enterprises [5].

According to Huerta de Soto, first, the reduction in interest rates on loans from commercial banks will turn previously unprofitable investment projects into profitable investment projects; secondly, the financing of investment projects by banks at the expense of loans not provided by voluntary funds, ultimately leads to the failure of investment projects and non-repayment of loans [6].

According to O. Blanchard. The central bank influences the interest rate on loans through monetary policy and thus regulates the demand for money and the money supply [7].

According to A. Boymuratov, in order to strengthen the resource base of commercial banks engaged in agricultural lending, it is necessary to increase the volume of bonds issued by them for more than a year and exempt investors from income tax on these bonds [8].

3 ANALYSIS AND RESULTS

Loans to the economy play an important role in the development of industries and regions and the formation of fixed capital. This is an important factor in the growth of its investment in the economy. If the investment costs of companies are financed by investment loans of commercial banks, the working capital of companies is replenished by their short-term loans.

According to Table 1, in 2018-2020, the volume of sources of financing of fixed capital investments in the Republic of Uzbekistan had a growing trend. However, during this period, the share of investment loans of commercial banks in the total sources of financing of fixed capital investments tended to decline. This is a negative situation in terms of improving the practice of issuing investment loans by commercial banks.

Table 1: The number of sources of financing of investments in fixed assets in the Republic of Uzbekistan and the share of investment loans of commercial banks in it [9]

Indicators	2018 y.	2019 y.	2020 y.
Sources of financing of investments in fixed assets, trillion. sum	124	189	210
The share of investment loans of commercial banks in the volume of sources of financing of investments in fixed assets,%	17,8	13,8	7,6

Table 2: Loans and investment loans of commercial banks in the Republic of Uzbekistan [10]

Indicators	2018 y.	2019 y.	2020 y.
Loans of commercial banks, trillion sum	167	210	275
The share of investment loans in total loans of commercial banks,%	94,8	91,5	89,8

Table 3: Annual inflation rate in the Republic of Uzbekistan, the Central Bank refinancing rate and the average annual interest rate on investment loans of commercial banks in the national currency [11]

Indicators	2018 y.	2019 y.	2020 y.
Inflation rate	14,3	15,2	11,1
Central bank refinancing rate	16,0	16,0	14,0
Interest rate on investment loans in national currency	20,9	23,8	22,5

It is noteworthy that long-term loans account for a large share in the total volume of loans of commercial banks of Uzbekistan (Table 2).

Table 2 shows that in 2018-2020, the volume of loans issued by commercial banks of the Republic of Uzbekistan had an upward trend.

The data in Table 2 show that in 2018-2020, the share of long-term investment loans in the total volume of loans of commercial banks of the republic had a downward trend.

It should be noted that the level of use of investment loans by commercial banks of legal entities and individuals directly depends on the level of interest rates on investment loans. Because interest rates are the price of investment loans. The higher the interest rates on investment loans, the lower the number of users. Conversely, low and stable interest rates on investment loans lead to an increase in demand for them.

Table 3 shows that the inflation rate in the Republic of Uzbekistan in 2018-2020 was high. However, in 2020, inflation has dropped significantly compared to 2019. This allowed the Central Bank to reduce the refinancing rate during this period. The decrease in the central bank's refinancing rate led to a decrease in interest rates on investment loans of commercial banks in the national currency in 2020 compared to 2019.

The data show that the inflation rate in the Republic of Uzbekistan remains high. This has a negative impact on banks' lending practices.

In practice, it is difficult to determine the form of the trend equation based on the data of the real dynamics series, and the most optimal trend equation must satisfy the condition.

The selected trend equation is an exponential function, and the mathematical expression of its function with respect to the time factor is as follows:

$$y = a_0 e^{a_1 t}$$

If we naturally logarithmize both sides of this function, then we have the following equation:

$$\ln y = \ln a_0 + a_1 t$$

When determining the parameters of the function according to the method of small squares, the following condition must be met:

$$S = \sum (\ln a_0 + a_1 t - \ln y)^2 \rightarrow min$$

So, based on this condition, we give a system of normal equations:

$$\begin{cases} n \ln a_0 + a_1 \sum t = \sum \ln y \\ \ln a_0 \sum t + a_1 \sum t^2 = \sum t \ln y \end{cases}$$

If we solve this system of normal equations with respect to the free limit and the regression coefficient, we have the following possibilities:

$$\ln a_0 = \frac{\sum t^2 \sum \ln y - \sum t \sum t \ln y}{n \sum t^2 - (\sum t)^2} \text{ and } a_1 = \frac{n \sum t \ln y - \sum t \sum t \ln y}{n \sum t^2 - (\sum t)^2}$$

As a result of the analysis performed in the next point, the parameters of the exponential function were determined.

The retrospective trend of income dynamics from investment loans formed on the basis of the exponential function parameter is reflected in Figure 1 below.

From the above analysis and trends, it became clear that the function that best reflects the dynamics of income from investment loans in Asaka Bank is an exponential function. Hence, it is a trend equation of the dynamics of income from investment loans $\hat{y}_t = 0.0689 e^{0.2777t}$ function. It is also the coefficient of determination generated by this exponential function with the time factor is equal to $R^2 = 0.907$.
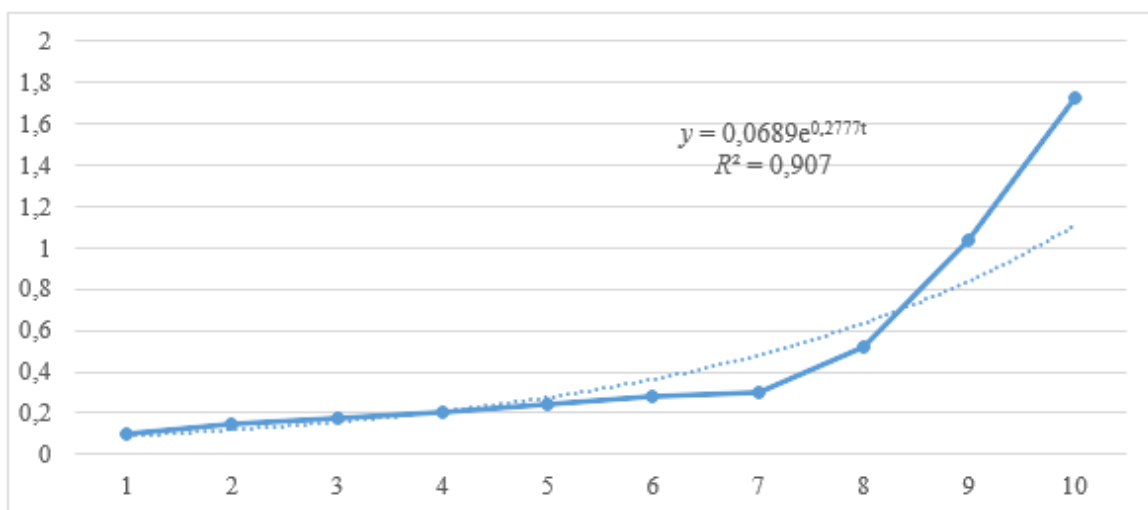
Figure 1: Retrospective trend on the exponential function of the dynamics of income from investment loans in Asaka Bank for 2010-2019 years (trillion soums)

Table 4: Factors influencing the efficiency of investment loans in the econometric analysis of Asaka Bank

№	Indicators	Years										
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	Income from investment loans, trillion. in soums *Main factors:*	0,1	0,15	0,18	0,2	0,244	0,279	0,304	0,521	1,032	1,723	1,001
2	The reserve fund created to cover the problem debts of investment loans, trillion. in soums	0,014	0,017	0,02	0,028	0,032	0,047	0,044	0,186	0,244	0,819	0,769
3	Asaka Bank's total liabilities on deposits and savings and other types, trillion. in soums	1,8	2,4	3,1	3,7	4,58	6,488	9,425	20,668	27,187	21,57	25,40

In turn, the coefficient of determination - shows how much of the overall variability of the dynamics of income from investment loans corresponds to the contribution of the time factor.

Thus, the results of the analysis show that with the increase in the level of polynomial function in forecasting, the coefficient of determination generated by the trend of income from investment loans over time and the accuracy of the forecast increase.

Asaka Bank is required to conduct a forecast assessment to identify opportunities and factors affecting the future growth of income from investment loans. In this process, the effect of the dynamics of the following indicators was studied (Table 4).

The analysis based on the data in Table 4 allowed to predict the dynamics of the dynamics of Asaka Bank's income from investment loans in 2021-2025.

According to the forecast values of the dynamics of income from investment loans in Asaka Bank in 2021-2025, the volume of income from investment loans in 2021 will reach 1.886 trillion soums. soums, 2.485 trillion in 2022. soums, in 2023 - 3.275 trillion. soums, in 2024 - 4.315 trillion. soums, and by 2025 this figure will reach 5.686 trillion soums. soums.

Thus, according to the forecast, in 2025 Asaka Bank's income from investment loans is expected to be 56.86 times higher than in 2010.

To evaluate the prognostic properties of mathematical models, the correlation coefficient between the retrospective, forecast, and practical values of the variable is usually used as a criterion. However, a high coefficient of correlation between predicted and observed values does not always indicate that it has been well tested,
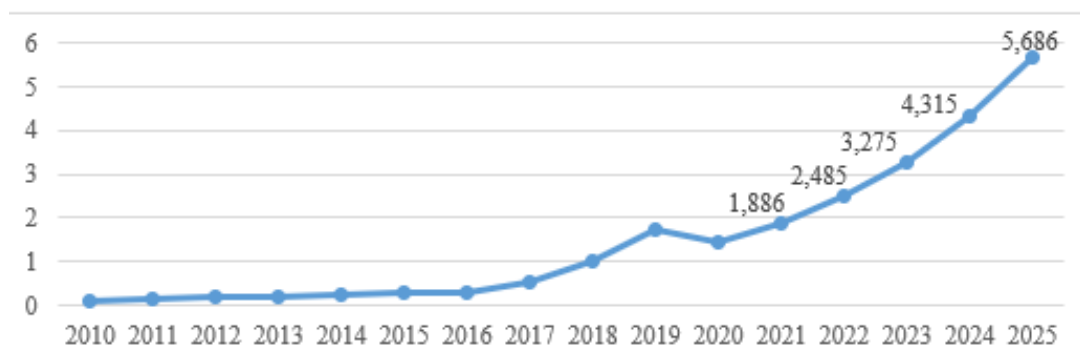
Figure 2: Forecast indicators of the dynamics of income from investment loans in Asaka Bank in 2021-2025 (trillion soums)

so Tayl suggests the coefficient as an alternative measure of forecast accuracy:

$$U = \frac{[\frac{1}{n} \sum_{i=1}^{n} (F_t^* - F)^2] . ^{\frac{1}{2}}}{[\frac{1}{n} \sum_{t=1}^{n} F_t^{*2}]]^{\frac{1}{2}} + [\frac{1}{n} \sum_{t=1}^{n} F_t^2]]^{\frac{1}{2}}}$$

here: $F_t^* - t$ forecast price for the year;

F_t - t the current value in the year

U–Tayl coefficient $0 \le U \le 1$ varies in range. The higher the accuracy of the forecast, $U \to 0$ the coefficient tends to be so zero. U–The Tail coefficient only measures the accuracy of the forecast, but does not provide detailed information about the direction of the errors in the forecast. Hence the relevant observed values $|F_t|$ instead $|F_t^*|$ it is advisable to set the forecast value.

Also, the difference between forecast and practical value $|F_t^* - F_t|$ –indicates a prediction error. Including,

$|F_t^* - F_t| = 0$ if the forecast is good, $|F_t^* - F_t| \ge 0$ overestimating the trend when $|F_t^* - F_t| < 0$ and when it is, there will be an underestimation.

An important indicator for assessing the quality of the next forecast is the (Mean Absolute Percentage Error):

$$\text{MAPE} = \frac{1}{n} \sum_{t=1}^{n-1} \frac{|F_t - F_t^*|}{F_t} . 100\%$$

According to this forecast, MAPE<10% – high prognosis accuracy; 10%<MAPE<20% – forecast accuracy is good; 20%<MAPE<50% – the accuracy of the forecast is satisfactory and MAPE>50% – the accuracy of the forecast is unsatisfactory.

According to the calculations found in the course of the study, the Tayl coefficient is 0.01 and the average absolute percentage error of the forecast (Mean Absolute Percentage Error) is 6.13%. It follows that the accuracy of this forecast is high.

In summary, forecasting implies that the outcome indicator calculated over time will be monotonous relative to the time factor. Otherwise, this result will not be able to indicate the future real state of the indicator. If the function is not monotonous, then other views of the time function are used, then the prediction values are found.

According to the results, by 2025, Asaka Bank's income from investment loans will reach 5.686 trillion soums. soums. The error rate of this value is 0.01 on the Tayl coefficient and 16.13% on the Average Absolute Percentage Error of the forecast, indicating that the quality of the forecast is high.

Also, based on econometric analysis of Asaka Bank for the last 10 years, the increase in the reserve fund of the bank to repay problem loans of investment loans by 1 soum will reduce the average income from investment lending by 0.016 soums and increase deposits and savings by 1 soum. This will lead to an increase in lending income by an average of 1.57 soums.

4 CONCLUSION

In 2018-2020, the volume of loans issued by commercial banks of Uzbekistan tended to increase, but during this period the share of long-term investment loans in the total volume of loans of commercial banks of the republic tended to decrease.

The significant decline in inflation in Uzbekistan in 2020 compared to 2019 allowed the Central Bank to reduce the refinancing rate. The decrease in the central bank's refinancing rate led to a decrease in interest rates on investment loans of commercial banks in the national currency in 2020 compared to 2019.

In our opinion, in order to improve the practice of issuing investment loans by commercial banks of the Republic of Uzbekistan, it is expedient to implement the following measures:

1. In order to strengthen the resource supply of investment loans of commercial banks, first of all, it is necessary to exempt from tax the income of investors from certificates of deposit in order to increase the volume of issuance of certificates of deposit of banks; second, long-term deposits attracted by commercial banks should be exempted from the Central Bank's mandatory reserve requirement; third, it is necessary to increase the volume of long-term resources in the regulatory capital of banks by increasing the issue of non-cumulative preference shares; fourth, it is necessary to introduce the practice of attracting resource funds through billatrial and non-content credit lines.

2. In order to ensure the effectiveness of investment lending in commercial banks, it is necessary to create a system of online monitoring of financial and economic activities of the client who received an investment loan in the bank on the basis of software.

During this inspection, the borrower receives a monthly report on the results of the targeted use of investment funds and indicators that affect the financial results of the main activities, including production volume and cost, cost of defective products, price and total sales, profit and its electronic form must be submitted to

the bank. This will increase the bank's planned monitoring of the facility and increase the efficiency of problem loan management.

3. It is necessary to increase the level of repayment of investment loans of commercial banks by improving the marketing risk and financial risk management practices associated with investment projects.

To do this, first of all, it is necessary to increase the quality of marketing research, increase the demand for goods, the adequacy of funding sources, the ability to form working capital reserves, the competitive environment, the accuracy of assessing the obsolescence of fixed assets; secondly, in order to reduce financial risks, it is necessary to increase the share of the project initiator's own funds in the volume of project financing sources, obtain shareholder guarantees for additional financing and increase the share of loans at a fixed rate in total international loans.

REFERENCES

[1] Decree of the President of the Republic of Uzbekistan No. PF-4947 of February 7, 2017 "On the strategy of actions for further development of the Republic of Uzbekistan" // Collection of Legislation of the Republic of Uzbekistan, 2017, No. 6, Article 70, No. 20, Article 354, No. 23, Article 448, No. 37, Article 982; National Database of Legislation, 31.07.2018, No. 06/18/5483/1594.

[2] Beloglazova G.N. Money, credit, banks. - M .: Yurayt, 2009. - C. 134.

[3] Babushkin E.V., Osipova A.A. Osobennostirynkabankovskogoinvestitsionnogokreditovaniyapredpriyatiy v RF // Problems of accounting and finance. - Moscow, 2014. - №2. - S. 41.

[4] MatovnikovM.Yu. Banking system of Russia and long-term resources // Money and credit. - Moscow, 2013. - №5. - S. 19.

[5] MazurinaT.Yu. Bankovskoeinvestitsionnoekreditovanie: sovremennoesostoyanie, problemyiperspektivyrazvitiya // Dengiikredit. - Moscow, 2013. - №4. - S. 33.

[6] Uerto de Soto Jesus. Dengi, bankovskiykreditiekonomicheskietsikly. Per. s angl. - Chelyabinsk: Sotsium, 2008. - 666 p.

[7] Blanshar O. Macroeconomics. Per. s angl. - M .: ID «Vysshayashkolaekonomiki»., 2010. - C. 76-77

[8] Boymuratov A.D. Directions for improving the practice of bank lending to agricultural production. I.f.n. ilm. dar. oli. three taqd. et. diss. avtoref. - Tashkent, 2008. - p. 16.

[9] Investments. www.stat.uz; Loans from commercial banks. www.cbu.uz.

[10] Loans from commercial banks. www.cbu.uz

[11] Monetary policy. www.cbu.uz