

The Effect Of The Ratio Of The Money Supply, The Ratio Of Bank Credit, And The Ratio Of Domestic Savings To Economic Growth in Uzbekistan

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Abstract : The purpose of this study was to determine the effect of the ratio of the money supply, the ratio of bank credit, and the ratio of domestic savings to economic growth in both the short and long term. Empirically this research uses secondary data in the form of quarterly data annually during 2009-2019. This study uses the Error Correction Model (ECM) method. Based on the research results, the money supply ratio variable in the short and long term has a positive and significant effect. The bank credit ratio variable in the short term has a positive and significant effect. On the contrary, it has a negative and insignificant effect; domestic saving ratio variable in the short and long term. long has a positive and significant effect on economic growth in Uzbekistan

Keywords: Economic Growth, Money Supply Ratio, Banking Credit Ratio, Domestic Savings Ratio, ECM

JEL Classification : C10,M12,M2

1 INTRODUCTION

Financial deepening is a process of improvement in the financial sector marked by an increase in the volume of financial institutions and the number of instruments available on the financial market coupled with an increase in the number of services (Ayre, 2019)

Financial deepening is one of the financial sector instruments capable of observing the development of the Uzbekistann economy. The dynamics of the Uzbekistan economy during the 2008-2018 period experienced fluctuations. This was due to economic turmoil, which had an impact on economic conditions. At the end of 2008, an economic phenomenon hit the global economy that did not escape Uzbekistan, namely the phenomenon of the global financial crisis or so-called Subprime

Mortgage, which caused a weakening of the economy. This phenomenon is marked by several financial institutions experiencing bankruptcy because the Fed raises interest rates to suppress ongoing inflation. This policy causes debtors to be unable to pay interest so that the financial sector is volatile and impacts the economy of a country.

Financial deepening can be measured by using monetary aggregate indicators, the money supply and the ratio of total credit to GDP as a representation to measure the rate of monetization and intermediation in the economy to increase real interest rates (Habibullah, 2019)

Deepening in the financial sector can reduce dependence on foreign savings because the financial sector can mobilize people's savings to be an alternative source of funding during a crisis. So the existence of productive activities in the financial sector implies that the ratio of financial deepening in a country has increased (Liu, et al., 2020).

Economic growth is considered stable when the economic variables do not fluctuate extremely, especially price or inflation variables (Liu,et al.,2020 ; Meyer & Hassan,2020). The function of the financial sector, especially banking, is to stabilize and drive the economy (Greenbaum,2019 ; Sobolieva-Tereshchenko & Zhukova ,2020).

2 LITERATURE REVIEW

Theoretically, in Keynes theory, the economy requires a driving force. One of the driving factors for the economy is income and investment. in line with Keynes's theory (Keynes,2019).Harrod-Domar explained that economic growth requires stable income growth accompanied by investment growth (Gordon,2019). Investment is influenced by inflation and investor expectations (Garg, 2020). Financial stability and prices are influenced by the value of the currency used (money) for goods and services (Bawono & Prestianawati, 2019).

Economic growth is an increase in production capacity as reflected in an increase in national income due to the production of goods and services resulting in the same amount of output (goods and services) (Dorsman,2012). According to Solow (Solow Neoclassic growth model), which affects economic growth is the level of capital accumulation, population growth rate, and technological development level (Akansel,2019). Keynes explained that economic growth is influenced by aggregate demand, where the aggregate demand includes: consumption expenditure, investment expenditure, and expenditure for the government (Foxon, 2017).

The amount of money demand is influenced by the average price level in the economy, and the amount of money demanded by the public for transactions, influenced by the price of goods and services. The higher

the price level, the more money requested (Mankiw, 2014) Financial deepening is the accumulation of financial assets that is more liquid than the accumulation of wealth. Financial deepening is a strategy to increase the rate of economic growth by deepening the financial sector (Lapavitsas, 2013).

Each country has a different financial system depending on the exchange rate system applied. Because the financial system has a role in mobilizing and allocating more productive savings, providing use in the management structure for monetary management. As well as the basis for managing liquidity in the system (Forrest, 2014). The exchange rate has an impact on investor behavior, which in turn has an impact on the economy (Bawono, et al., 2019).

The occurrence of bank credit or it can be called a loan fund; credit occurs because of the demand and supply of loan funds. In the end, it affects the demand and supply of loan funds, namely the interest rate. The difference from the income minus consumption will be saved, giving rise to an offer for loanable funds (Warjiyo & Juhro, 2019).

3 RESEARCH OBJECTIVE AND METHODOLOGY

This research uses the descriptive quantitative analysis method to support the results of the analysis and answer empirical questions in research. Quantitative research is the result of data processing collected and then analyzed to produce new facts and produce actual information.

The quantitative analysis in this study is used to analyze the effect of the dependent variable on economic growth in Uzbekistan in the short and long term, using the Error Correction Model (ECM) analysis in the econometric model, namely

$$GDP_t = \alpha_0 + \alpha_1 MS_t + \alpha_2 BC_t + \alpha_3 DS_t$$

information :

GDP_t = determinant economic growth in period t

MS_t = the ratio of the Money Supply in period t

BC_t = ratio of total bank credit in period t

DS_t = the ratio of total domestic savings in period t

$\alpha_0, \alpha_1, \alpha_2, \alpha_3$ = short-run coefficient

4 RESULTS AND DISCUSSION

To understand the long-term and short-term relationships for each variable, long-term and short-term ECM estimates were made with the estimates presented in the following table form:

Table 1. Short Term ECM Estimation Results

| Variable | Coefficient | t-statistic | Probability |
|-------------|-------------|-------------|-------------|
| C | 0.003025 | 0.111662 | 0.9107 |
| D(MS) | -0.782160 | -9.108101 | 0.0000 |
| D(BC) | 0.094244 | 2.320604 | 0.0208 |
| D(DS) | 0.068409 | 7.761706 | 0.0000 |
| U(-1) | -0.712065 | -4.531206 | 0.0011 |
| Adjusted R- | 0.905162 | | |

| | |
|--------------------|----------|
| squared | |
| Prob. F-statistics | 0.000000 |

Table 2. Long-term ECM Estimation Results

| Variable | Coefficient | t-statistic | Probability |
|--------------------|-------------|-------------|-------------|
| C | 7.263651 | 223.7133 | 0.0000 |
| MS | -0.659057 | -5.646241 | 0.0000 |
| BC | 0.109769 | 1.934054 | 0.0602 |
| DS | 0.054436 | 4.662651 | 0.0000 |
| Adjusted R-squared | | 0.817504 | |
| Prob. F-statistics | | 0.000000 | |

Using the Error Correction Model (ECM) method produces a dynamic model. The probability of getting the quantity and standard saving coefficients in the long run. From the results of this long-term estimate, it will reflect the time period required for full adjustment when changes occur. To obtain the long-run regression coefficient's magnitude and standard deviation, we must first go through the short-term model estimation.

The short-term Error Correction Model (ECM) test results, the variable money supply ratio (MS) affects economic growth. This is reflected in the probability value $< 5\%$, which is 0.0000. The independent variable of the money supply ratio (MS) affects Y (GDP), reflected in the significant p-value at the level of $\alpha = 5\%$ with a coefficient value of -0.782160. These results indicate that, in the long run, the money supply ratio (MS) hurts economic growth (GDP). Meanwhile, the bank credit ratio and domestic savings ratio variables positively and significantly affect economic growth. Evidenced by the probability value $< \alpha = 5\%$, the bank credit ratio and the domestic savings ratio. And it can be seen by comparing the t-statistic value with the t-table. This shows that partially the independent variable, namely the ratio of the money supply (MS), the ratio of bank credit, and the ratio of domestic savings, have a short-term effect on economic growth.

When the independent variable and the dependent variable are not in the same direction, partially the independent variable, namely the ratio of the amount of money based on, the ratio of bank credit, and the ratio of domestic savings, has a proportion to explain the dependent variable. The independent variable's ability explains that the dependent variable is supported by a probability value of an F-statistic of 0.000000, which reflects that the independent variable can explain the dependent variable. With an adjusted R-square value of 0.905162, the independent variable explains the dependent variable by 90%. The rest is influenced by other factors outside the research model, which is reflected in calculating the degree of freedom.

In estimating the long-term relationship, the money

supply ratio (MS) variable affects economic growth. This is reflected in the probability value $<5\%$, which is 0.0000. The independent variable of the money supply ratio (MS) affects Y (GDP) as reflected in the significant p-value at the level of $\alpha = 5\%$ with a coefficient value of -0.659057. These results indicate that, in the long run, the money supply ratio (MS) hurts economic growth (GDP). It is also assumed that every 5% change in the money supply ratio will reduce economic growth (GDP) by 0.6%.

Another independent variable is the ratio of significant domestic savings to GDP. This is proven by the probability value $<5\%$, which is 0.0000. The domestic saving ratio's independent variable has a positive effect on Y or economic growth (GDP) with a significant p-value at the level of $\alpha = 5\%$. These results indicate that partially the domestic saving ratio variable affects long-term economic growth (GDP). It is also estimated that every 5% change in the domestic saving ratio will increase economic growth (GDP) by 0.05%.

Based on the estimation results, the bank credit ratio (BC) variable shows no effect on GDP. The probability value evidence this $> 5\%$, namely the bank credit ratio variable of 0.109769. The independent variable bank credit ratio does not affect variable Y or economic growth (GDP) in the long run. The result is that the p-value is not significant at the 5% level. It can be concluded that partially, the bank credit ratio does not affect economic growth in the long term.

The F-statistic probability value's power reflects the strength of the independent variable in influencing the dependent variable simultaneously. And the adjusted R-square value is 0.817504, reflecting calculating the degree of freedom, where all independent variables can explain in detail the dependent variable by 81% and the remaining 19% is explained by other factors in the research model.

The existence of a reciprocal relationship between financial deepening and economic growth in Uzbekistan is known by using the Error Correction Model (ECM) method approach, which shows that 3 variables are indicators in financial deepening, namely the ratio of the money supply, the banking credit ratio and the domestic saving ratio. In research, it certainly has good short-term and long-term effects, the results of which create a positive or negative response from each of the variables used in the study. This response can be seen from the short-term estimation results and the long-term estimation results in the Error Correction Model (ECM). By looking at the estimation results, one can read the influence, and deepening response in the financial sector to economic growth as well as empirical conditions in Uzbekistan can be used as a consideration in making government policies related to financial deepening as one of the sectors that contribute to the establishment of the Uzbekistann economy.

5 CONCLUSION

In short and long-term testing, the money supply ratio (MS) has a negative and insignificant effect. positive, which means that an increase in the ratio of the amount of money in circulation in the community can reduce economic growth. The bank credit ratio variable, in the short-term ECM test, bank credit had a positive and significant effect. In contrast, in the long term, the bank credit ratio had a negative and insignificant effect on economic growth in Uzbekistan. The domestic saving ratio variable, using ECM both in the short and long term, has a positive and significant effect on economic growth in Uzbekistan.

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