The Effect Of The Ratio Of The Money Supply, The Ratio Of Bank Credit, And The Ratio Of Domestic Savings To Economic Growth In Malaysia

Maria Garcia
(European School of Economics)

Meinarti Puspaningtyas
(STIE Jaya Negara Taman Siswa Malang)

Abstract:
The purpose of this study was to determine the effect of the money supply ratio, bank credit ratio, and domestic saving ratio on economic growth. both in the short and long term. Empirically, this study uses secondary data in the form of quarterly data during the 2008 - 2018 period with the Error Correction Model (ECM) method. We find that the money supply ratio, bank credit ratio, and domestic saving ratio have a positive and significant effect on economic growth in Malaysia.

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

Introduction

Financial deepening is one of the financial sector instruments that can pay attention to the development of the Malaysian economy. The dynamics of the Malaysian economy during the 2008-2018 period fluctuated. This was due to economic turmoil which had an impact on economic conditions. At the end of 2008, an economic phenomenon that hit the global economy did not escape from Malaysia, namely the phenomenon of the global financial crisis or so-called Subrime Mortage which caused the economy to weaken. This phenomenon was marked by several financial institutions that went bankrupt because the Fed raised interest rates to suppress ongoing inflation. This policy causes debtors to be unable to pay interest so that the financial sector is volatile and has an impact on 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 level of monetization and intermediation in the economy to increase real interest rates (Habibullah, 2019) Deepening in the financial sector can reduce dependence on foreign deposits because the financial sector can mobilize public savings to become an alternative source of funding in times of crisis. So that the existence of productive activities in the financial sector means that the financial deepening ratio of a country has increased (Liu, et al., 2020).

Economic growth is considered stable if the economic variables do not fluctuate in an extreme way, especially price or inflation variables (Liu, et al., 2020). The function of the financial sector, especially banking, is to stabilize and drive the economy (Greenbaum, 2019).

Theoretically, in Keynes's theory, the economy needs a driving force. One of the factors driving the economy is income and investment. In line with Keynes's theory (Keynes, 2019), Harrod-Domar explains 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 affected 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 that produce the same amount of output (goods and services) (Dorsman, 2012). According to Solow (Solow Neoclassic Growth Model), what affects economic growth is the level of capital accumulation, population growth rate, and level of technological development (Akansel, 2019). Keynes explained that economic growth is influenced by aggregate demand, where aggregate demand includes: consumption spending, investment spending, and government spending (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 to make transactions is influenced by the price of goods and services (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).

Every country has a different financial system depending on the exchange rate system applied. Because the financial system plays a role in mobilizing and allocating more productive savings, it provides utility in the management structure for monetary management. As well as being 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 loanable funds. In the end, it has an impact on the demand and supply of loan funds, namely the interest rate. The difference from income minus consumption will be saved, giving rise to offers of loan funds (Warjiyo & Juhro, 2019).

Method

This research uses quantitative descriptive analysis method to support the analysis results and answer empirical questions in the study. Quantitative research is the result of processing data 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 Malaysia using the Error Correction Model (ECM) analysis in the econometric model, namely

$$GDPt = \alpha\ 0 + \alpha 1M2t + \alpha 2BCt + \alpha 3DSt$$

information:
GDPt = determinant economic growth in period t

M2t = the ratio of the Money Supply in period t
BCT = total bank credit ratio in period t
DST = the ratio of total domestic savings in period t
αo, α1, α2, α3 = short term coefficient

Results and Discussion

The ECM estimation results are presented in the following table:

Table 1. Short Term ECM Estimation Results

Variable	Coefficient	t-statistic	Probability
C	0.003015	0.111672	0.9117
D(Total Money Supply)	-0.782150	-9.108111	0.0000
D(BC)	0.094254	2.320644	0.0258
D(DS)	0.068408	7.761726	0.0000
U(-1)	-0.712055	-4.531226	0.0001
Adjusted R-squared	0.925862		
Prob. F-statistics	0.000000		

Table 2. Long-term ECM Estimation Results

Variable	Coefficient	t-statistic	Probability
C	7.263661	223.7143	0.0000
Total Money Supply	-0.659067	-5.646251	0.0000
BC	0.109789	1.934084	0.0602
DS	0.054446	4.662681	0.0000
Adjusted R-squared		0.817514	
Prob. F-statistics		0.000000	

Using the Error Correction Model (ECM) method produces a dynamic model. The probability of getting the coefficient of quantity and standard savings 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 get the long-run regression coefficient and standard deviation, we first have to go through the short-run model estimation.

Short-term Error Correction Model (ECM) test results, the money supply ratio (Total Money Supply) variable has an effect on economic growth. This is reflected in the probability value <5%, namely 0.0000. The independent variable money supply ratio (Total Money Supply) has an effect on Y (GDP), reflected in a significant p-value at the level of α = 5% with a coefficient value of -0.782150. These results indicate that in the long run, the money supply ratio (Total Money Supply) is detrimental to economic growth (GDP). Meanwhile, the bank credit ratio and domestic savings ratio have a positive and significant effect on economic growth. Evidenced by the probability value <α = 5%, the bank credit ratio with a probability value of 0.0258, and the domestic savings ratio with a probability value of 0.0000. 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 (Total Money Supply), bank credit ratio, and the ratio of domestic savings have a short-term effect on economic growth. If the independent and dependent variables are not in the same direction, partially the

independent variables, namely the ratio of the amount of money based on, the bank credit ratio, and the domestic savings ratio have a proportion that can explain the dependent variable. With an Adjusted R-square value of 0.925862, the independent variable explains the dependent variable by 92%. The rest is influenced by other factors outside the research model, which are reflected in the calculation of degrees of freedom. In estimating long-term relationships, the money supply ratio (Total Money Supply) variable affects economic growth. This is reflected in the probability value <5%, namely 0.0000. The independent variable money supply ratio (Total Money Supply) has an effect on Y (GDP) which is reflected in the significant p-value at the level of $\alpha = 5\%$ with a coefficient value of -0.659067. These results indicate that in the long run, the money supply ratio (Total Money Supply) is detrimental to 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 domestic saving which is significant to GDP. This is evidenced by the probability value <5%, namely 0.0000. The independent variable of the domestic saving ratio has a positive effect on Y or 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 variable has no effect on GDP. The probability value of this proof is> 5%, that is, the bank credit ratio variable is 0.0602. The independent variable of 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 run. The strength of the F-statistic probability value reflects the strength of the independent variable in influencing the dependent variable simultaneously. And the Adjusted R-square value of 0.817514 reflects the calculation of degrees of freedom, where all independent variables can explain in detail the dependent variable of 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 Malaysia is known by using the Error Correction Model (ECM) approach, which shows that 3 variables are indicators of financial deepening, namely the ratio of the money supply, bank credit. domestic saving ratio and ratio. In research, of course, it has an influence both in the short and long term, which results in 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 results of these estimates, it can be read that the influence and deepening of the financial sector's response to economic growth and empirical conditions in Malaysia can be taken into consideration in making government policies related to financial deepening as one of the sectors that contribute to the formation of the Malaysian economy.

Conclusion

In the short and long term tests, the money supply ratio (M2) has a negative and insignificant effect. positive, which means that an increase in the ratio of the amount of money circulating in society can reduce economic growth. The bank credit ratio variable, in the short-term ECM test, bank credit has a positive and significant effect. On the other hand, in the long run, the bank credit ratio has a negative and insignificant effect on economic growth in Malaysia. The domestic savings ratio variable using ECM both in the short and long term has a positive and significant effect on economic growth in Malaysia.

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