IMPACT OF MONETARY POLICY ON ECONOMIC GROWTH: EVIDENCE FROM SRI LANKA

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INTRODUCTION

Sri Lanka's economy is the "best bet in Asia" based on economic data from the early 1950s. (Abeyratne, 2004). Various political parties have intermittently affected the economy since the country's independence. Consequently, it is essential to alter economic and financial policies to enhance the Sri Lankan economy and improve citizens' well-being.

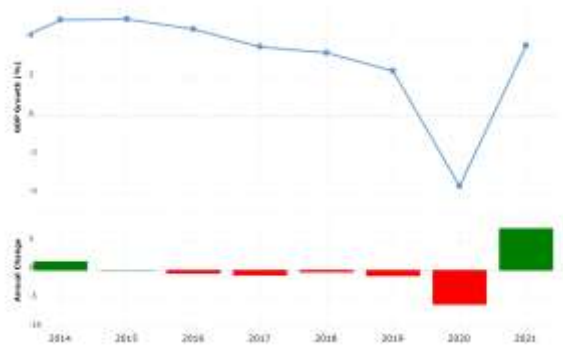
The Central Bank of Sri Lanka is the governing authority that controls the monetary policy to attain price stability while on economic fluctuations (CBSL,2021). The Central Bank's monetary activities have an impact on interest rates in the economy, which influences the behaviour of borrowers and lenders as well as economic activity and, finally the rate of inflation. Sri Lanka has been upgraded from a lower middle-income country to an upper middle-income country in July 2019, but it is still questionable whether the prosperity of upgrading income is shared equally among its population. However, it is required to implement necessary strategies to implement to upgrade from low economic growth to uplift the economy itself as well as its citizens.

It is confirmed that the majority of countries also indicate economic growth (GDP growth) as a goal of their monetary policies (Dimitrijević & Lovre, 2013). Further, scholars (Akalpler & Duhok, 2018) brought evidence that there is a relationship between economic growth and monetary policy.

The objective of this study is to analyze the impact between monetary policy and the economic growth rate between 2015 to 2020. Statistics indicate that from 2015 to 2020 is the only period in the previous decade wherein the change in annual growth rate is negative. The GDP growth rate and its annual changes are illustrated in figure 1. Further, there was a political change in 2015, and the first wave of the Covid 19 pandemic is influenced during the selected period, which indicates fluctuations in economic variables in Sri Lanka.

Figure 1:

The GDP growth rate and GDP annual change



Note: The grapy has been presented based on the statistics extracted from Macrotrends.net. 2022. Sri Lanka GDP Growth Rate 1962-2022.

The study examined how the monetary policy instruments, inflation rate, interest rate and money supply impact economic growth. The variables were selected through empirical

studies. A study (Akalpler & Duhok, 2018) has explored the relationship between monetary policy and economic growth in Malaysia. Interest rates, inflation, and money supply have been considered monetary policy instruments, whereas GDP growth has been used to assess economic growth. The relationship between the variables tested through least-squares estimates analysis and findings revealed that there is a positive relationship between economic growth and inflation. The ARDL bounds testing technique is being used to investigate the relationship between economic development and its investment, broad money supply and savings in Nepal (Lee & Yu, 2020). Data collected from 1974/75 to 2018/19 in an annual basis and results have indicated there is a strong connection between economic growth with saving and broad money supply. An analysis (Kausar et al., 2020) explored the impact of money supply on GDP of Pakistan from 1972 to 2018 based on annual data. The authors have observed money supply, capital investment, labour force, inflation and gross domestic product as variables. The short-run and long-run relationship among the variables are examined through Auto-Regressive Distribution Lag (ARDL) approach and discovered that there is a positive and significant relationship between money supply, capital investment and labour force with GDP of Pakistan in both the short run and long run. The Determinants of money supply in Sudan has examined to seek short-run and long-run relationships between money supply and its determinants, GDP growth, exchange rate, domestic investment, inflation rate, exports, cost of finance, foreign direct investment and government spending (Alhaj et al., 2020). The annual data from 1980 to 2016 has been examined through Auto-Regressive Distributed Lag (ARDL) approach with the error correction method (ECM) which indicates that there is a positive and statistically significant impact on money supply with GDP and government spending in both the long run and short run while there is a negative and statistically significant influence on exports and money supply in the long run. Fazlara & Yazdi, (2016) have explored the link between interest rate, price level, money supply and real gross domestic product in Iran during the period from 1980 to 2014. The data analysis through VAR model found that there is a significant impact on GDP with all microeconomics variables.

Amarasekara (2009) investigated the impact of monetary policy on economic growth and inflation in Sri Lanka for the period of 1978 to 2005. The data analysis has been performed through vector autoregressive (VAR) model revealed that there is a negative relationship between GDP growth and inflation with the exchange rate. Another recent study (Maheepala & Mustafa, 2018) examined the relationship between monetary policies and economic performance in Sri Lanka from 1995 to 2016, and it was discovered that monetary policy positively connects to GDP growth. The influence of monetary policy tools on economic development (GDP) in Sri Lanka was examined (Sugathadasa, 2018) from 1985 to 2017. The results indicated that the interest rate and exchange rate had favourably impacted economic growth without a substantial correlation.

According to the empirical literature, the researcher has identified the inflation rate, interest rate, and money supply as monetary policy instruments, while the GDP growth rate is being used to determine the economic growth rate. Furthermore, there is an empirical gap in Sri Lanka to examine the relationship between monetary policy and economic development in recent years, and it is hard to trace any research in Sri Lanka besides annual data, although monthly data in time series data reveal seasonal fluctuations well. Furthermore, prior studies have shown interest rates, inflation, and money supply are often evaluated as monetary tools that affect monetary policy, which was continued in this study as well.

In conclusion, based on statistics and empirical studies, it is critical to investigate the relationship between the economic growth rate and monetary policy in Sri Lanka from 2015 to 2020 to gain a comprehensive understanding of the state's economic situation throughout critical periods.

METHODOLOGY

Data

This study examined the relationship between monetary policy and economic growth in the short and long term by employing time series data. For the analysis, the independent variables were interest rate, inflation rate, and money supply (M2b), while the dependent variable was GDP growth rate. The quantitative research approach applies to the study, and secondary data is collected through the Central Bank of Sri Lanka and the Department of Census and Statistics in Sri Lanka. Data for the analysis was compromised 70 observations from January 2015 to October 2020 monthly. Data analysis has conducted through E Views 10 version.

Methodology

ARDL Bound approach examined the existence of any long-run relationship among the variables determined by F-test (Musa et al., 2014). Error Correction Model has integrated the short-run dynamics with the long-run equilibrium without losing long-run information and avoids problems such as spurious relationships resulting from non-stationary time series data (Shrestha & Bhatta, 2018). The purpose of applying the ECM version of the ARDL is to determine the speed of adjustment to equilibrium.

The analysis was constructed on Auto-Regressive Distributed Lag (ARDL) Bound Test approach to examine the relationship between monetary policy and economic growth in short-run and long run since the variables of the study are mixed order of integration. The prior studies also verified that the ARDL model is a commonly applied model to determine the existence of integration among the variables in a small sample size like this study (Musa et al., 2014).

Model Specification

The functional relationship between GDP and monetary policy can be written down as follows,

$$GDP=f(INF_t, INT_t, MS_t, u_t) \quad (1)$$

Where u_t is the error term.

A log linear relationship can be written down as follows,

$$LGDP=\beta_0+\beta_1 LINF_t+ \beta_2 LINTt+ \beta_3 LMS_t+u_t) \quad (2)$$

Gross Domestic Production: There are several ways to indicate the economic growth of the country; GDP growth rate is one of the primary ways to derive economic growth. This study analyzed the impact of other variables on economic growth.

Inflation; The inflation rate was one of the independent variables in the analysis. The monthly percentage change of Colombo Consumer Price Index base year 2013 is the inflation rate. The empirical review indicated a positive relationship with economic growth.

Interest Rate: Interest rate was the second independent variable and the Average Weighted Lending Rate was applied as the interest rate of the study. Previous literature confirmed that the relationship between interest rate in economic growth can be negative or positive.

Money Supply: Money supply was the third independent variable and broad money supply is applied as money supply of the analysis. Broad money supply (M2B) is considered as an indicative intermediate variable in the monetary policy framework (Central Bank Sri Lanka, 2016). The empirical studies indicated that the money supply may positively or negatively affect the economic growth rate.

Stationary Time Series and Unit Root Test

The augmented Dickey-Fuller test examined the unit root of four variables. Time series data become stationary when data has no trend or seasonal effects. This test estimated the stationarity by adding lags to the below equation, assuming ΔY_t is the dependent variable. The equation for ADF test is as follows,

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} \sum_{i=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_1 \quad (3)$$

Here ε_1 is a pure white noise error term.

The null hypothesis (H_0) of the test was that the data is non-stationary and rejected the null hypothesis (H_0) when p-value is less than 0.05. The study has tested the null hypothesis (H_0: $\delta = 0$) of non-stationary against the alternative hypothesis (H_1: $\delta \neq 0$).

Auto Regressive Distributed Lag (ARDL) model - Bound Test

The ARDL model can be specified for the combination of *I(0)* and *I(1)* but not *I(2)* or more than. Unit root test was performed for all variables to verify that there is only combinations of I(0) and I(1) but not I(2) or more than differences.

The general equation of ARDL Model can be written as follows

$$\Delta \text{LGDP} = \beta 0 + \sum_{i=1}^{p} \lambda_i \Delta LGDP_{t-i} + \sum_{i=0}^{q1} \delta_{1i} \Delta LINF_{t-i} + \sum_{i=0}^{q2} \delta_{2i} \Delta LINT_{t-i} + \sum_{i=0}^{q3} \delta_{3i} \Delta LMS_{t-i} + \varphi_1 LGDP_{t-1} + \varphi_2 INF_{t-1} + \varphi_3 INT_{t-1} + \varphi_4 LMS_{t-1} + +u_t \quad (4)$$

Short Run Relationship

ARDL Model in the short run can be written down as follows,

$$\Delta LGDP_t = \beta 0 + \sum_{i=1}^{p} \lambda_i \Delta LGDP_{t-i} + \sum_{i=0}^{q1} \delta_{1i} \Delta LINF_{t-i} + \sum_{i=0}^{q2} \delta_{2i} \Delta LINT_{t-i} + \sum_{i=0}^{q3} \delta_{3i} \Delta LMS_{t-i} + \varepsilon_{1t} \quad (5)$$

$$\Delta LINF_t = \beta 0 + \sum_{i=1}^{p} \lambda_i \Delta LINF_{t-i} + \sum_{i=0}^{q1} \delta_{1i} \Delta LGDP_{t-i} + \sum_{i=0}^{q2} \delta_{2i} \Delta LINT_{t-i} + \sum_{i=0}^{q3} \delta_{3i} \Delta LMS_{t-i} + \varepsilon_{1t} \quad (6)$$

$$\Delta LINT_t = \beta 0 + \sum_{i=1}^{p} \lambda_i \Delta LINT_{t-i} + \sum_{i=0}^{q1} \delta_{1i} \Delta LGDP_{t-i} + \sum_{i=0}^{q2} \delta_{2i} \Delta LINF_{t-i} + \sum_{i=0}^{q3} \delta_{3i} \Delta LMS_{t-i} + \varepsilon_{1t} \quad (7)$$

$$\Delta LMS_t = \beta 0 + \sum_{i=1}^{p} \lambda_i \Delta LMS_{t-i} + \sum_{i=0}^{q1} \delta_{1i} \Delta LGDP_{t-i} + \sum_{i=0}^{q2} \delta_{2i} \Delta LINF_{t-i} + \sum_{i=0}^{q3} \delta_{3i} \Delta LINT_{t-i} + \varepsilon_{1t} \quad (8)$$

Where $\lambda_i, \delta_{1i}, \delta_{2i}, \delta_{3i}$ are short-run coefficient variables.

Long Run Relationship- Bound Test

$\varphi_1, \varphi_2, \varphi_3, \varphi_4$ are long-run coefficient variables

Hypothesis for Bound Test is,

$H_0: \varphi_1 = \varphi_2 = \varphi_3 = \varphi_4$

$H_0: \varphi_1 \neq \varphi_2 \neq \varphi_3 \neq \varphi_4$

Compared Bounds Test F value at 5% or 10% or 1% with lower bound and Upper bound and upper bound, there was an integration above upper bound at 5%

Error Correction Model

This is the final stage of the ARDL model estimation. The error correction model tested the short-run dynamics. The model writes down as follows.

$$\Delta LGDP_t = \beta 0 + \sum_{i=1}^{P} \lambda_i \Delta LGDP_{t-i} + \sum_{i=0}^{q1} \delta_{1i} \Delta LINF_{t-i} + \sum_{i=0}^{q2} \delta_{2i} \Delta LINT_{t-i} + \sum_{i=0}^{q3} \delta_{3i} \Delta LMS_{t-i} + \varphi ECT_{t-1} \quad (9)$$

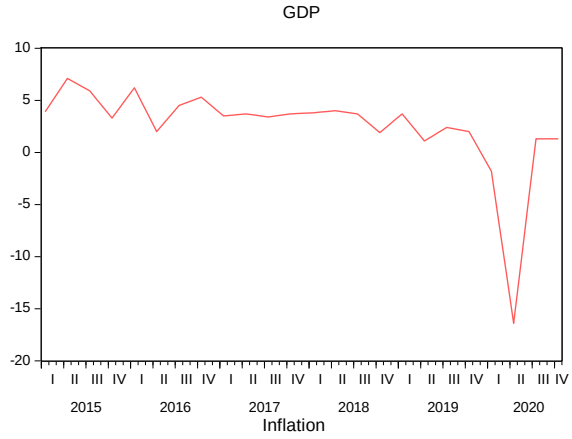
This model test estimated the speed of adjustment to equilibrium in a co-integrating relationship.

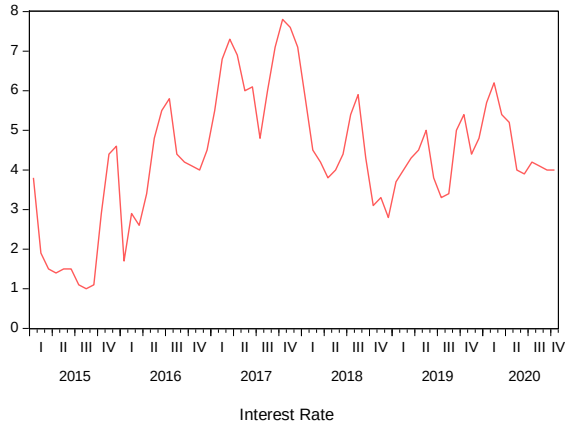
RESULTS AND DISCUSSION

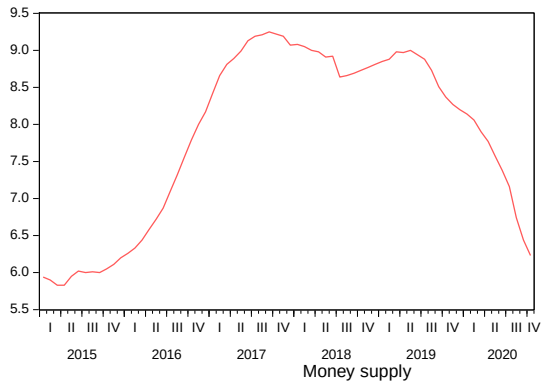
The behaviour of economic growth rate and monetary policy variables

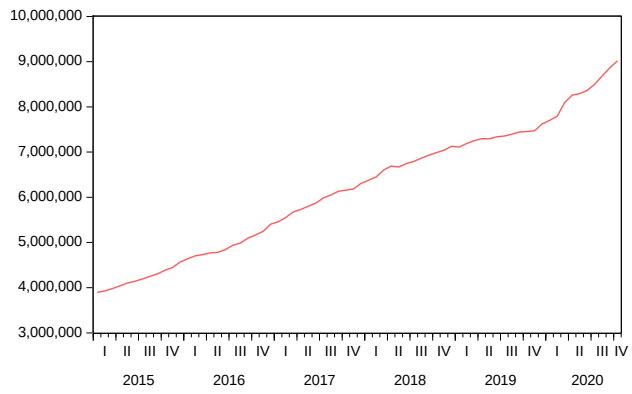
The movements or trends of the variables from 2015 January to 2020 October is graphically illustrated in figure 2. At a glance, the variables do not move in a similar pattern.

Figure 2: Movements of the variables









GDP growth rate, inflation and interest rate illustrated a stochastic trend, and money supply indicated an upward trend, and the trend is a random walk with drift. The inconsistency in the movement of the variables could be a result of various monetary policies created during the time period.

Descriptive Statistics

Table 1 represented the descriptive statistics of the GDP, inflation, interest rate and money supply. Skew measured the asymmetry of a probability distribution of a variable from its mean. Descriptive statistics indicated that all variables are negatively skewed. Kurtosis measured the flatness of the data set relative to normal distribution. Statistics stated that more than 3 kurtosis, GDP growth rate, and inflation variables are platykurtic. The distribution of the rest of the two variables was mesocratic which means the kurtosis is the same as the normal distribution.

Table 1: Descriptive Statistics

	GDP	**Inflation**	**Interest**	**Money Supply**
Mean	1.216809	1.373242	2.046668	15.61
Median	1.308333	1.458615	2.108384	15.65
Maximum	2.797281	2.054124	2.224624	16.01
Minimum	-0.628609	0	1.763017	15.18
Std. Dev.	0.587344	0.478676	0.161069	0.24
Skewness	-0.489597	-1.254129	-0.563314	-0.262039
Kurtosis	4.280023	4.144178	1.721266	1.90

Note: Inflation, Interest Rate and Money Supply denote the log values

Augmented Dicky Fuller Test

Unit root test was performed for each variable by using Augmented Dicky Fuller Test to check the non-stationarity. The null hypothesis for the test is that there is a unit root.

Initially, the study tested the order of integration. GDP growth rate was integrated/become stationary at level I(0). The rest of the variables are integrated in 1st difference.

The results of unit root test indicated in table 2

Table 2: Unit Root Test

Variables	**Level**					
	None		Intercept		Trend & intercept	
	t-statistic	P-value	t-statistic	P-value	t-statistic	P-value
GDP Growth rate	-1.13208	0.23180	-5.474355	0.00000	-6.51173	0.00000
Inflation	-0.71155	0.40490	-2.29001	0.17810	-2.58378	0.28890
Interest Rate	-0.65676	0.42900	-1.69829	0.42740	1.53335	1.00000
Money Supply	13.65754	1.00000	-1.14240	0.69440	-1.34834	0.86710

Variables	**1st Difference**					
	None		Intercept		Trend & intercept	
	t-statistic	P-value	t-statistic	P-value	t-statistic	P-value
GDP Growth rate	-6.76875	0.00000	-6.75695	0.00000	-6.69330	0.00000
Inflation	-7.19250	0.00000	-7.17541	0.00000	-7.23710	0.00000
Interest Rate	-0.77604	0.37630	-0.68609	0.84260	-4.82847	0.00110
Money Supply	-0.88555	0.32880	-6.35514	0.00000	-6.40293	0.00000

ARDL Bounds tests for co integration

The variables have become stationary in level I(0) and I(1). The relationship analysis through Auto Regressive Distributed Lag (ARDL) model. Before running the test it is required to determine the optimal lag length. Results of lag selection criteria are indicated in Table 3. The selected optimum lag criteria are to continue 1 the ARDL Bound Test and Error Correction Model.

Table 3: Lag Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	5.740336	NA	1.11e-05	-0.060012	0.082088	-0.00466
1	366.7971	659.8623	7.54e-11	-11.95852	-11.24802*	-11.6818
2	397.1803	51.33717*	4.63e-11	-12.45449	-11.1756	-11.9563
3	407.1950	15.54006	5.81e-11	-12.2481	-10.40081	-11.5285
4	416.2695	12.82943	7.68e-11	-12.00929	-9.5936	-11.0683

Note: * indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Bound Test

The long-run relationship between economic growth and monetary policy is tested through bound test. Here the study has performed an "F-test" for the below Hypothesis

$H_0: \varphi_1 = \varphi_2 = \varphi_3 = \varphi_4$

$H_0: \varphi_1 \neq \varphi_2 \neq \varphi_3 \neq \varphi_4$

Bound test results indicated in Table 4

Wald Test:

Test Statistic	**Value**	**Probability**	**Cointergration Results**
F-statistic	13.11873	0.0000	Cointergrated

Results indicated that there is a long-run relationship or co-integration between the GDP growth rate and Monetary policy since the probability value is less than 0.05. The null hypothesis of the long-run relationship could not be rejected. F test is above upper bound at 5% significant level.

t-Bounds Test

Test Statistic	**Value**	**Signif.**	**I(0)**	**I(1)**
t-statistic	-3.535497	10%	-2.57	-3.21
		5%	-2.86	-3.53
		1%	-3.43	-4.1

It can be concluding that there is a long run relationship between economic growth and monetary

Short Run

The short-run results indicated in table 6. Results indicated that there is a positive relationship between money supply and GDP growth rate in short run at 5 % significant level.

Table 6: Short run results

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
Inflation Rate	0.020505	0.609127	0.033662	0.9733
Interest Rate	-5.878172	10.25108	-0.57342	0.5685
Money Supply	52.29842	20.54513	2.545538	0.0135

There is a positive and statistically significant relationship between money supply and economic growth rate in short run. Statistically there is no sufficient information to confirm the relationship between inflation rate and interest rate towards economic growth in Sri Lanka for short run.

Diagnostic checking

Appropriate diagnostic tests were performed to check the absence of model correlation and stability of ARDL model at 5% significant level.

Model correlation in the residuals

The diagnostic test for ARDL model is tested through hypothesis of,

H_0: There is no serial correlation

H_1: There is a serial correlation

The result is illustrated in Table 7. The probability value of the test is greater than 0.05 and it is evidence that there is no model correlation in the residuals and the model can continue

Table 7

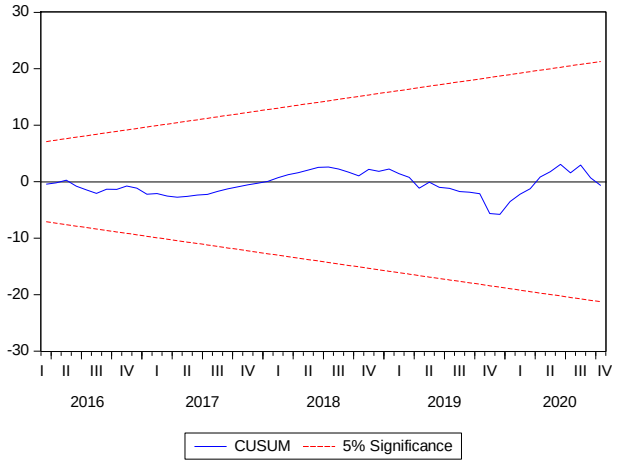
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.18445	Prob. F(1,55)	0.6693

Model Stability

Figure 3 illustrated the plots of the residual stability cumulative sums (CUSUMS) of the deviation of the value at 5% significance levels. It can be concluded that ARDL model is significant since the results fail to reject the null hypothesis at 5 percent level of significance because the plots of the tests fall within the critical limits.

Figure 3- Short run model stability



Error Correction Model for Short Run

The error correction model is tested to check the speed of correction and results indicated in table 8. The outcome indicated the model is statistically significant at 5% significant since p-value is lesser than 0.05

Table 8: Error Correction Model test results

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-0.932218	0.353148	-2.639739	0.0106
Inflation Rate	0.020505	0.609127	0.033662	0.9733
Interest Rate	-5.878172	10.25108	-0.57342	0.5685
Money Supply	52.29842	20.54513	2.545538	0.0135
ECT(-1)	-1.471631	0.295691	-4.976929	0.0000

ECTt-1's is negative and statistically significant at 5% level. It indicated that when GDP growth change from the equilibrium value, the adjustment rate of the GDP is 147% on a monthly basis. That means the speed of adjustment is very fast.

Diagnostics test of ECM

The diagnostic test for Error Correction model has tested the result illustrated in Table 9. The probability value of the test is greater than 0.05 and it is evidence that there is no model correlation in the residuals. The model is free from serial correlation and can continue the model.

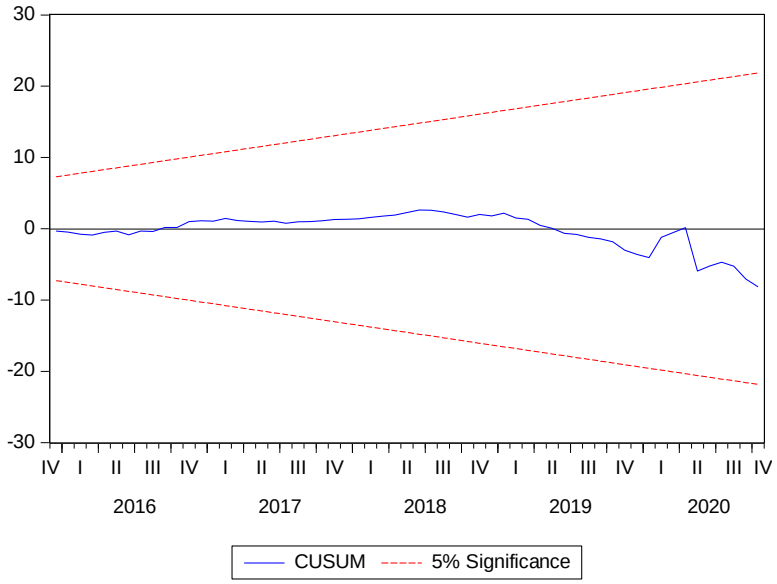
Table 9: Correlation diagnostic test results

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.446116	Prob. F(1,58)	0.5068

Figure 4 illustrated the plots of the residual stability cumulative sums (CUSUMS) of the deviation of the value at 5% significance levels. It can be concluded that ECM model is significant since the plots of the tests fall within the critical limits.

Figure 4: Stability of Error Correction Model



CONCLUSIONS/RECOMMENDATIONS

The aim of the study was to identify a relationship between monetary policy and economic growth rate in Sri Lanka. The quantitative research approach was applied to the study and secondary data were collected through the Central Bank of Sri Lanka and Department of Census and Statistics in Sri Lanka. Data covered 70 observations from January 2015 to October 2020 in monthly basis. The chosen variables for the analysis were interest rate, inflation rate and money supply (M2B) and GDP growth rate. The data explored through Auto Regressive Distributed Lag (ARDL) Bound Test examined the integrating relationship between monetary policy variables and GDP growth rate. The results indicated that there is a relationship between monetary policy and economic growth rate in Sri Lanka for the long run. There is a positive and statistically significant relationship between money supply and economic growth rate in the short run. Statistically, there is no sufficient information to confirm the relationship between inflation rate and interest rate towards economic growth in Sri Lanka for short run. Further results illustrated that Error Correction Model is negative and statistically significant at 5% level. It indicates that when GDP growth change from the equilibrium value, the adjustment rate of the GDP is 147% every month.

The empirical reviews evidenced that the monetary policy significantly affects in the economic development of a country. It is required to introduce a proper policy mechanism towards monetary policy. Controlling different monetary policy instruments through government policy implication can adjust monetary policy for favorable economic growth of Sri Lanka. As the test results, if the Central Bank of Sri Lanka implements activities to boost the money supply, the country's economic growth can be raise in short run.

Several limitations can be identified through the analysis. The period for the study cannot expend due to less availability of data on interest rate. This study analysis a limited data observation and the monetary policy tools tested also limited for three variables. This study can further expand for a lengthy period and different monetary policy tools such as open market operations; the statutory reserve requirement can be tested to seek those variables towards economic growth.

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REFERENCES

Abeyratne, S. (2004). Economic Roots of Political Conflict: The Case of Sri Lanka. The World Economy, 27(8), 1295-1314. https://doi.org/10.1111/j.1467-9701.2004.00645.x

Akalpler, E., & Duhok, D. (2018). Does monetary policy affect economic growth: evidence from Malaysia. Journal of Economic and Administrative Sciences, 34(1), 2-20. https://doi.org/10.1108/jeas-03-2017-0013

Alhaj, B., Abker, A., & Mohammed, M. (2020). The Determinants of Money Supply in Sudan: Empirical Assessment Based on an Application of the (ARDL) Model (1980-2016). American Journal of Business, Economics and Management. Retrieved 24 July 2021, from.

Amarasekara, C. (2009). The Impact of Monetary Policy on Economic Growth and Inflation in Sri Lanka. Staff Studies, 38(1), 1. https://doi.org/10.4038/ss.v38i1.1220

CBSL.gov.lk. (2021). Retrieved 24 July 2021, from https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/publications/cbsl_functions_objectives_organization_2019_january_e.pdf.

Central Bank Sri Lanka. (2016). Monetary Policy, Money, Credit and Interest Rates. Cbsl.gov.lk. Retrieved 26 July 2021, from https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/publications/annual_report/2015/en/11_Chapter_07.pdf.

Dimitrijević, B., & Lovre, I. (2013). Essay on Monetary Policy and Economic Growth. Journal of Central Banking Theory and Practice, 111-138. Retrieved 24 July 2021, from.

Fazlara, R., & Khoshnevis Yazdi, S. (2016). The dynamic relationship of interest rate, price level, money supply and real gross domestic product: case study of Iran. Investment Management and Financial Innovations, 13(4), 180-187. https://doi.org/10.21511/imfi.13(4-1).2016.03

Kausar, R., Bhatti, M., & Gull, S. (2020). An Effect of Money Supply on Economic Growth: Evidence from Pakistan. Journal of Contemporary Macroeconomic Issues, Lee, C., & Yu, H. (2020). Money Supply, Inflation and Economic Growth in China: An ARDL Bounds Testing Approach. Journal of Applied Finance & Banking, 73-80.

Maheepala, M., & Mustafa, , A. (2018). The impact of monetary policy on economic growth in Sri Lanka. 7th Annual International Research Conference.

Musa, Y., Usman, U., & Zoramawa, A. (2014). Relationship between money supply and government revenues in Nigeria. CBN Journal of Applied Statistics, 5(2), 117-136.

Shrestha, M., & Bhatta, G. (2018). Selecting appropriate methodological framework for time series data analysis. The Journal of Finance and Data Science, 4(2), 71-89.

Sugathadasa, K. (2018). The impact of monetary policy on economic growth in Sri Lanka: A study on panel data. International Journal Of Advance Research And Innovative Ideas In Education.