

## EMPIRICAL INVESTIGATION OF THE INFLUENCE OF FISCAL POLICY ON SRI LANKA'S ECONOMIC GROWTH FROM 1990 TO 2019



S. Maheswaranathan<sup>1+</sup>  
K.M.N. Jeewanthi<sup>2</sup>

<sup>1</sup>Senior Lecturer in Economics, Faculty of Commerce and Management, Eastern University, Sri Lanka.

Email: [mahe26saro@yahoo.com](mailto:mahe26saro@yahoo.com)

<sup>2</sup>Temporary Assistant Lecturer in Economics, Faculty of Commerce and Management, Eastern University, Sri Lanka.



(+ Corresponding author)

### ABSTRACT

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Fiscal policy is a macroeconomic instrument used by the government to steady the economy by instigating its revenue such as tax, foreign aid, trade surplus and expenditures. This study explores the impact of Fiscal Policy on the Economic Growth of Sri Lanka using the autoregressive distributed lag (ARDL) approach of cointegration by applying time-series data from 1990 to 2019. The findings of the study revealed that both in the long run and in the short run, fiscal policy has a significant impact on the Economic growth of the country. The value of the long-run coefficient indicates the relationship between fiscal policy and economic growth is stronger. Diagnostic tests such as serial correlation, functional form, normality of error term and heteroscedasticity and CUSUM stability tests are performed to check the heftiness of the ARDL model. To promote the economic growth of the country the government should be pursued an expansionary fiscal policy.

**Contribution/ Originality:** This study contributes to the existing literature through the application of the ARDL bounds testing approach to the cointegration model in order to capture the relationship between fiscal policy and economic growth with the Means of Implementation in the economic growth of Sri Lanka.

## 1. INTRODUCTION

Fiscal policy is vital to the health of the economy as the government's control to tax and spending of the citizens, corporations and the general business. Through an expansionary fiscal policy, the government's increase in its spending would crowd out the private sector and can outweigh short-term benefits. Fiscal policy can affect the gross domestic product which increases the total output produced and imperative tool to manage the whole economy. Further, According to John Maynard Keynes, who released the ideas of fiscal policy as large, fiscal policy can reduce unemployment by stimulating aggregate demand and reducing the unemployment rate to control inflation.

The fiscal policy usually plays an important role in the detection of macroeconomic stability of the countries through implementing the government's budget. By accompanying the taxes and public outlays fiscal policy can influence the level of economic activity [Olawunmi and Ayinla \(2007\)](#). Fiscal policy involves cautious actions by the government in spending money and charging taxes to influence macroeconomic variables with the intentions of becoming sustainable economic growth, high job creation and satisfying low inflation Microsoft Corporation, 2004.

Dornbusch and Fischer (1991) found that fiscal policy stabilizes economic growth through a rise in government outlay or a decrease in taxation. At the same time, reducing spending or increasing taxes slows down the economic boom. According to Ugwuanyi and Ugwunta (2017) and Olawunmi and Ayinla (2007) the fiscal policy contains the state's expenditure, borrowing to influence economic activity, and taxation, as well both growth and the level of employment, output and the aggregate demand. And, the fiscal policy requires the government to manage the economy by deploying its income and consumption capacity to achieve certain expected macroeconomic goals including economic growth. And Hines (2010) states that fiscal policy is usually linked with public expenses and taxation to affect economic activity. Okorafor (2010) states the goal of fiscal policy is to encourage the corporates' growth and attempt to confirm reliable economic stability. The same source indicates that the console out the business cycle and shepherd to stability and growth of the economy if fiscal policy is used vigilantly and simultaneously. Olopade and Olopade (2010) indicated that society's return on investment rate overdoes private returns, inspiring tax policies cause to increase the growth of the economy and utility levels.

Ekpo (1994) considered the influence of public spending on Nigeria's economic growth from 1960 to 1992 and found fiscal policy-led growth through the massive private investment caused as a result of government investment in infrastructure. At the same time, Nurudeen and Usman (2010) evaluated the effect of state spending on Nigeria's economic growth from 1970 to 2008 and concluded that total current expenditure, education expenditure and total government capital expenditure harm the growth of the economy and on other hand, spending on transportation and communication and health expenditure promote growth. Then, Oyinlola (2013) considered the influence of budget spending on the development of the economy of the sector of defense in Nigeria and found that defense expenditure has a significant positive relationship with the growth of the economy.

Ajisafe and Folorunso (2002) believed that fiscal policy crushes the growth of the economy by changing taxes and wasteful state outlay. The same study indicates that fiscal policy includes deploying state finances through fluctuating taxation or changing expenditure levels to conduct the stability of the economy and increasing the growth of the economy by achieving articulating and employing economic policies as a whole. Also, it aims to attain the goals of, the balance of payments, investment, growth, resource mobilization, full employment and price stability. Ensuring the long-term growth of the economy in the country is a major event of the fiscal policy.

According to the above evidence, the correlation between fiscal policy and the growth of the economy is equally mixed. And also, there are few or no recent researches of the impact of fiscal policy on economic growth in Sri Lanka with recent data. Therefore, to get a clear idea of the relationship between the fiscal policy and economic growth with recent data in Sri Lanka, this study attempts to investigate the correlation between the fiscal policy and economic growth in Sri Lanka by applying time-series data from the period of 1990 to 2019.

The rest of the research arrangements are as follows: the second part is fulfilled with empirical literature review, the third part is the methodological focus with empirical findings, and the last part is the research conclusion.

## 2. REVIEW OF LITERATURE

A large number of empirical studies have been formed on the impact of fiscal policy on economic growth with mixed findings using cross-sections, time series, and panel data. Usually, the fiscal policy is linked to the growth of the economy may be used for promoting economic growth and development under certain circumstances Khosravi and Karimi (2010). Olawunmi and Ayinla (2007) specify that Keynesian analysis broadly discussed the role of economic policies in achieving macroeconomic goals and concludes that the demand management policies are able and ought to be used to develop macroeconomic performance.

Symoom (2018) empirical results expressed that neither government spending nor revenue of taxes have a significant impact on Sri Lanka's real GDP growth and confirmed that actual investment closely correlated with Sri Lanka's actual GDP growth. At the same time, Sriyalatha and Torii (2019) indicated that, in the long run,

government spending, government revenue and investment spending have a positive and significant impact on the economic growth of Singapore and Sri Lanka. In addition, they show that there is a bidirectional causal linkage between investment spending and the growth of the economy in Sri Lanka.

Dar and AmirKhalkhali (2002) explored the endogenous growth model of the fiscal policy and determined, that government expenditure and revenue are essential to forecast upcoming economic growth. And, Al-Qudair (2005) investigated the correlation between state spending and the growth of the economy and initiated that the scale of state spending is identical vital for significant economic performance. Furthermore, the same study suggested that the state should assist and inspire the private sector to boost economic growth and at the same time, enhance the budget allocations for infrastructure, economic and social activities. Nijkamp and Poot (2004) did a survey to investigate the findings of the impact of fiscal policy on the growth of the economy selecting 41 research papers and found 29% of papers indicated that there is a negative correlation between fiscal policy and the growth of the economy, 17% are positive, and 54% are uncertain correlations.

Gregoriou and Ghosh (2009) used panel data to explore the influence of state spending on the growth of the economy and found that countries that are entitled to a huge state spending in budget allocations have a propensity to involvement higher economic growth, but the effect differs from country to country. Mansouri (2008) deliberated the correlation between the growth of the economy and fiscal policy in Tunisia, Morocco and Egypt with the data ranges of 1972-2002, 1970-2002, and 1975-2002 respectively. And concluded public expenditure increased by 1%, Tunisia's real GDP increased by 1.15%, Morocco by 1.26%, and Egypt by 0.56%. Further, the results showed that all these three countries have long-term correlations among the variables.

Eric and Jonathan (1992) discovered that the state's expenditure and taxation have a negative strong relationship with the growth of the economy. Furthermore, they state, there is a significant and negative effect of fiscal activities of government on the growth rate of the economy in the short run as well as the long run. And, Obreja and Brasoveanu (2008) investigated the relationship between the real growth rate of GDP and varieties of budgetary incomes implies a negative relationship between the fiscal revenue and growth of the economy.

Benos (2009) found that government spending on infrastructure<sup>1</sup> has a positive impact on per capita growth. In addition, they mention that government spending on human capital enhancement activities<sup>2</sup> has no significant impact on the growth of the economy. Martin and Georg (2003) mention that, if government spending is divided into productive spending and non-productive spending; non-productive spending will have an impact on economic growth. And, they found that both the level of the growth rate of public infrastructure investment and education spending has a positive impact on economic growth. At the same time, they included tax rates<sup>3</sup> and concluded they are directly impacting the division of labor between manufacturing, research and development which causes to change the innovation-driven growth rate of the country.

### 3. METHODOLOGY

The present study tries to scrutinize the impact of fiscal policy on Sri Lanka's economic growth from 1990 to 2019 and the following empirical analysis is recognized for this purpose. Equation 1 reviews the cointegration of the variables as well as describes the parameter link with differenced variables to capture the short-run effects. The coefficient associated with one period lagged level of GDP can be treated as an adjustment parameter (Pesaran, Shin, & Smith, 2001).

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<sup>1</sup> general public services and economic affairs; and property rights protection such as public order, national defense and security.

<sup>2</sup> health care, education, housing and community facilities, entertainment, environmental protection, culture and religious beliefs; and social protection.

<sup>3</sup> such as savings tax, intermediate input tax, research and development spending tax, profit income tax, and manufacturing labor tax.

$$\ln \text{gdpt} = C_0 + C_1 \text{dlnte} + C_2 \text{dlngr} + C_3 \text{dlntnr} + C_4 \text{dlnto} + C_5 \text{lnfdii} + C_6 \text{lnpou} + \varepsilon t \quad (1)$$

where  $\ln \text{gdpt}$  is GDP (constant 2010 US\$) (GDP).

$\text{dlnte}$  is Total Expenditure (% of GDP) (TE).

$\text{dlngr}$  is Total Government revenue (% of GDP) (GR).

$\text{dlntnr}$  is Tax revenue, percent of GDP (TR).

$\text{dlnto}$  is Trade (% of GDP) (TO).

$\text{lnfdii}$  is Foreign direct investment, net inflows (% of GDP) (FDII).

$\text{lnpou}$  is Population growth (POU).

$\varepsilon t$  is defined as the error term.

Among them,  $C_0, C_1, C_2, C_3, C_4, C_5$  and  $C_6$  are the parameters that are to be estimated.

### 3.1. Analysis of Cointegration (ARDL)

$$\begin{aligned} \text{dlngdpt} = & C_0 + C_1(\text{dlnte})_{t-1} + C_2(\text{dlngr})_{t-1} + C_3(\text{dlntnr})_{t-1} + C_4(\text{dlnto})_{t-1} + C_5(\text{lnfdii})_{t-1} + C_6(\text{lnpou})_{t-1} + \sum_{t=1}^n C_7 \Delta \\ & \text{dlnte}_{t-1} + \sum_{t=1}^n C_8 \Delta \text{dlngr}_{t-1} + \sum_{t=1}^n C_9 \Delta \text{dlntnr}_{t-1} + \sum_{t=1}^n C_{10} \Delta \text{dlnto}_{t-1} + \sum_{t=1}^n C_{11} \Delta \text{lnfdii}_{t-1} + \sum_{t=1}^n C_{12} \Delta \text{lnpou} \\ & - 1 + \varepsilon t \quad (2) \end{aligned}$$

### 3.2. Error Correction Model (ECM)

In order to test the short-term nuances and the stability of the long-term parameters, this thesis subjected the below error correction model Equation 3.

$$\begin{aligned} \text{dlngdpt} = & C_0 + C_1 \sum_{t=1}^n 1 \Delta \text{dlnte}_{t-1} + \sum_{t=1}^n C_2 \Delta \text{dlngr}_{t-1} + \sum_{t=1}^n C_3 \Delta \text{dlntnr}_{t-1} + \sum_{t=1}^n C_4 \Delta \text{dlnto}_{t-1} + \sum_{t=1}^n C_5 \Delta \\ & \text{lnfdii}_{t-1} + \sum_{t=1}^n C_6 \Delta \text{lnpou}_{t-1} + \lambda ECT_{t-1} + \varepsilon t \quad (3) \end{aligned}$$

This study considers seven variables, namely, GDP (constant 2010 US\$) proxy for economic growth (GDP), Total Expenditure (% of GDP), Total Government revenue (% of GDP), Tax revenue, percent of GDP, Trade Openness (% of GDP), Foreign direct investment net inflows (% of GDP) and Population growth. The order of variables (GDP, TE, GR, TR, TO, FDI and POU) are in log form.

Table-1. List of variables, descriptions and sources.

| Variables | Proxy                                 | Descriptions           | Sources           |
|-----------|---------------------------------------|------------------------|-------------------|
| GDP       | GDP                                   | (Constant 2010 US\$)   | World Bank (2020) |
| TE        | Total Expenditure                     | Percent of GDP         | World Bank (2020) |
| GR        | Total Government revenue              | Percent of GDP         | World Bank (2020) |
| TR        | Tax revenue                           | Percent of GDP         | World Bank (2020) |
| TO        | Trade Openness                        | Percent of GDP         | World Bank (2020) |
| FDI       | Foreign direct investment net inflows | Percent of GDP         | World Bank (2020) |
| POU       | Population growth                     | Population growth rate | World Bank (2020) |

Note: GDP= Growth of Economy; TE= Total Expenditure; GR= Total Government revenue; TR= Tax revenue; TO= Trade Openness; FDI= Foreign direct investment Net inflows; POU= Population growth.

Analysis arranges GDP is gauged in constant 2010 US\$ as a proxy for Growth of Economy. The Total Expenditure, Tax revenue, Trade openness and foreign direct investment Net inflows are measured in percent of GDP as the proxies for Fiscal Policy. And the Population growth is measured as the Population growth rate as the proxy for Fiscal Policy. The present study has applied the time-series data abstracted from 1990 to 2019.

## 4. EMPIRICAL ANALYSIS

### 4.1. Descriptive Statistics

The descriptive analyses described in Table 2. From the side of the descriptive analysis, the result shows the mean, maximum and minimum values, standard deviation, kurtosis and skewness, and Variance values. The standard deviation values for all the variables except economic growth indicate that these variables are distributed above their mean values. Economic growth, trade openness, foreign direct investment and population are negatively skewed and total expenditure, tax revenue and total Government revenue is positively skewed.

Table-2. Descriptive Statistics of the variables.

|           | Dlngdp     | Dlnte      | dlngnr     | Dlntr     | dlnto      | lnfdii     | lnpou      |
|-----------|------------|------------|------------|-----------|------------|------------|------------|
| Mean      | 0.0498411  | -0.0079588 | -0.0152356 | -0.0172   | -0.0091288 | 0.1518554  | -0.2750271 |
| Maximum   | 0.087503   | 0.130734   | 0.136759   | 0.199594  | 0.170532   | 1.047172   | 0.240737   |
| Minimum   | -0.015575  | -0.137201  | -0.108634  | -0.124642 | -0.254116  | -0.8445434 | -2.04799   |
| Std. Dev. | 0.0200295  | 0.0645878  | 0.0536612  | 0.061548  | 0.0756614  | 0.4001     | 0.4148305  |
| Skewness  | -0.8603546 | 0.1634273  | 0.9373153  | 1.347239  | -0.5952371 | -0.4363302 | -2.566718  |
| Kurtosis  | 5.325777   | 2.581544   | 3.85527    | 6.567731  | 5.781441   | 3.608474   | 12.23138   |
| Variance  | 0.0004012  | 0.0041716  | 0.0028795  | 0.0037882 | 0.0057247  | 0.16008    | 0.1720844  |

The DF test is developed by Dickey and Fuller to augmented the Dickey-Fuller test (ADF) by considering p lag values in 1981. According to them, the null hypothesis (H<sub>0</sub>) is "series is not stationary" on the other hand alternative hypothesis (H<sub>1</sub>) is "the series is stationary". The white noise of disturbance term is assumed by the DF test and the dependent variable has the autocorrelation it leads to autocorrelation in error term which causes the inaccuracy of ADF test. The following Table 3 employed a similar null hypothesis and critical values as ADF test.

Table-3. Augmented Dickey-Fuller Unit Root Test.

| Variables | Augmented Dickey-Fuller |        |             |                |            |
|-----------|-------------------------|--------|-------------|----------------|------------|
|           | t-Statistic             | Level  | t-Statistic | 1st Difference | Suggestion |
| Lngdp     | -0.335                  | 0.9203 | -3.922      | 0.0019         | I (1)      |
| Lnte      | -2.118                  | 0.2373 | -5.476      | 0.0000         | I (1)      |
| Lntr      | -1.538                  | 0.5147 | -5.463      | 0.0000         | I (1)      |
| Lnfdi     | -4.545                  | 0.0002 |             |                | I (0)      |
| Lngr      | -1.834                  | 0.3637 | -4.919      | 0.0000         | I (1)      |
| Dlnto     | -0.668                  | 0.8549 | -4.626      | 0.0001         | I (1)      |
| Lnpou     | -3.836                  | 0.0026 |             |                | I (0)      |

The above Table 3 specifies that the ADF unit root test recognized that the variables considered for this present study are stationary at level I (0) and integrated at the first difference (1).

### 4.2. Lag Length Selection

The following Table 4 shows that only FPE suggests the lag length of 3 but another criterion such as LR, SB, AIC and HQ suggests the lag length of 4. Therefore, this study considers the lag length of 4.

Table-4. Lag Length Selection.

| Lag | LL      | LR     | df | P     | FPE     | AIC      | HQIC     | SBIC     |
|-----|---------|--------|----|-------|---------|----------|----------|----------|
| 0   | 167.883 |        |    |       | 9.6e-14 | -12.9506 | -12.8695 | -12.6581 |
| 1   | 188.378 | 40.991 | 36 | 0.261 | 3.6e-13 | -11.7103 | -11.1423 | -9.66256 |
| 2   | 227.084 | 77.41  | 36 | 0.000 | 5.2e-13 | -11.9267 | -10.8719 | -8.12379 |
| 3   | 379.996 | 305.82 | 36 | 0.000 | 3.9e-16 | -21.2797 | -19.7381 | -15.7216 |
| 4   | 4871.93 | 8983.9 | 36 | 0.000 |         | -377.755 | -375.726 | -370.441 |

#### 4.3. ARDL Bound Test

The bound test assists to determine whether there is a long-run relationship between the variables in that particular model. If the value of F- statistics is lower than I (0) it cannot be rejected the null hypothesis and there is no long-run relationship, on the other hand if the value of F- statistics is higher than I (1) it can be rejected the null hypothesis and there is a long-run relationship among the variables. The present study illustrates the value of the F-statistic is 5.958, greater than the upper bound at the level of significance of 1%, 5%, and 10% which designates that there is the existence of a long-run relationship between the variables (Table 5).

Table-5. ARDL Bound Test.

|                          |  |                           |
|--------------------------|--|---------------------------|
| ARDL Bound Test:         | Restricted constant and no Trend         |                           |
| Estimated Equation       | LNGDP = dlnte dlngtr dlnto lnfdii ln pou |                           |
| Optimal Lag Length       | (1, 1, 0, 2, 2, 0, 1)                    |                           |
| F-statistic              | 5.958                                    |                           |
| <b>Significant Level</b> | <b>Lower bounds I (0)</b>                | <b>Upper bounds I (1)</b> |
| 1%                       | 4.3                                      | 5.5                       |
| 5%                       | 3.1                                      | 4.0                       |
| 10%                      | 2.6                                      | 3.5                       |

#### 4.4. Long Run and Short Run ARDL Output Analyzes

This study confirmed the long-run cointegration among GDP growth and fiscal policy determinants. Here, the study has estimated both long-run and short-run elasticities using Equation 2 and 3. Table 6 reveals the long-run and short-run outcomes of the study. For the long-run, all descriptive variables positively and significantly affected GDP. In long run, the impact of total expenditure has a negative significant on GDP growth. A 1 percent increase in total expenditure decreases the GDP growth by 73 percent at 5% level. Baum and Koester (2011) and Symoom (2018) also retained these findings but, A Baum and Koester (2011); Oo (2019); Gechert (2015); Muravska, Martyniuk, Dluhopolskyi, Kniaz, and Podolchak (2020) and Abdon (2014) have found there is a positive linkage between the total expenditure or government expenditure and the economic growth. Similarly, the trade openness has negatively and significantly connected with GDP growth. It is found that 1 percent increase in trade openness will cause 25 percent GDP growth decrease at 10% significant level. The short-run outcomes (Table 6) specify highly significant effect of Total Expenditure; Tax revenue; Trade openness and Population growth rate on GDP growth except the tax revenue in lag one. It is noted that a 1 percent increase in Total Expenditure raises 23 percent GDP growth. Meanwhile, in short-run estimation, the effect of Tax revenue on GDP growth is positive and significant. The result reveals 9 percent of GDP boost due to 1 percent increase in tax revenue. Baum and Koester (2011); Muravska et al. (2020) and Abdon (2014) also have investigated a positive significant relationship between tax revenue and he economic growth. The short-run coefficient of Trade openness indicates that Trade openness has a significant and positive effect on a 1 percent increase in Trade openness enhances GDP growth by 18 percent in lag 2. Brons, De Groot, and Nijkamp (2000) found positive significant relationship between economic growth and trade openness. Also, population growth has highly significant and negative relationship on GDP growth. This indicates that 1 percent increase in population growth decreases the GDP growth by 9 percent.

The disequilibrium of adjustment is shown by the ADJ which specifies any disequilibrium earlier is being adjusted in the present period. A negative coefficient indicates convergence whereas a positive coefficient labels a divergence. 100% of the adjustment takes place within the period when the value of ADJ = 1, or the adjustment is full and rapid. ADJ = 0, which indicates that there is no adjustment, and to claim that there is a long-run relationship does not exist. When the value of ADJ = 0.5, it leads to 50% of the adjustment takes place in each year. In this present study, the ADJ has convergence due to the negative sign and high significance and 40% of adjustment takes place in each year from the short run to the long run.



Table-6. Long Run and Short Run outputs of ARDL model.

| Dependent Variable = LNGDP    |             |            |             |       |
|-------------------------------|-------------|------------|-------------|-------|
| Long Run                      |             |            |             |       |
| Variable                      | Coefficient | Std. Error | t-Statistic | Prob. |
| Dln <sub>te</sub>             | -0.7349316  | 0.3077428  | -2.39       | 0.033 |
| Dln <sub>gr</sub>             | 0.313498    | 0.2028622  | 1.55        | 0.146 |
| Dln <sub>tr</sub>             | 0.2552181   | 0.216271   | 1.18        | 0.259 |
| Dln <sub>to</sub>             | -0.2808305  | 0.1434282  | -1.96       | 0.072 |
| Ln <sub>f<sub>dii</sub></sub> | 0.06233     | 0.0169926  | 0.37        | 0.720 |
| Ln <sub>pou</sub>             | 0.0030354   | 0.0232269  | 0.13        | 0.898 |
| Short Run                     |             |            |             |       |
| C                             | 0.018002    | 0.005989   | 3.01        | 0.010 |
| Dln <sub>te</sub>             | 0.2391402   | 0.0550361  | 4.35        | 0.001 |
| dl <sub>ntr</sub> D1          | -0.0509659  | 0.0689997  | -0.74       | 0.473 |
| dl <sub>ntr</sub> LD.         | 0.091916    | 0.0404799  | 2.27        | 0.041 |
| dl <sub>nto</sub> D1.         | 0.1892167   | 0.0391458  | 4.83        | 0.000 |
| dl <sub>nto</sub> LD.         | -0.085043   | 0.0358891  | -2.37       | 0.034 |
| ln <sub>pou</sub> D1.         | -0.0457339  | 0.0074399  | -6.15       | 0.000 |
| ADJ                           | -0.4036873  | 0.1241438  | -3.25       | 0.006 |
| R-squared                     | 0.9373      |            |             |       |
| Adj R-squared                 | 0.8746      |            |             |       |

#### 4.5. Diagnostic Test

The study further concentrates on checking the fitness of estimating this model by checking diagnostic of residuals performance and model stability.

The LM test is generally employed to check the serial correlation of the residuals to confirmed the no longer serial link between residuals. As illustrated in Table 7; the null hypothesis is not rejected at 0.05 level which means that in this estimated model there is no evidence for serial correlation in residuals. Similarly, according to Table 7, there is no heteroscedasticity (or the variance is constant) in the residuals at 0.05 level, the normality of the residuals is checked by the Jarque-Bera (JB) test, the probability (p-value) highly recommends the normality of residuals the null hypothesis distributed and cannot reject the null hypothesis event at the very high level of significance which means the residuals are normally distributed and also there are no omitted variables. Therefore, the model is good to describe the impact of fiscal policy and economic growth in Sri Lanka from 1990 to 2019.

Table-7. Diagnostic Test.

| Test Statistics      | F Statistic         |
|----------------------|---------------------|
| Serial Correlation*  | 0.0794 (3.079)      |
| Heteroskedasticity** | 0.6970 (0.152)      |
| Normality***         | 1.420028 (0.491637) |
| Ramsey RESET         | 0.7667 (0.3)        |

Note:  
 Breusch-Godfrey Serial Correlation LM Test\*  
 Heteroskedasticity Test: Breusch-Pagan Godfrey\*\*  
 Jarque – Bera Test \*\*\*  
 Ramsey RESET\*\*\*

#### 4.6. Stability Test

The CUSUM test is employed for checking the constancy and the accurateness of the estimated model. Figure 1 validated that the root is not exceeded the outside of the significance level and justifies the stability condition of the model.

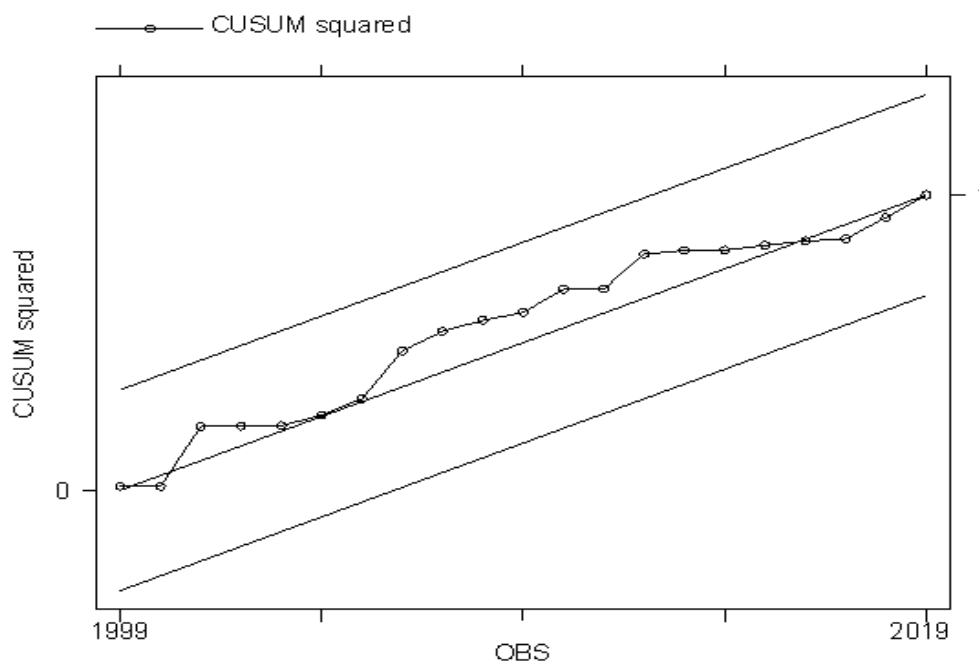


Figure-1. CUSUM test for stability of ARDL

## 5. CONCLUSION

The present study is applying the Auto Regressive Distributed Lag (ARDL) model to investigate the impact of fiscal policy on economic growth in Sri Lanka during the period of 1990 to 2019 using annual time series data. The stationarity of the variables is tested by ADF unit root test and concluded which integrated with different orders which suggested the ARDL application. The GDP has long-term equilibrium with its determinants of Total Expenditure, Total Government revenue, Tax revenue, Trade Openness, Foreign direct investment Net inflows and Population growth and the great ARDL model describe this relation (1, 1, 0, 2, 2, 0, 1). In the short run except tax revenue (Tr) in lag 1 all other variables are significant at the one percent level. And in the long-run total expenditure (Inte) and trade openness (Into) have a significant negative relationship with GDP and others are not. Also, the study achieved 40% of adjustment from short run to long run in each year. Further, the study confirmed the inconsistencies and survive multiple specifications, permitting the detection of the association with great accuracy.

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