Effect of Government Debt on Gross Domestic Production:
Evidence from Sri Lanka

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Effect of Government Debt on Gross Domestic Production:
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Abstract

This paper investigates the relationship between government debt and gross domestic production in Sri Lanka. Objective of this study is to find the relationship between these two variables and the impact of government debt on economic growth. Data was collected through Central Bank of Sri Lanka and the data set proven to be normally distributed. Correlation and Linear Regression Model is used to ascertain relationships. Data sample represent annual time series data for the period of 15 years starting from 2000 to 2014. Results of the study is consistent with the Keynes View which proves that there is a positive impact of government debt on economic activities.

Key words: Government Debt, Gross Domestic Production, Economic Growth, Keynes View
Introduction

External debt is a very important area in any country for boosting the economic activities. It is a contradiction whether external debt stimulates economic growth or hinders growth (Kasidi & Said, 2013). Since independence in the year 1948, Sri Lanka has been granted with several foreign debts in order to upkeep the gross domestic production. According to Central Bank Annual Report (2015), the total government debt to GDP ratio increased to 76.0 per cent at end 2015 from 70.7 per cent at end 2014, reflecting the weak performance of the fiscal sector and relatively low nominal GDP growth during the year. In nominal terms, total outstanding government debt increased to Rs. 8,503.2 billion at end 2015, from Rs.7,390.9 billion at end 2014.

Although the foreign debts are important to determinants of economic performance of a country. Developing countries take the foreign debts for many purposes as mentioned by Chenery (1996) are to fulfil lack of “saving-investment” gap. Another reason is to fill the gap of budget or balance of payment deficit due to low investment (Gohar et al. 2012 and Soludo 2003). Borrowings from domestic sources to fill the budget deficit destabilize the economy as it results in inflationary pressure. When it come to the foreign sources the extent of borrowing, the costs and terms of borrowing, and most important, the use for which the borrowed funds are put to, have substantial inferences for macroeconomic fundamentals.

Many previous studies on the relationship between external debt and economic growth show that some researchers found positive relation, some negative and some no significant relationship between external debt and economic growth for different economic condition. Thus, the objective of this paper was to examine the relationship between external debt and the gross domestic production of Sri Lanka for the period of 2000-2014.
Literature Review

There are three debatable theories behind the impact of government debt on economic growth, which are the Ricardian theory, the Keynes view and neo-classical economist view. In ricardian theory they believe that the government debt is not a burden to the economy. Keynes view states that there is a positive consequence of budget deficit and debit finance on economic activities. Finally neo-classical economists view states that there is a negative correlation between debt and economic growth. In present economists and policy makers widely debates that high debt level is negatively correlated with the growth rate of an economy.

A considerable number of empirical researches have done based on this field and some of them support that there is a negative relationship between public debt and economic growth. As cited by Spilioti (2015) examples for such studies are; Reinhart & Rogoff, (2010); Kumar & Woo, (2010). In their studies they have found that the negative correlation is particularly strong when public debt reaches 100 per cent of GDP.

Simultaneously as cited by Kasidi & Said (2013), Benedict et al. (2003) suggested that foreign borrowing has a positive impact on investment and growth of a country up to a threshold level but external debt service can potentially affect the growth as most of the funds will go in the repayment of the debt rather at the investments. Furthermore, according to AL-zeaud & Al-awawdeh, (2014) researchers such as Moreira, (2003), Bakar & Hassan, (2008) support the hypothesis that the increase of external debt level will improve economic growth.

Another study shows that, there exist positive relationship between the National Income and Debt Services Payment and positive relationship between National Income and External Reserve and positive relationship between National Income and Interest Rate (Ajayi & Oke, 2012). Further Ajayi & Oke concluded that external debt is a burden to the economy in Nigeria.
Methodology

Data Collection and Sample

The annual time series data during period 2000 to 2014 of the selected variables, which represents government debt, gross domestic production and interest rates (SLIBOR) of Sri Lankan economy, were collected from Central Bank of Sri Lanka.

Hypothesis

Based on the literature following hypothesis was developed.

H₁: There is an impact of government debt on gross domestic production.

Model Specification

To test the stated hypothesis researcher used the following linear regression model.

\[ GDP_t = \alpha + \beta_1 DEBT_t \]

Where;

GDP = Gross Domestic Production (GDP)

DEBT = Government Debt

Findings and Conclusion

Pearson Correlation identifies a relationship between GDP and Government Debt, which results a correlation coefficient of +0.998. This indicates a positive and a significant correlation between the variables.
Coefficient of determination (R²) is 0.996, where 99% of GDP is determined by Government Debt, and the rest 1% of the Gross Domestic Production is determined by all other factors.

Probability value of T-test for Government Debt is 0.000 (Lower than 0.05) at 95% confidence level, where the explanatory power of government debt is high.
Conclusion

This paper aimed to investigate the impact of government debt on gross domestic production in Sri Lanka, where the discussion was focused on the objective of finding the relationship between these two variables.

As per the findings of this investigation it is clinched that there is a positive impact of government debt on gross domestic production in Sri Lanka, which confirms the Keynes View on government debt. Further, the correlation discloses that the relationship is strong & significant. Coefficient of determination strengthens the relationship and decisive power of Interest rate, where 99% of Gross Domestic Production is determined by Government Debt.

Researcher’s future research interest lies in expanding this study to investigate the relationship between government debt and economic indicators such as national savings, balance of payment and interest rates.
References


