

RELATIONSHIP BETWEEN GOVERNMENT DEBT AND ECONOMIC GROWTH IN INDIA

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ABSTRACT

Government debt and economic growth are related concepts. By reviewing existing literature, it is found that the impact of external debt on economic growth is non linear. Thus, when the indebtedness is low, economic growth can be promoted by an increase in the proportion of external public debt to GDP, however, at high levels of indebtedness; an increase in this proportion could slow down economic growth. This study is an attempt to examine whether Government Debt actually promotes economic growth in developing countries using India as a case study. Gross Domestic Product of a country is generally a measure of Economic Growth of that country. In this study, time series data from 1990 to 2013 were fitted into Granger causality test in order to analyse the problem. Empirical results reveal that causality between Internal debt and external debt is unidirectional causality, between External debt and GDP is bidirectional causality, and between Internal debt and GDP is bidirectional causality.

KEYWORDS: *Government Debt, External Debt, Economic, Growth, Causality*

INTRODUCTION

In economics, the ratio between the government debt and its GDP is known as debt to GDP ratio. The country's debt is measured in units of currency and the GDP is measured in units of currency per year. A low debt to GDP ratio is an indicator of an economy which is sufficient to pay back its debts and does not incur further debts. High External public debt and high internal public debt can have haphazard impacts on economic growth. There are many empirical evidences which investigate the effect of Government debt on economic growth of a country. The existing literature also presents mixed results regarding this relationship. This paper attempts to find whether Government debt is helpful in forecasting economic growth in India by using Granger causality test.

REVIEW OF LITERATURE

Krugman (1989) shows the debt relief Laffer curve (with the shape of an inverted U, shown in Figure 1), where the nominal value of debt of a country and its actual expected payment is related. On the upward segment of the curve, debt and expected payments increase because the risk of default is low; in the descending segment, the level of debt increases but expected payments begin to descend because the risk of default is very high. He concludes that when a country is on the descending segment of the curve, the country suffers from debt overhang. In public finance, government debt, also known as public interest, public debt, national debt and sovereign debt, is the total amount of debt owed at a point in time by a government or state to lenders. Government debt can be owed to lenders within the country (also described as internal

debt) or owed to foreign lenders (external debt).

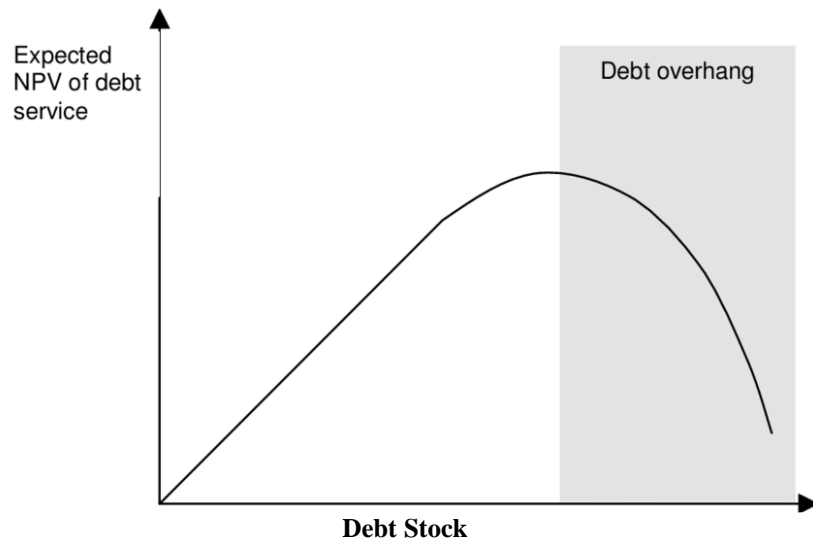


Figure 1: Government debt Laffer Curve.

According to Cohen (1993), the relationship between foreign debt and investment can also be expressed as Laffer curve (Figure 1). The foreign debt has a positive impact on investment and economic growth only when the ratio of foreign debt is also located in the left side of the threshold. But the increase in the debt exceeds the threshold level; the debt is expected to start falling as a result of side effects of debt financing. This means that the increase in the value of debt leads to an increase in debt up to the “threshold”, along the right side of the Laffer curve debt, thereby, increasing the expected payment and reducing in profits of investors.

Fischer (1993) while explaining the deficit-debt-growth relationship put forward the fact that larger budget surpluses are associated with more rapid growth through greater capital accumulation and greater productivity growth. He further put forward the fact that high deficit may be consistent with low inflation for a while, but that a more detailed assessment of debt dynamics may be needed to see if the deficit is sustainable and therefore consistent with macroeconomic stability.

Afxentiou and Serletis (1996) used Granger causality test on a sample of 55 severely indebted countries and the results affirm that no causality exists between debt and income.

Umaru and et.al (2013) specifically examine the impact of domestic debt and External Debt on economic growth in Nigeria from 1970-2010. The results revealed that external debt possessed negative impact on the economic performance of Nigeria while domestic debt possessed positive impact on economic growth by encouraging productivity and output level and on evolution of total factor productivity.

OBJECTIVES OF THE STUDY

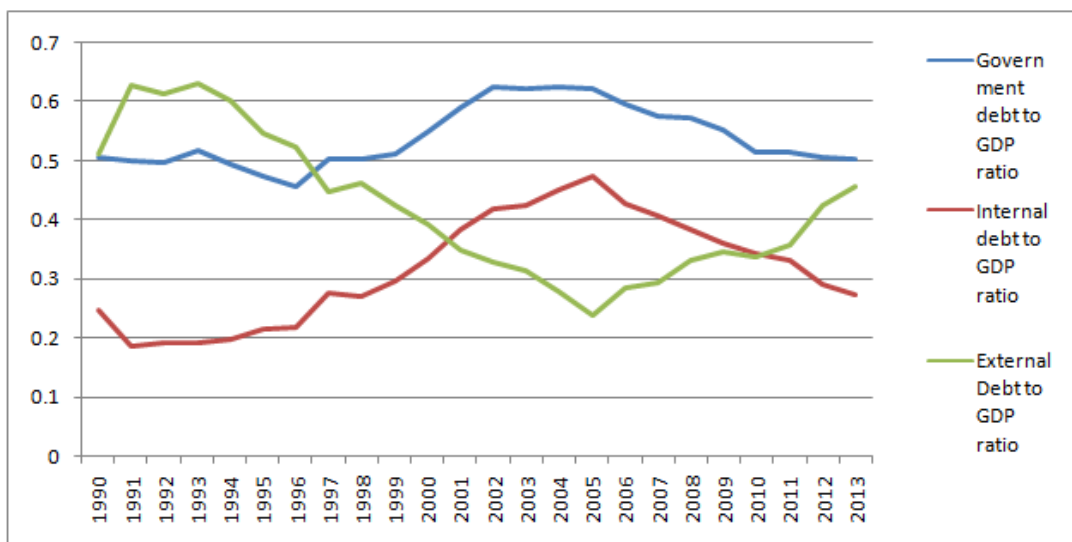
- To find out the Government debt to GDP ratio in India.
- To find out Granger causality between internal debt, external debt and Gross Domestic Product in India.

Null Hypothesis for Granger causality test is:

- Lagged value of Gross Domestic Product and Internal Debt do not cause External Debt.
- Lagged Value of Gross Domestic Product and External Debt do not cause internal debt.
- Lagged value of internal debt and External Debt do not cause Gross Domestic Product.

METHODOLOGY

The study is based on secondary data. Data is collected from the official website of World Bank which provides extensive data on Gross Domestic Product country wise and Government debt country wise. The present study compares and calculates internal debt to GDP ratio, external debt to GDP ratio and government debt to GDP ratio in India. Also Granger causality test is used to find out unidirectional and bidirectional Granger causality between External Debt, Internal Debt and GDP in India. Granger causality test is an econometric test used to verify the usefulness of one variable to forecast another. The time period taken into account is from year 1990 to 2013.



Source: Compiled by Author

Figure 2: Government Debt to GDP Ratio in India.

Figure 2 shows Government Debt to GDP ratio in India (Government debt includes internal debt and external debt). It is seen in the Figure 2 that the Government debt to GDP ratio in India has remained almost constant throughout the years with the values ranging between 0.45 to 0.65. On the other hand it is seen that the internal debt to GDP ratio and External debt to GDP ratio have shown varying trends.

The purpose of this study was to test for Granger Causality between External Debt and Internal Debt, External Debt and GDP, and Internal Debt and GDP in India. The Granger causality test is applied to find the relationship between the External Debt, Internal Debt and GDP in India.

The results of Granger causality test will appear:

Table 1: Vargranger Causality Test for GDP, Government Debt, and External Debt of India

. vargranger

Granger causality Wald tests

Equation	Excluded	chi2	df	Prob > chi2
externaldebt	Internaldebt	3.6817	2	0.159
externaldebt	gdp	7.5905	2	0.022
externaldebt	ALL	26.709	4	0.000
Internaldebt	externaldebt	6.4324	2	0.040
Internaldebt	gdp	12.952	2	0.002
Internaldebt	ALL	25.534	4	0.000
gdp	externaldebt	9.0832	2	0.011
gdp	Internaldebt	26.756	2	0.000
gdp	ALL	32.565	4	0.000

Source: Compiled by Author

The results of Granger Causality test are

The first row of the table 1 shows that P value of Internal Debt 0.159 is greater than 0.05% level of significance. So the null hypothesis Internal Debt do not cause External debt cannot be rejected. However, because the p value of Gross Domestic Product 0.022 is less than 0.05% level of significance. So the null hypothesis GDP do not cause External Debt can be rejected.

In the second row p value of external value which is 0.040 is less than 0.05 % level of significance. Therefore null hypothesis external debt does not cause internal debt can be rejected. Also it is seen that p value of GDP is 0.002 which is also less than 0.05% level of significance. Hence another null hypothesis GDP do not cause internal debt can be rejected.

The results in the third row show than p value of external debt is 0.11 is less than less than 0.05 % level of significance which means the null hypothesis external debt do not cause GDP can be rejected. It is also seen in the third row of the table that p value of internal debt is 0.00 which is also less than 0.05 % level of significance. Which means internal debt do not cause use GDP can be rejected.

Therefore the presence of Granger Causality is as follows.

- Internal debt and external debt- unidirectional causality.
- External debt and GDP- bidirectional causality
- Internal debt and GDP- bidirectional causality

These results shows that lagged values of internal debt do not cause external debt but external debt can Granger cause internal debt. Secondly, the lagged values of external debt can Granger cause GDP and lagged values of GDP also Granger cause external debt. Thirdly, lagged values of internal debt can Granger cause GDP and lagged values of GDP Granger cause internal debt.

CONCLUSIONS

In this paper, an attempt has been made to answer to an important economic issue that Government debt can impact economic growth in India. On the analysis of data, it can be concluded that increase in the external public debt and internal

public debt has a positive impact on the economic growth of the country. Also with economic growth, Government debt is also increasing in the case of India. It is also concluded from the analysis that external debt causes increase in internal debt in India. Further, it can also be concluded from the study that Government debt is helpful in forecasting economic growth in a country. An increase in public debt will help to stimulate economic growth which will further stimulate aggregate demand and output, among others, via the employment generation and productive investment. However, this relationship is only applicable in the short-run. If it continues to increase in the long run, the effect can switch to becoming negative.

REFERENCES

1. Afxentiou, P.C., (1993). *GNP growth and foreign indebtedness in middle-income developing countries*. *Int. Econ. J.*, 7(3): 81-92
2. Cohen, D. (1993). *Low investment and large LDC debt in the 1980's*. *The American Economic Review*, 437-449.
Fosu, A. K. (1996). *The impact of external debt on economic growth in sub-Saharan Africa*. *Journal of Economic Development*, 21(1), 93-118.
3. Fischer, S., (1993). 'The role of macroeconomic factors in Growth'. *J. Monetary Econ.*, 32: 485-512.
4. Kenton, W., (2020) "What the Debt-to-GDP Ratio Tells Us". *Investopedia*. Retrieved 2020-09-22.
5. Krugman, P. (1988). *Financing vs. forgiving a debt overhang*. *Journal of Development Economics*, 29(3), 253-268. Maghyereh, A. I., & Omet, G. S. (2002). *External debt and economic growth in Jordan: The threshold effect*. Available at SSRN 317541
6. Umaru, A., et.al 'External Debt and Domestic Debt Impact on the Growth of the Nigerian Economy 'International J. Educational Research 2013 Vol.1 Issue 2, ISSN: 2306-7063

