

Impact of External Debt on Economic Growth in India: An Econometric Analysis

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Abstract

The present study investigates the impact of external debt on India's economic growth from 1990-1991 to 2022-2023, where GDP per-capita is a proxy for economic growth. The study also includes some control variables such as gross capital formation, savings and foreign direct investments to assess their impact on economic growth in India. The Johansen Co-integration results revealed a long-run relationship between the variables and the results of the Vector error correction showed that the dependent variable returns to the path of equilibrium at the speed of 18.61% in the long-run. The Granger causality results revealed that there was only a unidirectional relationship between economic growth and total external debt. It is recommended that the Government of India should utilize its external funds in profitable channels which would in turn generate revenue that can be employed to service their debt obligations.

Keywords: Total External Debt, Economic Growth, Johansen Co-integration Test, VCEM Model.

1.1: Introduction

External debt refers to the total liabilities owned by the home country to creditors abroad. The Government of India can borrow from international financial institutions, friendly government abroad, IMF, commercial banks and so on to bridge the gap between revenue and expenditure in the budget as well as to promote economic growth and development. Given the limitations of taxation and deficit financing, external debt becomes inevitable. Mobilization of large funds is crucial to promote investments and achieve socio-economic goals, especially in developing nations like India and external debt plays a significant role in achieving this end. The process of economic development requires rapid industrialization, well developed roads and railways, well established hospitals and educational institutions, import of capital goods and technical know-how and so on. Thus, external assistance is indispensable for economic stimulation and progress of a nation.

The impact of external debt on economic growth is an issue of debate. Whether external debt is a boon or curse depends largely upon the source, composition, volume as well the purpose for which it is utilized. However, it is of vital importance that external debt should be employed optimally and rationally to accelerate economic growth and development as well as to uphold national pride and esteem of the country.

1.1.1: Components of External Debt

External Debt consists of long-term and short-term debt. To arrive at total external debt, long-term and short-term debt have to be taken into account. Long term debts are those debts which are incurred for a longer period of time i.e., for 10 years or more. Such loans are usually incurred by the Government to finance development projects. These loans usually have a high interest rate. Multilateral debt, bilateral debt, IMF loans, export credit, commercial borrowings, NRI deposits and rupee debt are the sources of long-term debt.

Short-term debts on the other hand are those debts which are incurred for a short period of time like 3 to 9 months. These loans are taken by the government to cover up temporary budget deficits and are usually characterized by low interest rates.

1.2: Theoretical Foundation

Theoretical foundation helps us to understand the theoretical aspect of public debt and its correlation with a nation's economic growth and development. The theories concerning public debt can be traced back to ancient philosophical beliefs and early economic frameworks.

1.2.1: The Dual Gap Model

This model was developed by Hollis Chenery and Alan Strout in 1966. In this model, they explained how the domestic gap (investment-savings) and the foreign exchange gap (imports-exports) can be bridged by resorting to foreign borrowing. Foreign aid in the form of FDI and FII can be utilized to promote investments as well as to import capital goods and technology needed for the growth and progress of developing nations.

1.2.2: Pre-Classical View on Debt

Sir James Steuart was a prominent pioneer of the pre-classical school of thought, had favorable attitude towards public debt. He felt that public borrowing was an important component of development, growth, stability and progress for any nation, especially developing ones. Sir James Steuart put forward his views about debt in his famous book *Principles of Political Economy (1767)*. With eloquence and conviction, he boldly proclaimed that the nation's wealth remains unaltered, whether the same sum is lent to private individuals or entrusted to the government. Instead, he astutely argued that public borrowing, or the notorious national debt, has the power to breathe life into the country's permanent income, by utilizing stagnant funds and trade imbalances (Walter F. Stettner 1945, pp. 454-455).

1.2.3: Classical Views on Public Debt

The classical economists such as Adam Smith, Ricardo, and David Hume opined that public borrowing was unproductive and wasteful. They believed that the Government should finance its expenditures through the mode of taxation. They felt that external borrowings places a burden on the future generations as the governments, desperate to repay their borrowed funds, would unleash a torrent of exorbitant taxes upon the innocent masses and this would send shockwaves through the delicate fabric of the economic realm, disrupting its very essence.

1.2.4: Keynesian View on Public Debt

Keynes's groundbreaking work, the 'General Theory of Employment, interest and Money (1936)', laid the foundation for a revolutionary understanding of public debt, particularly in the aftermath of the devastating 1930's depression. In his brilliance, Keynes proposed that during times of economic downturn, when the dark clouds of recession loom over an economy, embracing public debt becomes not only desirable but essential. As investment dwindles, employment plummets, and growth stagnates, Keynes advocated for the adoption of deficit financing and public borrowing as a crucial short-term fiscal strategy to shield the economy from the tumultuous waves of fluctuation¹.

1.3: Review of Literature

M.S. Ogunmuyiwa (2011) examined whether external debt enhances economic growth in the Nigeria from 1970-2007 using Augmented Dickey Fuller (ADF) test and Vector Error Correction Method (VECM). The results showed that no causality exists between external debt and economic growth as the causation was found to be weak and insignificant, indicating that the changes in external debt cannot predict the changes in GDP. Thus, research suggests that foreign debt should be utilized for investments in social overheads and capital formation.

Kirandeep Kaur (2014) investigated the impact of total external debt, short term external debt, long term external debt and total reserves on economic growth of India from 1980 to 2012, using Ordinary Least Squares (OLS) method. The results revealed a positive and significant impact of short-term and long-term external debt on GDP and total reserves and total external debt positively and significantly affect economic growth in India, indicating that the external funds were used for productive investments.

Moga Tano Jilenga1 et al., (2016) examined the impact of external debt and Foreign Direct Investment (FDI) on the economic growth in Tanzania from 1971-2011 using ARDL model and Bounds test approach. The test results indicated that, in the long-run external debt had a positive impact on economic growth, indicating that external debt promotes economic growth, whereas, FDI had a negative impact on economic growth meaning that an increase in FDI resulted in a decrease in economic growth. It was thus recommended that the Government of Tanzania should formulate proper policies to realize the potentials from FDI, for example diffusion of advanced technology, increase employment, tax revenue and spillover effect to stimulate the economy.

Swami Prasad Saxena and Ishan Shanker (2018) analyzed the impact of external debt on India's economic growth covering a time period spanning from 1991-92 to 2015-16. The study used OLS method for analysis. The results of the OLS estimates indicated a negative relationship between GDP (Economic growth) and External debt. Based on the findings of the study, it was suggested that the external loans should be utilized for productive investments, as it would contribute to economic growth in the short-run, but beyond a certain limit, it would hinder the growth of India.

Nur Hayati Abd Rahman et al., (2021) investigated whether ageing population increases external debt. The study used a sample of 36 upper-middle economies covering a time period from 2000 to 2017 using Generalized Method of Moments (GMM) for statistical analysis. The empirical results revealed that the increase in external debt was due to an increase in the population aged 65 and above as the Government had to utilize its external funds for health care, social security and old age pensions and so on to promote the health of the elderly.

¹ Hrushikesh Mallick (2005). *An Economic Analysis of Domestic Debt of the Central Government in India* [Doctoral Dissertation, University of Mysore]. Institute for Social and Economic Change (ISEC), Bangalore, p. 31. Shod Ganga, A Reservoir of Indian Thesis. <http://hdl.handle.net/10603/92528>.

Idah Zuhroh and Desy Pristiva (2022) assessed the impact of external debt, exports, FDI and exchange rate on the economic growth of seven South Asian developing countries including India from 2005-2019 using panel repression method. The results revealed that external debt, exports and FDI had a positive impact on economic growth, while exchange negatively affected economic growth in these countries. The research recommended that the external funds should be directed towards profitable channels and these countries should adopt appropriate debt management policies.

Sonia Afrin et al., (2023) also explored the relationship between external debt and economic growth in five South Asian countries, i.e., India, Bangladesh, Sri Lanka, Pakistan and Bhutan from 1980 to 2020 using ARDL method. The studies also included variables such as FDI, capital formation and population. The test results indicated that external debt effects economic growth negatively in the long and short-run. Among the other variables, FDI effects economic growth negatively, whereas the effects of capital formation and population on economic growth are found to be insignificant in the long and short-run. Thus, it is suggested that these countries should increase their domestic savings and reduce their dependence on external borrowings.

A number of studies have explored the relationship between external debt and economic growth in India as well as in other countries. Most of the studies found that external debt negatively effects economic growth. This shows that external funds should be channelized into productive investments which yield profitable returns, which would in turn promote growth and progress of a nation.

1.4: Research Questions

1. Does external debt have a significant impact on economic growth?
2. Is there a significant relationship between economic growth and other macro-economic variables?

1.5: Objectives of the Study

1. To examine the impact of external debt on economic growth in India
2. To assess the impact of macro-economic variables on economic growth in India.

1.6: Statement of Hypothesis

1. External debt has no significant impact on economic growth in India
2. Macro-economic variables have no significant impact on economic growth in India.

1.7: Data Source and Methodology

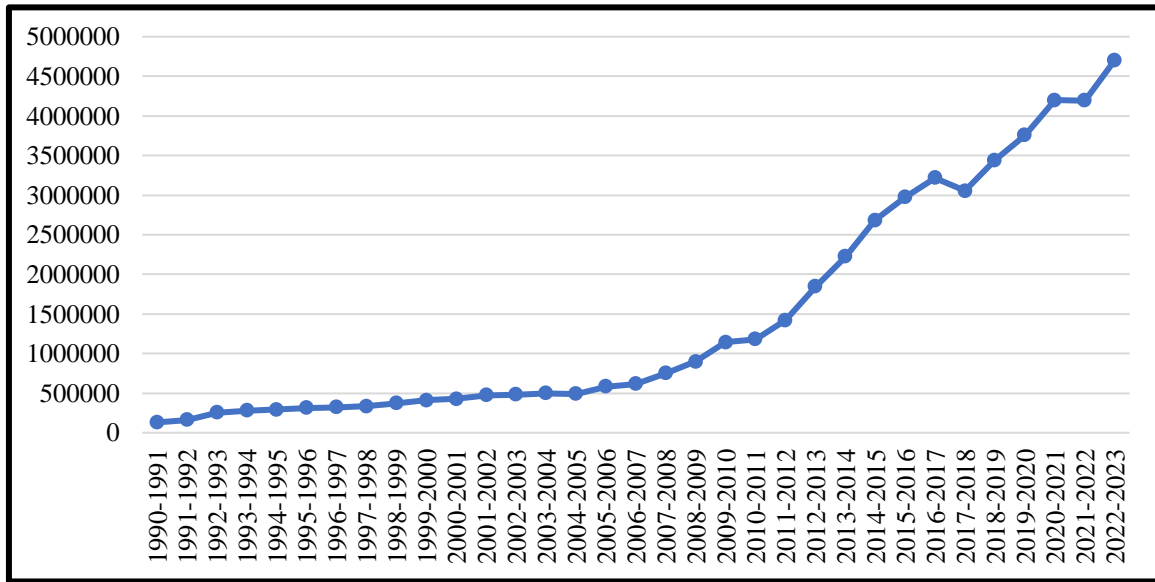
The present study is based on secondary data which is collected from External Debt Reports published by the Ministry of Finance and Handbook of Statistics on Indian Economy published by the Reserve Bank of India. The study covers a time period of 32 years (1990-91 to 2022-2023). The present analyzes the impact of external debt on economic growth in India, where external debt is the independent variable and per-capita GDP is the dependent variable. The study also includes other macro-economic variables such as savings, gross capital formation and foreign direct investments to assess their impact on economic growth, as they also play a key role in affecting the economic performance of a country. The study employs the following methodology; Descriptive Statistics, Unit root test, Johnsen co-integration test, VCEM model, Breusch-Godfrey Serial Correlation LM test, Heteroscedasticity test, Wald test, Granger causality test, and CUSUM stability test for analysis.

Table – 1.1: External Debt of the Central Government of India (in Crores)					
Components					
SL. NO.	Year	Long-Term Debt	Short-Term Debt	Total External Debt (3+4)	Total External Debt as % to GDP
1	2	3	4	5	6
1	1990-1991	117235	12964	130199	22.21
2	1991-1992	146226	16775	163001	24.18
3	1992-1993	232268	20642	252910	32.65
4	1993-1994	260942	19804	280746	31.49
5	1994-1995	279043	11375	290418	27.77
6	1995-1996	298237	13448	311685	25.40
7	1996-1997	304091	16637	320728	22.59
8	1997-1998	311674	24153	335827	21.35
9	1998-1999	349753	19929	369682	20.49
10	1999-2000	393160	18137	411297	20.32
11	2000-2001	411388	17162	428550	19.68
12	2001-2002	455706	16919	472625	20.06
13	2002-2003	468932	13396	482328	19.01
14	2003-2004	476624	22180	498804	17.55
15	2004-2005	471827	19251	491078	15.14
16	2005-2006	504274	77528	581802	15.75
17	2006-2007	528989	87155	616144	14.34
18	2007-2008	628771	122631	751402	15.06
19	2008-2009	714409	182881	897290	15.93
20	2009-2010	921469	220656	1142125	17.63
21	2010-2011	942450	236188	1178638	15.14
22	2011-2012	1129258	290149	1419407	16.24
23	2012-2013	1444205	399962	1844167	18.54
24	2013-2014	1699297	525931	2225228	19.80
25	2014-2015	2131229	550985	2682214	21.51
26	2015-2016	2436397	535145	2971542	21.57
27	2016-2017	2663657	553906	3217563	20.90
28	2017-2018	2483708	571387	3055095	17.84
29	2018-2019	2777385	664575	3441960	18.21
30	2019-2020	3004948	749924	3754872	18.67
31	2020-2021	3391944	805708	4197652	21.16
32	2021-2022	3449358	742995	4192353	17.86
33	2022-2023	3777962	922484	4700446	17.25

Source: (1) Government of India, *India's External Debt: A Status Report* (Compiled from Various Issues), Ministry of Finance, New Delhi.
(2) RBI, *Handbook of Statistics on Indian Economy* (Various Issues), New Delhi.

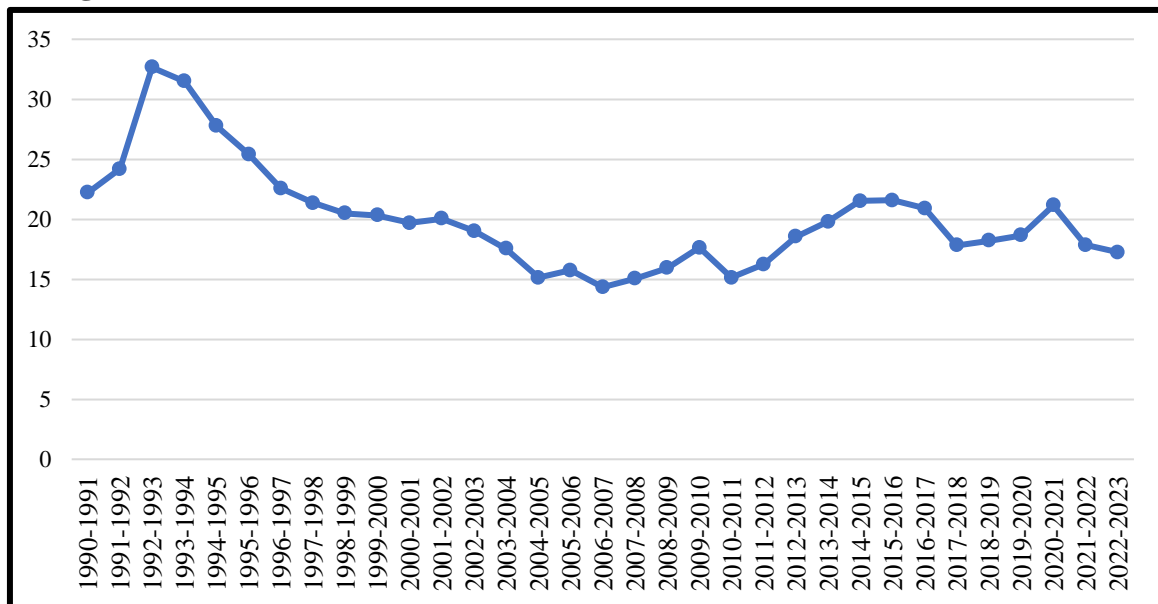
Note: (1) External Debt is represented at Current Exchange Rates.
(2) Data for 2022-2023 are Revised Estimates.

Figure 1: India’s External Debt Stock (1990-1991 to 2020-2023)



Source: Table 1.1

Figure 2: India’s External Debt Stock - 1990-1991 to 2022-2023 (as % to GDP)



Source: Table 1.1

Figure 1 depicts the debt stock of India, which has been rising steady since the 1990s. In 1990-1991, the debt stock stood at 130199 crore and in 2022-2023 it rose to 4700446 crores, which is an increase of 4570247 crore during the last 32 years. The Indian Government resorts to external borrowing as a means to finance its large developmental projects which have long gestation periods. Domestic resources are not sufficient as the taxable capacity of the people are low. The Government can also opt for deficit financing to finance its expenditure. However, due to its inflationary effects on the economy, the Government prefers to borrow externally.

Figure 2 represents the debt stock of India as percentage to GDP. In 1990-1991, the external debt stock stood at 22.21 as percentage to GDP. During the period 1992-1993 to 1995-1996, the debt stock as percentage to GDP was quite high, as the Indian Government borrowed heavily for infrastructural development, population control as well as to promote human resource development. However, in 2022-2023, the debt stock as percentage to GDP decreased to 17.25.

1.8: Model Specification

In order to investigate the impact of external debt on economic growth in India, the following model is formulated as:

$$GDP\ Per-Capita = F (TED, GCF, FDI, GS)$$

Where GDP per-capita represents economic growth, ED is Total External Debt, GCF represents Gross Capital Formation, FDI is Foreign Direct Investment and GS stands for Gross Savings. It cannot be assumed that only external debt affects economic growth, as the economic growth of a nation is also influenced by other macro-economic variables. Thus, this study incorporates the above mentioned macro-economic variables to analyze their impact on economic growth in India.

1.9: Descriptive Statistics

Descriptive statistics give us a summary of the mean, median, standard deviation, skewness, kurtosis and Jarque-Bera probability value for the data set. The most important of all these is the Jarque-Bera test as it reveals whether the data is normally distributed or not.

Table 1.2: Basic Descriptive Statistics					
Particulars	GDP Per-Capita	Total External Debt	Gross Capital Formation	Foreign Direct Investments	Gross Savings
Observations	33	33	32	33	32
Mean	60564.43.	1457872.	2315857.	131524.1	2217116.
Median	38277.00.	616144.0	1405594.	102652.0	1360530.
Maximum	196983.0.	4700446.	7361647.	418763.0	7076659.
Minimum	333.3000	130199.0	146907.0	174.0000	134408.0
Std. Dev.	56304.67.	1435889.	2240324.	137641.6	2154231.
Skewness	0.868011	0.937446	0.760791	0.736258	0.796918
Kurtosis	2.539901	2.392881	2.222466	2.237523	2.275276
Jarque-Bera	4.435016	5.340249	3.893028	3.780805	4.087384
Probability	0.108880	0.069244	0.142771	0.151011	0.129549
Sum	1998626.	48109778	74107421	4340294.	70947697
Sum Sq. Dev.	1.01E+11	6.60E+13	1.56E+14	6.06E+11	1.44E+14
Source: Author's Computation using Eviews 12					

It is clear from table 1.2, that the data set is normally distributed as the Jarque-Bera probability value for all the variables is above 0.05, indicating normal distribution. If the probability is below 0.05,

the data set is not normally distributed. When the data set is normally distributed, it appears as a bell-shaped curve when depicted graphically. It also indicates that the data is symmetric and has zero skewness.

1.10: Unit Root Test

Unit Root Test was conducted to ensure that all the variables were stationary. There are various kinds of unit root tests, this study employs Phillips Peron Unit Root Test.

Table 1.3.: Phillips Peron Unit Root Test Results (At Level)				
Variables	At 5% Level of Significance	t-Statistic	Prob.	Interpretation
GDP Per-Capita	-1.951687	9.608906	1.0000	Non-Stationary
Total External Debt	-1.951687	6.326611	1.0000	Non-Stationary
Gross Capital Formation	-1.952066	6.045990	1.0000	Non-Stationary
Foreign Direct Investment	-1.951687	1.165272	0.9337	Non-Stationary
Gross Savings	-1.952066	7.159667	1.0000	Non-Stationary
Source: Author's Computation using Eviews 12				

Table 1.3.1: Phillips Peron Unit Root Test Results (At First Difference)				
Variables	At 5% Level of Significance	t-Statistic	Prob.	Interpretation
GDP Per-Capita	-1.952066	-5.035274	0.0000	Stationary
Total External Debt	-3.562882	-5.331889	0.0008	Stationary
Gross Capital Formation	-1.952473	-2.641562	0.0101	Stationary
Foreign Direct Investment	-1.952066	-3.488401	0.0010	Stationary
Gross Savings	-3.568379	-5.486811	0.0006	Stationary
Source: Author's Computation using Eviews 12				

The Phillips Peron test results are presented in Table 1.3 and 1.3.1. At level, none of the variables were stationary. However, at first difference, all the variables were found to be stationary at 5% level of significance.

1.11: Johansen Co-integration Test

After applying unit root tests, Johansen Co-integration test was applied to check whether there is a long-run relationship between the selected variables. Johansen co-integration tests are applied when the variables are stationary at the same order.

Hypothesized No. of CE (s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None*	0.978958	269.2193	69.81889	0.0000
At most 1*	0.950152	161.1042	47.85613	0.0000
At most 2*	0.901095	77.13816	29.79707	0.0000
At most 3	0.356803	12.35762	15.49471	0.1406
At most 4	3.94E-05	0.001104	3.841465	0.9731

Trace test indicates 3 cointegrating egn (s) at the 0.05 level, *denotes rejection of the hypothesis at the 0.05 level, **Mackinnon-Haug-Michelis (1999) p-values.

Source: Author's Computation using Eviews 12

Hypothesized No. of CE (s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None*	0.978958	108.1151	33.87687	0.0000
At most 1*	0.950152	83.96602	27.58434	0.0000
At most 2*	0.901095	64.78054	21.13162	0.0000
At most 3	0.356803	12.35651	14.26460	0.0980
At most 4	3.94E-0.5	0.001104	3.841465	0.9731

Max-eigenvalue test indicates 3 cointegrating egn (s) at the 0.05, *denotes rejection of the hypothesis at the 0.05 level, **Mackinnon-Haug-Michelis (1999) p-values.

Source: Author's Computation using Eviews 12

Table 1.4 and 1.4.1 represent the results of the Johansen Co-integration test. The trace statistics as well as the maximum eigenvalue suggests three co-integrating relationships at 5% level of significance, indicating a long-run co-integration among GDP-per-capita, external debt, gross capital formation, foreign direct investment and savings.

1.12: Vector Error Correction Model

Vector Error Correction Model (VECM) is applied to check the short-run adjustment dynamics of the selected variables in the long-run, i.e., the speed at which the dependent variable adjusts itself to the path of equilibrium in the long-run.

GDP Per-Capita	Total External Debt	Gross Capital Formation	Foreign Direct Investment	Gross Savings
1.000000	0.138706 (0.00763)	-0.369332 (0.03451)	0.439176 (0.05904)	0.228633 (0.03753)

Source: Author's Computation using Eviews 12

Table 1.6: Adjustment Coefficients (standard error in parentheses)				
GDP Per-Capita	Total External Debt	Gross Capital Formation	Foreign Direct Investment	Gross Savings
-0.186100	-3.380509	-9.834242	-0.201147	-7.822660
Source: Author’s Computation using Eviews 12				

Table 1.5 represents the results of normalized co-integrating vector for the selected variables. According to this, all the coefficients of the variables have to be multiplied by -1, thus all the variables with a negative sign become positive and all the variables with a positive sign become negative.

In this study, the dependent variable is GDP per-capita and independent variable is total external debt. The study also includes other macro-economic variables such as gross capital formation, foreign direct investment and gross savings to assess their impact on economic growth (GDP per-capita). Thus, it is clear from table 1.5, that external debt negatively impacts economic growth in India in the long-run. A positive relationship was found between GCF and economic growth. However, it was also found that FDI and savings negatively impact economic growth in India during the study period. The results also indicated that the dependent variable returns to the path of equilibrium at the speed of 18.61% in the long-run (table 1.6).

1.13: Check for Serial Correlation and Heteroscedasticity

The next step is to check for serial correlation and heteroscedasticity of the selected variables.

Table 1.7: Breusch-Godfrey Serial Correlation LM Test Results			
Null Hypothesis: No Serial Correlation at up to 3 lags			
F-Statistic	0.517157	Prob. F (3,9)	0.6808
Source: Author’s Computation using Eviews 12			

Table 1.7 represents the results of serial correlation test. The null hypothesis for this test is stated as ‘No Serial Correlation’. Since the prob. value is 0.6808, which is more than 5 percent, we cannot reject the null hypothesis and thus, conclude that there is no serial correlation among the variables.

Table 1.8: Breusch-Pagan-Godfrey Heteroscedasticity Test Results			
Null Hypothesis: Homoscedasticity			
F-Statistic	0.542591	Prob. F (20, 8)	0.8723
Source: Author’s Computation using Eviews 12			

Table 1.8 represents the results of heteroscedasticity test. The null hypothesis for this test is stated as ‘Homoscedasticity’. Since the prob. value is 0.8723, which is more than 5 percent, we cannot reject the null hypothesis and thus, conclude that all the variables are homoscedastic.

1.14: Wald Test

Wald test is applied to check whether the independent variables have a significant impact on the dependent variable in the short-run. The following table represents the Wald test results.

Table 1.9: Wald Test Results				
Variables	Test Statistic	Value	df	Prob.
Total External Debt	F-Statistic	0.911721	(3, 12)	0.4643
	Chi-square	2.735162	3	0.4343
FDI	F-Statistic	3.028337	(3, 12)	0.0712
	Chi-square	9.085012	3	0.0282
Gross Capital Formation	F-Statistic	0.077224	(3, 12)	0.9711
	Chi-square	0.231672	3	0.9723
Savings	F-Statistic	0.050143	(3, 12)	0.9844
	Chi-square	0.150430	3	0.9852
Source: Author's Computation using Eviews 12				

It can be seen from the above table (1.9), that only FDI has a significant impact on economic growth (GDP per-capita) in the short-run. Total external debt, gross capital formation and savings have no significant impact on economic growth in the short-run. However, in the long-run, all these variables have a significant impact on economic growth.

1.15: Granger Causality Test

Granger causality test is done to examine whether one variable can predict the future values of another variable.

Table 1.10: Granger Causality Test Results			No. of Lags: 2
Null Hypothesis	F-Statistic	Prob.	Obs
Total external debt not granger cause economic growth	1.70800	0.2009	31
Economic growth does not granger cause total external debt	7.41534	0.0028	
Source: Author's Computation using Eviews 12			

From the above the table (1.10), we can observe that there is only a unidirectional causality between the two variables. Since the P value for the first H_0 is 0.2009, which is more than 5 %, we cannot reject it. However, the P value for the second H_0 is 0.0028 which is less than 5 % level of significance, we reject the null hypothesis and conclude that only economic growth granger causes external debt.

1.16: Stability Tests: CUSUM and CUSUM Squares Tests

After applying all the above tests and models, it is important to check the stability status of the model and to do this, we employ CUSUM and CUSUM of squares stability tests.

Figure 3: CUSUM Test

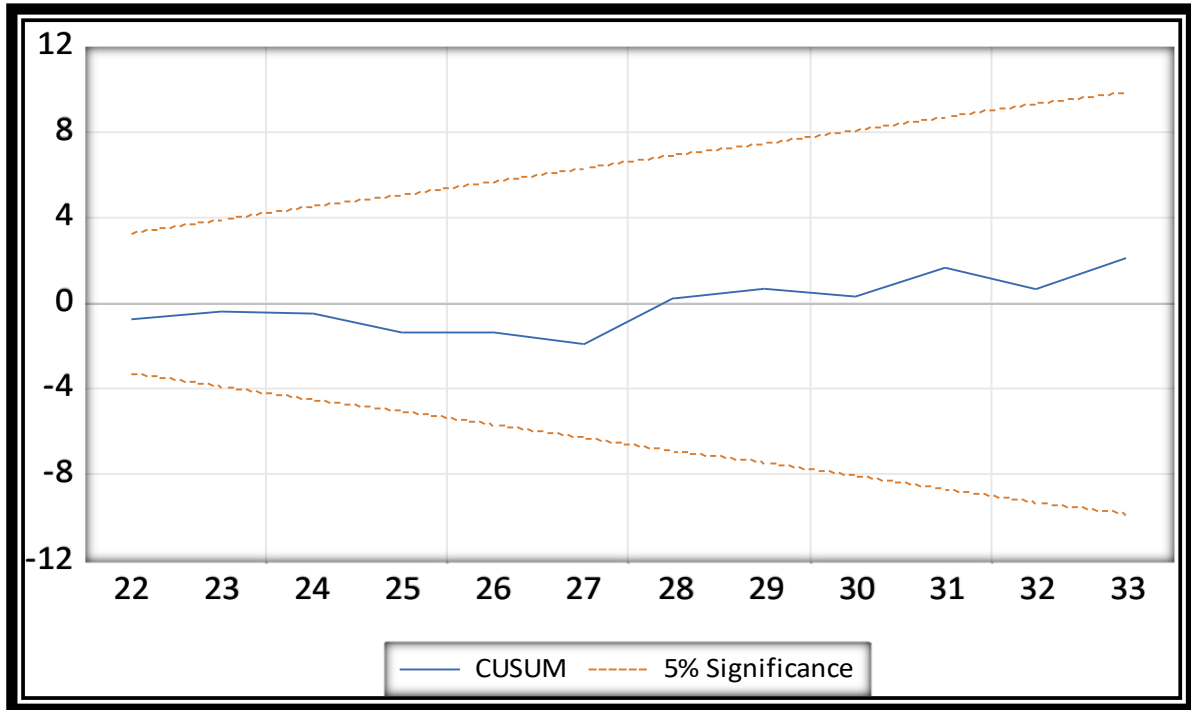


Figure 4: CUSUM Squares Test

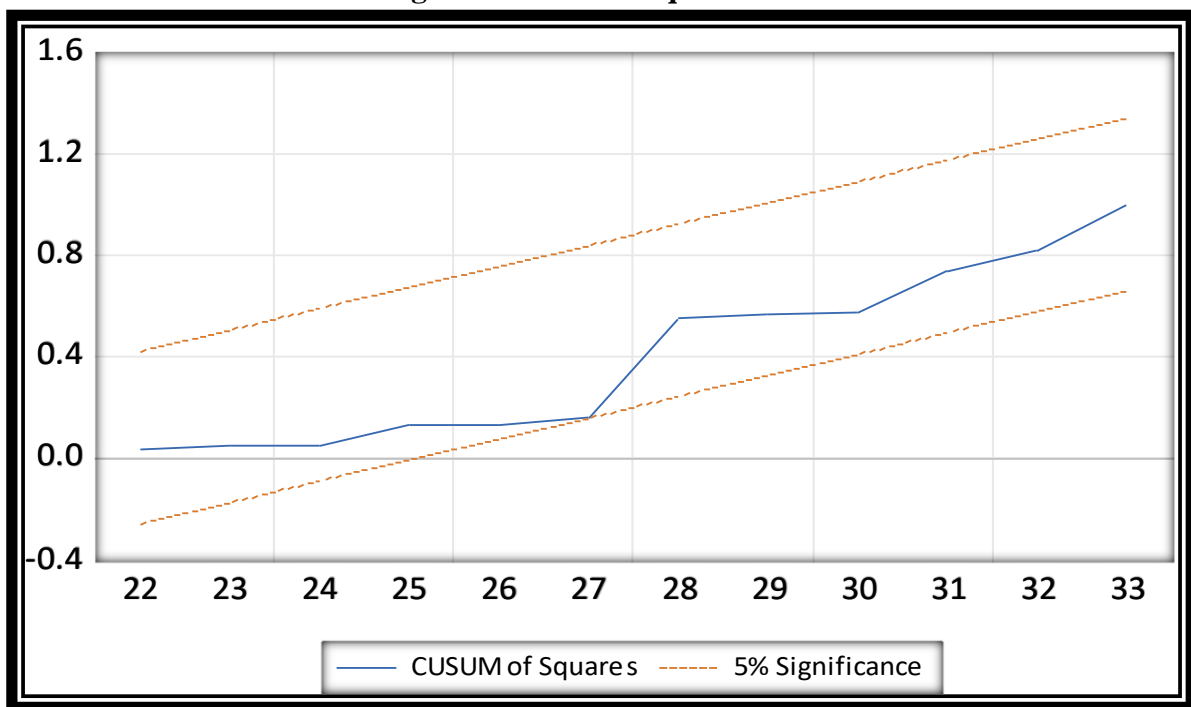


Figure 3 and 4 represents the stability of the model. The model is stable as the test values (blue line) for both, CUSUM test and CUSUM of squares test fall within the 5 percent critical line (red ridges).

1.17: Summary and Findings

- This present study aimed at investigating the empirical relationship between external debt and economic growth in India for a period of 32 years (1990-1991 to 2022-2023).
- The results of descriptive statistics revealed that the data set is normally distributed.
- The results of unit root test indicated that the variables were not stationary at level, but after first differencing, the variables appeared to be stationary.
- The Johansen's Co-integration test results revealed the presence of long-run co-integration among the selected variables.
- The normality co-integration test results revealed that external debt negatively impacts economic growth in the long-run. While gross capital formation enhances economic growth. However, FDI and savings also negatively impact economic growth in India.
- The VCEM Model indicated that the dependent variable returns to the path of equilibrium at the speed of 18.61% in the long-run.
- The test for serial correlation and heteroscedasticity revealed that the variables had no serial correlation and were homoscedastic.
- The Wald test results indicated that only FDI has a significant impact on economic growth in the short-run. However, in the long-run, all the variables have a significant impact on economic growth.
- Granger Causality test results indicates only a unidirectional causality between the two variables, i.e., only economic growth granger causes external debt.
- The results of the CUSUM test and CUSUM squares test revealed that the model is structurally stable as the test values fall within the boundaries.

1.18: Conclusion and Policy Implications

The study found that economic growth (GDP per-capita) is significantly and negatively affected by external debt in India. A negative relationship was also found between economic growth and FDI as well as savings. However, gross capital formation had a positive impact on economic growth. The outcome of the study is consistent with the findings of *Swami Prasad Saxena and Ishan Shanker (2018)* and *Sonia Afrin et al., (2023)*.

Therefore, the Government of India should utilize its external funds to promote investments in productive endeavors such as infrastructure, education, health, agricultural and industrial development and so on, as this would yield profitable returns, which can be utilized to pay off the interest as well as the principal amount. The Government of India can also enhance its financial position by complying with the targets and guidelines set by the *Fiscal Responsibility and Budget Management Act*, as well improve the tax base, and adopt stringent public debt management policies. Since FDI and savings negatively impact economic growth, the Government of India should adopt comprehensive strategies and guidelines in order to capitalize on the opportunities presented by FDI. These policies should include strategies to facilitate the transfer and adoption of advanced technology. The Government of India should also make an effort to channelize savings into productive investments as this in turn would boost production and employment, thereby leading to substantial and long-lasting economic growth of the nation.

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