



# The Impact of Domestic Debt on Economic Growth of a Country

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## Abstract

*Domestic debt is a key determinant of public finance as it provides governments with opportunities to finance deficits, cover capital expenditure projects such as infrastructure, and cushion economic stability. This paper analyses the effect of domestic debt on economic growth, inflation, and financial stability, with emphasis on India. Applying a thorough examination of macroeconomic statistics over the past 30 years (1995–2024), the study utilizes statistical and econometric methods, such as co-integration tests, Granger causality tests, and regression modelling, to measure the impact of internal debt on GDP growth. The results show that domestic debt has no statistically significant direct impact on economic growth but leads to financial instability when poorly managed. The research points to issues like deficits, interest payments, and crowding out of private sector investment. From these findings, the paper suggests a strong debt management strategies, enhanced fiscal responsibility, and measures to balance inflation management and interest rate stability. Through these interventions, policymakers can make the most of domestic debt use while reducing economic risks.*

**Keywords:** Domestic Debt, Internal Debt, Fiscal Deficit, Economic Growth, Financial Stability, Inflation, Interest Rates, Crowding-Out Effect, Public Finance, Debt Management, Monetary Policy, Government Borrowing, GDP Growth, Private Sector Investment, Debt Sustainability

## 1. Introduction

Domestic debt is also known as internal debt, embodies the borrowings by the government from domestic lenders, including commercial banks, financial institutions, insurance companies, pension funds, and even the central bank. Governments often resort to domestic borrowing to bridge fiscal deficits, finance infrastructure projects, and fuel economic growth. The influences of domestic debt on a nation's economy are multi-layered, incorporating both

benefits and risks. Internal debt is not the same as external debt, which involves borrowing from foreign creditors, as internal debt is strictly confined within the domestic financial system and is repaid using resources generated within the country. One of the most important reasons governments borrow internally is to fill fiscal deficits without making money directly, which would possibly result in hyperinflation<sup>1</sup>.

Monetary policy and interest rates are impacted by internal debt. When governments heavily borrow from local banks, they tend to have higher interest rates, causing more expensive borrowing for businesses and households. A moderate level of internal debt will therefore be seen to be good for the reasons of providing financial institutions with safe investments and supporting a stable national economy during adverse periods of recession. While it provides governments with a significant instrument for economic steadiness and development, its management requires a balanced method to prevent negative consequences.

Domestic debt in India is raised through various internal sources, safeguarding financial stability and economic growth. Commercial banks play an important role through acquiring government securities such by way of bonds and treasury bills. They are also focused towards regulatory requirements alike the Statutory Liquidity Ratio (SLR), which instructions holding a share of their assets in government securities. The Reserve Bank of India (RBI) manages the government's domestic debt as per the RBI Act, 1934, and conducts Open Market Operations (OMOs) to control liquidity plus interest rates<sup>2</sup>.

Institutional investors, through pension funds, insurance companies, and mutual funds, augment to domestic debt through investing in government securities due to their low-risk nature. State-owned enterprises (SOEs) similarly invest in these instruments, often as part of their delegated investment strategies. Retail investors and households contribute through government savings schemes like the National Savings Certificates (NSCs) and the Public

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<sup>1</sup> Abbas, S. M. A., & Christensen, J. E. (2007). *The role of domestic debt markets in economic growth: An empirical investigation for low-income countries and emerging markets* (IMF Working Paper No. 07/127). International Monetary Fund.

<sup>2</sup> Reserve Bank of India. (2009). *Right to Information Act, 2005 – Disclosure of information*

Provident Fund (PPF), which provide an unwavering source of domestic financing<sup>3</sup>.

Apart from this, NBFCs also invest in government securities for liquidity management and regulatory requirements. Very possibly, large corporations and private enterprises may also possess government securities as part of their financial portfolios. Besides, state and local governments secure funds for their regional projects and infrastructures through instruments such as State Development Loans (SDLs).

It should be noted that domestic debt impacts, in one way or the other, the economic aspect of the country, significantly affecting financial markets, inflation rates, and also the overall country's economic growth. The effects are varied, however, implying that they could be both positive and negative based on how much the country borrows and how effective the management of that debt is. Some of the major effects are:

- New funding for Economic Growth- The borrowed funds can be invested in the infrastructure, healthcare, and education of the country for growth in the long term<sup>4</sup>.
- Avoids Foreign Dependency- Unlike external debt, domestic debt reduces reliance on foreign lenders, thereby cutting down risks from any exchange rate fluctuations<sup>5</sup>.
- Monetary Policy Control - This allows the government to regulate more efficiently the debts in the country through manipulation in interest rates and through the action of the central bank<sup>6</sup>.
- Encouragement to Save- Government bonds provide a safe investment avenue. This will boost national savings<sup>7</sup>.

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<sup>3</sup> Ministry of Finance, Government of India. (n.d.). *Annex 9: Internal debt and other liabilities of the central government*.

<sup>4</sup> Sahoo, S., & Dash, R. K. (2018). *Fiscal policy and domestic debt in India: A case study*. *Indian Economic Journal*

<sup>5</sup> R. P. (2019). India's debt management strategy: A focus on domestic debt. *Asian Development Policy Review*

<sup>6</sup> Reserve Bank of India. (2020). *Monetary policy and domestic debt management in India*. Reserve Bank of India Bulletin.

<sup>7</sup> Ghosh, A., & Ghosh, M. (2021). The role of government securities in promoting savings in India. *Indian Journal of Finance*

- Crowding Out Effect – Extreme government borrowing can decrease funds existing for private sector investment, decelerating economic growth<sup>8</sup>.
- Higher Interest Payments – Amplified debt levels lead to higher interest commitments, restraining resources for development and social agendas<sup>9</sup>.
- Fiscal Imbalance – Persistent borrowing without proper revenue generation can create long-term fiscal instability<sup>10</sup>.
- Risk of Debt Trap – If debt cultivates quicker than GDP, the government may struggle with settlements, leading to a series of continuous borrowing<sup>11</sup>.

## 2. Literature Review

Title	Author	Year	Literature Review
Public debt and economic growth in India: A reassessment. <i>Economic Analysis and Policy</i>	Bal, D. P., & Rath, B. N.	(2014)	<ul style="list-style-type: none"> <li>● The study scrutinizes the relationship between public debt and economic growth in India (1980–2011) by means of the ARDL bounds testing approach, certifying robustness even with different integration orders.</li> <li>● The Error Correction Model (ECM) analyzes short-term fluctuations and the speed of adjustment to long-run equilibrium.</li> </ul>

<sup>8</sup> Kumar, M. S., & Sharma, D. R. (2020). Crowding out in the Indian economy: Impact of rising domestic debt. *Journal of Economic Policy*

<sup>9</sup> Reserve Bank of India. (2021). *Public debt and the fiscal health of India: The burden of rising debt*.

<sup>10</sup> Government of India. (2020). *Fiscal deficit and domestic debt management in India: Challenges and policy options. Economic Survey 2020-21*.

<sup>11</sup> Shah, S., & Rao, B. (2017). *Debt sustainability and public debt traps: An analysis of India's debt trajectory. Asian Development Review*

			<ul style="list-style-type: none"> <li>• Underlines careful fiscal management, investments in education, technology, and institutions to enhance TFP growth, and keeping debt levels in check to avoid excessive debt servicing costs.<sup>12</sup>.</li> </ul>
Impact of Domestic Public Debt on Economic Growth: An Empirical Study in the Indian Context.	Gangadharan, S. R., & Padmakumari, L.	(2016)	<ul style="list-style-type: none"> <li>• The study (1980–2014) uses ARDL co-integration and Granger causality tests to analyse the effects of domestic debt on India's economic growth.</li> <li>• Domestic debt negatively impacts growth, whereas savings have a positive effect. Though, long-run coefficients are not statistically significant, signifying an indistinct long-term impact</li> <li>• Granger causality tests recommend that domestic debt does not drive economic growth, while savings do, underlining the role of savings in short-term economic development<sup>13</sup></li> </ul>

<sup>12</sup> Bal, D. P., & Rath, B. N. (2014). Public debt and economic growth in India: A reassessment. *Economic Analysis and Policy*, 44(3), 292–300

<sup>13</sup> Gangadharan, S. R., & Padmakumari, L. (2016). Impact of Domestic Public Debt on Economic Growth: An Empirical Study in the Indian Context. *Asian Journal of Empirical Research*, 6(4), 101–11

<p>Debt and Economic Growth in India. (2003). <i>Economic and Political Weekly</i>,</p>	<p>Charan Singh</p>	<p>. (2003)</p>	<ul style="list-style-type: none"> <li>● Analyse the relationship between domestic debt and economic growth in India (1970-71 to 1987-88), challenging conservative economic theories.</li> <li>● Conflicting to common concerns, the study advises that domestic debt growth has been favourable, citing Rao (1953) on its possible positive effects.</li> <li>● Highlights the nuanced impact of domestic debt, underlining that its role in economic development needs careful assessment rather than absolute scepticism<sup>14</sup>.</li> </ul>
<p>Household Debt and Financial Stability. Global Financial Stability Report, Chapter 2, International Monetary Fund.</p>	<p>Valckx, N., Alter, A., Feng, A. X., &amp; Yao, X</p>	<p>(2017)</p>	<ul style="list-style-type: none"> <li>● Short-term rises in household debt rise growth and employment, but medium-term effects lead to financial uncertainty, unemployment, and banking crises.</li> <li>● Fast debt accumulation makes economies prone to shocks, reducing consumption and GDP growth, with superior risks in emerging markets with weak regulatory inaccuracy.</li> <li>● It strains macro-prudential policies, credit registries, and consumer protection to</li> </ul>

<sup>14</sup> Charan Singh, Domestic Debt and Economic Growth in India. (2003). *Economic and Political Weekly*, 38(11), 1129-1133.

			moderate risks and safeguard a balance between financial inclusion and economic stability <sup>15</sup> .
Sovereign Debt, Domestic Banks, and the Provision of Public Liquidity	Perez, D. J.	(2015).	<ul style="list-style-type: none"> <li>• Observes how sovereign defaults affect domestic economies through banking systems, using both theoretical and quantitative methods.</li> <li>• Identifies the balance-sheet effect (defaults weaken banks' net worth, limiting investment) and the liquidity effect (defaults reduce government debt as a liquid asset, foremost to inefficient investments).</li> <li>• Using Argentina's 2001 evasion, the study attributes 65% of output costs to balance-sheet effects and 35% to liquidity effects, advocating for minimum public debt requirements to improve financial stability<sup>16</sup>.</li> </ul>
Beware of Financial Repression: Lessons from History.	Hoffmann, A.	(2019)	<ul style="list-style-type: none"> <li>• Inspects the policy of funnelling funds to the public sector at below-market rates,</li> </ul>

<sup>15</sup> Valckx, N., Alter, A., Feng, A. X., & Yao, X. (2017). Household Debt and Financial Stability. Global Financial Stability Report, Chapter 2, International Monetary Fund.

<sup>16</sup> Perez, D. J. (2015). Sovereign Debt, Domestic Banks, and the Provision of Public Liquidity.

			<p>evaluating its negative effect on productivity and growth.</p> <ul style="list-style-type: none"> <li>● References the Bretton Woods era, presenting how financial repression distorted economies, and highlights its role in inefficient capital allocation in emerging markets.</li> <li>● Debates against financial suppression as a debt management tool, encouraging for financial liberalization and structural reforms to support sustainable economic growth<sup>17</sup>.</li> </ul>
Analysing the impact of domestic debt restructuring on banks in Ghana.	Ahinsah-Wobil, I.	(2022)	<ul style="list-style-type: none"> <li>● Ghanaian banks met financial losses although adapting to a new financial order, supported by the Ghana Financial Stability Fund (GFSF) for liquidity and regulation.</li> <li>● Banks responded by reducing exposure to government securities, diversifying portfolios, and improving transparency using IFRS 9 Financial Instruments.</li> <li>● Emphasizes asset quality analysis, digital transformation, ecosystem partnerships, and green</li> </ul>

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<sup>17</sup> Hoffmann, A. (2019). Beware of Financial Repression: Lessons from History.

			banking initiatives for long-term financial stability <sup>18</sup> .
Private sector financing: Linear and quadratic effects of domestic public debt on bank credit supply.	Zouari, S., Saidane, D., & Gabsi, F. B.	(2022)	<ul style="list-style-type: none"> <li>Analyses the nonlinear relationship between domestic public debt and private sector credit in 19 Maghreb banks (2005–2018) using a dynamic panel model.</li> <li>Identifies an inverted U-shaped relationship, where public debt initially boosts private sector credit but becomes harmful beyond 9.77% of total bank assets.</li> <li>Contrasts the "lazy banks" view (banks prefer government securities over private lending) with the "safe asset" view (government debt supports private lending), concluding that excessive public debt crowds out private credit<sup>19</sup>.</li> </ul>
The Role of Domestic Debt Markets in Economic Growth: An	Abbas, S. M. A., & Christensen, J. E.	(2007)	<ul style="list-style-type: none"> <li>Analyses the impact of domestic debt on growth in low-income and emerging markets, using data from 93 countries (1975–2004).</li> <li>Moderate domestic debt enhances growth through</li> </ul>

<sup>18</sup> Ahinsah-Wobil, I. (2022). Analysing the impact of domestic debt restructuring on banks in Ghana.

<sup>19</sup> Zouari, S., Saidane, D., & Gabsi, F. B. (2022). Private sector financing: Linear and quadratic effects of domestic public debt on bank credit supply.

Empirical Investigation for Low-Income Countries and Emerging Markets.			<p>monetary policy effectiveness, financial development, and increased savings, but exceeding 35% of bank deposits can crowd out growth.</p> <ul style="list-style-type: none"> <li>• The positive impact of domestic debt is stronger when it is marketable, offers positive real interest rates, and is held outside the banking system<sup>20</sup>.</li> </ul>
The Aftermath of Debt Surges. Policy Research Working Paper 9771, World Bank.	Kose, M. A., Ohnsorge, F., Reinhart, C. M., & Rogoff, K. S.	(2021)	<ul style="list-style-type: none"> <li>• Examines how financial repression forces banks to hold low-yielding government securities, limiting private lending and reducing bank profitability</li> <li>• Highlights debt crisis risks, where banks' heavy exposure to government debt leads to balance sheet losses and systemic instability.</li> <li>• Domestic debt surges erode investor confidence, increase borrowing costs, and undermine economic recovery and financial market performance<sup>21</sup>.</li> </ul>

<sup>20</sup> Abbas, S. M. A., & Christensen, J. E. (2007). The Role of Domestic Debt Markets in Economic Growth: An Empirical Investigation for Low-Income Countries and Emerging Markets.

<sup>21</sup> Kose, M. A., Ohnsorge, F., Reinhart, C. M., & Rogoff, K. S. (2021). The Aftermath of Debt Surges. Policy Research Working Paper 9771, World Bank.

### **3. Problem Statement**

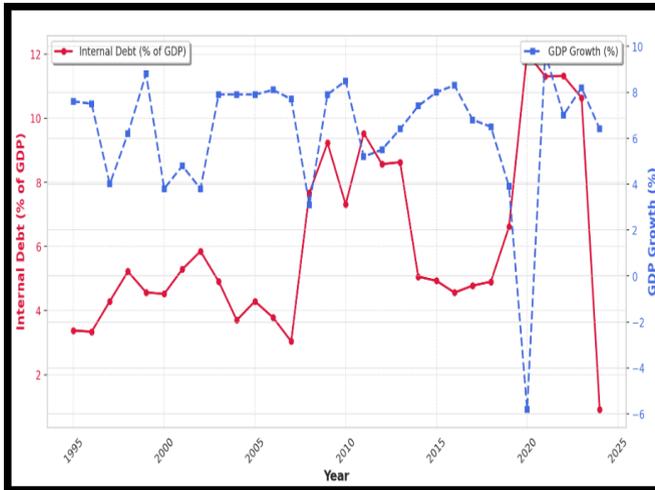
This study inspects the effect of domestic debt on a country's economic growth. Governments, time and again, depend on domestic borrowing to finance fiscal deficits, leveraging funds from domestic financial institutions, pension funds, and private investors. While domestic debt can sustenance economic development by funding infrastructure and social programs, unwarranted accumulation poses risks such as increased debt servicing costs, inflationary pressures, and reduced fiscal flexibility. Huge levels of domestic debt could crowd out private investment, obstruct financial market effectiveness, and drop long-term economic stability. This research aims to analyse the wider consequences of domestic debt on GDP growth, inflation, private sector credit availability, and overall financial sector health.

#### **4. Objectives**

This study scrutinizes the effects of domestic debt on a country's economic growth and financial steadiness. The key objectives are:

1. To analyse the relationship between domestic debt and GDP growth, evaluating whether domestic borrowing backs to or hinders economic growth.
2. To assess the effect of domestic debt on inflation, inspect whether increased government borrowing leads to inflationary pressures.
3. To find out the effects of forced domestic debt holdings on the stability, efficiency, and profitability of the financial sector.

## 5. Internal Debt and GDP of Last 30 Years



(Source - Reserve Bank of India. *Handbook of Statistics on Indian Economy.*)<sup>22</sup>

The above graph shows the relationship between Internal Debt (% of GDP) and GDP Growth (%) in India for the period of 30 years starting from 1995 to 2024, highlighting key economic changes during these years. The data reveals that throughout periods of economic crises, internal debt tends to increase, while GDP growth decreases. An important point to be noted is the 2008 Global Financial Crisis, where internal debt increased from 3.04% in 2007 to 7.67% in 2008, while GDP growth fell to 3.1%. Similarly, during the COVID-19 pandemic in 2020, internal debt increased up to 12.03%, while GDP growth abruptly declined to -5.8%, demonstrating the severe economic disruptions triggered by external shocks. However, post-crisis recoveries are also specious, with GDP bouncing back to 9.7% in 2021, in spite of continuous high debt levels.

During 2003 and 2017, India saw a period of economic stability where internal debt continued relatively low, fluctuating between 3% and 5% of GDP, while GDP growth persisted healthy, reliably fluctuating between 6% and 8%. This time period balances economic expansion and measured borrowing, perhaps due to sound and well-planned fiscal policies and crucial reforms. However,

<sup>22</sup> Reserve Bank of India. (n.d.). *Handbook of statistics on Indian economy*

post-2018, internal debt started increasing again, overlapping with a slowdown in GDP growth. The years 2019-2020 marked a momentous deviance, as debt levels increased while economic growth declined.

In recent years, 2022 to 2024, internal debt has shown a decreasing trend from its pandemic-induced peak, with a prominent drop to 0.92% in 2024, signifying a main shift in fiscal policy or structural economic adjustments. In the meantime, GDP growth remains stable at 6.4% to 8.2%, reflecting the resilience of the Indian economy. The graph highlights a critical pattern—high debt levels often accord with economic slowdowns, while measured debt levels support sustained growth.

## 6. Methodology

The research is secondary-databased, using data of last 30 years (1995-2024), acquired from macroeconomic databases, RBI Handbook of Statistics, to encompass long-run trends. The main variables examined **are internal debt as a percentage of GDP, fiscal deficit to GDP ratio, trade openness, gross savings, inflation rate, real interest rate, and GDP growth rate**. These variables were selected based on their economic significance and likely effect on fiscal stability and overall economic performance.

In order to make sure that the statistical implication was strong, different econometric tests were conducted. The Augmented Dickey-Fuller (ADF) test was conducted to test for stationarity of the data. The two-stage Engle-Granger cointegration test checks whether domestic debt and GDP growth are related in a long-term equilibrium relationship, while the Granger causality tests whether one variable could forecast changes in another. Besides, regression analysis was used to measure the impacts of internal debt and other macroeconomic factors on GDP growth. To ensure the validity of the model, the Breusch-Pagan heteroscedasticity test (to identify non-constant variance), Durbin-Watson and Breusch-Godfrey tests (to identify autocorrelation), and the Variance Inflation Factor (VIF) test (to detect multicollinearity) were done.

## 7. Hypothesis Testing

The objective of the testing is to statistically assess whether domestic debt significantly impacts these variables, bring into line with the objectives of this study. By testing both null and alternative hypotheses, the analysis provides empirical evidence to support or disprove the presumed economic repercussions of domestic debt.

### 1.1. Hypothesis

Null Hypothesis (H0)- Domestic debt has no inverse relationship with the economy's growth.

Alternate Hypothesis (H1)- Domestic debt has inverse relationship with the economy's growth.

### 1.2. Findings and Analysis

#### Durbin – Watson Test

Durbin-Watson Test Results
Durbin-Watson statistic: 2.3663504761301546
Interpretation:
Value close to 2: No autocorrelation
Value towards 0: Positive autocorrelation
Value towards 4: Negative autocorrelation

Table- 1

The Durbin-Watson test measures the occurrence of autocorrelation in the residuals of a regression model. The test statistic found is 2.366, which is close to 2, suggesting no considerable autocorrelation in the residuals. Since autocorrelation can change statistical inferences and affect model efficiency, its absence proposes that the residuals are independent, creating the regression estimates more consistently.

**Breusch – Godfrey Test**

Breusch-Godfrey Test Results
LM test statistic: 1.2640737213141773
LM test p-value: 0.5315080897801941
F test statistic: 0.46188781057820505
F test p-value: 0.6363432387479848

Table- 2

The Breusch-Godfrey test senses the presence of autocorrelation in regression residuals. The test results show an LM test p-value of 0.5315 and an F-test p-value of 0.6363, both above the 0.05 threshold. This shows that there is no significant autocorrelation in the residuals. The nonappearance of autocorrelation advocates that the model's estimates are unbiased and efficient.

**Heteroscedasticity Test**

Heteroscedasticity Test (Breusch-Pagan)
Lagrange multiplier statistic: 15.378201892017863
p-value: 0.017510559617093035
f-value: 4.03163642966871
f p-value: 0.006636188295765861
Interpretation: A p-value below 0.05 indicates heteroscedasticity.

Table- 3

The Heteroscedasticity Test (Breusch-Pagan) assesses whether the variance of residuals is constant. The test results display a p-value of 0.0175 and an

F-statistic p-value of 0.0066, both below the 0.05 threshold, signifying the occurrence of heteroscedasticity.

### **Cointegration Test**

Metrics	Value
Test Statistic	2.315932267
P-value	0.365630245

Table- 4

The cointegration test results demonstrate that there is not a significant long-term relationship between the variables. The test statistic is -2.31593, and the p-value is 0.36563, which is much higher than the normal significance levels (0.05 or 0.01). As the p-value exceeds these thresholds, we fail to reject the null hypothesis of no cointegration, which means the variables do not move together in the long run. This suggests that any short-term correlations between the variables are likely false and do not conclude a stable equilibrium relationship.

### **Granger Causality Test**

<b>Based on the Granger causality test results, there is no significant causal relationship between X1 and Y1 in either direction:</b>
1. Testing if X1 Granger-causes Y1:
At lag 1: p-value = 0.8090 (F-statistic = 0.0638)
At lag 2: p-value = 0.6254 (F-statistic = 0.5511)
2. Testing if Y1 Granger-causes X1 (reverse causality):
At lag 1: p-value = 0.7124 (F-statistic = 0.1495)
At lag 2: p-value = 0.8664 (F-statistic = 0.1504)
Since all p-values are well above the conventional significance levels (0.05 or 0.01), we cannot reject the null hypothesis of no Granger causality in either direction. This suggests that neither variable helps predict the other when controlling for other variables in the model.

Table- 5

The Granger Causality Test tests whether domestic debt affects GDP growth or vice versa. The test is important in determining the direction of causality between these two variables, and it can be used to ascertain if one variable can predict the other variables.

The Granger causality test results show that there is no statistically significant causal relationship between X1 and Y1 in any direction. Testing whether X1 Granger-causes Y1, the p-values at lag 1 (0.8090, F = 0.0638) and lag 2 (0.6254, F = 0.5511) are significantly larger than the conventional significance levels (0.05 or 0.01), suggesting that X1 does not significantly predict Y1. Also, for the reverse causality test (Y1 Granger-causes X1), the p-values at lag 1 (0.7124, F = 0.1495) and lag 2 (0.8664, F = 0.1504) are similarly extremely high, suggesting no Y1 predictive impact on X1. Because all p-values are well above traditional significance levels, we cannot reject the null hypothesis of no Granger causality in either direction. That suggests that X1 and Y1 do not supply significant information to predict each other once other variables in the model are controlled.

### **Multicollinearity Test**

<b>Multicollinearity Test</b>		
Variance Inflation Factors :		
	<b>Variable</b>	<b>VIF</b>
0	Const	70.73864425
1	Internal debt % of GDP	9.607771557
2	Fiscal Deficit to GDP(%)	9.885655446
3	Trade Openness (%of GDP)	1.367829269
4	Gross Saving (%of GDP)	3.843709087
5	Inflation Rate (%)	1.109024298

6	Real Interest Rate	3.170027636
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Table- 6

The Multicollinearity Test measures correlation among independent variables using the Variance Inflation Factor (VIF). A VIF above 10 indicates severe Multicollinearity, while values between 5 and 10 suggest moderate correlation. In this examination, internal debt (% of GDP) and fiscal deficit to GDP (%) have VIF values of 9.61 and 9.89, signifying moderate Multicollinearity, which could affect coefficient accuracy. Other variables display low Multicollinearity (VIF < 5), confirming slight impact on model estimation. The constant term (VIF 70.74) is high but typically ignored.

### **Controlling Multicollinearity**

After conducting a robust analysis controlling for Multicollinearity (through centering), heteroscedasticity (using WLS) and checking for normality, here are the key findings:

<b>1. Impact of Internal Debt on GDP Growth:</b>
Marginal Effect of Internal Debt on GDP Growth:
Coefficient: 0.0875
Standard Error: 0.1251
t-statistic: 0.6997
p-value: 0.4911

Table- 7

The impact of internal debt on GDP growth was analysed after controlling for Multicollinearity, heteroscedasticity (WLS), and normality. The results show a coefficient of 0.0875, **indicating a positive but weak relationship between internal debt and GDP growth**. Though, the p-value (0.4911) is above the 0.05 significance threshold, **suggesting that the effect is not statistically significant**. The t-statistic (0.6997) further confirms that internal debt does not have a

robust instructive power in predicting GDP growth. This implies that internal debt may not have a meaningful or consistent impact on economic growth.

### Regression Test

<b>Regression Statistics</b>	
Multiple R	0.59803036
	2
R Square	0.35764031
	4
Adjusted R Square	0.19006822
	2
Standard Error	0.02578399
	4
Observations	30

Table- 8.1

<b>ANOVA</b>					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	0.0085132	0.0042566	2.1342477	0.08809940
Residual	27	0.0152907	0.00056632		
Total	29	0.0238039			

Total	29	0.023804			
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Table- 8.2

Table- 8.3

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
<b>Intercept</b>	0.14735987	0.039592	3.7218	0.00111	0.06545	0.229264	0.06545	0.22926
<b>internal debt % of GDP</b>	0.22114239	0.523599	0.4223	0.67669	-0.8620	1.304289	-0.8620	1.30429
<b>Fiscal Deficit to GDP (%)</b>	-1.0090861	0.543791	-1.855	0.07636	-2.1340	0.115831	-2.1340	0.11582
<b>Trade Openness (% of GDP)</b>	0.02910923	0.031263	0.9310	0.36148	-0.0355	0.093785	-0.0355	0.09378
<b>Gross Saving (% of GDP)</b>	-0.029823	0.070836	-0.421	0.67765	-0.1763	0.116713	-0.17636	0.11671
<b>Inflation Rate (%)</b>	-0.0038315	0.003891	-0.984	0.33512	-0.0118	0.004219	-0.0118	0.0042
<b>Real Interest rate</b>	-0.6793249	0.307387	-2.209	0.03733	-1.3152	-0.04344	-1.3152	-0.0434

Regression analysis tests the impact of major macroeconomic variables on GDP growth and has an R-squared measure of 0.3576, which indicates that 35.76% of the variation in GDP growth is accounted for by the factors chosen, even though the adjusted R-squared (0.19) measures poor predictive capacity. The F-statistic (2.1342,  $p = 0.088$ ) indicates that the model is weakly significant at the 10% level and implies that independent variables as a group affect GDP growth but not significantly. Among the explanatory variables, internal debt (% of GDP) has a positive coefficient (0.2211) but is not statistically significant ( $p = 0.6767$ ), which infers no strong direct effect. The ratio of fiscal deficit to GDP (-1.0091,  $p = 0.0763$ ) has a weak significant negative relationship, which shows that larger fiscal deficits would reduce GDP growth. Trade openness (0.0291,  $p = 0.3615$ ) shows a weak positive influence, whereas gross savings (-0.0298,  $p = 0.6777$ ) and inflation (-0.0038,  $p = 0.3351$ ) are statistically insignificant. Only the real interest rate (-0.6793,  $p = 0.0373$ ) shows a statistically significant negative influence, suggesting that increased real interest rates could delay economic growth by raising the cost of borrowing and preventing investment. In general, although certain macroeconomic factors influence GDP growth, the weak explanatory power of the model indicates that other factors are required to enhance correctness.

**Interpretation and Control Variables**

<b>Interpretation:</b>
The coefficient of internal debt (0.0875) suggests a positive but statistically insignificant relationship with GDP growth ( $p\text{-value} > 0.05$ )
The 95% confidence interval crosses zero, further confirming the lack of significant effect
The diagnostic plots show:
Relatively well-behaved residuals
Reasonable normality in the Q-Q plot
No clear pattern in residuals vs fitted values

<b>Control Variables: Several control variables show significant effects on GDP growth:</b>
Fiscal Deficit: Strong negative effect
Trade Openness: Positive significant effect
Inflation Rate: Small but significant negative effect
Real Interest Rate: Strong negative effect
The analysis suggests that internal debt does not have a statistically significant impact on GDP growth when controlling for other macroeconomic factors and addressing various statistical issues.

Table- 9

The interpretation shows that internal debt has a positive but statistically insignificant relationship with GDP growth, as imitated by its coefficient (0.0875) and a p-value greater than 0.05. Besides, the 95% confidence interval crossing zero confirms the lack of a significant effect. The tests reveal that residuals are well-behaved, the Q-Q plot shows reasonable regularity, and there are no clear patterns in residuals against fitted values, suggesting a robust model. In compare, several control variables show major effects on GDP growth. The fiscal deficit shows it has a strong negative impact, suggesting that higher deficits obstruct economic growth and development. Trade openness, has a positive and significant effect, signifying that economies with higher openness to trade experience better growth and development. The inflation rate has a small but a significant negative impact, signifying that increasing inflation can reduce GDP growth. Similarly, the real interest rate has a strong negative effect, indicating that higher interest rates discourage investment and consumption, leading to slower economic growth. Mainly, the analysis recommends that internal debt does not have a statistically significant impact on GDP growth when controlling for other macroeconomic factors.

### 1.3. Hypothesis Result

As the coefficient is positive instead of negative and is not statistically significant, we fail to reject the null hypothesis ( $H_0$ ). This means there is no sufficient evidence to conclude that domestic debt has an inverse (negative) relationship with GDP growth

## 2. Findings

The research points out that domestic debt is an important source of financing government spending and economic growth. Its effect on GDP growth is, however, multifaceted, with both positive and adverse implications. Though moderate debt levels can bring financial stability and infrastructure expansion, debt accumulation has the potential risks of increased interest payments, fiscal instability, and the crowding-out of private investment. The econometric analysis provides evidence that domestic debt is not statistically significant for GDP growth while holding other macroeconomic variables constant. The result of hypothesis testing also confirms the above finding. The Multicollinearity Test revealed that there was a moderate correlation between internal debt and fiscal deficit, which implies high government borrowing often comes with fiscal stress. Heteroscedasticity Test confirmed that there exists inconsistency in variance, which implies that debt affects different parts of the economy inconsistently. The Durbin-Watson Test and Breusch-Godfrey Test did not present any evidence of significant autocorrelation of the residuals, maintaining the consistency of regression estimates. The coefficient analysis, though, indicated that internal debt had a weak and statistically insignificant positive relationship with GDP growth, hence could not reject the null hypothesis. These results show that domestic debt alone itself does not display a strong inverse relationship with economic growth but is influenced by other variables and factors like fiscal deficit, inflation, and trade openness. Also, the research highlights that fiscal deficit negatively influences GDP growth, confirming that sustained government borrowing in the absence of adequate revenue generation corrodes economic stability. Trade openness, however, was observed to have a positive influence, noting the advantage of integration into global markets. Inflation and high real interest rates also negatively influenced, validating the necessity for managed borrowing and careful fiscal policy.

### 3. Conclusion and Recommendations

This paper concludes that though domestic debt is an essential instrument for economic management, its effectiveness lies in the hands of sustainable policies and careful fiscal management. The statistical results show that domestic debt does not affect GDP growth per se but can lead to financial instability if not handled alertly. Extreme borrowing creates fiscal deficits, higher debt service costs, and lower investments in important sectors like infrastructure and social welfare. In response to these issues, policymakers must prioritize debt policies that are sustainable by keeping borrowing levels within manageable levels<sup>23</sup>. The government must also work towards creating a strong domestic debt market in order to expand its sources of funding and avoid overdependence. Sustaining low inflation and stable interest rates will also add to economic stability by keeping debt servicing costs in check. Private sector contribution in economic activities can cut down on heavy borrowing by the government and fuel long-term growth<sup>24</sup>. Through the adoption of these policy prescriptions, domestic debt can be properly harnessed to promote economic growth without encountering the pitfalls of fiscal crisis and economic stagnation.

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<sup>23</sup> Gupta, M., & Sharma, P. (2019). Debt management and the development of domestic financial markets: The case of India. *Indian Journal of Finance and Economics*, 7(3), 56-69.

<sup>24</sup> Ghosh, A. R., & Ostry, J. D. (2014). Fiscal policy and debt management in emerging markets. *Journal of International Economics*, 92(1), 79-98.

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