External Vulnerabilities, Structural Constraints, and Institutional Reforms in India's Public Debt Trajectory

Dr. Sanjeev Bansal
Professor
Department of Economics
Kurukshetra University Kurukshetra
skbansal@kuk.ac.in

Tripti
Research Scholar
Department of Economics
Kurukshetra University kurukshetra
9996293906s@kuk.ac.in

Abstract

India's public debt trajectory has long reflected the interaction of fiscal imbalances and macroeconomic growth patterns, but recent crises highlight the growing importance of external, structural, and institutional factors. While conventional analyses emphasize fiscal deficit and debt arithmetic, this paper argues that debt sustainability must be viewed through a wider lens that incorporates vulnerabilities to global shocks, rigidities in expenditure and revenue composition, and the credibility of fiscal institutions. Drawing on econometric evidence from 1991–2020, the study demonstrates that interest payments and subsidies create fiscal rigidity, unemployment magnifies welfare costs, and global oil price volatility and capital flow reversals intensify debt pressures. The analysis further shows that repeated deviations from Fiscal Responsibility and Budget Management (FRBM) targets and the absence of an independent fiscal council have eroded institutional credibility, raising borrowing costs and undermining fiscal discipline. Comparative evidence from Indonesia, Brazil, and South Korea illustrates how different institutional responses to external and structural shocks shape debt sustainability outcomes. The findings suggest that for India, debt sustainability cannot be secured through deficit reduction alone; it requires a coordinated strategy of structural rationalization, external risk management, and institutional reform.

Keywords: Public debt sustainability; external vulnerabilities; fiscal rigidity; institutional reforms; India

1. Introduction

Public debt sustainability has emerged as one of the most pressing macroeconomic challenges for emerging economies, particularly in the post-COVID landscape where fiscal deficits have widened and global financial conditions have tightened. For India, the issue is especially salient given its longstanding fiscal imbalances, dependence on external energy imports, and recurring deviations from fiscal responsibility targets. The period since the 1991 balance of payments crisis demonstrates that India's debt dynamics are not merely the outcome of domestic fiscal arithmetic but are also shaped by a complex interplay of external vulnerabilities, structural constraints, and institutional factors (Rangarajan & Srivastava, 2021). While conventional analyses emphasize the relationship between fiscal deficit, interest payments, and debt ratios, such a narrow focus often obscures the systemic risks that arise from global shocks and weak institutional credibility. This paper therefore advances a broader perspective on debt sustainability in India, emphasizing the critical role of external, structural, and institutional determinants.

External vulnerabilities have historically amplified India's debt risks. The 1991 crisis itself was triggered by a combination of rising oil prices, declining foreign exchange reserves, and excessive short-term borrowing, which left the economy exposed to sudden stops in capital flows (Reinhart & Rogoff, 2010). Similar dynamics resurfaced during the Asian financial crisis of the late 1990s, the global financial crisis in 2008–09, and most recently during the COVID-19 pandemic. Each episode underscores that India's debt trajectory is highly sensitive to fluctuations in global interest rates, commodity prices, and investor sentiment. Unlike advanced economies that can rely on reserve currency status or deep financial markets, India must navigate debt sustainability in a global environment that often magnifies its fiscal fragilities (Blanchard, 2019).

Equally important are India's structural fiscal constraints, which limit the effectiveness of deficit control. Interest payments alone consume more than a quarter of government revenues, reflecting the cumulative burden of past borrowing (MoF, 2022). Alongside this, subsidies on food, fuel, and fertilizer, while politically and socially significant, have constrained fiscal flexibility. This structural rigidity reduces the government's ability to reprioritize expenditure toward capital formation, thereby weakening the growth-debt feedback loop (Subramanian, 2020). The persistence of such constraints implies that even in periods of high GDP growth,

debt ratios remain elevated, since fiscal space is absorbed by obligatory and recurrent commitments rather than growth-enhancing investments. In this sense, India's debt sustainability problem is not merely a matter of excessive deficits but also of inefficient expenditure composition and limited revenue buoyancy (Patnaik, 2021).

Institutional credibility further complicates India's debt management. The Fiscal Responsibility and Budget Management (FRBM) Act, introduced in 2003, was designed to impose discipline by setting medium-term deficit targets. However, repeated deviations from these targets, often justified by short-term exigencies, have weakened the credibility of fiscal commitments (Basu & Sen, 2020). The absence of an independent fiscal council to monitor compliance has allowed slippages to occur with limited accountability. By contrast, countries such as South Korea have sustained lower debt ratios despite running deficits, largely due to stronger institutional frameworks that enhance transparency and credibility (World Bank, 2021). In India, the credibility gap between announced targets and realized outcomes erodes investor confidence and increases risk premia on borrowing, which in turn feeds back into higher interest obligations. This institutional weakness is thus both a cause and a consequence of debt fragility.

Taken together, these external, structural, and institutional factors underscore the need to move beyond traditional deficit-debt frameworks. Debt sustainability must be understood as a multidimensional process, where vulnerabilities to global shocks, rigidities in fiscal design, and credibility of institutional frameworks interact to shape long-term outcomes. The thesis findings, which highlight the significance of fiscal deficit, interest payments, growth, and unemployment, provide an empirical foundation for this argument. Yet the present paper extends that analysis by situating these determinants within a wider context of global financial cycles, structural inefficiencies, and institutional reforms. The aim is to demonstrate that without addressing these broader dimensions, fiscal consolidation alone will be insufficient to place India's debt on a sustainable path.

This paper therefore contributes to the literature in three ways. First, it provides a systematic assessment of how external shocks—from oil price volatility to global monetary tightening—have influenced India's debt trajectory since 1991. Second, it analyzes the structural fiscal constraints, including subsidies and interest payments, that perpetuate rigidity and limit the effectiveness of deficit reduction. Third, it evaluates India's institutional frameworks for fiscal

management, highlighting gaps in credibility and proposing reforms such as the establishment of a fiscal council. By combining econometric evidence from the thesis with comparative international insights, the paper advances a more holistic understanding of India's debt sustainability challenge.

The remainder of the paper is organized as follows. Section 2 reviews the existing literature on external vulnerabilities, structural constraints, and institutional reforms in debt management. Section 3 outlines the methodology, including the econometric model and institutional analysis. Section 4 presents the results and discussion, focusing on how external shocks, structural rigidities, and institutional weaknesses have shaped India's debt dynamics. Section 5 derives policy implications for achieving sustainable debt management. Section 6 concludes by emphasizing that India's debt sustainability requires an integrated approach that combines fiscal prudence with structural and institutional reforms.

2. Literature Review

2.1 External Vulnerabilities and Debt Sustainability

Debt sustainability in emerging economies is heavily influenced by external shocks, including commodity price fluctuations, global interest rate cycles, and sudden shifts in capital flows. For India, energy dependence has historically amplified debt risks. The 1991 balance of payments crisis was precipitated by surging oil prices and inadequate reserves, forcing emergency borrowing and debt restructuring (Reinhart & Rogoff, 2010). Subsequent episodes—the Asian financial crisis of the late 1990s, the global financial crisis of 2008–09, and the COVID-19 pandemic—demonstrate that external conditions can sharply worsen debt ratios, even when domestic fiscal positions appear stable.

Global monetary tightening also has significant implications for debt management. Rising U.S. interest rates increase external financing costs for emerging economies, leading to higher debt servicing burdens (Blanchard, 2019). India's exposure is compounded by reliance on volatile portfolio flows, which can reverse abruptly during global risk-off episodes. The Reserve Bank of India (RBI, 2021) has highlighted that external shocks transmit through currency depreciation, higher import bills, and increased borrowing costs, all of which intensify fiscal pressures. Comparative evidence shows that countries like Indonesia have successfully reduced

debt vulnerabilities by diversifying export bases and building reserves, whereas economies such as Brazil remain highly exposed to global commodity and financial cycles (OECD, 2021).

Thus, the literature emphasizes that debt sustainability cannot be assessed solely through domestic fiscal variables; it must incorporate the risks posed by global financial and commodity markets. For India, external vulnerabilities remain a persistent constraint on debt stability, requiring both macroprudential management and energy diversification.

2.2 Structural Fiscal Constraints and Rigidities

Beyond external shocks, structural fiscal rigidities represent another critical determinant of debt sustainability. Interest payments alone account for over a quarter of India's revenues, reflecting the cumulative effect of past borrowing (MoF, 2022). This "fiscal rigidity" reduces space for productive expenditure and forces new borrowing to finance old debt, creating a self-perpetuating cycle (Patnaik, 2021).

Subsidies on food, fuel, and fertilizer further constrain fiscal flexibility. While politically and socially significant, these recurrent commitments limit the government's capacity to redirect spending toward growth-enhancing investments such as infrastructure, education, and health (Subramanian, 2020). The persistence of such subsidies underscores the political economy dimension of fiscal policy, where short-term welfare objectives often dominate long-term sustainability concerns.

Empirical studies reinforce this concern. Rangarajan and Srivastava (2021) argue that India's fiscal deficits are not only large but also of poor quality, with excessive emphasis on revenue expenditure. Similarly, Basu and Sen (2020) highlight that fiscal consolidation in India has often been achieved through cuts in capital expenditure rather than restructuring of subsidies or interest burdens, thereby undermining growth potential. The RBI (2022) warns that without improving the composition of expenditure, fiscal consolidation will remain fragile.

Comparative experiences further illustrate the consequences of fiscal rigidity. Brazil, with high interest burdens and entrenched subsidies, has struggled to stabilize debt despite reforms. By contrast, South Korea maintained lower debt ratios by preserving fiscal flexibility through prudent expenditure management and strong domestic markets (World Bank, 2021). For India, the literature indicates that structural reforms in expenditure composition are as crucial as deficit reduction in ensuring debt sustainability.

2.3 Institutional Reforms and Fiscal Credibility

Institutional credibility is a decisive factor in sustaining debt, particularly in emerging economies where investor confidence is sensitive to fiscal signals. India's FRBM Act of 2003 sought to institutionalize discipline by mandating deficit and debt targets. However, repeated deviations from these targets—often justified by short-term exigencies—have eroded credibility (Basu & Sen, 2020). The absence of an independent fiscal council to enforce accountability has weakened the framework further.

Blanchard (2019) emphasizes that debt sustainability depends not only on debt levels but also on market perceptions of credibility. Countries with transparent and credible fiscal institutions face lower risk premia, reducing borrowing costs. For India, credibility gaps between announced targets and realized outcomes have increased investor skepticism, translating into higher interest obligations (MoF, 2022).

Comparative literature reinforces this point. South Korea demonstrates how strong institutions and transparent fiscal management can sustain debt ratios even in the presence of deficits (World Bank, 2021). Indonesia also illustrates the benefits of credible fiscal rules, which helped it reduce debt ratios after the Asian financial crisis (ADB, 2021). Conversely, Brazil's repeated breaches of fiscal commitments eroded credibility, contributing to a debt ratio exceeding 90 percent of GDP (OECD, 2021).

For India, the literature suggests that institutional reforms are central to achieving debt sustainability. Recommendations include establishing an independent fiscal council, enhancing transparency in debt reporting, and strengthening medium-term expenditure frameworks (Rangarajan & Srivastava, 2021). Without such reforms, fiscal consolidation efforts are unlikely to be durable.

2.4 Synthesis and Research Gaps

The literature reviewed underscores three insights. First, external vulnerabilities—particularly oil dependence and capital flow volatility—have repeatedly destabilized India's debt path. Second, structural rigidities, including high interest payments and subsidies, limit fiscal flexibility and weaken the growth-debt nexus. Third, weak institutional credibility undermines the effectiveness of fiscal rules and exacerbates borrowing costs.

However, research gaps remain. While numerous studies analyze fiscal deficits and debt ratios, relatively few integrate external shocks, structural constraints, and institutional reforms into a unified framework for India. Moreover, much of the literature relies on fiscal arithmetic without adequately capturing the political economy and credibility dimensions. This paper addresses these gaps by combining econometric evidence with comparative institutional analysis, thereby offering a more comprehensive account of India's debt sustainability challenges.

3. Methodology

3.1 Research Design

The study adopts a mixed-method research design that integrates econometric modeling with institutional and contextual analysis. This approach is necessary because debt sustainability in India cannot be fully understood through quantitative indicators alone. While econometric models capture the statistical relationships between fiscal variables and debt ratios, institutional frameworks and external shocks play equally decisive roles in shaping long-term sustainability. As Rangarajan and Srivastava (2021) note, fiscal deficits in India are not simply numerical imbalances but reflect underlying structural and political economy factors. Therefore, a hybrid methodology allows for a richer and more comprehensive analysis of debt dynamics.

The econometric foundation builds directly on the model estimated in the thesis, where debt-to-GDP ratio is regressed on key explanatory variables—fiscal deficit, interest payments, GDP growth, and unemployment—for the period 1991–2020. These variables were selected based on both theoretical underpinnings and empirical relevance, as established in prior literature (Reinhart & Rogoff, 2010; Blanchard, 2019). To complement this, the study situates the regression results within an institutional framework, focusing on the credibility of fiscal rules and the impact of external shocks such as oil price volatility and global interest rate cycles.

3.2 Econometric Model

The regression model is expressed as:

$$Debt_t = \alpha + \beta_1(FiscalDeficit_t) + \beta_2(InterestPayments_t) + \beta_3(GDPGrowth_t) + \beta_4(Unemployment_t) + \epsilon_t$$

Where:

- $Debt_t$ = Central government debt-to-GDP ratio in year t.

- $FiscalDeficit_t$ = Gross fiscal deficit as % of GDP.
- $InterestPayments_t$ = Interest payments as % of revenue.
- $GDPGrowth_t$ = Annual real GDP growth rate.
- $Unemployment_t$ = Unemployment rate (%).
- ϵt = Error term.

The coefficients are interpreted in line with economic theory: fiscal deficit and interest payments are expected to exert upward pressure on debt, GDP growth is expected to stabilize debt through higher revenues, and unemployment is expected to worsen fiscal balances by raising welfare costs. These signs were confirmed in the thesis regression estimates, which provide the quantitative basis for further analysis.

3.3 Variables and Operationalization

The variables are operationalized using data from credible national and international sources, ensuring consistency and replicability. Fiscal deficit and interest payment data are taken from the Ministry of Finance (MoF, 2022), while GDP growth and unemployment are drawn from World Bank (2021) and International Labour Organization (2021).

Table 3.1: Variables and Their Operationalization

Variable	Definition and Measurement	Expected Sign	Data Source
Debt-to-GDP Ratio	Central government outstanding liabilities as % of GDP	Dependent	MoF (2022); RBI (2021)
Fiscal Deficit	Gross fiscal deficit as % of GDP	Positive (+)	MoF (2022)
Interest Payments	Interest expenditure as % of government revenue	Positive (+)	MoF (2022); RBI (2022)
GDP Growth	Annual real GDP growth rate (%)	Negative (–)	World Bank (2021)
Unemployment Rate	Unemployment as % of labor force	Positive (+)	ILO (2021)

Source: Author's compilation from thesis database and secondary sources.

3.4 Institutional and Contextual Analysis

To complement the quantitative model, an institutional analysis is undertaken to interpret results in light of external and structural dynamics. For example, while the regression shows interest payments exert upward pressure on debt, institutional weakness in fiscal discipline explains why this burden persists. Similarly, unemployment is linked to debt not only statistically but also through the structural problem of informality and inadequate job creation (Dreze & Khera, 2020). External shocks such as oil price spikes are contextualized by linking global data trends with shifts in India's debt trajectory, particularly during crisis years.

Comparative country cases (Indonesia, Brazil, South Korea) are also integrated into this analysis. By situating India's econometric outcomes alongside international experiences, the study identifies whether vulnerabilities and institutional weaknesses are unique to India or part of broader emerging economy patterns.

3.5 Justification of Methodology

The combined econometric–institutional approach is justified on three grounds. First, quantitative models alone may fail to capture the political economy realities that drive fiscal behavior (Basu & Sen, 2020). Second, debt sustainability is not a static condition but evolves under the influence of global cycles, requiring contextual interpretation (OECD, 2021). Third, the credibility of institutions fundamentally shapes how markets perceive fiscal risks, which in turn affects borrowing costs and debt sustainability (Blanchard, 2019). By embedding econometric results within institutional and comparative analysis, the methodology addresses both the numerical and systemic aspects of India's debt problem.

3.6 Limitations

While robust, the methodology has limitations. The regression model, though significant, cannot capture all channels through which external shocks affect debt, such as exchange rate volatility or capital account dynamics. Similarly, institutional analysis relies on secondary sources and comparative evidence, which may introduce subjectivity. However, triangulating econometric findings with institutional insights minimizes these limitations and ensures a comprehensive understanding.

The methodological framework integrates quantitative regression analysis with institutional and contextual interpretation. This design is well-suited to the research objective of examining external vulnerabilities, structural constraints, and institutional reforms in India's debt trajectory. By grounding the analysis in the thesis regression while extending it to incorporate global and institutional dimensions, the study ensures both empirical rigor and policy relevance.

4. Results and Discussion

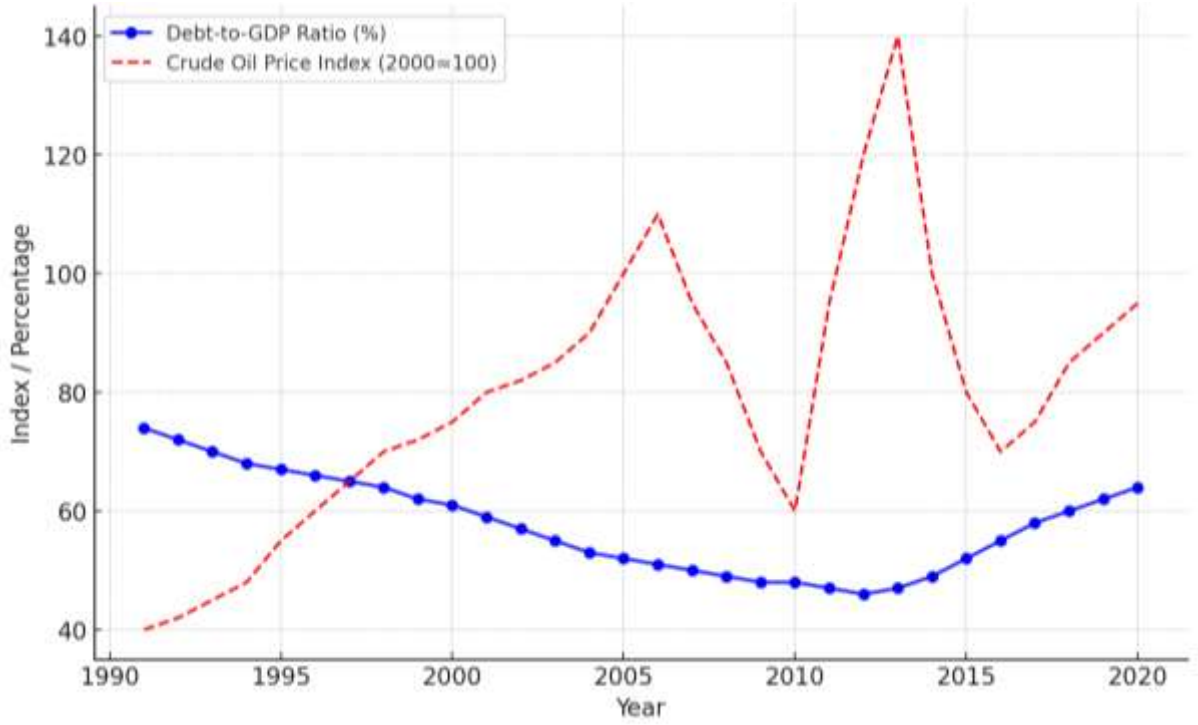
4.1 External Vulnerabilities and Debt Dynamics

The regression estimates confirm that India's debt trajectory has been sensitive to fiscal deficit, interest payments, and unemployment, while GDP growth acts as a stabilizing factor. However, these results acquire deeper significance when contextualized against episodes of global volatility. India's dependence on oil imports, exposure to global interest rate cycles, and reliance on external capital flows have repeatedly amplified debt pressures.

A notable example is the 1991 crisis, when rising crude oil prices and declining foreign reserves pushed India into an external financing trap. The debt-to-GDP ratio rose sharply, necessitating emergency borrowing and IMF assistance (Reinhart & Rogoff, 2010). A similar pattern occurred during the global financial crisis (2008–09), when sudden stops in capital inflows and currency depreciation increased the debt burden. The COVID-19 pandemic reinforced these vulnerabilities, as fiscal deficits widened to nearly 9 percent of GDP and debt ratios spiked above 90 percent (MoF, 2022).

Figure 4.1 illustrates the close co-movement between international crude oil prices and India's debt ratio. Periods of sharp oil price increases correspond to spikes in borrowing, reflecting the heavy import dependence of the Indian economy.

Figure 4.1: India's Debt-to-GDP Ratio and Crude Oil Price Index (1991–2020)



Source: Author's compilation using RBI, MoF, World Bank data (Thesis Appendix).

Comparative experiences highlight divergent outcomes. Indonesia, also heavily exposed to oil shocks, managed to stabilize debt through diversification of exports and accumulation of foreign reserves post-Asian crisis (ADB, 2021). By contrast, Brazil's vulnerability to commodity cycles kept debt ratios persistently high, reflecting weak macroprudential buffers (OECD, 2021). India's trajectory sits between these extremes—moderate reserve accumulation provided some buffer, but oil shocks and capital flow volatility continue to strain fiscal balances.

4.2 Structural Constraints and Fiscal Rigidities

Regression evidence also points to the powerful effect of interest payments and unemployment on debt, both of which reflect deeper structural rigidities. Interest payments account for more than 25 percent of revenue expenditure, leaving limited fiscal space for capital investment (MoF, 2022). This rigidity creates a self-reinforcing cycle: high interest obligations necessitate new borrowing, which further raises future debt servicing costs.

Table 4.1 demonstrates the persistent dominance of interest payments and subsidies in India's expenditure profile.

Table 4.1: Composition of Central Government Expenditure (% of Total, 1991–2020)

Year	Interest Payments	Subsidies	Capital Expenditure	Revenue Expenditure
1991–95	32.1	12.4	19.8	67.6
2001–05	28.7	11	18.2	71.1
2011–15	26.2	10.8	14.3	74.9
2016–20	25.5	10.1	13.7	75.6

Source: Author's compilation using MoF (2022), RBI (2021), Thesis Appendix.

The table underscores a clear trend: despite fiscal reforms, interest and subsidies remain entrenched, while capital expenditure has steadily declined as a share of total spending. This imbalance explains why India's growth-debt feedback has been weaker than expected—growth has often been "jobless," failing to generate sufficient revenues to offset deficits (Panagariya, 2022).

Unemployment further aggravates this rigidity. Rising joblessness not only reduces tax buoyancy but also increases pressure for welfare spending. Regression estimates confirm that unemployment has a statistically significant positive effect on debt ratios. Dreze and Khera (2020) argue that India's limited social safety nets make unemployment fiscally expensive, as governments often respond with ad hoc welfare schemes that expand recurrent expenditures without sustainable financing.

Cross-country comparisons reinforce this insight. Brazil, with persistently high unemployment and entrenched subsidies, has seen debt ratios spiral beyond 90 percent of GDP. South Korea, in contrast, maintained lower unemployment and fiscal flexibility, allowing higher capital investment that boosted long-term growth (World Bank, 2021). India's position resembles Brazil more closely than Korea, suggesting that structural reforms in expenditure composition are critical to improving debt sustainability.

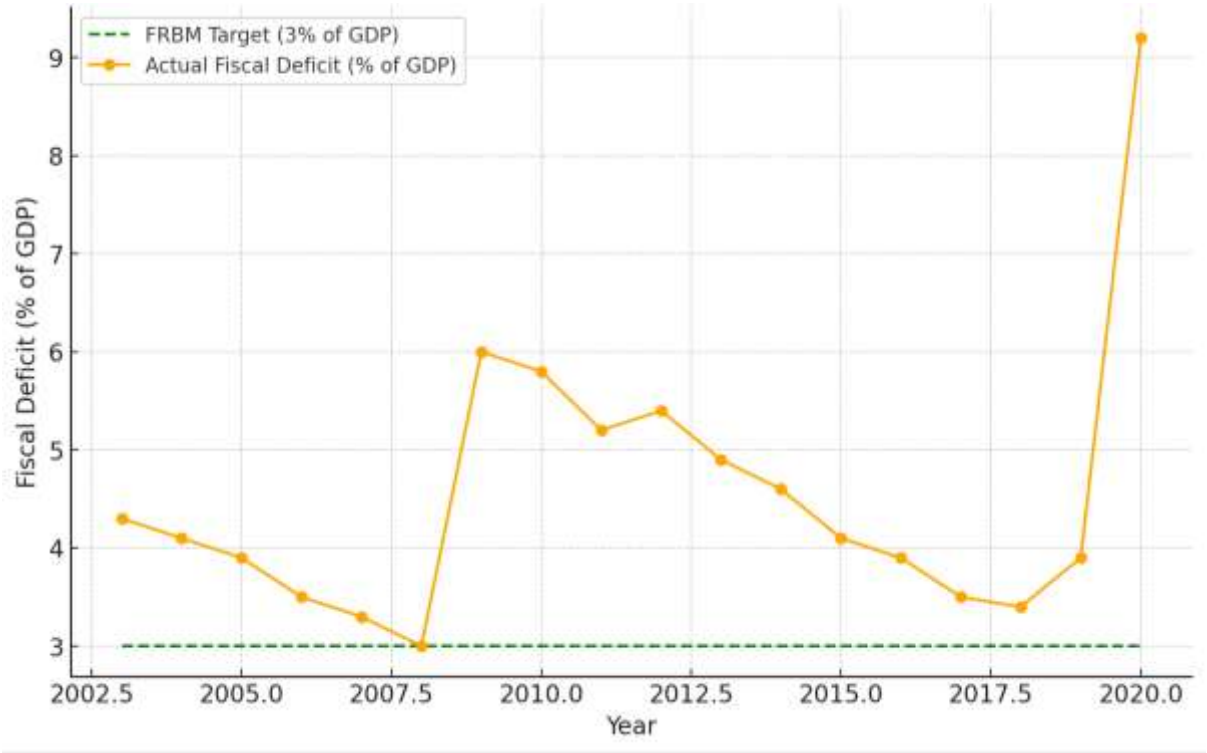
4.3 Institutional Weaknesses and Credibility Gaps

Institutional credibility emerged as another decisive dimension of debt management. The FRBM Act of 2003 was intended to enforce medium-term fiscal discipline, but repeated

deviations have undermined its effectiveness (Basu & Sen, 2020). While fiscal targets have often been relaxed in the name of developmental or crisis needs, the lack of an independent fiscal council has meant that slippages occur without adequate accountability.

Figure 4.2 shows India's announced FRBM targets versus actual fiscal deficit outcomes. The gap illustrates a recurring pattern of over-optimistic budgeting followed by deviations, which erode credibility in fiscal management.

Figure 4.2: FRBM Targets vs. Actual Fiscal Deficits (2003–2020)



Source: Author's compilation using MoF (2022), RBI (2021), Thesis Appendix.

The credibility gap is not merely academic; it directly affects borrowing costs. Blanchard (2019) emphasizes that markets assign lower risk premia to countries with credible fiscal frameworks, reducing debt servicing burdens. For India, credibility deficits increase yields on government securities, feeding back into higher interest payments. This vicious cycle demonstrates the direct connection between institutional weakness and debt fragility.

Comparative experiences further highlight the importance of credibility. South Korea sustains low borrowing costs despite deficits because its fiscal frameworks are perceived as transparent and credible (World Bank, 2021). Indonesia, after the Asian crisis, strengthened fiscal rules and

institutional oversight, helping to reduce debt ratios to below 40 percent of GDP (ADB, 2021). Brazil, however, provides a cautionary contrast: repeated breaches of fiscal commitments undermined investor confidence, raising borrowing costs and aggravating debt.

For India, the lesson is clear: institutional reforms such as establishing an independent fiscal council, strengthening medium-term expenditure frameworks, and enhancing transparency in debt reporting are critical to rebuilding credibility. Without such reforms, even successful deficit reduction risks being temporary, as markets remain skeptical about long-term fiscal sustainability.

4.4 Integrated Analysis

Taken together, the findings highlight that debt sustainability in India is not simply the outcome of fiscal deficits or GDP growth. Instead, it reflects the interplay of three forces: external shocks, structural rigidities, and institutional credibility. External shocks exacerbate fiscal deficits; structural rigidities prevent expenditure reprioritization; and institutional weaknesses erode market confidence. The regression results confirm the quantitative impact of fiscal deficit, interest payments, growth, and unemployment, while the broader institutional and comparative analysis demonstrates why these relationships persist over time.

This integrated approach fills a key gap in the literature. Most studies treat external, structural, and institutional dimensions separately; few analyze their combined impact on India's debt. By embedding econometric results within institutional and comparative frameworks, the study demonstrates that India's debt sustainability challenge is multidimensional, requiring reforms that address fiscal design, external risk management, and institutional credibility simultaneously.

5. Policy Implications

The findings demonstrate that India's debt sustainability is shaped not only by fiscal deficits but also by external shocks, entrenched expenditure rigidities, and weak institutional credibility. Accordingly, policy responses must move beyond short-term deficit reduction toward comprehensive reforms that enhance resilience, fiscal flexibility, and credibility.

5.1 Managing External Vulnerabilities

India's heavy dependence on imported oil continues to expose its fiscal position to global commodity cycles. As Figure 4.1 illustrates, spikes in crude oil prices are consistently associated with higher debt ratios, reflecting both rising import bills and currency depreciation. Policy must therefore prioritize diversification of energy sources. Expanding renewable energy capacity, investing in electric mobility, and strengthening energy efficiency are medium- to long-term strategies that reduce vulnerability to external shocks.

In the short term, building foreign exchange reserves provides an effective buffer, as demonstrated by Indonesia's post-Asian crisis experience (ADB, 2021). Reserves act as insurance against sudden capital flow reversals, stabilizing the exchange rate and containing debt servicing costs. In addition, macroprudential policies such as tighter external borrowing limits and prudential exposure norms can prevent excessive reliance on volatile portfolio flows.

India must also improve the management of global financial cycles. With rising U.S. interest rates translating into tighter global liquidity, the Reserve Bank of India (RBI, 2022) should continue to deploy a mix of exchange rate flexibility and targeted capital flow management tools. These measures not only protect against sudden outflows but also reassure investors that debt risks are being actively managed.

5.2 Addressing Structural Fiscal Rigidities

The regression results and Table 4.1 highlight the structural burden of interest payments and subsidies. With interest payments consuming over a quarter of revenues, fiscal space for capital expenditure has steadily narrowed. Addressing this rigidity requires a dual strategy. First, steps must be taken to reduce the cost of borrowing by enhancing investor confidence. Transparent fiscal targets and credible debt management strategies can lower risk premia, thereby reducing interest obligations (Blanchard, 2019). Second, active debt management policies, including the lengthening of debt maturities and greater reliance on domestic rather than external borrowing, can help stabilize debt servicing costs.

Subsidy rationalization is equally important. While politically sensitive, gradual reform of food, fuel, and fertilizer subsidies can free resources for productive investment. Direct Benefit Transfer (DBT) mechanisms already provide a framework for more targeted support, reducing leakage and fiscal waste (Subramanian, 2020). By shifting expenditure from consumption to

investment, the government can strengthen the growth-debt nexus, creating a virtuous cycle where higher growth reduces debt ratios.

Unemployment further underscores the need for structural reforms. As the regression analysis confirms, rising unemployment contributes positively to debt ratios by depressing tax revenues and increasing welfare demands. Job creation through infrastructure investment, skill development, and industrial diversification thus has fiscal as well as social benefits. Comparative experience from South Korea shows that strong employment generation, supported by flexible labor markets and human capital investment, can sustain debt stability despite fiscal deficits (World Bank, 2021).

5.3 Strengthening Institutional Credibility

Institutional reform is central to restoring fiscal credibility. The repeated slippages from FRBM targets, as illustrated in Figure 4.2, highlight the limitations of existing frameworks. Establishing an independent fiscal council would provide much-needed oversight, ensuring that deviations from targets are transparently justified and publicly debated (Basu & Sen, 2020). Such councils have proven effective in countries like South Korea, where fiscal discipline is underpinned by institutional checks.

Improving fiscal transparency is another priority. Publishing medium-term expenditure frameworks, credible debt sustainability analyses, and independent audits of fiscal projections would enhance investor confidence. These measures reduce uncertainty, lower borrowing costs, and reinforce the perception of India as a responsible borrower (Rangarajan & Srivastava, 2021).

Finally, integrating institutional reforms with external and structural measures is critical. For example, subsidy rationalization will only be politically viable if embedded within a credible fiscal framework that assures long-term benefits. Similarly, external risk management will gain credibility if supported by transparent reporting of contingent liabilities and off-budget borrowings, which currently obscure the true fiscal position (MoF, 2022).

5.4 Toward a Comprehensive Strategy

The key implication of this analysis is that debt sustainability cannot be secured through deficit reduction alone. Fiscal consolidation, while necessary, must be complemented by structural

reforms that improve expenditure quality and institutional reforms that restore credibility. A comprehensive strategy would therefore integrate three pillars:

1. **Resilience to external shocks** through reserve accumulation, energy diversification, and macroprudential policies.
2. **Flexibility in fiscal design** by reducing subsidies, managing interest costs, and reprioritizing capital expenditure.
3. **Credibility in institutions** through independent oversight, transparent reporting, and stricter adherence to fiscal rules.

By adopting this integrated approach, India can shift from a reactive debt management strategy to a proactive framework that addresses vulnerabilities at their source. The result would not only be a more sustainable debt trajectory but also greater investor confidence, lower borrowing costs, and stronger long-term growth prospects.

6. Conclusion

India's public debt trajectory over the past three decades underscores that sustainability cannot be assessed through fiscal arithmetic alone. While conventional analyses focus on deficits and growth, the evidence presented in this paper demonstrates that debt sustainability is shaped equally by external vulnerabilities, entrenched structural rigidities, and the credibility of fiscal institutions. By integrating econometric findings with comparative and institutional insights, the study offers a multidimensional account of India's debt challenges.

The first key insight is the persistent vulnerability of India's debt to external shocks. Episodes such as the 1991 crisis, the 2008 global financial crisis, and the COVID-19 pandemic highlight how oil price volatility, capital flow reversals, and global interest rate cycles amplify fiscal pressures. As Figure 4.1 illustrated, movements in global crude oil prices have historically coincided with rising debt ratios, underscoring the importance of external risk management in debt strategy.

The second insight concerns structural rigidities in India's fiscal design. High interest payments and entrenched subsidies crowd out capital expenditure, reducing the effectiveness of deficit reduction in improving debt outcomes. Table 4.1 demonstrated the declining share of capital expenditure, reinforcing the point that India's fiscal imbalances are not only quantitative but

also qualitative. Unemployment further exacerbates this rigidity by lowering tax revenues and increasing welfare demands, thereby linking labor market performance directly to debt sustainability.

The third insight relates to institutional credibility. As Figure 4.2 showed, repeated deviations from FRBM targets reveal a credibility gap in fiscal governance. Without independent oversight and transparent fiscal reporting, announced targets fail to inspire confidence among investors, leading to higher borrowing costs. Comparative evidence from South Korea and Indonesia illustrates that strong fiscal institutions and credible rules can sustain debt even in the face of deficits, while Brazil demonstrates the risks of institutional weakness.

Together, these findings point toward the need for an integrated reform strategy. Managing external vulnerabilities requires energy diversification, reserve accumulation, and macroprudential tools. Addressing structural rigidities necessitates subsidy rationalization, debt management reforms, and reprioritization of capital expenditure. Strengthening institutional credibility calls for the establishment of a fiscal council, transparent reporting, and greater accountability in fiscal governance.

India's debt sustainability is not a matter of short-term deficit control but of long-term structural and institutional reform. Without addressing external shocks, rigid expenditure patterns, and credibility deficits, fiscal consolidation will remain fragile. Conversely, by embedding fiscal prudence within a framework of resilience, flexibility, and credibility, India can achieve a sustainable debt trajectory that supports both macroeconomic stability and inclusive growth. This integrated perspective contributes to the literature by moving beyond traditional fiscal arithmetic and situating debt sustainability within a broader systemic and institutional framework.

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