

Impacts of Inflation on National Borrowing

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Abstract: This paper talks about the relationship between inflation and national borrowing chemistry. Inflation hurts and helps a government's debt at the same time. On the positive side, inflation lowers the actual value of the money the government already owes in its own currency, making that old debt cheaper to pay back. However, it also creates big problems: it forces the government to pay higher interest rates on new loans, means lenders will only trust them with short-term loans rather than long-term ones, and makes the country's overall budget highly unpredictable.

This study looks at real-world data alongside well-known economic ideas, like how inflation naturally pushes up interest rates (the Fisher Effect) and how political motives influence government financial decisions (Public Choice Theory). By combining these ideas, the study explains how rising prices make investors demand higher payouts to cover their risks, and how this forces governments to change how they borrow money.

The paper ends with practical, step-by-step advice for policymakers. These suggestions are designed to help governments keep their economies stable and keep their debt under control, even when prices in the market are swinging wildly up and down.

Keywords: Inflation, Fiscal Policy, Sovereign Debt, Interest Rates, Purchasing Power, Budget Predictability, Sustainable Debt Management.

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I. INTRODUCTION

National borrowing is often called public borrowing or government borrowing. It is when a country's government borrows money to fund its budget deficit-meaning it is spending more money than it brings in through taxes and other revenues.

Instead of going to a regular bank, a government typically borrows by issuing government bonds or treasury bills. These are essentially IOUs sold to investors (like citizens, banks, pension funds, or foreign governments). The government promises to pay back the original amount on a specific date, along with regular interest payments in the meantime.

It is a fundamental instrument of modern fiscal policy, enabling governments to finance public infrastructure, respond to macroeconomic shocks, and smooth consumption over time. However, the efficacy and sustainability of sovereign debt are inextricably linked to the prevailing monetary environment. Among all macroeconomic variables, inflation exerts one of the most pervasive influences on the cost, structure, and availability of national credit.

When a government borrows, it issues promises to pay back capital with interest over fixed or floating horizons. Inflation alters the baseline calculus of these agreements by eroding the purchasing power of currency over time. In a low, predictable inflation regime, debt management is straightforward. When inflation spikes or becomes highly volatile, it triggers a chain reaction across financial markets, altering investor behavior, driving up risk premiums, and forcing structural changes in how nations fund their deficits. Understanding this relationship is critical for maintaining long-term economic stability.

➤ Statement of the Problem

Persistent or unexpected inflation complicates a nation's fiscal health by undermining the predictability of debt servicing. While inflation theoretically allows a state to repay its existing domestic obligations with "cheaper" currency, this short-term erosion of debt value comes at a steep long-term price.

The primary problem lies in the structural reaction of credit markets to inflation. As purchasing power declines, institutional lenders demand higher nominal interest rates to preserve their real returns. This surge in borrowing costs can quickly overwhelm a national budget, diverting vital public

funds away from development and toward debt service. Furthermore, prolonged inflation damages investor confidence, leading to a "flight to brevity" where lenders refuse to buy long-term government bonds. This forces nations into high-risk, short-term borrowing cycles or pushes them toward foreign-currency-denominated debt, leaving the state highly vulnerable to currency depreciation and default crises.

➤ *Objectives of the Study*

- To evaluate how varying rates of inflation affect nominal and real sovereign borrowing costs.
- To analyze the structural shifts in national debt portfolios—specifically regarding bond maturity and currency denomination—during inflationary periods.
- To assess the empirical threshold at which inflation stops being a tool for "debt erosion" and starts becoming a driver of fiscal instability.
- To provide actionable, data-driven frameworks for debt managers navigating inflationary macroeconomic cycles.

➤ *Significance of the Study*

This study provides a consolidated analytical framework for policymakers, central banks, and public debt managers who must balance fiscal expansion with price stability. By deconstructing how inflation alters credit market mechanics, this paper assists fiscal authorities in anticipating shifts in investor demand and adjusting bond issuance strategies before borrowing costs become unsustainable. Additionally, it contributes to contemporary economic literature by bridging the gap between classic theoretical debt models and post-pandemic empirical realities.

II. LITERATURE REVIEW

➤ *Theoretical Review*

The baseline relationship between inflation and borrowing costs is rooted in the Fisher Effect, formulated by Irving Fisher. The theory posits that the nominal interest rate (i) is the sum of the required real interest rate (r) and the expected rate of inflation (e_i):

$$i = r + e_i$$

In an inflationary environment, lenders adjust e_i upward to insulate their capital from losing purchasing power, which directly escalates the nominal cost of new state bond issuances.

From a fiscal perspective, Public Choice Theory suggests that governments face an inherent structural incentive to tolerate moderate inflation. Because sovereign debt is denominated in nominal currency units, unexpected inflation reduces the real value of outstanding debt, acting as a hidden tax on bondholders. However, Modern Portfolio Theory (MPT) counterbalances this by showing that as inflation volatility increases, investors demand an additional

"inflation risk premium" to compensate for uncertainty, eventually eliminating any inflationary advantage the state might have enjoyed.

➤ *Empirical Review*

Empirical studies over the past several decades highlight a strong correlation between high inflation and structural vulnerabilities in public debt. Research across emerging markets consistently demonstrates that when inflation exceeds single-digit thresholds, the average maturity of government debt drops sharply. Investors lose appetite for 10- or 30-year fixed-rate sovereign bonds, forcing governments to issue short-term treasury bills that must be constantly refinanced at higher market rates.

Global financial cycles, such as the post-2021 inflationary surge, confirm that aggressive interest rate hikes by central banks—designed to curb inflation—immediately inflate the line-item cost of debt servicing in national budgets. In countries heavily reliant on external borrowing, domestic inflation often runs alongside currency depreciation, exponentially increasing the cost of servicing foreign-denominated debt.

➤ *Research Gaps*

While existing literature thoroughly addresses the immediate impact of inflation on nominal interest rates, there is a distinct gap regarding how modern digitalized bond markets and institutional mandates react to inflation volatility. Traditional models assume linear adjustments to interest rates, but modern market sentiment often shifts abruptly, causing sudden capital flight before standard macroeconomic indicators can adjust. Additionally, more nuanced research is required to determine the exact tipping point where the benefits of inflating away domestic debt are entirely erased by the penalties of rising risk premiums in highly integrated global financial networks.

➤ *Conceptual Framework*

The systemic transmission of inflation through national borrowing structures can be visualized as a cause-and-effect network:

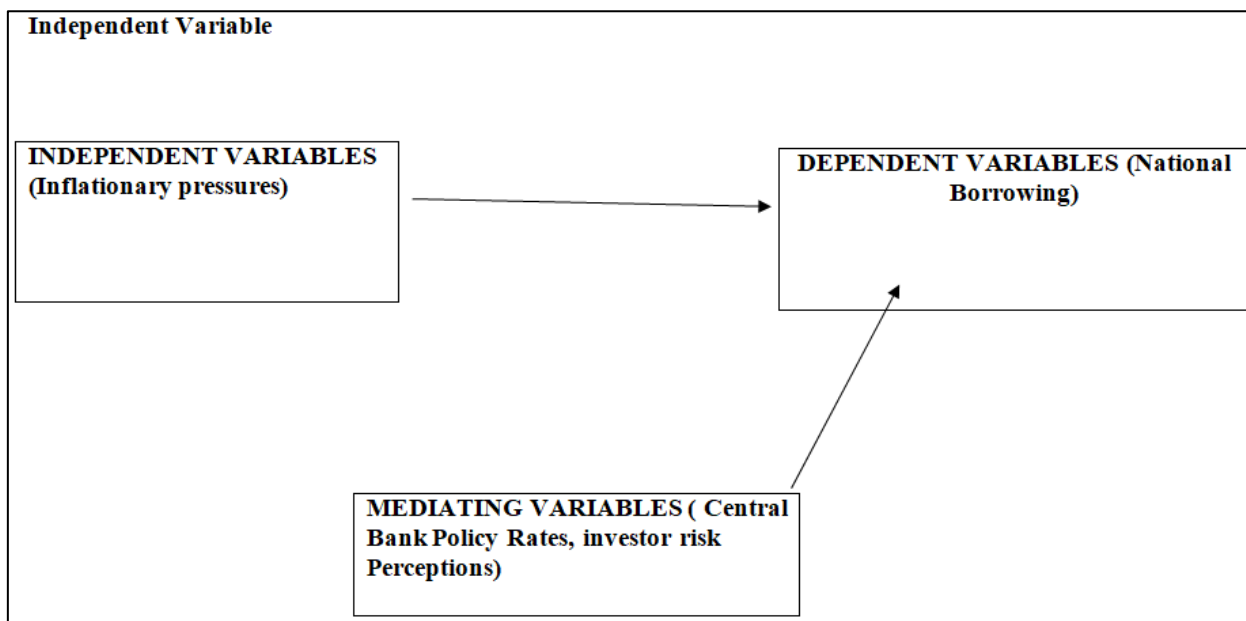


Fig 1 Conceptual Framework

- **Independent Variable:**
Inflationary Pressures (CPI spikes, supply-shock inflation, expansionary monetary policy).
- **Mediating Variables:**
Central Bank Policy Rates, Investor Risk Perceptions, Inflation Volatility Premium.
- **Dependent Variables (National Borrowing Impacts):**
Total Nominal Debt Servicing Cost, Average Debt Maturity Profile, Choice of Debt Instrument (Fixed vs. Floating/Indexed), and Sovereign Credit Ratings.

III. METHODOLOGY

This study utilizes a qualitative and secondary quantitative synthesis approach. Data is compiled from aggregated fiscal performance metrics, central bank monetary policy transcripts, and sovereign debt databases across a representative sample of both advanced and emerging economies. The analysis evaluates trends across two primary vectors: the correlation between Consumer Price Index (CPI) movements and secondary market sovereign bond yields, and the changing ratio of long-term to short-term liabilities within national portfolios during inflationary intervals.

IV. FINDINGS OF THE STUDY

The analysis yields several critical insights into state borrowing behavior under inflationary conditions:

Table 1 Finding of the Study

Parameter	Impact of Low/Stable Inflation	Impact of High/Volatile Inflation
Borrowing Cost	Predictable, low nominal yields; minimal risk premium.	Surging nominal interest rates; elevated inflation risk premiums.
Debt Portfolio Maturity	Long-term bonds dominate (10–30 years), stabilizing refinancing risks.	Market compression toward short-term bills; high rollover frequency.
Investor Behavior	Stable institutional demand from pension funds and domestic banks.	Capital flight; demand shifts heavily toward inflation-indexed or foreign bonds.
Real Debt Burden	Gradual, predictable dilution of fixed-rate domestic liabilities.	Eroded by unexpected inflation, but rapidly offset by the high cost of new issuances.

Crucially, the findings show that while inflation provides a brief, mathematical reduction in the *existing* debt-to-GDP ratio by boosting nominal GDP, it fundamentally cripples future borrowing efficiency. The structural damage—manifested as higher rollover risks and compressed maturities—outlasts the short-term relief.

V. CONCLUSION & RECOMMENDATIONS

Inflation fundamentally destabilizes the framework of national borrowing. While it offers a seductive, short-term reduction in the real value of historic domestic liabilities, its structural consequences are overwhelmingly negative. It drives up nominal borrowing costs via the Fisher Effect, forces debt portfolios into riskier short-term profiles, and

creates budget execution crises as debt service consumes growing shares of public revenue. Ultimately, a state cannot sustainably inflate away its fiscal obligations without severely damaging its long-term creditworthiness and access to capital markets.

➤ *Final Reflection*

Managing sovereign debt through an inflationary cycle is an intricate balancing act between fiscal survival and market credibility. A government's debt portfolio is essentially a reflection of trust; inflation erodes that trust just as surely as it erodes purchasing power. The nations that successfully navigate these periods are not those that attempt to exploit inflation to diminish their debt, but those that protect market integrity through transparent fiscal management and robust institutional cooperation with monetary authorities.

➤ *Recommendations*

- *Prioritize Inflation-Indexed Bonds:*

Debt managers should issue inflation-linked securities during volatile periods. This reassures investors that their real returns are protected, keeping the baseline inflation risk premium low.

- *Enforce Fiscal-Monetary Coordination:*

Governments must align fiscal deficits with the central bank's inflation targets to prevent structural policy contradictions that alarm credit markets.

- *Proactive Liability Management:*

During brief windows of low inflation, fiscal authorities should aggressively extend the maturity profile of their debt to lock in low, long-term fixed rates, building a buffer against future inflationary cycles.

- *Reduce Reliance on Foreign-Currency Debt:*

Policymakers should focus on developing deep, liquid domestic capital markets to minimize exposure to external currency shocks that typically run parallel to domestic inflation.

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