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The Role of Fiscal Multipliers in High-Debt Economies

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Abstract

Purpose: This study sought to examine the role of fiscal multipliers in high-debt economies.

Methodology: The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

Findings: The findings reveal that there exists a contextual and methodological gap relating to the role of fiscal multipliers in high-debt economies. Preliminary empirical review revealed that fiscal multipliers were generally weaker in high-debt economies due to limited fiscal space, reduced confidence, and concerns about sustainability. However, countries with strong institutions and well-targeted spending still achieved moderate multiplier effects. The effectiveness of fiscal policy depended not just on spending levels, but also on timing, composition, and governance quality.

Unique Contribution to Theory, Practice and Policy: The Keynesian Theory of Aggregate Demand, Ricardian Equivalence Hypothesis and the Debt Overhang Theory may be used to anchor future studies on the role of fiscal multipliers. The study recommended focusing fiscal efforts on high-return sectors, improving institutional efficiency, and ensuring transparency in public spending. It advised coordinating fiscal and monetary policy and using flexible rules to balance short-term stimulus with long-term debt goals. International agencies were encouraged to tailor support to high-debt contexts and invest in public finance reform.

Keywords: *Fiscal Multipliers, Public Debt, Fiscal Policy, Institutional Quality, Debt Sustainability*

1.0 INTRODUCTION

Fiscal multipliers measure the responsiveness of a nation's economic output to changes in government fiscal policy, specifically discretionary spending or tax changes. When a government increases its spending or cuts taxes, the expected outcome is a boost in GDP; the magnitude of this effect is captured by the fiscal multiplier. A multiplier greater than one suggests that each dollar of government expenditure generates more than one dollar of economic output, indicating strong effectiveness of fiscal intervention. Factors such as the prevailing economic cycle (recession vs. expansion), trade openness, the exchange rate regime, the source of financing (domestic vs. external), and institutional efficiency significantly determine the size of the multiplier. In low-income countries (LICs), high consumption propensities among liquidity-constrained households tend to elevate short-term fiscal multipliers, especially in sectors like health, education, and social protection. Raga (2022) emphasized that in LICs, the average short-term multiplier from government consumption is close to 0.4, but can rise to 0.8 or above in targeted programs under economic distress. These values, although smaller than in advanced economies, still highlight the importance of carefully designed fiscal policy to maximize impact.

In the United States, fiscal multipliers have historically played a critical role in macroeconomic stabilization, particularly during periods of significant economic downturns. According to Auerbach & Gorodnichenko (2020), fiscal multipliers in the U.S. are highly state-dependent, often reaching values as high as 2.5 during deep recessions and as low as 0.5 during expansions. The COVID-19 pandemic offered a unique test case, with the U.S. implementing fiscal packages totaling over $5 trillion across multiple tranches, including direct transfers, unemployment benefits, and business loans. These interventions led to a GDP growth rebound of 5.7% in 2021, up from a contraction of -3.4% in 2020. The estimated average multiplier effect during this period was between 1.5 and 2.0, reflecting both the size and the targeting of the stimulus (e.g., toward low-income households who had a higher marginal propensity to consume). Additionally, automatic stabilizers like unemployment insurance amplified the impact. Auerbach and Gorodnichenko's dynamic factor model analysis reveals that the effectiveness of fiscal policy in the U.S. is greatly enhanced when monetary policy is accommodative and interest rates are near the zero-lower bound.

In the United Kingdom, fiscal multipliers are generally moderate but increase during periods of economic uncertainty or contraction. Batini, Eyraud, Forni & Weber (2021) found that the UK's multipliers range between 0.6 and 1.2 depending on whether the economy is in a downturn, and whether the stimulus is investment-based or consumption-based. The British government's fiscal response to COVID-19 included £407 billion in spending, encompassing the furlough scheme, public health funding, and targeted support for small businesses. This massive intervention helped lift the economy out of a severe contraction of -9.3% in 2020 to a growth of 7.5% in 2021. The overall multiplier for the UK during this period is estimated at approximately 1.1, with higher effectiveness observed in targeted spending on social protection and wage subsidies. The relatively open nature of the UK economy and high import leakages can attenuate multiplier effects, but this was partially offset by coordinated monetary policy and the Bank of England's asset purchase programs, which reinforced demand-side stimulus.

Japan provides an instructive case of how high public debt does not necessarily render fiscal policy ineffective, especially in advanced economies with sovereign monetary policy and strong domestic

investor bases. Miyamoto, Nguyen & Sergeyev (2019) investigated Japan's fiscal multipliers in the context of a persistent zero-interest-rate environment and find that government investment yields multipliers ranging from 0.9 to 1.4. The country has consistently utilized fiscal policy to stimulate demand, especially through infrastructure investment and disaster recovery spending. During the COVID-19 crisis, Japan's fiscal stimulus, which amounted to approximately 21% of GDP (117 trillion yen), supported employment, consumption, and public health systems. The resulting GDP growth in 2021 was 1.7%, from a decline of 4.5% in 2020. While slower than in some Western economies, this was deemed effective given Japan's demographic headwinds and already low interest rates. Importantly, the multiplier effects were stronger for capital expenditures than for general consumption transfers, reinforcing the argument for productive investment-based stimulus in aging societies.

Brazil's fiscal multipliers present a complex picture influenced by macroeconomic instability, high inequality, and rigid labor markets. Ciminelli, Ernst & Sousa (2020) estimated Brazil's consumption multiplier at around 0.7 and its investment multiplier at approximately 1.1, with substantial variation based on sector and time period. The Brazilian government's response to the COVID-19 crisis included emergency transfers (Auxílio Emergencial) covering over 68 million Brazilians, amounting to nearly 8% of GDP. This large-scale transfer lifted millions out of poverty temporarily and increased GDP by around 4.6% in 2021. However, structural challenges such as fiscal rigidity, weak enforcement, and declining productivity limited the effectiveness of these interventions. Political uncertainty and a tight monetary policy stance in 2022 further eroded multiplier effectiveness. Yet, the country's experience reveals that direct cash transfers in high-informality settings can generate robust short-term demand boosts, especially when financed through temporary borrowing.

In Sub-Saharan Africa, the size of fiscal multipliers is generally lower due to weak institutional capacity, low revenue bases, and a large informal sector. Shen, Yang & Zanna (2018) estimated that average multipliers in low-income African countries range between 0.2 and 0.6, with higher values observed in economies with better public financial management systems. For instance, Kenya's multipliers vary from 0.01 to 0.4, while Tanzania's multipliers range around 0.2. These figures are significantly below the global average. Nevertheless, targeted spending in infrastructure, social protection, and rural electrification can produce higher returns, especially when externally financed. Countries such as Rwanda and Ethiopia have seen multiplier effects nearing 0.8 in programs focused on agriculture and transport infrastructure. Shen et al. (2018) emphasize that externally funded projects (via concessional loans or aid) avoid the crowding-out of private investment, thereby enhancing multiplier effects.

Fiscal multipliers vary significantly across sectors, and spending that targets sectors with high labor intensity and demand elasticity tends to have higher output returns. Raga (2022) finds that education, healthcare, and social protection yield multipliers near or above 1 in many LICs. For example, education spending in Ghana and Tanzania produced multipliers around 0.9, while cash transfers in Kenya had multipliers closer to 0.5. In contrast, general administration and military spending often yield weak or even negative returns due to limited linkages to domestic production. Investment in green infrastructure and gender-sensitive sectors (e.g., care economy) has also shown increasing promise. Raga (2022) noted that gender-targeted investments in countries like

Brazil and South Africa yielded multipliers of 2 to 3, amplifying both growth and equality. Thus, optimal allocation of fiscal resources is not only about volume but also about precision in targeting.

The capacity of institutions to efficiently deploy and monitor fiscal spending significantly determines the realized size of fiscal multipliers. Kraay (2014) demonstrated that in developing countries, improvements in institutional quality—especially in budget planning, audit systems, and public procurement—can raise multipliers by up to 18%. Countries with better governance indicators, such as Rwanda and Botswana, tend to achieve higher output returns per dollar spent compared to fragile states. Moreover, transparency and accountability in spending foster credibility, which in turn stimulates private sector confidence and investment. This "crowd-in" effect can significantly amplify the impact of public investment. Kraay's empirical analysis of World Bank-financed projects confirms that the same amount of spending yields more significant outcomes when channeled through robust institutions.

The source of financing for fiscal interventions—whether through domestic borrowing, taxation, or external aid—can influence multiplier size and sustainability. Ilzetzki, Mendoza & Végh (2013) highlighted that externally financed spending often yields higher multipliers in developing countries due to fewer crowding-out effects and less pressure on domestic interest rates. However, reliance on external debt also introduces vulnerabilities to exchange rate fluctuations and debt servicing risks. In Sub-Saharan Africa, concessional loans and grants from multilateral institutions have financed many infrastructure and health programs with notable success, such as the power sector improvements in Kenya and road network expansions in Ethiopia. While the upfront multiplier may be higher, sustainability concerns necessitate prudent debt management frameworks to preserve long-term fiscal space.

Public debt, broadly defined as the total liabilities accumulated by the central government, is typically measured as a ratio of gross domestic product (GDP). This indicator helps evaluate a country's fiscal capacity and its ability to service obligations without default or drastic economic adjustments. Economists often classify debt levels as either "high" or "low" based on thresholds that reflect macroeconomic stability. For advanced economies, debt-to-GDP ratios above 120% are often flagged as high, while in emerging and developing economies, ratios above 70–90% can trigger concerns about fiscal vulnerability, inflationary pressures, and investor confidence. Debt accumulation can result from persistent budget deficits, economic downturns, bailouts, or extraordinary public health crises, such as the COVID-19 pandemic. According to Huidrom, Kose, Lim, & Ohnsorge (2019), the macroeconomic consequences of debt depend not only on its level but also on its financing structure, maturity, currency denomination, and the institutional quality of debt management systems. Importantly, the level of public debt plays a critical role in shaping the magnitude of fiscal multipliers, with lower debt enabling more expansionary fiscal policy due to stronger investor confidence, reduced risk premiums, and higher fiscal credibility. Conversely, high debt can lead to crowding out of private investment, increased borrowing costs, and reduced policy effectiveness, thereby weakening the fiscal multiplier effect.

A fiscal multiplier quantifies the change in economic output resulting from a change in government spending or taxation. It captures the downstream effects of fiscal policy on consumption, investment, employment, and GDP. Theoretically, a multiplier greater than one implies that each dollar of government spending raises GDP by more than one dollar—a hallmark of effective stimulus. Multiplier size varies depending on the phase of the business cycle (e.g., recession or

boom), the type of fiscal instrument (investment, consumption, or transfers), exchange rate regime, trade openness, and importantly, the level of public debt. Studies by Gechert & nRannenberg (2018) showed that the average multiplier for public investment in advanced economies can exceed 1.5 in low-debt environments, but may fall below 0.6 in high-debt scenarios. Measurement techniques include Structural Vector Autoregressions (SVARs), local projections, and narrative identification of exogenous fiscal shocks. The literature reveals that while tax cuts generally yield low multipliers (0.2–0.6), public investment, particularly in infrastructure, generates more persistent and growth-enhancing effects. High-debt economies often experience diminishing multiplier returns because fiscal expansions generate anxiety over long-term debt sustainability, which can dampen private sector response and potentially lead to counteracting monetary tightening.

In the United States, public debt exceeded 120% of GDP by the end of 2021, driven by large-scale fiscal responses to the 2008 financial crisis and the COVID-19 pandemic. Despite this historically high debt level, the U.S. demonstrated robust fiscal multiplier performance due to its institutional credibility, deep capital markets, and the U.S. dollar's reserve currency status. Ramey & Zubairy (2018), using narrative identification methods and local projections, find that government spending multipliers in the U.S. are state-dependent: between 0.5–0.8 during expansions and rising to 1.5 or higher in recessions, particularly under zero lower bound (ZLB) conditions. The fiscal stimulus of over $5 trillion during the pandemic, including direct checks, unemployment benefits, and PPP loans, lifted GDP significantly, showcasing fiscal policy's potency even under high debt. However, long-term concerns regarding debt sustainability and inflation risks prompted eventual tapering, illustrating that debt levels can indirectly influence multiplier duration and expectations. The U.S. experience highlights that while high debt can coexist with strong fiscal response, it must be underpinned by transparent institutions and monetary coordination.

The United Kingdom presents a contrasting scenario in which public debt crossed 100% of GDP by 2021, following years of post-financial crisis austerity that constrained fiscal capacity. In the early 2010s, UK policymakers opted for fiscal consolidation despite high unemployment and slack demand, aiming to reduce debt ratios. This strategy, however, led to stagnant growth and weak multiplier effects. According to Crafts & Mills (2020), the average fiscal multiplier during austerity years was as low as 0.3, with public investment multipliers slightly higher at around 0.6. The imposition of austerity during an economic downturn not only curtailed aggregate demand but also damaged productive capacity in public services and infrastructure. Following the pandemic, the UK government shifted toward more aggressive fiscal expansion—allocating £407 billion in support—which led to a robust recovery in 2021. Yet, the effectiveness of this late-stage fiscal expansion remained moderated by earlier underinvestment and cautious monetary normalization. The UK's fiscal trajectory illustrates how political decisions regarding debt management can suppress the effectiveness of fiscal multipliers, especially when implemented pro-cyclically.

Japan's public debt-to-GDP ratio exceeds 250%, making it the highest among advanced economies. Despite repeated fiscal packages aimed at reviving demand since the 1990s, the country has witnessed declining multiplier effects. Miyamoto, Nguyen & Sergeyev (2018) analyzed Japan's fiscal history and found that standard government spending multipliers are typically between 0.3–0.6 but can rise to 1.3 under ZLB conditions when accompanied by accommodative monetary policy. Japan's multipliers are also higher for capital investment

compared to general consumption spending. Structural issues such as population aging, deflationary pressures, and high private savings contribute to low consumption responses, thereby reducing multiplier efficacy. Nonetheless, the government continues to rely on fiscal policy as a stabilization tool, focusing on infrastructure, digital transformation, and green energy. The Japanese case underscores how persistent high debt, when not paired with strong consumption incentives and institutional reforms, leads to fiscal fatigue and muted multiplier returns despite large expenditures.

Brazil operates in a macroeconomic environment characterized by fiscal fragility, inflation volatility, and a history of debt crises. Between 2018 and 2023, Brazil's public debt hovered around 90% of GDP, constraining fiscal options and undermining the confidence of investors. Carneiro & Garrido (2020) used structural VARs to estimate Brazil's fiscal multipliers, finding low values ranging from 0.2 to 0.6, with higher multipliers observed during recessions and for capital expenditures. The COVID-19 emergency transfer program, which reached 40% of the population, had a short-term multiplier close to 0.9, largely due to the high marginal propensity to consume among the poor. However, once the program ended, fiscal retraction led to declining growth and renewed investor concerns. Additionally, Brazil's rigid labor market and politically driven spending reduce efficiency. The country's case illustrates that while temporary high-debt stimulus can provide short-lived boosts, sustainable multiplier impacts require institutional reform, debt consolidation, and long-term planning.

Many Sub-Saharan African (SSA) economies have seen sharp increases in public debt since 2015, driven by infrastructure investment, external shocks, and pandemic-related borrowing. Countries like Ghana, Kenya, and Zambia surpassed debt-to-GDP ratios of 70%, raising concerns about fiscal space and default risks. Raga (2022) conducted a meta-review of fiscal multipliers across SSA, finding average values of 0.2 to 0.4 for general spending, and up to 0.7 for targeted capital projects. The relatively low multipliers are due to weak institutional frameworks, limited financial market depth, and high levels of informality. External financing improves multipliers by reducing crowding-out effects, but also exposes economies to exchange rate shocks. Countries with stronger governance—like Rwanda—achieve higher multipliers despite similar debt levels, demonstrating that absorptive capacity and transparency are key enablers. SSA's experience suggests that fiscal effectiveness in high-debt environments requires not only prudent borrowing but also deliberate institutional strengthening.

The interaction between public debt and fiscal multipliers is strongly mediated by the efficiency of government institutions, particularly in infrastructure planning and delivery. A World Bank study by Vagliasindi & Gorgulu (2021) found that infrastructure multipliers are higher in countries with strong project selection, execution, and governance. In high-debt contexts, such as Italy and Brazil, low project quality and delays significantly erode potential output gains. Conversely, in countries with rigorous public investment management (PIM) frameworks, multipliers remain resilient even at higher debt levels. Green and digital infrastructure investments are also found to have more lasting productivity effects. Thus, a high public debt level does not inherently doom fiscal stimulus to failure—but increases the necessity for precision, project quality, and transparent debt management.

Coordination between fiscal and monetary authorities can help offset the adverse effects of high debt on multiplier performance. For instance, during the COVID-19 pandemic, countries that

implemented synchronized fiscal-monetary responses—such as the U.S., Japan, and the UK—achieved stronger GDP recoveries than those with fragmented policies. Bianchi & Melosi (2019) emphasized that regime-switching DSGE models show larger welfare gains when fiscal expansions are supported by a credible commitment from monetary policy to maintain low interest rates, even under high debt. In contrast, fiscal expansion without such support can lead to inflationary pressure and loss of investor trust, thereby reducing multiplier effectiveness. Therefore, countries with high debt can still deploy effective fiscal stimulus if supported by monetary accommodation and clear fiscal consolidation frameworks.

1.1 Statement of the Problem

Despite extensive global research on the efficacy of fiscal policy interventions, there remains a significant lack of clarity on how public debt levels interact with fiscal multipliers, particularly in high-debt economies. Fiscal multipliers—defined as the ratio of change in output to a change in government spending—serve as a cornerstone in evaluating the effectiveness of fiscal stimulus, yet their magnitude and reliability vary considerably depending on macroeconomic conditions. Historically, fiscal multipliers have been found to be greater than one during periods of economic slack or zero-bound monetary policy, suggesting potent countercyclical potential. However, when governments operate under high public debt burdens—often exceeding 90% of GDP in emerging economies and 120% in advanced economies—the stimulative power of fiscal policy becomes uncertain and potentially self-defeating (Huidrom, Kose, Lim, & Ohnsorge, 2019). For instance, as of 2023, Japan's public debt reached over 260% of GDP, while the U.S. surpassed 120%, raising global concerns about the sustainability and efficiency of stimulus policies in such high-debt contexts (IMF, 2023). Existing macroeconomic models often overlook how debt sustainability concerns may dampen investor confidence and reduce the marginal returns of fiscal expansions, thus creating an urgent need to understand the role of fiscal multipliers when debt levels are elevated.

Although previous research has acknowledged that fiscal multipliers are not fixed and are instead state-contingent—varying based on the economic cycle, monetary stance, and type of spending—there is insufficient empirical investigation into how structurally high debt ratios alter these dynamics across countries and income classifications. The literature reveals a disparity in multiplier outcomes between high-income economies (like the United States and Japan) and emerging or developing ones (such as Brazil or Sub-Saharan African countries), but these comparisons are often not systematically analyzed within a unified high-debt framework. For example, Gechert and Rannenberg (2018) conducted a meta-regression of over 1,800 multiplier estimates, yet high-debt scenarios were treated as marginal control variables rather than focal points. Moreover, country-level studies tend to isolate fiscal policy impacts without accounting for public debt thresholds or credibility constraints that alter consumer and investor responses. This study, therefore, aims to address a critical research gap by examining fiscal multipliers in the specific context of high-debt economies across diverse regions and income levels, analyzing how these multipliers respond to different types of spending (e.g., capital vs. recurrent), and determining whether high debt structurally undermines or merely moderates the efficacy of fiscal stimulus.

The findings from this study will hold significant value for a diverse range of stakeholders including policymakers, multilateral financial institutions, central banks, and academic

researchers. Governments in high-debt economies will gain a more nuanced understanding of when and how fiscal stimulus can be effective without exacerbating fiscal vulnerabilities. For example, insights into which sectors produce the highest multipliers under debt constraints can help reallocate public investment toward more productive uses. Multilateral agencies like the IMF and World Bank, which routinely advise countries on debt sustainability frameworks and recovery plans, can also use these findings to tailor fiscal prescriptions to country-specific debt profiles. Furthermore, the academic community will benefit from an empirically grounded model that integrates debt sustainability indicators into multiplier evaluations—thus enhancing the theoretical literature on fiscal policy under constraints. As Gechert and Rannenberg (2018) emphasize, incorporating structural factors like public debt levels into multiplier estimation improves the predictive accuracy of fiscal response models, making fiscal planning more resilient and evidence-based.

2.0 LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 Keynesian Theory of Aggregate Demand

At the heart of fiscal multiplier research lies the Keynesian Theory of Aggregate Demand, developed by British economist John Maynard Keynes during the 1930s in response to the Great Depression. Keynes argued that in times of economic downturn, market forces alone are insufficient to restore full employment or stimulate output growth. He emphasized that government intervention through fiscal policy—especially increased public expenditure—could stimulate aggregate demand and thereby boost national income, employment, and investment. Central to Keynesian thought is the idea that one individual's spending becomes another's income, creating a "multiplier effect" throughout the economy. This theoretical foundation supports the basic logic of fiscal multipliers: a change in government spending triggers a magnified change in output due to successive rounds of spending. In the context of high-debt economies, Keynesian theory becomes especially relevant as it proposes that governments should not shy away from public spending during recessions, even when debt levels are high, because the cost of inaction—prolonged stagnation—can outweigh the risks of rising debt. However, critics often argue that this approach may not apply equally when debt sustainability concerns suppress private sector confidence. Nonetheless, Keynesian theory offers a robust foundation for assessing how public spending can drive growth, which is a central focus of this research on fiscal multipliers in highly indebted economies (Keynes, 1936; Batini, Eyraud, Forni & Weber, 2014).

2.1.2 Ricardian Equivalence Hypothesis

A contrasting perspective is provided by the Ricardian Equivalence Hypothesis, formulated by Robert J. Barro in the 1970s, building upon earlier ideas from David Ricardo. The Ricardian view holds that government borrowing is equivalent to future taxation; that is, when a government increases spending by issuing debt, rational forward-looking consumers anticipate future tax increases to repay that debt and, consequently, increase their savings instead of consumption. This neutralizes the stimulative effect of fiscal policy, rendering the fiscal multiplier effectively zero or even negative. This theory is critical in analyzing high-debt economies, where public trust in government solvency may be low and the fear of future tax burdens high. In such environments, fiscal expansion may fail to raise demand and instead prompt consumers and businesses to adopt

a precautionary stance, weakening or nullifying the multiplier effect. The Ricardian Equivalence framework thus provides a theoretical lens for understanding why fiscal multipliers may shrink or become ineffective as debt levels rise, particularly in contexts where fiscal credibility is weak and intergenerational debt transfer fears are prominent. For this reason, it is a vital theoretical anchor in examining the limitations of expansionary fiscal policy in highly indebted settings (Barro, 1974; Huidrom, Kose, Lim & Ohnsorge, 2019).

2.1.3 Debt Overhang Theory

The Debt Overhang Theory, primarily attributed to Krugman (1988) and further developed by Sachs and others, posits that when a country's debt level becomes unsustainably high, the expected returns from new investments are largely appropriated by creditors, rather than the domestic economy, thus discouraging both private and public investment. In such a scenario, the incentives for productive activity are dampened because any gains are perceived to be used for debt servicing rather than reinvestment or public benefit. This theory is particularly relevant to high-debt economies, where fiscal space is constrained, risk premiums are elevated, and the government's ability to stimulate the economy via spending becomes limited. According to this theory, the effectiveness of fiscal multipliers diminishes because high debt induces policy uncertainty and financial market distress, discouraging private sector participation. Furthermore, the economy may face a vicious cycle: lower growth due to ineffective fiscal policy leads to a higher debt-to-GDP ratio, which in turn further suppresses investment and growth potential. The debt overhang hypothesis helps explain why some high-debt countries experience very weak fiscal responses despite sizable stimulus packages, as the perceived risk of insolvency deters economic agents from engaging in long-term economic planning. This theory provides critical context for evaluating why and under what conditions fiscal multipliers may fail to yield expected results in high-debt environments (Krugman, 1988; Ramey & Zubairy, 2018).

2.2 Empirical Review

Cho & Rhee (2024) explored how fiscal multipliers behave in aging societies facing high public debt burdens. Using a dynamic general equilibrium (DGE) model with overlapping generations, they simulated fiscal stimulus impacts under different demographic and debt trajectories. Their analysis is focused on advanced economies, including Japan and South Korea. The study found that in high-debt aging economies, the fiscal multiplier is significantly reduced due to demographic pressures on public pensions and health spending, leading to weaker consumer responses. Specifically, multipliers fell from 1.4 in low-debt regimes to just 0.5 in high-debt aging scenarios. They recommended integrating demographic forecasts in fiscal sustainability assessments. However, they overlooked fiscal efficiency in middle-income countries, suggesting a research gap in analyzing high-debt multipliers in emerging economies.

Aloui & Eyquem (2019) examined the interaction between distortionary taxation, debt levels, and spending multipliers in advanced economies using a calibrated DSGE model. The research simulated responses under both low and high public debt environments. They found that in high-debt economies, fiscal spending multipliers decrease significantly when government spending is financed via distortionary taxes. A 1% increase in government spending in high-debt countries lead to only a 0.3% rise in output, compared to 1.2% in low-debt environments. The authors

recommended reliance on debt-neutral fiscal rules and tax smoothing. The gap they left is a lack of focus on low-income countries and empirically validating their model with real-world data.

Bernardini & Peersman (2018) investigated how private sector debt interacts with public debt to influence fiscal multiplier effects. Using SVAR models and quarterly data from the U.S., Bernardini and Peersman (2018) assessed the magnitude of fiscal multipliers in states with high and low private debt burdens. They found that fiscal multipliers are significantly smaller in periods where private debt is high, even when public debt remains constant. Multipliers shrink from 1.6 in low-debt settings to below 0.5 when private leverage is excessive, suggesting crowding out and risk aversion effects. They advocated coordinated fiscal and monetary interventions. However, they did not assess outcomes in countries with sovereign debt crises or fragile financial sectors, indicating a need to study high-debt environments in emerging markets.

Dime, Ginting & Zhuang (2021) analyzed fiscal multipliers using quarterly data from nine Asian countries, differentiating between low-debt and high-debt regimes. The empirical strategy was based on local projections and panel VAR estimations. The results revealed that fiscal multipliers are statistically significant in low-debt Asian economies, averaging 0.8 over two years, but become insignificant in countries where public debt exceeds 70% of GDP. The response also varied by spending type—capital outlays yield higher multipliers than consumption transfers. They recommended improving debt transparency and institutional quality. However, they failed to address sub-Saharan Africa or consider how exchange rate regimes affect multiplier performance under high debt.

Butkus, Cibulskiene, Garsviene & Seputiene (2021) assessed how public expenditure multipliers affect growth under different debt levels across EU countries. Using a GMM panel regression, Butkus et al. (2021) evaluated the heterogeneity in the debt-growth relationship. They found that public debt beyond a 90% threshold begins to negatively influence the effectiveness of fiscal multipliers. The expenditure multiplier effect became increasingly marginal or even contractionary at extreme debt levels, indicating potential "debt overhang." They argued for stronger debt ceilings and fiscal rules. Yet, the study was Eurocentric and did not explore fiscal conditions in low-income or fragile states, leaving scope for further geographic expansion.

Huidrom, Kose, Lim & Ohnsorge (2020) empirically examined how pre-existing fiscal conditions influence the size of fiscal multipliers. The study used panel data from over 30 countries between 1990 and 2017, employing a fixed-effects regression model. They reported that multipliers tend to be smaller in countries with weak fiscal positions, high debt levels, and limited fiscal space. Multipliers were halved in high-debt scenarios, falling from 1.2 to 0.6, largely due to credibility shocks and anticipatory private sector behavior. They called for fiscal frameworks that build credibility in high-debt environments. However, they did not assess the role of institutional quality or corruption, suggesting another dimension for future research.

Bentour (2022) investigated how the accumulation of public debt during different phases of the business cycle affects the magnitude of fiscal multipliers in developing countries. The author used a threshold VAR model for 12 African and Middle Eastern countries. The paper found that during recessions, fiscal multipliers in high-debt economies are more effective than during booms, though still modest in size (0.3–0.6). The credibility effect dominated during expansions, leading to more muted responses. He recommended procyclical consolidation and targeted countercyclical

spending. Yet, the study left a gap by not disaggregating the types of government spending or exploring sector-specific multipliers.

3.0 METHODOLOGY

The study adopted a desktop research methodology. Desk research refers to secondary data or that which can be collected without fieldwork. Desk research is basically involved in collecting data from existing resources hence it is often considered a low cost technique as compared to field research, as the main cost is involved in executive's time, telephone charges and directories. Thus, the study relied on already published studies, reports and statistics. This secondary data was easily accessed through the online journals and library.

4.0 FINDINGS

This study presented both a contextual and methodological gap. A contextual gap occurs when desired research findings provide a different perspective on the topic of discussion. For instance, Bernardini & Peersman (2018) investigated how private sector debt interacts with public debt to influence fiscal multiplier effects. Using SVAR models and quarterly data from the U.S., the authors assessed the magnitude of fiscal multipliers in states with high and low private debt burdens. They found that fiscal multipliers are significantly smaller in periods where private debt is high, even when public debt remains constant. Multipliers shrink from 1.6 in low-debt settings to below 0.5 when private leverage is excessive, suggesting crowding out and risk aversion effects. They advocated coordinated fiscal and monetary interventions. However, they did not assess outcomes in countries with sovereign debt crises or fragile financial sectors, indicating a need to study high-debt environments in emerging markets. On the other hand, the current study focused on investigating role of fiscal multipliers in high-debt economies.

Secondly, a methodological gap also presents itself, Bernardini & Peersman (2018) in investigating how private sector debt interacts with public debt to influence fiscal multiplier effects- used SVAR models and quarterly data from the U.S., the authors assessed the magnitude of fiscal multipliers in states with high and low private debt burdens. Whereas, the current study adopted a desktop research method.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The study concluded that the effectiveness of fiscal multipliers significantly declined in economies experiencing high levels of public debt. While fiscal stimulus remained a relevant tool for economic recovery and stabilization, its impact was notably weaker in debt-constrained environments due to reduced investor confidence, crowding-out effects, and concerns over future fiscal sustainability. The fear of higher future taxation or inflation in response to additional borrowing was found to have a dampening effect on both household consumption and private sector investment, thereby diminishing the chain reaction necessary for a strong fiscal multiplier to take root.

It was determined that the size and persistence of fiscal multipliers were highly context-dependent, shaped by the structure of the economy, macroeconomic conditions, and institutional frameworks. High-debt countries operating under unfavorable monetary conditions—such as inflationary pressure or restricted monetary accommodation—experienced particularly constrained fiscal

effectiveness. Furthermore, stimulus packages centered on recurrent spending showed far less return compared to those targeting capital investment, especially in economies with limited fiscal space. This indicated that not only the debt level but also the composition and timing of spending were critical determinants of multiplier outcomes.

The research also concluded that fiscal multipliers in high-debt environments were not uniformly small across all countries; rather, their magnitude varied with governance quality, demographic trends, and the specific instruments used in the fiscal intervention. Countries with stronger institutional capacity, credible fiscal frameworks, and transparent public investment management systems were better able to generate meaningful economic responses despite elevated debt levels. In contrast, fragile or mismanaged fiscal environments showed little to no multiplier effect, sometimes even experiencing contractionary outcomes from government spending due to policy uncertainty or sovereign risk premiums.

In summary, the study emphasized that while fiscal policy could still play a countercyclical role in high-debt economies, its success was conditional upon several enabling factors. These included prudent fiscal targeting, strong institutions, and coherent monetary-fiscal coordination. Without these safeguards, high levels of public debt limited the government's ability to stimulate demand effectively, thereby undermining recovery efforts and long-term growth prospects. The conclusion firmly reinforced the need for tailored fiscal strategies rather than one-size-fits-all prescriptions in high-debt contexts.

5.2 Recommendations

The study recommended that governments in high-debt economies should adopt a more selective and targeted fiscal policy strategy, focusing on high-multiplier sectors such as infrastructure, healthcare, and education. These sectors were identified as offering long-term productivity gains and higher returns on public spending, especially in contexts where consumer confidence and investor trust were fragile. Governments were advised to prioritize capital investments over recurrent expenditures, as these had the potential to stimulate both supply- and demand-side responses, helping to lift economic potential while managing debt dynamics. In addition, fiscal stimulus should be frontloaded during periods of economic slack and monetary accommodation to maximize its effectiveness.

To strengthen fiscal policy practice, the study urged countries to enhance their public financial management systems and institutional capacities. Budget credibility, transparency, and efficient project implementation were found to significantly influence multiplier size. Thus, governments were encouraged to implement rigorous cost-benefit analyses, prioritize evidence-based budgeting, and improve fiscal reporting mechanisms. In high-debt economies, particularly those with limited access to concessional finance or facing sovereign credit risks, better institutional quality was not just a technical imperative but a fundamental enabler of effective policy execution.

In terms of theoretical contribution, the study expanded the understanding of state-contingent fiscal multipliers by integrating the variable of public debt into macroeconomic frameworks that previously assumed fiscal space as either unlimited or static. It contributed to refining fiscal theory by challenging the assumption of uniform multiplier behavior across debt environments and advocating a dynamic, context-sensitive approach. The research thus served to bridge gaps in fiscal policy theory by accounting for endogenous reactions from economic agents in high-debt regimes,

including behavioral adaptations related to taxation, inflation expectations, and debt sustainability perceptions.

The findings also carried significant implications for macroeconomic policy design. Policymakers were advised to synchronize fiscal expansion with accommodative monetary policy and maintain credible medium-term consolidation frameworks. This coordination was viewed as vital in avoiding contradictory policy signals that could undermine stimulus efforts. Moreover, the study recommended that policymakers embed fiscal rules that allow for temporary deviations during recessions but enforce discipline in periods of economic expansion. This would help balance the need for stimulus with long-term debt sustainability and reassure financial markets of the government's fiscal responsibility.

On the practical level, the study emphasized the importance of adaptive fiscal policy frameworks that can adjust in real time to changing debt dynamics and economic conditions. Fiscal authorities were encouraged to implement real-time monitoring systems, such as early warning debt sustainability indicators and spending efficiency dashboards, to make informed decisions. Public investment efficiency was particularly highlighted as an area where small improvements could yield disproportionately large returns in high-debt contexts. Such tools would allow policymakers to better align expenditures with economic objectives while mitigating fiscal risks.

Finally, the study recommended that international financial institutions and donor organizations offer differentiated guidance and conditionalities when working with high-debt economies. Standardized fiscal targets often failed to recognize country-specific constraints and opportunities. Instead, development partners were urged to support capacity building, concessional financing for high-impact investments, and technical assistance for public investment management reforms. This support would help build the foundation necessary for debt-ridden economies to stimulate growth without exacerbating fiscal fragility.

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