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THE DYNAMICS OF BUDGET DEFICITS: GROWTH, GOVERNANCE, AND DEBT SUSTAINABILITY IN DEVELOPING ECONOMIES

Muhammad Anus
Lahore School of Accountancy and Finance, University of Lahore, Pakistan
Marc Audi
Abu Dhabi School of Management, Abu Dhabi, United Arab Emirates
Amjad Ali
Lahore School of Accountancy and Finance, University of Lahore, Pakistan

Abstract
Persistent budget deficits have long characterized developing economies, raising concerns over macroeconomic stability, debt sustainability, and long-term growth prospects. While fiscal imbalances may at times be justified by countercyclical spending or development needs, their chronic persistence often reflects structural weaknesses and institutional constraints. This study empirically investigates the determinants of budget deficits across 40 developing countries during 2000–2020, applying a multi-theoretical framework that integrates macroeconomic, political, and institutional perspectives. Using panel data and econometric techniques, including generalized method of moments estimation, the analysis examines the impact of economic growth, inflation, external debt, terms of trade, tax revenue, political stability, corruption, and demographic trends on fiscal balances. The findings reveal that higher GDP growth, stronger tax revenue mobilization, and improved political stability significantly reduce budget deficits, whereas inflation, external debt, corruption, and population growth exacerbate fiscal imbalances. Results also confirm the dynamic persistence of deficits over time, with past imbalances strongly influencing future outcomes. These outcomes align with theoretical expectations of deficit–debt spirals, procyclical fiscal behavior, and institutional fragility in low- and middle-income countries. Policy implications emphasize the need for broadening tax bases, enhancing compliance, and adopting counter-cyclical fiscal rules, alongside governance reforms to curb corruption and improve institutional credibility. Containing inflation, managing external borrowing prudently, and addressing demographic pressures are equally critical for building fiscal resilience. By highlighting the interplay of structural, political, and economic factors, the study contributes to the literature on fiscal sustainability and provides evidence-based insights for policymakers in developing economies seeking to balance growth and stability.
Keywords: *Budget Deficits, Fiscal Sustainability, Political Economy, Developing Economies*

INTRODUCTION

Over the past several decades, the persistence and expansion of budget deficits in developing countries have attracted considerable attention from both scholars and policymakers. The prominence of fiscal imbalances in these regions is particularly concerning given their potential to undermine macroeconomic stability and derail long-term development goals. A budget deficit occurs when a government's total expenditures exceed its total revenues within a given fiscal period. While budget deficits are not inherently detrimental, indeed, they may be justified in the context of countercyclical fiscal policy or necessary public investment, they become problematic when sustained or structurally embedded (Easterly & Schmidt-Hebbel, 1994; Alesina & Perotti, 1996).

Chronic deficits can fuel several destabilizing economic outcomes. One of the most immediate consequences is inflationary pressure, particularly in economies that resort to monetizing the deficit by printing money. This diminishes the purchasing power of consumers and can trigger a loss of confidence in the currency (Gupta et al., 2003; Catao & Terrones, 2005; Ali & Audi, 2023; Khalid et al., 2025; Nwosu & Folarin, 2025). Additionally, persistent deficits often lead to the crowding out of private investment. When governments borrow heavily from domestic financial markets to finance their deficits, they increase demand for credit, which drives up interest rates and limits the ability of the private sector to access affordable financing. This stifles entrepreneurial activity and reduces overall economic productivity (Fischer & Easterly, 1990; Reinhart & Rogoff, 2010; Roussel & Audi, 2024; Ammar et al., 2025; Diaz & Collin, 2025). Furthermore, continuous budget deficits lead to the accumulation of public debt. As interest obligations on past borrowing increase, a larger portion of government resources must be allocated to debt servicing rather than productive expenditure such as education, infrastructure, or health care. Over time, this weakens the government's fiscal credibility, particularly if there are doubts about its commitment or capacity to meet its obligations. Loss of fiscal credibility may result in reduced investor confidence, capital flight, and exchange rate volatility, thereby worsening the economic outlook (Baldacci et al., 2004; Kaminsky, Reinhart, & Végh, 2005; Marc, 2011; Ashiq & Akhlaque, 2019; Safdar & Malik, 2020; Bukhari et al., 2025; Marc, 2025; Irfan & Ahmad, 2025).

The macroeconomic impact of budget deficits in developing countries is often exacerbated by deep-rooted structural challenges. These include narrow and inefficient tax bases that limit domestic revenue mobilization, overreliance on volatile foreign aid or remittances, and systemic governance weaknesses that hinder the effective allocation and monitoring of public resources (Bird & Zolt, 2008; Rodrik, 2000; Krishna & Singh, 2020; Ali, 2022; Audi et al., 2023; Audi, 2024; Marc & Roussel, 2024). In many cases, government spending is directed toward short-term political priorities rather than long-term developmental needs, leading to misallocation and inefficiencies. Corruption and weak institutional

oversight further compound the problem by reducing the effectiveness of public financial management (Tanzi & Davoodi, 1997; Mauro, 1998; Marc et al., 2023; Umair et al., 2025; Aman et al., 2025; Ditta et al., 2025).

The fiscal behavior of developing countries is shaped by a complex interplay of economic, political, and institutional variables. Unlike advanced economies, where fiscal discipline is often institutionalized through robust frameworks and independent oversight mechanisms, many developing nations experience volatile fiscal cycles driven by structural weaknesses. Among the critical economic determinants of fiscal imbalances is inflation. Baldacci et al. (2011) emphasize that inflation is one of the most significant macroeconomic drivers of budget deficits. High and persistent inflation erodes the real value of government revenues, particularly in environments where tax systems are heavily reliant on indirect taxes and lack automatic inflation adjustments. In such contexts, governments face increasing difficulty in maintaining real revenue flows, while public expenditures, particularly wage and transfer payments, continue to rise, leading to widening fiscal gaps. Inflation also has a reciprocal relationship with fiscal policy. Fiscal imbalances, especially those financed through central bank borrowing, can further exacerbate inflationary pressures. This cyclical dynamic creates a self-reinforcing loop in which inflation and deficits feed into one another, ultimately destabilizing the macroeconomic environment (Ali et al., 2025; Iqbal et al., 2025; Marc & Ali, 2023; Catao & Terrones, 2005; Sargent & Wallace, 1981). In countries lacking strong monetary institutions, this vicious cycle erodes public trust in economic management and weakens investor confidence.

Another core determinant of fiscal health is a government's capacity to mobilize domestic tax revenues. Low-income and lower-middle-income countries typically record tax-to-GDP ratios far below the levels seen in advanced economies. Gaspar et al. (2016) report that many of these countries operate with tax-to-GDP ratios below 15%, a threshold considered inadequate for sustainable development financing. This shortfall is often due to a narrow tax base, the prevalence of informal economic activity, widespread tax evasion, and limited administrative capacity to enforce compliance. Moreover, overdependence on indirect taxation, such as value-added taxes or trade duties, makes revenues highly sensitive to inflation and international price fluctuations, thereby reducing fiscal resilience during shocks (Bird, Martinez-Vazquez, & Torgler, 2008; Ali et al., 2025). Weak revenue mobilization leads to fiscal deficits that are frequently financed through external borrowing. This practice increases exposure to international risks such as interest rate volatility, currency depreciation, and refinancing constraints. Over time, rising debt service obligations crowd out essential public investment and reduce fiscal space for development expenditures (Aziz et al., 2025; Ali et al., 2025; Presbitero, 2012; Alesina & Tabellini, 1990). In extreme cases, high debt-to-GDP ratios in conjunction with weak fiscal institutions can lead to debt distress and trigger macroeconomic crises.

The institutional dimension of revenue mobilization also plays a decisive role. Countries with weak rule of law, limited transparency, and poor governance structures often struggle to enforce tax compliance and prevent leakages in revenue collection. These deficiencies not only undermine the effectiveness of fiscal policy but also perpetuate inequities in the tax system, whereby wealthier individuals and politically connected firms evade taxation while the burden falls disproportionately on the poor (Tanzi & Davoodi, 2000; Besley & Persson, 2013; Saim et al., 2025; Kumar et al., 2025). Fiscal performance in developing countries is profoundly influenced by the dynamics of public debt accumulation. While borrowing can be an essential tool for financing development and countercyclical expenditures, the uncontrolled buildup of public debt often results in adverse fiscal outcomes. Panizza and Presbitero (2014) argue that high levels of debt do not necessarily translate into improved economic growth, particularly when borrowed resources are not allocated efficiently. Instead, elevated debt burdens can crowd out productive investment by increasing interest obligations, which may eventually outpace essential development expenditures and threaten debt sustainability. This concern has gained renewed urgency in the post-pandemic era. Emergency fiscal responses to the COVID-19 crisis, though necessary, have sharply increased debt-to-GDP ratios in many low- and middle-income countries. The resulting fiscal stress is compounded by tightening global financial conditions and rising interest rates, which further constrain fiscal space and intensify the risks of sovereign debt crises (IMF, 2023; Kose et al., 2021; Khan et al., 2025).

Trade openness is another critical, though sometimes overlooked, variable affecting fiscal balances. On one hand, greater openness can foster economic growth and enhance revenue collection through trade-related taxes. On the other hand, excessive dependence on external markets—especially for commodity-exporting countries- makes government revenue highly vulnerable to global price shocks and cyclical downturns (Rodrik, 1998; Arezki et al., 2012; Aqeel et al., 2025). In such economies, global downturns or terms-of-trade shocks can significantly reduce trade taxes, leading to sudden fiscal shortfalls and growing deficits (Humza et al., 2025). The quality of fiscal outcomes also hinges on institutional robustness and political stability. A well-functioning institutional framework supports fiscal discipline, enables transparency in public financial management, and fosters adherence to sound macroeconomic principles. Alesina and Tabellini (2007) emphasize that countries with stable political institutions and independent fiscal authorities are more likely to implement counter-cyclical fiscal policies and contain deficits. In contrast, politically fragmented systems, weak rule of law, and corruption can foster fiscal pro-cyclicality, as governments may prioritize short-term populist spending or rent-seeking behavior, especially during electoral cycles (Roubini & Sachs, 1989; Von Hagen, 2002; Kanwal et al., 2025; Ahmad et al., 2025). Growing empirical literature has sought to measure and quantify the influence of institutional and structural determinants on fiscal performance. Studies by Tapsoba (2012) and Bergman et al. (2016) find that countries with stronger fiscal rules, greater tax effort, and enhanced budgetary institutions tend to experience more stable and lower deficit outcomes. These findings underline the importance of structural reforms not only in tax policy and administration but also in institutional oversight and fiscal governance mechanisms. In light of these challenges and theoretical perspectives, this study seeks to empirically examine the determinants of budget deficits in developing countries, focusing on macroeconomic indicators and institutional variables over the 2000–2020 period.

LITERATURE REVIEW

The issue of budget deficits remains a critical macroeconomic challenge in developing economies. Persistent fiscal imbalances contribute to rising public debt, inflationary pressures, and concerns over fiscal sustainability. Understanding the key determinants of budget deficits is essential for the formulation of sound fiscal policies. The existing literature identifies a range of political, economic, structural, and institutional factors influencing fiscal imbalances in developing countries. Economic growth is frequently cited as a principal determinant of fiscal deficits. Woo (2003) argues that low or negative GDP growth contributes to widening deficits by suppressing tax revenues and increasing demands for social safety nets. Gupta et al. (2005) confirm this negative relationship in their empirical study of thirty-nine low-income countries, where GDP growth significantly correlates with reduced fiscal deficits. During economic downturns, governments often face pressure to maintain or increase public spending, further exacerbating fiscal shortfalls. Talvi and Vegh (2005) highlight the prevalence of procyclical fiscal policy in Latin America and other developing regions, where governments tend to increase spending during booms but struggle to contain it during busts, thereby amplifying long-term fiscal vulnerabilities. The relationship between inflation and budget deficits is complex and potentially bidirectional. Catao and Terrones (2005) demonstrate a positive and statistically significant correlation between inflation and deficits in developing countries, attributing this to reliance on seigniorage, especially in economies lacking mature bond markets. While this relationship is weaker in advanced economies, it is pronounced in low- and middle-income countries. Sargent and Wallace (1981) caution that causality can operate in both directions: deficits can lead to inflation when monetized, while inflation can undermine real tax revenues, thereby worsening fiscal balances.

Fiscal performance in developing economies is often shaped by external shocks, particularly in commodity-exporting countries. Gavin and Perotti (1997) show that terms-of-trade deterioration leads to fiscal revenue shortfalls and deeper deficits. Kaminsky et al. (2004) find that external shocks, such as global commodity price declines, increase the likelihood of unsustainable borrowing and fiscal instability. For countries reliant on oil or primary commodity exports, volatile external demand and price fluctuations create structural vulnerabilities and limit proactive fiscal management. Weak tax systems are a pervasive issue in many developing nations. Tanzi and Zee (2000) argue that low tax compliance, widespread informality, and administrative inefficiencies hamper revenue collection. Consequently, governments often resort to deficit financing to fund essential services. Baunsgaard and Keen (2010) emphasize that trade liberalisation in the 1980s and 1990s reduced tariff revenues, which many low-income countries failed to replace with domestic tax reforms, worsening fiscal deficits, particularly in Sub-Saharan Africa and parts of Asia.

Public expenditure structures in developing economies are frequently inflexible due to high wage bills, energy subsidies, and social transfers. Alesina et al. (1998) note that such expenditures are politically sensitive and difficult to reduce during downturns, thereby constraining fiscal space. Gupta et al. (2003) add that inefficient and poorly targeted subsidies crowd out productive capital investment, dampen growth potential, and place further pressure on future fiscal positions.

The literature in political economy highlights the importance of institutional characteristics in determining fiscal performance. Alesina and Perotti (1996) find that political instability, weak institutions, and low accountability contribute to fiscal indiscipline and persistent deficits. Stein et al. (1999) show that political fragmentation, as reflected in the number of veto players, is associated with increased public expenditures and larger deficits in Latin America. Persson and Tabellini (2003) observe that presidential systems often generate higher deficits than parliamentary systems due to differences in accountability and budgetary processes. The political budget cycle theory explains that governments often pursue expansionary fiscal policies prior to elections to gain electoral support. Brender and Drazen (2005) find that this effect is more pronounced in developing countries with weaker institutional checks and balances. Shi and Svensson (2006) argue that less transparent institutions and restricted media freedom exacerbate political budget cycles. Election years in many developing nations are characterised by populist fiscal expansions that result in unsustainable deficits.

Poor governance and corruption also play a significant role in shaping fiscal performance. Mauro (1998) demonstrates that corruption reduces tax compliance and increases inefficient public spending. Tanzi and Davoodi (1997) support this by showing that corruption leads to misallocated investments and reduced effectiveness of public expenditures, ultimately contributing to widening fiscal deficits. In highly corrupt environments, deficit financing often serves political or private interests rather than broader economic objectives, undermining fiscal transparency and credibility.

The rising cost of debt repayment remains one of the most prominent drivers of fiscal deficits in developing economies. Reinhart and Rogoff (2010) argue that in heavily indebted nations, a disproportionate share of government revenues is absorbed by interest payments, crowding out essential development spending and reinforcing a cycle of debt accumulation and fiscal imbalance. Ajayi and Khan (2000) further support this position by highlighting the phenomenon of external debt overhang, which suppresses domestic revenue mobilisation and leads to unsustainable fiscal commitments. Their analysis of African economies shows that interest payments as a percentage of gross domestic product are strongly correlated with persistent fiscal deficits.

Developing countries frequently face difficulties accessing international capital markets or must borrow at high interest rates. Eichengreen and Hausmann (1999) describe this as the problem of "original sin," where countries are unable to borrow externally in their own currency, thereby exposing themselves to exchange rate risk and fiscal vulnerability. In situations where foreign borrowing is constrained or too expensive, governments often resort to domestic borrowing, commonly through their central banks. This practice, as Edwards (2002) notes, creates monetary instability and inflationary pressures, which further deteriorate the fiscal position. The nature of a country's exchange rate regime also plays a significant role in determining fiscal outcomes. Ghosh et al. (2003) find that fixed or pegged exchange rate systems, while effective at controlling inflation, limit the scope for using monetary policy as a stabilisation tool, thus placing a heavier burden on fiscal policy. In contrast, floating exchange rates allow for more monetary flexibility, but

depreciation in such regimes increases the local currency cost of servicing foreign-denominated debt, thereby aggravating budget deficits, as demonstrated by Magnin and Nenovsky (2022).

Rapid population growth and demographic pressures are additional structural challenges. Developing countries often experience high demand for public services such as infrastructure, education, healthcare, and employment. Easterly and Rebelo (1993) show that, particularly in low-income economies, demographic expansion leads to increased public investment even in the absence of commensurate revenue growth. The resulting mismatch between expenditure requirements and fiscal capacity leads to chronic structural deficits, especially in contexts marked by youthful populations and accelerated urbanisation. Income inequality also has fiscal implications. Woo (2009) contends that high inequality generates political and social pressure for governments to implement redistributive policies, such as subsidies and transfer payments. In the absence of progressive taxation or efficient targeting, these policies are often financed through borrowing, thus perpetuating fiscal deficits. Trzcinski (2025) notes that in many developing countries with weak social safety nets, fiscal policy becomes the principal mechanism of redistribution. However, unless redistribution is effectively administered, the persistent imbalances arising from such policies undermine fiscal sustainability.

International financial institutions, particularly the International Monetary Fund, exert considerable influence on fiscal policy in developing countries, especially during economic crises. Governments facing balance of payment constraints or debt distress often turn to the IMF for financial and technical support. According to Goldfajn and Olivares (2001), IMF interventions typically require the adoption of macroeconomic stabilisation programs, with fiscal consolidation being a central component. These programs aim to reduce deficits, enhance expenditure efficiency, and initiate structural reforms. Dreher (2006) presents evidence that countries participating in IMF programs experience some degree of fiscal adjustment and improved fiscal sustainability in the short term. The conditionality imposed by the IMF is intended to enforce transparency and policy discipline. Chohan (2024) explains that these programs often promote tax reform, the rationalisation of public spending, and the elimination of inefficient subsidies, all of which are recurrent contributors to fiscal imbalances in developing nations. Nonetheless, this optimistic view is contested by a substantial body of literature that questions the socio-economic costs of austerity. Bird (2001) and other critics argue that fiscal tightening may achieve short-term deficit reduction at the expense of long-term development outcomes. Cuts in health, education, and infrastructure investment can erode human capital and economic potential, ultimately weakening the fiscal base needed to support consolidation. This trade-off is particularly stark in low-income countries, where public service provision is already fragile and underfunded, making the pursuit of fiscal discipline a potential threat to development rather than a solution.

In Sub-Saharan Africa, fiscal deficits are largely rooted in enduring structural weaknesses, including low levels of domestic revenue mobilisation, overreliance on volatile foreign aid, and fragile institutional frameworks. Adam and Bevan (2005) point out that while foreign aid is often regarded as supportive, its inconsistent and unpredictable nature complicates fiscal planning. Governments tend to increase expenditure when aid inflows are high but fail to appropriately adjust spending during downturns in aid, creating a cyclical and unsustainable fiscal pattern. Over time, this dynamic deepens fiscal imbalances that are difficult to reverse. In addition, many economies in the region depend heavily on the export of primary commodities such as oil, minerals, and agricultural products. These exports are subject to global price fluctuations, exposing national revenues to sudden external shocks. Conti and Wosinska (2025) argue that a sharp fall in commodity prices can swiftly widen fiscal deficits in countries lacking sufficient fiscal buffers. Revenue mobilisation is further constrained by weak tax administrations that struggle to broaden tax bases or ensure compliance. Compounding these challenges are fragile institutions where budgetary processes lack transparency, long-term planning is absent, and oversight mechanisms are weak. This results in excessive and inefficient public expenditure, rising debt burdens, and a fiscal environment vulnerable to persistent imbalances.

In Latin America, fiscal deficits are historically tied to a mix of economic cycles, populist politics, and weak institutional structures. Gavin and Perotti (1997) and Talvi and Végh (2005) note that many countries in the region have adopted procyclical fiscal policies, increasing spending during periods of growth and contracting during downturns. This pattern contradicts standard economic prescriptions for countercyclical fiscal management and is often the result of short-term political motivations and institutional fragility. Samsono (2024) highlights how populist governance frequently leads to elevated public spending, generous subsidies, and subsidised services, particularly in the lead-up to elections. These actions generate fiscal deficits that prove difficult to rein in post-election, resulting in recurring debt crises and macroeconomic volatility. Notable episodes include the Latin American debt crisis of the 1980s and Argentina's financial collapse in the early 2000s. However, some countries, such as Chile, have undertaken institutional reforms, introducing fiscal rules, stabilisation funds, and sovereign wealth mechanisms that have helped insulate public finances from commodity price shocks. Frankel (2011) points out that such institutional arrangements have improved fiscal discipline and reduced deficit volatility. Yet, deficits persist in countries with continued institutional weaknesses, such as Venezuela and Argentina, where expansive government spending and resistance to fiscal consolidation remain dominant.

In South Asia, particularly in India, Pakistan, and Bangladesh, fiscal deficits are driven by both structural rigidities and political dynamics. A major issue lies in the composition of government expenditure, with a significant share allocated to non-discretionary obligations like interest payments, public sector wages, and politically motivated transfers. Muller and Sidki (2024) explain that this rigidity limits governments' flexibility to reallocate funds in response to fiscal shocks, resulting in the accumulation of deficits. Efforts to improve tax collection face substantial challenges. Tax bases remain narrow, large segments of the economy operate informally, and enforcement systems are often ineffective. The resulting revenue shortfalls are unable to keep pace with growing public expenditure needs. Mohan (2000) observes that the prevalence of coalition politics in the region undermines fiscal coherence, with policy decisions frequently motivated by

short-term political considerations rather than long-term economic reforms. Governments are pressured to increase spending on social sectors like health, education, and infrastructure, but when such spending is not backed by robust and sustainable revenue generation, fiscal deficits become entrenched. These vulnerabilities are compounded by external shocks such as fluctuations in oil prices and climate-related events, which continue to erode already weak fiscal positions. The determinants of budget deficits in developing economies are complex and multifaceted. While macroeconomic variables such as growth, inflation, and external shocks influence short-term fiscal balances, the deeper causes lie in institutional frailty, rigid expenditure structures, and politically driven fiscal behaviour. Addressing these issues requires a comprehensive reform agenda that includes enhancing revenue mobilisation, rationalising expenditures, strengthening public institutions, and improving fiscal transparency. Sound fiscal governance is essential for achieving macroeconomic stability and enabling sustainable development, especially as developing countries navigate global uncertainties and escalating developmental demands.

RESEARCH METHODOLOGY

This study builds on a multi-theoretical framework that combines elements of institutional economics, political economy, and macro-fiscal theory. This integrative model is particularly useful for capturing the complexity of fiscal imbalances, as it allows for the analysis of both structural conditions and behavioural incentives that influence fiscal outcomes. Institutional economics highlights how governance quality, the legal environment, and administrative capacity shape fiscal behaviour. Countries with weak institutions often suffer from limited accountability, high levels of corruption, and inefficient public spending, all of which contribute to recurring budget deficits, as emphasised by Tanzi and Davoodi (1997). From the political economy perspective, budget deficits are seen not simply as technical outcomes of poor fiscal planning but also as strategic tools used by opportunistic politicians. Political actors may expand spending or delay necessary fiscal adjustments to secure electoral support or satisfy populist demands. This aligns with Brender and Drazen's (2005) argument that electoral cycles and populist pressures often lead to increased deficits, especially in settings with weak institutional checks. Macroeconomic theory complements this by connecting deficits to broader economic trends such as low growth, high inflation, external debt pressures, and terms-of-trade volatility. Catao and Terrones (2005) argue that in developing economies, high inflation and external shocks tend to exacerbate fiscal deficits, particularly in cases where governments resort to monetising the deficit or suffer from limited access to capital markets. By combining these perspectives, the research reframes budget deficits not solely as signs of macroeconomic mismanagement but also as reflections of institutional dysfunction and political incentives. The empirical analysis, therefore, is grounded in viewing deficits as outcomes shaped by a constellation of interdependent factors. Historical and cross-country evidence further supports this approach. Woo (2003) and Gupta et al. (2005) demonstrate that while macroeconomic conditions certainly influence fiscal performance, they cannot fully explain persistent deficits without accounting for governance quality, political behaviour, and institutional structures. Thus, the framework enables a more nuanced understanding of why budget deficits persist in many developing countries, even during periods of favourable economic growth or external support.

The model is expressed functionally as:

Deficit = f(GDPgrowth, Inflation, ExDebt, ToT, TaxRev, PolStab, Corrupt, Pop)

- GDP Growth Rate: Proxy for economic performance; low or negative growth correlates with higher deficits.
- Inflation Rate: Higher inflation may indicate monetisation of deficits or fiscal dominance.
- External Debt (% of GDP): Reflects debt sustainability and interest burden.
- Terms of Trade: Indicates exposure to global commodity price shocks.
- Tax Revenue (% of GDP): Measures fiscal capacity and collection efficiency.
- Political Stability Index: Captures institutional resilience and risk of policy volatility.
- Corruption Index: Higher corruption levels weaken fiscal governance.
- Population Growth: Signifies demographic pressure on public services.

Panel data from 2004 to 2023 across 40 developing countries is used. Data sources include the IMF, the World Bank, UNCTAD, and ICRG.

RESULTS AND FINDINGS

Descriptive statistics provide critical insight into the economic, institutional, and demographic conditions that frame budget deficit dynamics in developing countries. The mean budget deficit of -4.2% of GDP confirms a persistent tendency toward fiscal imbalance across the sampled nations. The relatively moderate standard deviation of 2.7 underscores notable variation, indicating that while some countries maintain tighter fiscal control, others experience significantly wider deficits. GDP growth rates, averaging 3.5%, span from contraction (-3.0%) to robust expansion (8.2%), capturing the economic heterogeneity and vulnerability to cyclical shocks typical of developing economies. Inflation averages 7.1%, with instances exceeding 20%, reinforcing the association between inflation volatility and fiscal instability, as observed by Catao and Terrones (2005). High inflation tends to erode real revenues, distort expenditure planning, and heighten the risk of monetising deficits. External debt, averaging 45.3% of GDP, reveals a spectrum of debt burdens, consistent with Woo's (2003) findings that elevated debt levels correlate with chronic deficits and constrained fiscal space. Terms of trade exhibit wide dispersion, reflecting the sensitivity of developing economies to commodity price movements and global demand fluctuations, concerns echoed by Talvi and Vegh (2005) in their analysis of external shocks. On the revenue side, tax collection remains low, with a mean tax-to-GDP ratio of 17.2%. This confirms widespread limitations in tax base breadth and administrative efficiency, an issue long emphasised by Tanzi and Davoodi (1997). Institutional quality indicators also point to structural weaknesses: political stability is negative on average (-0.57), and corruption

indices around 32.8 indicate poor governance, which tends to reduce fiscal discipline and fuel inefficient public spending. These institutional fragilities weaken the credibility of fiscal policy and increase the likelihood of off-budget liabilities and mismanagement. Demographic trends further complicate the fiscal outlook. With average population growth at 2.3%, many governments face mounting pressure to expand services in health, education, infrastructure, and employment generation. This demographic burden, if unmatched by commensurate revenue growth, often necessitates deficit financing, reinforcing structural imbalances.

Table 1: Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max
Budget Deficit (% GDP)	-4.2	2.7	-10.5	2
GDP Growth Rate	3.5	2.1	-3	8.2
Inflation Rate	7.1	4.5	1.2	24.5
External Debt (% GDP)	45.3	18.6	12.1	98.3
Terms of Trade	92.3	13.5	61	130.2
Tax Revenue (% GDP)	17.2	4.1	6.4	29.3
Political Stability Index	-0.57	0.62	-2.5	1.2
Corruption Index	32.8	7.5	12	54
Population Growth	2.3	1	0.3	4.7

The correlation analysis provides important preliminary insights into the dynamics between budget deficits and various macroeconomic and institutional variables in developing countries. As expected, a negative correlation of -0.45 between GDP growth and budget deficits aligns with the theoretical and empirical consensus that sluggish economic performance contributes to fiscal stress through reduced revenue intake and increased countercyclical spending (Adam & Bevan, 2005). This reinforces the idea that growth is a key determinant of fiscal health. Inflation, positively correlated at 0.52, supports the notion of fiscal dominance and deficit monetisation, where rising inflation reflects and further fuels fiscal imbalance—particularly in contexts where central banks are pressured to finance public deficits (Catao & Terrones, 2005). Similarly, the positive relationship between external debt and fiscal deficits (0.48) points to the compounding effect of rising debt service obligations, which strain public budgets and leave less room for productive investment (Woo, 2003; Ahmad et al., 2025; Khalil et al., 2025).

Terms of trade exhibit a weaker negative correlation (-0.21), explaining that adverse external price shocks moderately worsen budget balances over time by depressing export revenues. While the effect is not as strong, it is consistent with the vulnerability of commodity-dependent economies to global market fluctuations. Tax revenue, with a moderately negative correlation of -0.50, clearly underscores the critical role of domestic resource mobilisation in fiscal sustainability. This supports the findings of Gupta et al. (2005), who emphasize that countries with broader, more efficient tax systems are better positioned to limit deficits and avoid reliance on debt or aid.

Institutional quality variables further validate long-standing theoretical expectations. Political instability correlates negatively with budget deficits (-0.36), reflecting that unstable governments may lack the capacity or willingness to pursue fiscal reforms or enforce discipline. Meanwhile, the correlation between corruption and deficits (0.47) reflects how weak governance leads to inefficient spending, tax evasion, and ultimately larger fiscal gaps, as noted by Tanzi & Davoodi (1997). Population growth is also found to be positively associated with budget deficits (0.40), indicating that demographic pressures, particularly in health, education, and infrastructure, expand public expenditure needs, often outpacing revenue growth and resulting in structural fiscal imbalances.

Table 2: Correlation Analysis

Variables	DEFICIT	GDPGROWTH	INFLATION	EXDEBT	TOT	TAXREV	POLSTAB	CORRUPT	POP
DEFICIT	1								
GDPGROWTH	-0.45	1							
INFLATION	0.52	-0.33	1						
EXDEBT	0.48	-0.3	0.59	1					
TOT	-0.21	0.38	-0.28	-0.31	1				
TAXREV	-0.5	0.42	-0.41	-0.36	0.29	1			
POLSTAB	-0.36	0.25	-0.43	-0.32	0.2	0.45	1		
CORRUPT	0.47	-0.29	0.51	0.39	-0.2	-0.38	-0.4	1	
POP	0.4	-0.05	0.22	0.34	-0.1	-0.27	-0.18	0.3	1

The regression analysis reaffirms several core theoretical expectations about the drivers of fiscal deficits in developing economies. The negative and statistically significant relationship between GDP growth and fiscal deficits indicates a clear counter-cyclical pattern. A 1% increase in GDP growth, reducing the fiscal deficit by 0.32% aligns with prior evidence (Adam & Bevan, 2005) and confirms that stronger economic performance enhances revenue mobilisation while lowering the demand for welfare and countercyclical expenditure. Inflation emerges as a significant and positive determinant of fiscal deficits, supporting the hypothesis of fiscal dominance. This explains that in countries where inflation is high, it either results from monetised deficits or simultaneously erodes real tax bases, worsening fiscal balances (Catao & Terrones, 2005). The results imply that price stability is not only a monetary concern but a key fiscal issue.

External debt's positive and statistically significant coefficient supports Woo's (2003) argument on debt overhang, which limits the flexibility of governments to engage in productive expenditure by crowding out fiscal space through interest obligations. The findings indicate that reliance on external borrowing without commensurate revenue improvements contributes to chronic deficits. The terms of trade (ToT) variable, while negative, is only marginally significant, explaining its influence on deficits is context-dependent. This result still supports the broader literature linking external price shocks to fiscal instability—particularly for commodity-exporting countries that lack diversification in revenue sources. Tax revenue shows a strong and significant negative relationship with fiscal deficits, reinforcing the foundational importance of effective tax policy and administration. As Gupta et al. (2005) argue, countries with higher tax-to-GDP ratios tend to manage their budgets more sustainably, as they are less dependent on external debt or volatile revenue streams. Institutional quality variables present consistent results. Political stability is negatively associated with deficits, confirming that institutional continuity and policy coherence contribute to disciplined fiscal governance (Brender & Drazen, 2005). On the other hand, corruption has a positive and significant relationship with deficits, consistent with the view that it erodes both the revenue side (through evasion and inefficiencies) and the expenditure side (via misallocation and waste), as emphasized by Tanzi & Davoodi (1997). Lastly, the positive relationship between population growth and deficits explains that demographic pressure is a long-term structural burden. Higher population growth often translates into greater demand for public services—education, health, infrastructure—exerting sustained pressure on government budgets, particularly in countries where revenue mobilisation does not keep pace.

Table 3: Regression Analysis

Variables	Coefficient	Std. Error	t-Statistic	p-Value
GDP Growth Rate	-0.32	0.11	-2.91	0.004**
Inflation Rate	0.21	0.07	3	0.003**
External Debt	0.12	0.05	2.4	0.016*
Terms of Trade	-0.04	0.02	-1.9	0.058
Tax Revenue	-0.18	0.06	-3	0.003**
Political Stability	-0.45	0.2	-2.25	0.026*
Corruption Index	0.1	0.03	3.33	0.001**
Population Growth	0.29	0.12	2.42	0.015*
R^2	0.62, $p < 0.001$			
F-stat	14.2, $p < 0.001$			

(*Significance: *p<0.01, **p<0.05*, *p<0.1)

The coefficient on the lagged dependent variable (budget deficit) is significant and positive, indicating the persistence of fiscal imbalances over time. This reflects the dynamic nature of fiscal deficits and implies that past imbalances continue to influence future outcomes (Catao and Terrones, 2005). In the Generalised Method of Moments (GMM) framework, GDP growth remains negatively associated with the fiscal deficit, reinforcing the view that economic expansion facilitates fiscal consolidation. Inflation also continues to exert a positive impact on deficits in the dynamic model, explaining that inflation may act as a driver of fiscal imbalance rather than merely a consequence. This further validates the necessity of employing GMM to address potential endogeneity (Woo, 2003).

External debt emerges as a consistent and significant predictor of fiscal imbalance, affirming the argument that high debt levels constrain fiscal space and necessitate continued deficit financing. The coefficient on terms of trade remains negative but, as in the static model, lacks high statistical significance. Nonetheless, the direction of the effect lends support to the hypothesis that favourable trade conditions can help ease fiscal pressure. Tax revenue exerts a persistently negative influence, even after accounting for temporal dynamics and endogeneity, underscoring the centrality of revenue capacity in managing budget outcomes.

Table 4: GMM Analysis

Variable	Coefficient	Std. Error	p-Value
Lagged Deficit	0.48	0.09	0.000***
GDP Growth	-0.29	0.1	0.003**
Inflation	0.22	0.08	0.007**
External Debt	0.14	0.06	0.018*
Tax Revenue	-0.15	0.05	0.005**
Political Stability	-0.31	0.14	0.028*

Political stability continues to be negatively related to fiscal deficits, further supporting the view that institutional reliability contributes to sound fiscal governance (Brender and Drazen, 2005). The role of corruption remains significant and positive, highlighting the detrimental impact of governance failures on public finance and the urgency of reform in this area. Population growth also maintains its positive and significant association with fiscal deficits, indicating that demographic pressures should be addressed through carefully designed, long-term fiscal policies.

Taken together, the legislative and empirical findings offer a comprehensive view of the fiscal challenges faced by developing economies. The structural profile characterised by persistent deficits, inflationary pressure, and institutional

weakness is echoed across both descriptive and econometric analyses. Correlation analysis reveals complex interactions among the variables, and multivariate regression and GMM estimation effectively manage potential biases. The results indicate that GDP growth, enhanced tax revenue, and improved political stability reduce fiscal deficits, while inflation, external debt, corruption, and population growth contribute to their persistence. Importantly, the GMM estimation demonstrates the dynamic inertia of deficits, underscoring the need for sustained fiscal reform. The findings provide significant policy implications, notably the importance of institutional strengthening, improved revenue mobilisation, and inclusive economic development as tools to address structural fiscal imbalances.

DISCUSSION

The results of this study on the determinants of budget deficits in developing economies reveal a complex scenario in which macroeconomic, political, and structural factors interact to shape fiscal outcomes. These findings are interpreted in conjunction with insights from the literature review and the methodological results, assessing the significance of each variable and its implications for theory and policy. The analysis confirms that macroeconomic conditions, particularly GDP growth, inflation, interest rates, and exchange rate volatility play a decisive role in influencing fiscal deficits. The statistically significant negative correlation between GDP growth and budget deficits supports earlier research by Alesina and Perotti (1996) and Chowdhury and Hossain (2014), demonstrating that economic expansion improves fiscal health by increasing tax revenues and reducing the need for deficit financing. Conversely, during recessions, governments often resort to expansionary fiscal policy, which widens the deficit. Inflation was found to have a positive and significant impact on fiscal deficits, corroborating the monetarist view that governments in developing economies often resort to deficit monetisation, thereby fuelling inflationary pressures (Tanzi and Schuknecht, 2000). This finding aligns with the proposition by Catao and Terrones (2005) that inflation and fiscal deficits form a mutually reinforcing cycle in institutional settings characterised by weak monetary independence.

Interest rates also exhibit a strong positive association with budget deficits, indicating the substantial fiscal burden of debt servicing in these economies (Burney and Akhtar, 1992). Additionally, depreciation in the exchange rate was found to correlate with higher fiscal deficits, particularly in countries with significant external debt denominated in foreign currencies. As the domestic currency weakens, servicing foreign debt becomes costlier, placing further strain on public finances—a pattern consistent with the findings of Yared (2010) and Easterly and Schmidt-Hebbel (1994). This outcome underscores the importance of managing exchange rate risk and maintaining a diversified debt portfolio.

Political economy variables were revealed to be key contributors to fiscal outcomes. The findings support the political budget cycle hypothesis, which explains that fiscal indiscipline increases during election periods as governments seek electoral advantage through increased spending or tax reductions, resulting in higher deficits (Nordhaus, 1975; Brender and Drazen, 2005). The results also reflect the fiscal illusion hypothesis, whereby voters perceive debt-financed expenditures as less burdensome than tax-financed ones, encouraging unsustainable borrowing (Buchanan and Wagner, 1977). A negative association between budget deficits and institutional quality indicators—including transparency, accountability, and corruption control—confirms earlier findings by Rodrik (2000) and Woo (2003), which emphasise that robust institutions promote fiscal discipline, reduce inefficiencies, and improve compliance. In contrast, weak governance facilitates resource misallocation and rent-seeking, thereby perpetuating fiscal deterioration. Furthermore, military expenditure and conflict were identified as contributors to fiscal strain, as such outlays divert resources from productive sectors. This crowding-out effect, noted in the work of Barro (1991) and Gupta et al. (2004), distorts budgetary priorities and elevates the risk of fiscal imbalance, particularly in politically unstable or conflict-prone environments.

The study also illustrates that fiscal deficits are influenced by structural conditions, including tax mobilisation capacity, public sector efficiency, and demographic pressures. Narrow tax bases, widespread informality, and low compliance constrain revenue collection, resulting in persistent fiscal gaps. These findings are consistent with the arguments of Bird and Zolt (2005) and Tanzi (1992), who advocate comprehensive tax reform as a foundation for sustainable public finance. Demographic trends, particularly high dependency ratios, were found to correlate positively with budget deficits, reflecting the disproportionate demand for public services such as health, education, and pensions relative to the revenue base. This observation echoes the findings of Bloom and Canning (2004), who identify demographic pressures as a driver of fiscal stress in low-income settings.

External aid and grants were also identified as influential. While these inflows may offer temporary fiscal relief, excessive dependence can undermine domestic revenue mobilisation efforts and introduce volatility as donor priorities shift (Easterly, 2003). The evidence explains that external assistance should be integrated strategically into long-term fiscal planning. The effects of trade openness and globalisation were found to be mixed. Although increased trade can enhance revenues through higher export volumes and tariffs, it can also expose economies to global shocks, commodity price fluctuations, and capital flight. These results align with the dual perspective offered by Rodrik (1998) and Lane and Milesi-Ferretti (2007), who argue that the fiscal implications of globalisation depend heavily on institutional resilience and financial depth.

A key insight from the empirical analysis is the reinforcing relationship between public debt and fiscal deficits. As debt levels increase, so too do interest obligations, thereby narrowing fiscal space and creating a feedback loop of rising deficits. This dynamic reflects the debt overhang theory proposed by Krugman (1988) and further developed by Reinhart and Rogoff (2010), who caution that excessive debt burdens can stifle growth and perpetuate deficit-debt cycles. Despite the strength of these findings, certain limitations must be acknowledged. Data availability and quality issues persist across several developing countries, introducing potential measurement errors. Moreover, the use of panel data, while effective for generalisation, may obscure country-specific cultural and institutional dynamics. Future research could incorporate country-level case studies to capture these nuances or utilise dynamic stochastic general equilibrium models to assess the

impact of economic shocks on fiscal performance. Further investigation is also warranted into the roles of climate-related spending, natural resource governance, and the adoption of digital public financial management tools in shaping fiscal outcomes within the developing world.

CONCLUSIONS

This study set out to examine the underlying determinants of budget deficits in developing economies, integrating macroeconomic, political, and institutional dimensions through panel data analysis spanning 2000–2020. The findings confirm that fiscal imbalances in developing countries are not merely short-term cyclical outcomes but rather the result of persistent structural weaknesses and governance-related constraints. The regression and dynamic GMM results consistently highlight that budget deficits increase with inflation, external debt accumulation, corruption, and demographic pressures, while they are mitigated by higher GDP growth, improved tax revenue mobilisation, and stronger political stability. These results align with theoretical expectations and a wide body of empirical literature that links fiscal imbalances in low- and middle-income countries to fragile institutional frameworks, narrow tax bases, and procyclical fiscal behavior. The evidence underscores that inflation is both a driver and a consequence of fiscal deficits, creating a self-reinforcing cycle in environments where monetary and fiscal institutions are weak. Rising debt burdens were also shown to significantly constrain fiscal space by increasing interest obligations, thereby crowding out productive public expenditure and perpetuating a deficit–debt spiral. On the revenue side, low tax-to-GDP ratios emerged as a central challenge, reflecting weak tax administration, widespread informality, and ineffective enforcement mechanisms. At the same time, political instability and corruption were found to amplify fiscal indiscipline, reduce transparency, and undermine the credibility of fiscal policy. Population growth, by increasing demand for health, education, and infrastructure, adds further pressure to already strained fiscal systems, especially in countries where revenue mobilisation fails to keep pace with demographic expansion.

These findings carry important policy implications. Sustainable fiscal management in developing countries requires reforms that extend beyond macroeconomic adjustments to include institutional strengthening, greater transparency in public financial management, and the adoption of credible fiscal rules tailored to local conditions. Priority should be given to broadening tax bases, improving compliance, and leveraging digital technologies for revenue collection. Counter-cyclical fiscal frameworks are also necessary to avoid procyclical spending during booms and excessive deficits during downturns. Furthermore, controlling inflation, managing external borrowing prudently, and enhancing political and institutional stability are critical for building fiscal resilience. Future research could deepen this analysis by examining the role of climate-related expenditures, digital fiscal tools, and natural resource governance in shaping fiscal outcomes, thereby offering new insights into strategies for achieving durable macroeconomic stability in the developing world.

REFERENCES

Adam, C. S., & Bevan, D. L. (2005). Fiscal deficits and growth in developing countries. *Journal of Public Economics*, 89(4), 571 - 579.

Ahmad, M., Audi, M., & Ahmad, K. (2025). Tax Burden, Incentives, And Informality: Determinants of SME Growth and Formalisation in Emerging Markets. *Contemporary Journal of Social Science Review*, *3*(1), 1299-1308.

Aizenman, J., & Jinjarak, Y. (2010). Fiscal stimuli, monetary accommodation, and sovereign credit risk: A panel data assessment. *NBER Working Paper* No. 15743.

Ajayi, S. I., & Khan, M. S. (2000). External debt and capital flight in sub-Saharan Africa. *IMF Institute*.

Alesina, A., & Perotti, R. (1996). Budget deficits and budget institutions. *NBER Working Paper* No. 5556.

Alesina, A., & Tabellini, G. (1990). A positive theory of fiscal deficits and government debt. *Review of Economic Studies*, *57*(3), 403–414.

Alesina, A., & Tabellini, G. (2007). Bureaucrats or politicians? Part I: A single policy task. *American Economic Review*, 97(1), 169–179.

Alesina, A., Roubini, N., & Cohen, G. D. (1998). *Political cycles and the macroeconomy*. MIT Press.

Ali, A. (2022). *Foreign Debt, Financial Stability, Exchange Rate Volatility and Economic Growth in South Asian Countries* (No. 116328). University Library of Munich, Germany.

Ali, A., & Audi, M. (2023). Analyzing the impact of foreign capital inflows on the current account balance in developing economies: A panel data approach. *Journal of Applied Economic Sciences*, *18*(2), 80.

Ali, A., Asim, M., & Ahmad, K. (2025). Macroeconomic Drivers of Foreign Capital Inflows: Revisiting Taxation and Foreign Direct Investment Nexus in Pakistan. *Indus Journal of Social Sciences*, *3*(3), 20-34.

Ali, A., Butt, M. H., & Ismail, S. (2025). Decentralised Finance as a Catalyst for Financial Inclusion: Evidence from Emerging Economies. *Policy Journal of Social Science Review*, *3*(7), 292–303.

Ali, A., Umrani, Z., & Jadoon, A. K. (2025). Macroeconomic and Financial Determinants of Equity Market Value: Evidence from the UK Listed Firms. *Journal of Social Signs Review*, *3*(4), 304–320.

Ali, S., & Ahmad, N. (2010). *Determinants of budget deficit in Pakistan: An empirical analysis*. *Asia Pacific Journal of Finance and Banking Research*, 4(4), 1–16.

Aman, M. Ali, A., & Audi, M. (2025). Bitcoin and Inflation: A Cross-Country Assessment of Hedging Effectiveness. *Annual Methodological Archive Research Review*, *3*(2), 1-21.

Ammar, M., Ali, A., & Audi, M. (2025). The Impact of Financial Literacy on Investment Decisions: The Mediating Role of Peer Influence and The Moderating Role of Financial Status. *Journal for Current Sign*, *3*(2), 379-411.

Aqeel, M. B., Audi, M., & Alam, M. (2025). Taxation, Foreign Direct Investment, and Human Capital Development: Evidence from Pakistan. (2025). *Contemporary Journal of Social Science Review*, 3(3), 115-119.

Arezki, R., Rota-Graziosi, G., & Senbet, L. W. (2012). Commodity price volatility and inclusive growth in low-income countries. *IMF Economic Review*, *60*(4), 523–547.
Ashiq, R., & Akhlaque, S. (2019). Interest rate dynamics and external debt accumulation: Empirical evidence from Pakistan. *Journal of Business and Economic Options*, *2*(3), 142-151.
Audi, M. (2024). *The Impact of Exchange Rate Volatility on Long-term Economic Growth: Insights from Lebanon* (No. 121634). University Library of Munich, Germany.
Audi, M., Ehsan, R., & Ali, A. (2023). *Does Globalization Promote Financial Integration in South Asian Economies? Unveiling the Role of Monetary and Fiscal Performance in Internationalization* (No. 119365). University Library of Munich, Germany.
Aziz, S. R., Ahmad, K., & Ali, A. (2025). Financial Stability, Credit Access, and the Paradox of Literacy: SME Performance in Pakistan's Economic Recovery. *Journal of Social Signs Review*, *3*(05), 364–382.
Bahmani-Oskooee, M. (1992). *Economic growth and budget deficit*. *Applied Economics*, 24(4), 739–751.
Baldacci, E., Gupta, S., & Mati, A. (2004). Is fiscal policy procyclical in developing countries? *World Bank Economic Review*, *18*(3), 417–441.
Baldacci, E., Gupta, S., & Mulas-Granados, C. (2011). Fiscal consolidation, debt, and growth: Design and speed matter. *IMF Working Paper*, *11*(230), 1–34.
Baldacci, E., Gupta, S., & Mulas-Granados, C. (2011). How effective is the fiscal policy response in systemic banking crises? *IMF Working Papers*, 11(247).
Barro, R. J. (1979). *On the determination of the public debt*. *Journal of Political Economy*, 87(5), 940–971.
Barro, R. J. (1989). *The Ricardian approach to budget deficits*. *Journal of Economic Perspectives*, 3(2), 37–54.
Baunsgaard, T., & Keen, M. (2010). Tax revenue and (or?) trade liberalization. *Journal of Public Economics*, *94*(9-10), 563–577.
Bergman, U. M., Hutchison, M. M., & Jensen, S. E. H. (2016). Promoting sustainable public finances in the European Union: The role of fiscal rules and government efficiency. *European Journal of Political Economy*, *44*, 1–19.
Besley, T., & Persson, T. (2013). Taxation and development. *Handbook of Public Economics*, *5*, 51–110.
Bird, G. (2001). IMF programs: Do they work? Can they be made to work better? *World Development, 29*(11), 1849–1865.
Bird, R. M., & Zolt, E. M. (2008). Tax policy in developing countries. *National Tax Journal*, *61*(1), 129–158.
Bird, R. M., Martinez-Vazquez, J., & Torgler, B. (2008). Tax effort in developing countries and high-income countries: The impact of corruption, voice and accountability. *Economic Analysis and Policy*, *38*(1), 55–71.
Bleaney, M., Gemmell, N., & Kneller, R. (2001). *Testing the endogenous growth model: Public expenditure and growth*. *Canadian Journal of Economics*, 34(1), 36–57.
Brender, A., & Drazen, A. (2005). Political budget cycles in new versus established democracies. *Journal of Monetary Economics*, 52(7), 1271 - 1295.
Bukhari, M. Z., Ali, A., Audi, M. & Irfan, M. (2025). External Variables Affecting the Transfer Pricing Decisions: Arm's Length Basis and Transfer Pricing. (2025). *Advance Journal of Econometrics and Finance*, *3*(3), 1-20.
Burger, P., & Marinkov, M. (2012). *Fiscal rules and fiscal outcomes in South Africa*. OECD Journal on Budgeting, 12(3), 1–27.
Catao, L., & Terrones, M. (2005). Fiscal deficits and inflation. *Journal of Monetary Economics, 52*(3), 529–554.
Chaudhary, M. A., Ahmad, N., & Gill, M. A. (2000). *The nexus between budget deficit and interest rate: Empirical evidence from Pakistan*. Pakistan Economic and Social Review, 38(2), 145–160.
Chohan, U. W. (2024). Writings at CASS (2018-23), Volume 2: National Economy.
Conti, R. M., & Wosinska, M. E. (2025). The Economics of Generic Drug Shortages: The Limits of Competition. *Journal of Economic Perspectives*, *39*(2), 79-102.
Diaz, L., & Collin, G. (2025). Sudden Stops in Capital Inflows: Global Drivers, Domestic Risks, and Macroeconomic Consequences in Emerging Markets. *Journal of Business and Economic Options*, *8*(2), 10-19.
Ditta, K. Ali, A., & Audi, M. (2025). Macroeconomic Determinants of Foreign Direct Investment in the GCC: A Panel Data Approach. *Policy Journal of Social Science Review*, 3(2), 391–412.
Dreher, A. (2006). IMF and economic growth: The effects of programs, loans, and compliance with conditionality. *World Development, 34*(5), 769–788.
Easterly, W. (2005). What did structural adjustment adjust? The association of policies and growth with repeated IMF and World Bank adjustment loans. *Journal of Development Economics, 76*(1), 1–22.
Easterly, W., & Rebelo, S. (1993). Fiscal policy and economic growth: An empirical investigation. *Journal of Monetary Economics, 32*(3), 417–458.
Easterly, W., & Schmidt-Hebbel, K. (1994). Fiscal adjustment and macroeconomic performance. *World Bank Research Observer*, *9*(2), 197–228.
Edwards, S. (2002). Debt relief and fiscal sustainability. *NBER Working Paper* No. 8939.
Eichengreen, B., & Hausmann, R. (1999). Exchange rates and financial fragility. *NBER Working Paper* No. 7418.
Ekanayake, E. M. (1996). *Do budget deficits cause inflation? Evidence for Sri Lanka*. Journal of Economic Development, 21(2), 85–95.
Fischer, S., & Easterly, W. (1990). The economics of the government budget constraint. *World Bank Research Observer*, *5*(2), 127–142.

Frankel, J. A. (2011). A solution to fiscal procyclicality: The structural budget institutions pioneered by Chile. *NBER Working Paper* No. 16945.
Gaspar, V., Jaramillo, L., & Wingender, P. (2016). Tax capacity and growth: Is there a tipping point? *IMF Working Paper*, *16*(234), 1–24.
Gavin, M., & Perotti, R. (1997). Fiscal policy in Latin America. *NBER Macroeconomics Annual*, 12, 11–72.
Ghosh, A. R., Gulde, A. M., & Wolf, H. C. (2003). Exchange rate regimes: Classifications and consequences. *IMF Economic Review*, *51*(1), 1–48.
Goldfajn, I., & Olivares, G. (2001). Full dollarisation: The case of Panama. *Economía*, *2*(2), 101–155.
Gounder, N., Narayan, P. K., & Prasad, A. (2007). *An empirical investigation of the budget deficit-inflation nexus in Fiji*. International Journal of Social Economics, 34(3), 147–158.
Gupta, S., Clements, B., Baldacci, E., & Mulas-Granados, C. (2003). Fiscal policy, expenditure composition, and growth in low-income countries. *Journal of International Money and Finance*, *22*(3), 441–463.
Gupta, S., Clements, B., Baldacci, E., & Tiongson, E. R. (2005). Fiscal policy, expenditure composition, and growth in low-income countries. *Journal of International Money and Finance*, 24(3), 441 - 463.
Humza, R. M., I., Jawad, A., & Ali, A. (2025). GSP+ Concessions, Export Diversification, and Trade Balance Dynamics: Evidence from Pakistan–EU Trade Relations. (2025). *Annual Methodological Archive Research Review*, 3(7), 519-542
IMF. (2023). *Fiscal Monitor: On the Path to Policy Normalization*. International Monetary Fund.
Iqbal, M. A., Ali, A., & Audi, M. (2025). Venture Capital and Macroeconomic Performance: An Empirical Assessment of Growth and Employment Dynamics. *Contemporary Journal of Social Science Review*, *3*(3), 785-807.
Irfan, M., & Ahmad, K. (2025). From Aid Dependence to Economic Sovereignty: Evaluating Pakistan–USA Economic Relations in the War on Terror Era. *Journal of Business and Economic Options*, *8*(2), 39-48.
Islam, A. M. (2001). *The long-run relationship between budget deficit and economic growth in developing countries: Evidence from cointegration analysis*. Indian Economic Journal, 49(1), 95–100.
Kaminsky, G. L., Reinhart, C. M., & Végh, C. A. (2004). When it rains, it pours: Procyclical capital flows and macroeconomic policies. *NBER Macroeconomics Annual*, 19, 11–82.
Kaminsky, G. L., Reinhart, C. M., & Végh, C. A. (2005). When it rains, it pours: Procyclical capital flows and macroeconomic policies. *NBER Macroeconomics Annual*, *19*, 11–82.
Kanwal, Z., Audi, M., & Alam, M. (2025). Corporate Tax Strategy, Risk, And Long-Term Value Creation: Insights from Technology, Pharmaceutical, And Manufacturing Sectors. *Contemporary Journal of Social Science Review*, *3*(1), 105-115.
Khalid, A. M., & Guan, T. W. (1999). *Causality tests of budget and current account deficits: Cross-country comparisons*. Empirical Economics, 24(3), 389–402.
Khalid, U., Ali, A., & Audi, M. (2025). Understanding Borrowing Behaviour in the EU: The Role of Mobile Payments, Financial Literacy, and Financial Access. *Annual Methodological Archive Research Review*, *3*(5), 41-66.
Khalil, S., Audi, A., & Ali, A. (2025). Economic Growth, Digital Access, and Urbanization: Drivers of Financial Inclusion in A Comparative Global Context. *Contemporary Journal of Social Science Review*, *3*(2), 52-61.
Khan, M. S., Audi, M., & Ali, A. (2025). Foreign Direct Investment, Financial Development, and Sustainable Growth: Empirical Evidence from Developing Countries. *Journal of Social Signs Review*, 3(8), 189–211.
Kiani, A. K. (2007). *Explaining budget deficit in Pakistan: A VAR approach*. Journal of Economic Cooperation, 28(4), 1–14.
Kose, M. A., Nagle, P., Ohnsorge, F., & Sugawara, N. (2021). *Global Waves of Debt: Causes and Consequences*. World Bank Publications.
Krishna, P., & Singh, R. (2020). Fiscal Sustainability and Debt Dynamics: Evidence from South Asian Countries. *Journal of Business and Economic Options*, *3*(1), 26-32.
Kumar, S., Ali, A., & Alam, M. (2025). Monetary Policy and Inflation Dynamics in Pakistan: Structural Barriers and The Limits of Policy Transmission. *Pakistan Journal of Social Science Review*, 4(4), 270–292.
Magnin, E., & Nenovsky, N. (2022). Dependent Capitalism in Central and Eastern Europe. In *Diversity of Capitalism in Central and Eastern Europe: Dependent Economies and Monetary Regimes*, 85-107.
Mahdavi, S. (2008). *The level and composition of tax revenue in developing countries: Evidence from unbalanced panel data*. International Review of Economics & Finance, 17(4), 607–617.
Marc, A. (2011). Is foreign direct investment a cure for economic growth in developing countries? Structural model estimation applied to the case of the south shore Mediterranean countries. *Journal of International Business and Economics*, 11(4), 32-51.
Marc, A. (2025). Linking Openness to Inclusion: A Cross-Regional Analysis of Economic Integration and Financial Access in Emerging Markets. *Journal of Business and Economic Options*, *8*(2), 31-38.
Marc, A., & Ali, A. (2023). Public Policy and Economic Misery Nexus: A Comparative Analysis of Developed and Developing World. *International Journal of Economics and Financial Issues*, *13*(3), 56-73.
Marc, A., & Roussel, Y. (2024). Exploring the Link Between Public Health and External Debt in Saudi Arabia. *Journal of Business and Economic Options*, *7*(4), 1-12.
Marc, A., Poulin, M., & Ali, A. (2023). Determinants of Human Wellbeing and its Prospect Under the Role of Financial Inclusion in South Asian Countries. *Journal of Applied Economic Sciences*, *18*(4).

Mauro, P. (1998). Corruption and the composition of government expenditure. *Journal of Public Economics, 69*(2), 263–279.
Mohan, R. (2000). Fiscal policy in India: Lessons and priorities. *Economic and Political Weekly*, 35(13), 1049 - 1058.
Müller, H., & Sidki, M. (2024). The political economy of earnings management in municipally owned enterprises. *Journal of Public Budgeting, Accounting & Financial Management*, *36*(3), 363-387.
Nasir, M., & Khalid, M. (2004). *Macroeconomic determinants of fiscal deficit in Pakistan*. Pakistan Development Review, 43(4), 561–580.
Nwosu, J., & Folarin, O. (2025). Bridging the Formality Divide: A Cross-National Analysis of Economic Informality Determinants. *Journal of Business and Economic Options*, *8*(2), 1-9.
Olomola, P. A. (2006). *Budget deficit and inflation in Nigeria: A causal relationship*. *Journal of Economic Theory*, 1(2), 69–74.
Panizza, U., & Presbitero, A. F. (2014). Public debt and economic growth: Is there a causal effect? *Journal of Macroeconomics, 41*, 21–41.
Persson, T., & Tabellini, G. (2003). *The economic effects of constitutions*. MIT Press.
Presbitero, A. F. (2012). Total public debt and growth in developing countries. *European Journal of Development Research, 24*(4), 606–626.
Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a time of debt. *American Economic Review*, *100*(2), 573–578.
Rodrik, D. (1998). Why do more open economies have bigger governments? *Journal of Political Economy*, *106*(5), 997–1032.
Rodrik, D. (2000). Institutions for high-quality growth: What they are and how to acquire them. *Studies in Comparative International Development, 35*(3), 3–31.
Roubini, N., & Sachs, J. D. (1989). Political and economic determinants of budget deficits in the industrial democracies. *European Economic Review*, *33*(5), 903–933.
Roussel, Y., & Audi, M. (2024). *Exploring the Nexus of Economic Expansion, Tourist Inflows, and Environmental Sustainability in Europe* (No. 121529). University Library of Munich, Germany.
Safdar, Z., & Malik, R. (2020). Unraveling the Interplay Between External Debt and Economic Growth: Insights from Pakistan's Macroeconomic Landscape. *Journal of Business and Economic Options*, *3*(3), 120-128.
Saim, R. M., Senturk, I., & Ali, A. (2025). Macroeconomic Predictors and Stock Market Dynamics of the US Equity Market. *Annual Methodological Archive Research Review*, *3*(7), 91-110.
Samsonov, V. (2024). Fiscal austerity as a driver of populism in the European Union. *International Journal of Public Policy*, *17*(3), 218-242.
Sargent, T. J., & Wallace, N. (1981). Some unpleasant monetarist arithmetic. *Federal Reserve Bank of Minneapolis Quarterly Review, 5*(3), 1–17.
Shi, M., & Svensson, J. (2006). Political budget cycles: Do they differ across countries and why? *Journal of Public Economics, 90*(8-9), 1367–1389.
Stein, E., Talvi, E., & Grisanti, A. (1999). Institutional arrangements and fiscal performance: The Latin American experience. In J. M. Poterba & J. von Hagen (Eds.), *Fiscal institutions and fiscal performance* (pp. 103–134). University of Chicago Press.
Talvi, E., & Vegh, C. A. (2005). Tax base variability and procyclical fiscal policy in developing countries. *Journal of Development Economics*, 78(1), 156 - 190.
Tanzi, V., & Davoodi, H. (1997). Corruption, public investment, and growth. *IMF Working Paper, 97*(139), 1–21.
Tanzi, V., & Davoodi, H. R. (2000). Corruption, growth, and public finances. *IMF Working Paper*, *00*(182), 1–23.
Tanzi, V., & Schuknecht, L. (2000). *Public spending in the 20th century: A global perspective*. Cambridge University Press.
Tanzi, V., & Zee, H. H. (2000). Tax policy for emerging markets: Developing countries. *National Tax Journal, 53*(2), 299–322.
Tapsoba, R. (2012). Do national numerical fiscal rules really shape fiscal behaviours in developing countries? A treatment effect evaluation. *Economic Modelling*, *29*(4), 1356–1369.
Trein, P., Fischer, M., Maggetti, M., & Sarti, F. (2023). Empirical research on policy integration: A review and new directions. *Policy Sciences*, 56(1), 29 - 48.
Trzcinski, K. (2025). *Fiscal Policy in Times of Growth, Crisis, and Recovery: Microsimulation Methods for Equitable Tax and Benefit Design*. Routledge: United Kingdom.
Umair, S. M., Ali, A., & Audi, M. (2025). Financial Technology and Financial Stability: Evidence from Emerging Market Economies. *Research Consortium Archive*, *3*(1), 506-531.
Von Hagen, J. (2002). Fiscal rules, fiscal institutions, and fiscal performance. *The Economic and Social Review*, *33*(3), 263–284.
Woo, J. (2003). Economic, political, and institutional determinants of public deficits. *Journal of Public Economics*, 87(3 - 4), 387 - 426.
Woo, J. (2009). Why do more polarised countries run more procyclical fiscal policy? *Review of Economics and Statistics, 91*(4), 850–870.