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INFLUENCE OF GOVERNMENT FINANCIAL PRACTICES ON GHANA'S ECONOMIC PERFORMANCE

Emmanuel K. Asirifi[1] and Evans O. N. D. Ocansey (Ph.D.)[2*]

[1]PhD Student, School of Business, Valley View University.

[2]Senior Lecturer, School of Business, Valley View University.

[*]Corresponding Author's Email: endocansey@vvu.edu.gh

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ABSTRACT: *This study assessed the influence of government financial activities on Ghana's economic performance from 2000 to 2024. Four interrelated fiscal aspects, namely, the dynamics of public debt, tax revenue mobilization, government expenditure, and government employment, were used. The study employed an autoregressive distributed lag (ARDL) model, Error Correction Models (ECM), and threshold regressions to determine the short-term variations and long-run equilibrium associations. This finding shows that all the short-run effects of public debt, tax effort, capital expenditure, wage bill, inflation, and rate on GDP growth are generally weak and statistically insignificant, implying that fiscal policy shocks in the study context do not generate immediate growth effects in Ghana. Nevertheless, the error-correction calculations across all the specifications do tend to be large, negative, and statistically significant, namely between -77-0.82, suggesting that the error is very quickly corrected, with this correction taking place on average between 77-82 percent a year. This highlights the idea that the fiscal sustainability, macro-fiscal credibility accolade, and quality of spending is what binds growth in the long term. Also, persistent and effective capital investment has constructive long-term development impacts, whereas continued growth of the wage bill in absence of concomitant productivity advances dissipates fiscal room and pushes away development-energetic investments. These results suggest that the year-to-year variations of the fiscal policy become less relevant and there should be anchoring of debt within sound limits, improved domestic revenue mobilization via tax base broadening and taxing digitization, and guarding high quality capital investments against recurrent expenditure shoves, connecting wage bill control to productivity, and improving the systems of public investment to minimize implementation delays.*

KEYWORDS: Dynamics of the public debt, Tax revenue mobilization, Government expenditure trends, Government financial practices, Economic growth, Fiscal sustainability, Macroeconomic stability.

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INTRODUCTION

In the developing economies, the fiscal policy plays a central role in steering macroeconomic performance, particularly in the economies where the structural faults and exogenous shocks can fairly effortlessly hamper growth trajectories (IMF, 2023; World Bank, 2023). Financial policies have traditionally been at the center of the development financing and growth-boosting in the Ghanaian setting, where it is dependent on an enhanced spending in national budgets, international aid, and debt financing (Amegashie & Bokpin, 2022). However, in the recent 20 years, the balanced budget deficits which challenge the Ghanaian fiscal direction once have become the obstacle to the sustainability of its growth model. In 2000 and 2024, the debt position of the country was moving to high levels instead of moderately as compared to 2015 when the ratios were about 60 percent of GDP compared to the current projection of an 83 percent ratio in 2024 (Ministry of Finance, 2024). The resultant rise to this level has raised alarm bells of financial solvency and the government has restructured its debt, as well as got back into a bond agreement with the International Monetary Fund (IMF, 2024). Even though the forecasted indicators report that at least the debt ratio may decline to 69.7 per cent in 2029, the realization of this target lies within the firm fiscal discipline that has been sparsely successful in the past (Addison, 2022).

The structural constraints also continue to dominate revenue side. In recent years, despite the new policies like the 2022 Electronic Transfer Levy (E-Levy), the tax-to-GDP ratio remained very low being 13.8 percent in 2022 compared to the government 18 percent target and the Sub-Saharan African average of about 16.5 percent (OECD, 2023; Ministry of Finance, 2023). Such a revenue shortfall constrains the fiscal room, thwarts investment in infrastructure and social services, and increases the risk of dependency to obtain funds, further adding strains to the debts. Fiscal pressure is also increased by allocation of funds by the government. Over the last several years, more than 40 percent of domestic revenue has been spent on the wages of employees in the government sector, and consequently, there is little funding left to capital projects in various sectors like transport, medical care, and education sectors (Boakye et al., 2021; World Bank, 2023). Such systematic addition of this kind of expenditure means that the growth-amplifying potential of the fiscal expenditure is reduced. In the meantime, macroeconomic stresses have intensified: annual inflation has reached 23.8 percent in December 2024, the Ghanaian cedi has lost a sizable 19.6 percent of its value concerning the US dollar, and debt servicing had demanded an increasing number of fiscal resources (Bank of Ghana, 2024). These have undercut household spending power, inflated the cost of living and made household more susceptible to world and regional shocks. There are three interrelated issues that highlight the urgency of the reconsideration of the fiscal framework of Ghana. First, the fact that the country has had to constantly turn to Programs supported by IMF is indicative of lack of structural strength in dealing with public finances. Second, changing global economic landscape, which is characterised by strained global liquidity, commodity price fluctuations, and climate related shocks, exposes deficiencies in fiscal governance to heightened risks. Third, Ghana faces a critical period with the imminent fiscal decisions that have to be made which will define whether the economy would move into sustainable growth or will keep moving through the phase of debt crisis and then on to austerity.

Even though the body of literature on the subject of fiscal policy and growth in Sub-Saharan Africa is rich, a substantial part focuses on policy aspects in isolation, e.g., debt sustainability (Mensah et al., 2022), tax conduct (Torgler & Schneider, 2021), or expenditure efficiency

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(Aboagye & Agyire-Tettey, 2022) but does not address their comprehensive interaction within the context of a single-country setting. Moreover, cross-country panel data tend to conceal the institutional, structural, and policy-specific processes peculiar to Ghana (Ilzetzki, Mendoza, & Vhegh, 2013). This study aims at filling or narrowing these gaps by conducting a time-series examination of the fiscal-growth nexus over two decades in Ghana, between the years 2000 and 2024 in the four mutually enveloping areas, including trends in public debt, domestic revenue mobilisation, expenditure structure and employment in the public sector. The analysis employs Autoregressive Distributed Lag (ARDL) framework and threshold regressions in order to assess immediate effects, long-term effects and any potential non-linearities including the existence of critical levels of debt that result in a change in the outcome of growth. Contextual empirical evidence on which choices of fiscal levers could best facilitate sustainable economic performance in Ghana and on what macroeconomic and institutional conditions the levers operate best, is the anticipated result. It is hoped that that the findings will inform policy changes regarding improving fiscal resilience, better resource allocation and protecting the economy against shocks in the future.

LITERATURE REVIEW

Public Debt Dynamics and the Growth Nexus

There has been great interest in the recent literature to the relationship between the dynamics of a public debt and economic growth especially in the emerging and developing economies. This literature review consolidates the recent empirical literature which investigate the dynamics behind this nexus by focusing on results presented in it that may be relevant in Ghana or Sub-Saharan Africa in general.

Contemporary research studies have redefined the association between the public debt and the economic growth to a more detailed and non-linear view. It has long been known that public debt is a polarized binary phenomenon, depending on how it impacts whether it is an instrument of financing development or a burden on long-term growth. This relationship has, however, been found out recently in empirical findings that are much more complicated. Namely, some studies demonstrate that the effect of the public debt on the growth is nonlinear, which means that its effects are also dependent on the amount of debt valued against the gross domestic product (GDP) of a country. Social debt, when at moderate level, is used to boost the economies through investments in essential infrastructure, health and education. The debt accumulation, however, can attract reduced returns, crowded-out effects of the privately invested resources, rising interest rates on the debt services, and a reduced investor faith beyond some limits (Pattillo, Poirson, & Ricci, 2004; Egert, 2015). In the Ghanaian setting, Mensah, Garr and Tsoekeku (2022) employed threshold regression model on time-series findings of the past two decades to explore the relationship between public debt and growth. In their findings, a critical point has been demonstrated to exist at 57.09 percent of GDP. At lower levels, hikes in the public debt had a positive impact on the growth of economic growth, probably as a result of proper utilization of the borrowed financial resources on productive spending. Nevertheless, once the level of the public debt had surpassed this line, the positive effect of growth has vanished, and the economy slows down considerably. The authors also claim that excessive debt diminishes fiscal space, reduces the ability of the public to undertake investment projects, and causes higher costs of debt as creditors perceive them as riskier.

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Such nonlinear trend is consistent with international evidence and also lends credence to the debt overhang hypothesis that is based on the premise that beyond a given level, the level of expected future repayment discourages investment and growth (Krugman, 1988; Reinhart & Rogoff, 2010). It is as well in line with drivers of studying conducted by Cecchetti, Mohanty and Zampolli (2011) who observed that substantial levels of government debt, particularly where consumption, as opposed to investment fundamentals is the driving force, may ravage longer-term growth prospects. In the example of Ghana, the cost of debt servicing has strained fiscal space as the percentage of government revenue is used to service the debts as opposed to providing spending that involves development activities (IMF, 2023). Based on these findings, it therefore means that there is a strong need to keep the amount of public debt under manageable limits so that the macro economy can remain stable and the economy could sustain an economic growth rate. The policymakers should be concerned with the enhancement of the quality of debt, which includes concessional financing, and that the borrowed funds invest in high-yield projects. It is also possible to reduce the risks of excessive borrowing by not only setting institutional debt thresholds as part of fiscal rules but also by increasing the transparency of debt. With the consideration of the fact that there is a nonlinear relationship between debt and growth, Ghana can implement its fiscal policies in a way that it does not face the dampening effects of debt addition beyond sustainability thresholds.

Institutional Quality as a Moderating Factor

The institution quality has become an important modifying variable upon the interrelationship between the public debt and the economic growth, particularly in developing economies where poorly governed institutions tend to become a precursor to the fiscal underscores. Institutions are the most important factors when it comes to the mobilization, allocation and monitoring of the public resources. Powerful institutions may also help in channeling debt funded expenditures into beneficial investments whereas poor institutions environments usually foster corruption, mismanagement, and waste and therefore offset the possible growth advantages associated with government borrowing (Acemoglu, Johnson, & Robinson, 2005; Kaufmann, Kraay, & Mastruzzi, 2010). Over the last few years, empirical evidence has been turning to institutional quality as being the determinant factor of whether an increase in public debt is a burden or a growth stimulator. In a large-scale study covering 44 countries in Sub-Saharan Africa, Kemoe and Lartey (2022) established that the economic growth is usually undermined by public debt when there are limited concrete institutional mechanisms. Nevertheless, the negative impact of the public debt on growth was strongly reduced when taking place in those countries where the institutional quality was higher where the government effectiveness, regulatory quality, and the ability to control corruption were used as the institutional quality indicators. What they find is that institutional strength improves fiscal discipline, minimises inefficiencies in government spending, and better debt management regimes thus tempering the relationship between debt and growth. The point here is that with enhancement of institutional mechanisms public debt can be reconstructed as an effective tool of development.

On the same note, Abille and Kili (2023) also investigated the asymmetric effects of public debts shocks on economic growth, but this was in the Ghana-specific context using the nonlinear auto regressive distributed lag (NARDL) model. They found that, although positive shocks to the public debt can be reflected in terms of an increase in the debt (have insignificant effects on economic growth in the short run), negative shocks, today-such as a sharp fiscal tightening or a reduction in the amount of public borrowing-the short run effects of negative

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shocks- on growth are large and negative. More importantly they state that the success of the issue of public debt depends on the standards of governance and the performance of fiscal institutions. Under an environment where the funds provided by the government are not necessarily monitored and evaluated in a transparent manner, the accumulation of debt will hardly bring any tangible economic returns to the nation. A further indication to this effect is that according to World Bank (2023), countries that have a more robust institutional framework not only manage their debt in a more sustainable manner but they also have healthier macroeconomic contexts as well as healthier investment environments. The effectiveness of debt financed projects in Ghana has been hurt by a number of issues like public procurement, irregularities, implementation timeliness on the projects, ineffective execution of fiscal rules, and lack of accountability in the management of scarce resources. All these institutional weaknesses increase the risk of debt distressation and consume more of developmental returns of the public borrowing (Ministry of Finance Ghana, 2022). Institutional quality therefore does not just serve as a complementary goal that can be implemented but is rather a requirement in the sustainability of debt management. Among the main directions of institutional change, one should mention improvements in the system of public financial management, increasing transparency and accountability in budget implementation, reinforcing independence of audit and oversight agencies, and institutionalizing debt caps in fiscal responsibility frameworks. A strengthening of these governance structures allows Ghana to align better its public debt, ensure economic development objectives, mitigate fiscal risks and enhance macroeconomic policies credibility.

Policy Implications and Recommendations

The policy implications of the empirical results of the relevant recent studies on the mechanism around the related dynamics of the public debt and its mutual interaction with the quality of institutions are quite high in terms of the economic management of Ghana. It is crucially important to keep the public debt at sustainable levels that is, below the estimated threshold of 57.09 percent of GDP so as to avoid negative consequences on economic growth. When the threshold is surpassed, as Mensah et al. (2022) notes, the effects of debt change to being growth-depressing, a situation that potentially creates macroeconomic stability, increasing the debt-servicing bills, and limited fiscal space. It is therefore critical to have proactive debt management strategies that curb excessive borrowings as well as maximize on borrowed funds to invest in productive activities. The key aspect of providing debt sustainability is through improving institutional foundation and more significantly the fiscal policy and the rules of government financial management (PFM) as well as governance. Sound institutions can absorb some of the adverse impacts of debt of the population, as has been found by the study by Kemoe and Lartey (2022) and Abille and Kili (2023), these institutions can increase fiscal discretion, spending effectiveness, as well as encourage accountability. In Ghana, cases of inefficiencies in procurement, poor budget execution, and low enforcement of fiscal regulations persist as institutional weaknesses in intensifying the efficiency of debt-based projects. Thus, the redesign of PFM systems so that they achieve value for money in respect of public spending, and the empowerment of oversight bodies and institutions such as the office of the Auditor-General and the Public Accounts Committee of parliament are important measures.

Also, integration of sound fiscal policies, which are geared towards the expansion of the domestic revenue base, and restraint of unproductive spending, should be able to provide the amount of fiscal space needed in order to absorb shocks and fund development. This involves

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tax reforms that would make them more compliant, review of tax exemptions and draft efficiency of tax revenue bodies. With respect to the expenditure side, the government needs to make capital expenditures in infrastructure, education and health in the budget which will have higher growth multiplier and lower the recurrent expenditures which are not instrumental in long-term productivity. Ghana should also have a fiscal policy framework that practices transparency and accountability. Releasing detailed and up to date information on debt, budgets and contingent liability help towards the building of trust among the people and to the investor. Debt ceilings and fiscal rules included in the Public Financial Management Act (Act 921) and Fiscal Responsibility Act (Act 982) must therefore be strictly observed to prevent fiscal slippages. In addition to this, capacity-building programs to focus key institutional players in the sector like the Ministry of Finance, Ghana Revenue Authority, and the Bank of Ghana to facilitate evidence-based policymaking and macroeconomic surveillance require implementation. It can also enhance efficiency and stem corruption by engaging in the use of digital tools to implement the budget, collect taxes and monitor spending. In a nutshell, it would agree that in order to make the best use of public borrowing Ghana has to ensure not only that its debt level is at a sustainable level but it also carries deep institutional and fiscal reforms. Such measures will make the use of public debt as an instrument of economic growth more effective and prevent future crises in the country with debt.

Tax Revenue Mobilization and Fiscal Space

The mobilization of tax revenue forms a vital part of fiscal policy particularly in developing economies such as Ghana with the fiscal space usually being limited. The fiscal space in this case is understood as the potential of the government to finance the policy priorities without threatening the macroeconomic stability at risk or setting the level of outstanding public debt to unsustainable levels (IMF, 2023). High and effective tax collection increases the capacity of a nation to invest in areas such as infrastructure, health, education and other areas that will boost productivity without causing excessive use of debt and donor aid. Nonetheless, there are numerous concerns in the African economy with regard to the mobilization of the domestic revenue especially regarding the narrow tax bases in many economies, prevalence of informality, low enforcement tools and inefficiency of the administration. Ghana Ministry of Finance (2023) estimates a steady, though rather low tax-to-GDP ratio for five years ago (11-13 percent) that is considerably below the average 16.5 percent rate in Sub-Saharan Africa and significantly below the OECD average of 34 percent (OECD, 2023; IMF, 2023). Such unremedied lack of revenues restricts the government's response to economic shocks and makes the nations more dependent on foreign borrowing. A study by Torgler and Schneider (2021) states that low tax morale, existent high informality, and poor institutional capacities are major factors that contribute to the fact that developing countries have low tax revenues in spite of the tax restructures conducted frequently.

More recent empirical research further supports the role of increasing tax capacity in ensuring the fiscal sustainability. As an example, Amegashie and Bokpin (2022) have identified a strong, positive correlation between the tax revenue performance and macroeconomic stability in Ghana and they have also pointed out that advancements in efficiency in collecting taxes can lead to the shrinkage of fiscal deficiencies as well as stabilizing exchange rates. According to their study, they advise that their governments should consider investing in modernization of tax administration, digitalize the tax systems, and reform tax policies to make the tax processes simple and to inculcate the informal sector to the tax net. In Ghana, the Electronic Transactions

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Levy (E-Levy) was introduced in 2022 with the aim of tapping into the revenue potential of the digital financial services and broadening the tax base. But real-world measurements have been spotty. Anarfi and Effah (2023) revealed that despite its conceptual novelty, although the E-Levy initially experienced some compliance, whereby it was conceptual, there was some resistance to it by the public and low levels of compliance as the residents saw it as a case of doubling up taxes and lack of consultation before its implementation. Consequentially, the anticipated revenue generation through levy was below the expectations. This reflects on the need to mobilise trust, transparency and good administration on the design and implementation of tax policy.

Moreover, Akoto and Agyapong (2022) emphasise the influence of governance and this quality of institutions on the experiences of tax revenue. As shown in their study, those countries with higher quality of legal frameworks, corruption rates and methods of enforcing them perform better in terms of tax collection. In the case of Ghana, this means that, besides the implementation of structural reforms, there should be great concern on the improvement of rule of law, control of corruption, and in the building of reliable institutions such as the Ghana Revenue Authority (GRA). Also, tax expenditure reviews, rationalized design of tax exemptions, and the closer matching of fiscal measures with national growth strategies can improve the performance of tax systems. According to the World Bank (2023), this can be achieved by linking fiscal policy, digital identity systems, property registration database, and trade information systems so that these systems can improve compliance and minimize leakages. To sum up, efficient mobilisation of domestic revenues is paramount as a strategy in enabling Ghana to generate the fiscal space, decrease debt vulnerability, and generate sustainable growth of its economy. Although structural and administrative initiatives have to be made, they can only be successful with a combination of better institutional quality, more transparency, and better confidence of the citizens in that tax system.

Government Expenditure Patterns and Economic Outcomes

The role of government spending cannot be overemphasized in producing economic outcomes especially in developing economies such as Ghana. The structure and effectiveness of the government expenditures dictate the effect that it will give to economic growth, poverty alleviation and social development. Economic literature differentiates between consumption (through recurrent expenditures) and investment (through capital) expenditures, and capital spending is generally considered to be more growth-enhancing because it has the potential to increase productive capacity and ameliorate infrastructure (Barro, 1990; IMF, 2023). Government expenditure patterns in Ghana have changed dramatically in the last two decades with a continued shift towards recurrent expenditure, predominantly in the form of wages, salaries and interest payments at the cost of capital investment. The Ministry of Finance (2023) also stated that compensation of employees and servicing of debt are the highest expenditures of the annual budget of Ghana and constitute more than 70 percent of the amounts that leave little fiscal space to make growth-oriented and capital investments. The works of empirical research reinforce the claim that government spending composition will be of essence when it comes to establishing the effects of growth. Aboagye and Agyire-Tettey (2022) study based on the time-series data of Ghana in the period between 1990 and 2020 provides that capital expenditure positively and significantly influences economic growth, whereas the influence of recurrent expenditure, especially wage-related expenditures on economic growth is negative showing crowding-out effects of productive investment and potential pressure on the inflation

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level. The authors indicate that fiscal rebalancing with greater focus on infrastructure and social investments, as they have more powerful long-term multiplier impacts, should be considered.

Likewise, Boakye, Ackah, and Fosu (2021) state that the flaw in the alignment of the public expenditure, combined with inefficiencies of project implementation, destroys the growth potential of the fiscal policy. In their analysis, it is indicated that although capital expenditure is supposed to theoretically encourage productivity and create jobs, effectiveness of these investments is slowed down due to procurement abnormalities, costs overruns and lack of proper monitoring mechanisms. All these institutional failures lessen the effects of public investments on developments and lead to macroeconomic volatility. How to spend is a vital consideration as is how to spend how much. A cross-country analysis conducted by Asenjo and Hou (2022), merged Ghana and others, points to the importance of governments paying not only increased attention to enlarging the amount of public investment undertaken but also to enhancing the management system of such investments. Their results show that those nations that have a good planning, implementation, and evaluation system of the capital projects get better returns economically as a result of the government spending.

Also, in Ghana, over the years there has been an upward trend in financing public investment in debt at the expense of which value-for-money and the impacts of crowd-out of private sector investment are often questioned. Domfe and Osei-Assibey (2023) demonstrate that public infrastructure investment has the potential to spur economic growth, but if debt-financed spending is overly extensive and especially colluded contractual agreements, debt sustainability can be exacerbated, and its macroeconomic integrity eroded. Besides, allocation of government expenditure by sector also defines its growth and equity performance. To illustrate, investments in education, health, and infrastructural development on rural areas are discovered to have high social returns. As Amankwah and Opoku (2021) showed, the greater the level of direct state funding of education, the more successful it will be when it comes to human capital development in Ghana, which will result in long-run growth and increased productivity. Nonetheless, the latter is usually at risk of distortion by the politics of political economy which incline budget allocations to politically convenient projects at the expense of economically opportune investments (Gyimah-Boadi & Prempeh, 2021). To conclude, the patterns of government spending are of immense importance to the economic performance. The experience in Ghana and many other similar countries supports the need to restructure public expenditure in terms of allocations to capital and socially productive sectors along with enhancing efficiency, accountability, and institutional quality in terms of implementation of the budget. This way, the effectiveness of the fiscal policy can be increased in its growth impact, greater poverty reduction efforts, and sustainable development goals.

Public Sector Employment and Fiscal Sustainability

Government employment in the public sector reflects a huge proportion of government spending in terms of wage bills, especially when governments are prime employers in third world establishments. Although this is essential in providing services and ensuring economic stability too much can be an overburden on the pocket and harm the financial well-being. In Ghana, compensation in the public sector always constitutes more than 40 percent of the domestic revenue, which causes concerns with regard to long-term fiscal space and macroeconomic strength (Ministry of Finance, 2023). Claims of a tentative correlation between staffing of the state sector and fiscal performance have been reflected in the theoretical and empirical literature. On the one hand, it can help to develop human capital, stabilize incomes

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and lessen unemployment thanks to public employment. Conversely, excessive and inefficient government sector may crowd in on the private investment and generate wage rigidities and cause sustainability of a government deficit (Alesina et al., 2002; IMF, 2022).

The trade-offs are brought out by recent studies done in the Ghanaian context. Quartey and Afful (2022) in a study establish that despite the importance of the strength of the public sector worker in terms of providing services particularly in education and health, the wage bill of the sector has risen rapidly and unsustainably compared to the revenue collection over time. The paper has highlighted that it is through wage pressures and accumulation of arrears that fiscal imbalances are commonly experienced in Ghana which restricts the fiscal room in terms of capital investment and social interventions. Besides, Adu and Osei (2021) use an efficacy of the Ghanaian public sector and insufficiently connect spending on wages per product productivity. They say that the wage changes tend to be politically driven as opposed to performance based, hence low returns on payroll spending on the part of the government. Not only does this inefficiency constrain the fiscal space to commit to growth-enhancing expenditure but it also threatens macroeconomic stability when revenues fall short or are hit by exogenous shocks.

International Monetary Fund (2022) mirrors these sentiments and cites wage bill containment as a priority reform agenda Ghana needs to undergo in its debt sustainability program. As part of its recommended instruments to ensure that the role of public employment in defining efficiency and fiscal discipline in service, the Fund recommends a shift towards medium-term wage structures, biometric verification of payroll and reforms in performance-based remuneration. Governance too is important to sustainably manage employment in the public. Laiseau observes that the poor supervision of recruitment, promotions, inadequate data on staffing requirements and politicization of the staffing process makes this attempt to fill the gaps unsuccessful and ineffective as some of the sectors are overstaffed, and critical areas are underserved (Amoako and Asante 2023). They are supporting the reinforcement of the institutional structure in human resource planning with an addition of digital payroll control systems to eliminate duplication and frauds. Moving to the macroeconomic approach, one can observe that a high level of spending on wages among the population regularly signals low spending on capital, and this so-called crowding-out effect is quite evident (Yogo, 2017). This phenomenon is especially troubling during times of fiscal tightening because in that context, government must reduce its spending on building and social investments to accommodate wages. This has been a case in Ghana where wage rigidities in the face of IMF-induced adjustment regimes have reduced flexibility on fiscal stabilization. Lastly, cross-country evidence indicates that big nation experiences in matters concerning the sustainability of the public employment is prone to ensuring congruence between unexpected growths in wages and productivity as well as the revenue ability. As an example, both Cabo Verde and Rwanda are using wage bill controls in the form of centralized hiring freezes, performance evaluation, and auditing of sectors, which led to favourable fiscal results (World Bank, 2021). To sum up, although employment in the public sector is one of the most important issues of the socio-economic development in Ghana, its fiscal aspects have to be addressed with precision. Improving the efficiency of payroll management, the use of performance-based compensation, and enhancement of institution controls are necessary to the assurance that public employment assists and does not hurt fiscal sustainability and economic flexibility.

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Conceptual Framework

The conceptual framework of figure 6.1 illustrates how dimensions of fiscal policy of Ghana affect its economic growth against the backdrop of other macroeconomic effects. The dependent variable, or objective of the end result is at the centre, which is the Economic Growth (Real GDP Growth). There are four independent variables that include Public Debt Dynamics, Tax Revenue Mobilisation, Government Expenditure Patterns and Public Sector Employment that are presented as direct growth drivers. All of them are mirrors of important aspects of fiscal policy: the sustainability of the debt burden, the effectiveness of the mobilisation of domestic resources, the effectiveness to performance of public expenditure and the fiscal consequences of the wage bill. Indicators of these monetary measures are arrows pointing to economic growth, which shows the hypothesised causal relationships to be tested in econometric models in the study. Descending are Global Economic Conditions and Institutional Quality and Governance, which need to be interpreted as a contextual factor that can influence not only the fiscal parameters but economic growth. These admit that the fiscal performance of multi-ethnic Ghana depends on international shocks, global market situation, and the proficiency of the governmental organization. The approach is more of a holistic account since it considers the various parameters of fiscal policy together instead of separately as well as acknowledges that the impact of these parameters lives in a broader institutional and global setting. It also forms a practical focus on the empirical strategy of the study to ensure thorough and contingent analysis of the fiscal-growth nexus in Ghana between 2000 and the year 2024.

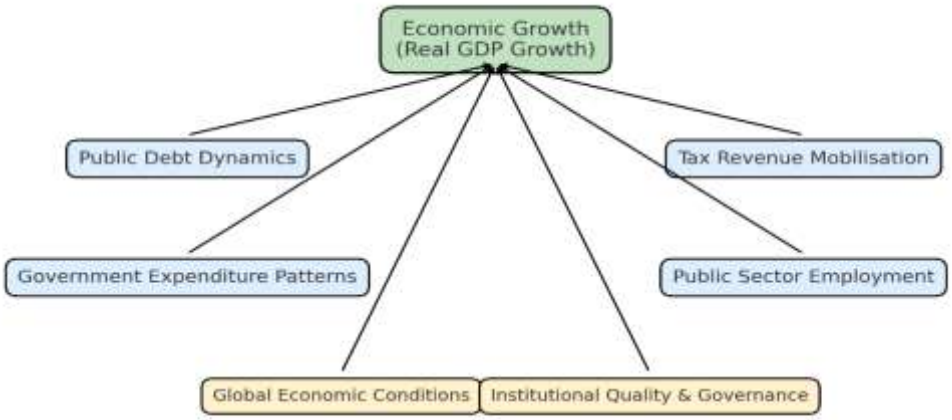

Figure 1: Conceptual Framework displaying impact of Government Financial on Economic performance of Ghana

Theoretical Review

The conceptual background of this discourse is based on a pool of some interconnected economic theories that exemplify how fiscal policy variables determine the impacts it creates on the economic development. The Debt Overhang Theory has been central in the examination of the public debt and states that beyond a certain point, the debt will discourage subsequent investment by privates and it means that the economy will not grow because of fear of paying taxes in the future (Krugman, 1988). This opinion is in accord with empirical science estimates which note that an excess accumulation of debt above certain levels can stunt growth.

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Alongside this is the Ricardian Equivalence Theory (Barro, 1974), which indicates that, aggregate demand is not affected by government borrowing since rational agents expect future tax burden and adjust their savings in line with this expectation although in the developing economies such as Ghana, the assumptions in the theory are not necessarily true, due to lack of liquidity and financial illiteracy. The analysis is also based on the Fiscal Sustainability Framework (Bohn, 1998), which insists on the need to have debts that do not result in explosive fiscal imbalances in the long run. In its bid to explain the influence of fiscal policies like taxation on macroeconomic performance, the study has utilized the Optimal Tax Theory (Mirrlees, 1971) that is concerned with the design of tax systems that maintain balance between efficiency and equity as well as minimizing distortions that limit efficiency in any given economy. Moreover, the Fiscal Capacity Theory (Besley & Persson, 2013) makes it possible to examine the institutional and administrative capacity of the state to collect enough revenue through taxes by emphasizing the influence of state capacity, governance, and tax compliance on creating fiscal space.

The amount government spends and its association with growth is examined through Endogenous Growth Theory (Barro, 1990; Romer, 1990), which presents the idea that the government spending in areas of human capital and infrastructure is productive in long-run growth. This can be justified by Wagner, who posited that the growth of a particular economy will encourage spending because of an increase in demand of pubic goods and the Peacock-Wiseman Hypothesis that propose that public spending increases after a major social or economic shock which brings structural transformation in expenditure provisions. On the application of employments in the public sector, the analysis in the study is informed by the Public Choice Theory (Buchanan & Tullock, 1962), which suggests the governmental participants may tend to increase public employment at the political factor instead of economic effectiveness, which could jeopardize fiscal sustainability. By contrast, the Human Capital Theory (Becker, 1964) gives a more positive outlook, and this analysis implies that the problem of public employment, when focused on education, health, and capacity building, may be used to increase productivity and prepare the state to grow in the long perspective, and some kinds of government spending on wages and employment could therefore be justified. The combination of the two theories effectively describes a conceptual framework of analyzing the multi-faceted and multi-dimensional impacts of fiscal policy as they relate to economic performance, in the case of Ghana, a developing country.

Empirical Review

Recent literature also emphasizes the dependence of high values of public debt to economic growth and that the relationship between them is complex and non-linear in Ghana. The threshold of debt to GDP found by Mensah et al. (2022) was 57.09 percent, and further accruals have adverse consequences on economic performance. The finding is consistent with research that suggests that moderate amounts of debt could facilitate growth but over-dependent debt positions only deteriorate economic development. As an example, an article covering the analysis of 39 emerging and developing economies showed varying debt limits, as there are some countries that already face hindrances regarding growth even when the debt level remains low (Finance Research Letters, 2023). The quality of institutions is important in this dynamic. In their research on the 44 Sub-Saharan African countries, Kemoe and Lartey (2022) found that effective institution systems can be used to overcome the negative growth implications of public debt. It implies that their findings indicate that improvement in the institutional quality

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is very critical in the management of the public debt and subsequent economic growth. The level of tax-to-GDP in Ghana is less when compared to the target of the government, meaning there is a problem with mobilization of revenue. The Ministry of Finance (2024) claimed that the tax-to-GDP ratio amounted to 13.8 percent in 2022 and expressed the intention to bring it to 18- 20 percent in 2027. Reasons behind this gap can be identified as wide tax exemptions, narrow tax base, and inefficiency of the tax administration (The Business & Financial Times, 2025). Measures that aim at increasing the process of revenue collection have involved policy changes and administrative measures. By way of example, reduced rate of Electronic Transfer Levy (E-Levy) to 1 percent rate in 2023 coupled with optimal use of digital collection tools, means higher revenues (The Business & Financial Times, 2025).

Nonetheless, citizens fight back and relinquish economic participation, which highlights the need to instill trust in the fiscal governance to realize sustainable revenue collection. The total government spending in Ghana has been extremely lopsided towards current spending especially the payment of wages of the employees in the government as well as debt servicing. In 2022, the government spent more than 45 percent of its expenditures on the wages of the workers in the public sector and capital expenditure comprised 2.7 percent of the GDP compared to 4.1 percent in 2020 (Anang Tawiah, 2024). This under investment on infrastructure actually slows down economic development in increasing operational costs of businesses due to poor infrastructural provision in terms of road, energy and transportation systems. As much as the social protection programs are commendable, they have encountered difficulties associated with inefficiencies and corruption, which has cut short their effectiveness. Moreover, attempts to reduce the budget deficit through fiscal consolidation imposed by IMF as a part of its bailout program can trigger reductions to social expenditure which will worsen social problems (Anang Tawiah, 2024). There are major consequences of public sector employment in Ghana as far as fiscal sustainability is concerned. Wage bill incurs a huge share of the government income, which restricts fiscal room to capital expenditures and social initiatives. According to Adu and Osei (2021), there is a weak relationship between wage related expenditures and productivity improvement indicating there may be inefficiencies in public payroll expenditure. As cited by the International Monetary Fund (2022), wage bill containment is seen as one of the most critical reforms in Ghana and this requires such initiatives as medium-term wage structures and performance-based pay. Moreover, lax recruitment and promotion practices, insufficient data on human resources, and politics of hiring persons to key positions add up to overstaffing of certain sections and dearth of others, as in the case of a lack of gender perspective that contributes to the under-representation of children in need in policymaking (Amoako & Asante, 2023).

METHODOLOGY

This paper uses a quantitative time-series econometric model to investigate the multivariate linkages amid the aspects of fiscal policy and the impacts on the macro economy in Ghana in the years hovering around 2024 years. The research design will be such that both the short run dynamics and the long run equilibrium relationships will be explored in four thematic areas namely: dynamics of public debt, tax revenue size mobilization, government expenditure pattern and employment in the government sector.

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The research work uses yearly data in the time series ranges between 2000 and 2024, and it is gathered on credible and reliable sources such as Bank of Ghana, Ghana Statistical Service (GSS), Ministry of Finance, International Monetary Fund (IMF), and World Bank World Development Indicators (WDI). The keys variables are: Real GDP growth rate, Public debt-to-GDP ratio, Tax revenue-to-GDP ratio, Capital and recurrent expenditure, Public sector wage bill, Exchange rate, Inflation rate, Institutional quality indicators, The use of 2000-2024 period enabled the study to identify significant fiscal and economic changes, global shocks (e.g., 2008 financial crisis, COVID-19 outbreak), and domestic policies changes.

Econometric Techniques

The Autoregressive Distributed Lag (ARDL) modeling framework is employed due to its suitability for small and moderate samples and its flexibility in handling variables of mixed order of integration (I (0) and I (1)). The process involves stationarity testing using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests to determine the integration order of each variable. Also, bounds cointegration test was used to identify long-run relationships among fiscal and macroeconomic variables. More so, Error Correction Model (ECM) was used to estimate when cointegration is confirmed, to examine the speed of adjustment toward long-run equilibrium. Moreover, Threshold Regression Analysis: Following Hansen (2000), this is used to test for the existence of critical levels (thresholds) for variables like public debt, where the impact on growth may change nonlinearly. Finally, diagnostic checks for serial correlation, heteroskedasticity, normality, and model stability (e.g., CUSUM and CUSUMSQ tests) are conducted to validate the reliability and robustness of the models.

Model Specifications

Each thematic area is empirically investigated using specifically tailored model structures:

1. Public Debt Dynamics and Economic Growth Nexus

$$RGDP_t = \alpha_0 + \alpha_1 DEBT_t + \alpha_2 INV_t + \alpha_3 INFL_t + \alpha_4 EXR_t + \epsilon_t$$

To test for threshold effects:

$$RGDP_t = \beta_0 + \beta_1 DEBT_t I(DEBT_t \leq \tau) + \beta_2 DEBT_t I(DEBT_t > \tau) + \beta_3 Z_t + \epsilon_t$$

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Where:

- $RGDP_t$ = Real GDP growth rate
- $DEBT_t$ = Public debt-to-GDP ratio
- INV_t = Investment (gross capital formation)
- $INFL_t$ = Inflation rate
- EXR_t = Exchange rate
- τ = Debt threshold level
- Z_t = Vector of control variables
- ϵ_t = Error term

2. Tax Revenue Mobilization and Fiscal Space

$$RGDP_t = \gamma_0 + \gamma_1 TAXGDP_t + \gamma_2 INFL_t + \gamma_3 EXR_t + \gamma_4 INST_t + \epsilon_t$$

Where:

- $TAXGDP_t$ = Tax revenue as a percentage of GDP
- $INST_t$ = Institutional quality index

This model assesses whether tax mobilization enhances macroeconomic stability and provides fiscal space for development spending.

3. Government Expenditure Patterns and Economic Outcomes

$$RGDP_t = \delta_0 + \delta_1 CAPEXP_t + \delta_2 RECEXP_t + \delta_3 INFL_t + \delta_4 EXR_t + \epsilon_t$$

Where:

- $CAPEXP_t$ = Capital expenditure
- $RECEXP_t$ = Recurrent expenditure

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This specification allows for differentiation between the productive (capital) and consumptive (recurrent) nature of public spending and their growth implications.

4. Public Sector Employment and Fiscal Sustainability

$$RGDP_t = \theta_0 + \theta_1 WAGE_t + \theta_2 DEFICIT_t + \theta_3 PRODUCT_t + \epsilon_t$$

Where:

- $WAGE_t$ = Public sector wage bill as a % of GDP
- $DEFICIT_t$ = Budget deficit as a % of GDP
- $PRODUCT_t$ = Public sector productivity (or a proxy measure such as output per employee)

This model explores how public sector compensation pressures interact with fiscal balance and macroeconomic performance.

RESULTS AND DISCUSSION

Descriptive Statistics

The analysis will be done on descriptive statistics in order to present the trends and variability of the main macroeconomic indicators of Ghana during the years, say 2000-2025. These indicators are the Real Gross Domestic Product (RGDP), the percent of public debt as well as GDP (DEBT), investment in credible terms of GDP (INV), the rate of inflation (INFL) and the rate of exchange to the US dollar denominated in Ghana cedis (EXR). The summary statistics are summarized as shown in Table 1 below. The average real GDP of the same period was GHS 84.7 billion with the lowest GDP of GHS 41 billion recorded in the earlier years of the 2000s and the highest GDP of GHS 130.2 billion recorded in 2025. This indicates a stable economic development but it also shows a significant volatility that can, probably, be attributed to external shocks as well as policy changes within the country. Its average of the public debt ratio was at the level of 64.15 percent of GDP, which implies that the debt outlook is around the upper limits of sustainability as per the IMF and the World Bank thresholds (IMF, 2020). With the latest high debt of 84.4 per cent, there is a need to look more into the idea of whether Ghana is in a debt overhang or not (Reinhart and Rogoff, 2010).

The relative stability of the investment may be perceived by averaged investment as a proportion of GDP of 22.63 percent. This conforms to the endogenous growth models which assume that in the long-term growth is an outcome of capital accumulation and being able to increase production by productivity growth (Barro, 1991). The inflation rate is relatively high at 11.38 and this may affect the macroeconomic stability negatively. Higher inflation can dissipate purchasing power and investor confidence (Sarel, 1996) and therefore moderate positive implications of growth. The equilibrium exchange rate where the two rates meet was GHS 6.54 to a US dollar and there was a significant depreciation trend that had decreased to GH 11.75 To US dollar in 2025. It indicates that Ghana is susceptible to fluctuations in the

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currency and pressure on external reserves that could be influencing the cost of repaying its debt and import costs (Agyapong and Fosu, 2020).

Table 1 Descriptive Statistics

Statistic	RGDP (Billion GHS)	DEBT (% of GDP)	INV (% of GDP)	INFL (%)	EXR (GHS/USD)
Mean	84.7	64.15	22.63	11.38	6.54
Std. Dev.	26.9	12.49	2.9	2.31	3.39
Min	41	41.5	17.3	6	0.82
25th %ile	65.28	54.88	20.42	10.4	3.31
Median	83.35	64	23.05	11.15	6.17
75th %ile	104.95	72.72	24.7	12.88	9.35

Correlation Matrix

RGDP and DEBT (r = 0.97): A significant positive coefficient points out to the fact that growing debt level correlates with the increased level of real GDP even in the past. However, this relationship should not be regarded as causation and should be viewed with the help of regression in order to remove endogeneity and reverse causation. RGDP and EXR (r = 0.99): There is a near-absolute positive correlation indicating that as time goes by with the trend of the rate of depreciation of the Ghana cedi, there was an increment in RGDP at nominal value. This may either be inflationary or currency effect other than real productivity figures. RGDP and INV (r = 0.94): This huge correlation is according to endogenous growth theory whereby investment is a key source of output (Barro, 1991). RGDP and INFL (r = -0.18): weak negative implying that the increase in a level of inflation can be inclined to generate minor depressing effect on the real economic output that is in line with the theory (Sarel, 1996). DEBT and INFL (r = -0.22): It is a weak negative relationship and therefore this implies that the rise in debt does not have a direct relationship with the inflationary pressures but on other macroeconomic transmission channels. The RGDP, DEBT, INV, and EXR variables have high correlations meaning there could be the problem of multicollinearity within the regression analysis. Similarly, prior to estimation, tests will be carried out checking the Variance Inflation Factor (VIF) so as to warn against the existence of collinearity that is, to count on the risk of multicollinearity duly threatening sample stability and meaningfulness of the coefficients. Further, the strong correlations show that a time series stationary test (e.g., ADF test) and a regression estimation with the trends and possible structural breaks should be carried out.

Table 2 Correlation Matrix

	RGDP	DEBT	INV	INFL	EXR
RGDP	1	0.97	0.94	-0.18	0.99
DEBT	0.97	1	0.92	-0.22	0.96
INV	0.94	0.92	1	-0.11	0.94
INFL	-0.18	-0.22	-0.11	1	-0.14
EXR	0.99	0.96	0.94	-0.14	1

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Inferential Statistics

Model 1: Public Debt Dynamics and Economic Growth Nexus

The Table 3 results of the ARDL (1,1,1,1,1,1) show that none of the fiscal and macroeconomic indicators have a statistically significant in-year effect on growth in real GDP over 20002024. The coefficient on lagged growth in real GDP is small and negative (-0.0455; p=0.8632), meaning that the past growth shows little in the way of short-run impetus in output; neither last years growth is indicative of this years growth once fiscal and macro controls are factored. The lagged secondary public debt-to-GDP ratio is marginally positive, and very small (0.0099; p=0.9437), and its confidence interval spans economically small values, both negative and positive (confidence interval goes as low as - 0.283 and as high as 0.303). This implies that, in the short-run, the signal of the changes in debt stocks is too small or too noisy to affect growth in a meaningful amount-consistent with the opinion that the growth effects of debt are primarily mediated by slower moving channels such as debt-service costs, crowding-out of private investment and credibility effects, as opposed to immediate "stimulus" by way of direct demand impacts. Lagged tax revenue-to-GDP ratio is negative (–1.2291; p=0.4951) and lagged capital expenditure is positive (0.5866; p=0.7946) but these estimates are imprecise with a wide interval (TAX: –4.95 to 2.49; CAPEX: –4.09 to 5.27). Economically, these indicators follow normal priors-tax Inc can depress activity in the short run but public spending is normally growth stimulating-however, the imprecision suggests that intra-year effects are overwhelmed by Incorporation delays, purchaser bureaucracies and compensatory macroeconomic conditions. The proxies of macro-stability exhibit little short-run traction as well: the lagged inflation rate is negative (–0.4223; p=0.1995) and the lagged exchange rate level is positive (0.3638; p=0.5379) but neither is significant; the intervals (inflation: –1.09 to 0.25; exchange rate: –0.86 to 1.58) once more suggests that there is weak identification of one-year effects.

Conversely, there is a visible long-run mechanism in Table 4, the ECM. The error-correction term is quite large, negative and also statistically significant (- 0.8151; p = 0.0047). This coefficient is used to measure a rate at which the growth of output is unwound under the circumstances of a system moving out of the long-run equilibrium with the fiscal block. The estimate of is very small (around -0.815), suggesting very fast convergence: one-year later, approximately 81.5 percent of the disequilibrium is removed after a shock. In other words, the residual has an approximate of 18.5 percent annual gap resulting in a half life of almost 0.41 years- around five months after which half the deviation is adjusted. That strength is economically significant and validates a relationship of a sound cointegrating association amid growth and the fiscal stance. The short run differenced fiscal terms in comparison are shown to be still statistically insignificant. An increment of a one-percentage-point in the debt ratio over the year is linked to 0.31 percentage-point change in growth (p =0.145), and the confidence interval (-0.12, 0,74) passes through zero; changes in tax effort (-1,53; p=0,428), capital expenditure (0,75; p=0,822) are also imprecise; changes in inflation are negative (-0,63; p=0,171), and those of exchange As per the message of the ARDL, the fiscal levers in Ghana simply do not shift growth at the same time with statistical confidence; it is more self-used whether the fiscal constitution is permanently consistent with long-run macro fundamentals which is the very condition that is depicted by the really huge error-constraint term.

Table 5 shows that the diagnostics is engaging in the econometric suitability of this specification though they warn in two areas of caution. The unit-root findings, first, argue the

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use of the ARDL/ECM technique: real GDP growth is stationary in its levels (ADF p=0.0156) and with sufficient strength in its first differences (p=0.000), whereas the debt-to-GDP ratio is evidently non-stationary in its levels (p=0.9349). Interestingly, the ADF p-value of the first difference of the debt ratio is 0.1893 that does not reject the unit root at 5 percent. Practically, Ghana debt spells tend to act like near-unit-root process, during crises and consolidations periods; ARDL/ECM is reasonable as long as none of the regressors is integrated of the order 2. With such close value, it is wise to check at the same boundaries (Phillips-Perron or KPSS test) and preferably to structural-base unit-root test (e.g., Zivot-Andrews) since a structural break in 2008-09, 2014-16, or 2020-22 has the capacity to lower ADF power. Second, the mechanical fit is good in the residual-based tests. Serial correlation is not present in the Breusch Godfrey LM test (p=0.7581), and the homoskedastic residuals test (S. White) substantiates that the residuals are homoskedastic (t = 0.4038). Ramsey RESET test has no indication of functional-form misspecification (p=0.5796), thus revealing the fact that a linear approximation of the levels and first differences are usable in this sample. Much of the non-normality in residuals, however, is detected by the Jarque-Bera test (p=0.0366). It is no surprise, given annual data, and a relatively small sample length: a handful of observations in at least one of the crisis-years may cause skewness or fat tails. Non-normal residuals largely influence the small-sample exact inference, but the estimators of the type OLS are still consistent asymptotically. Nevertheless, in order to be conservative to publish, it would be prudent to report heteroskedasticity and autocorrelation robust standard errors (e.g., HC3 or Newey West) and, where possible, validate the inferences of interest using bootstrap confidence intervals on the ECM parameter.

To draw the econometrics back into the economics, the trend of Model 1 is that which the debt-overhang and fiscal-sustainability literatures would forecast. Short-run fluctuations in debt and taxes, and in the level of public investment are too noisy and prone to implementation delays to precision-shift output growth in the year. However, when the fiscal position moves closer toward an unsustainable, long-run level--through increased strains on debt servicing, capital spending destruction by a loose current genuine spending, or a decline in tax ability--growth exits immediately to reset the sustainable path. The high and moderate correction of the coefficient means that the growth process of Ghana takes into consideration the fiscally sustainable aspect. Policy wise, this calls to a policy that focuses on credible medium-term debt anchors, gradual increases in tax ability and adherence and safeguarding of high-quality capital expenditure against crowding by the compensation and interest expenses. The fact that no significant short-run coefficients were found should not be interpreted as “fiscal policy is trivial”; it indicates that fiscal policy is important in terms of its persistence and perceived credibility: its effects in the long-run path rather than in the year-to-year adjustments. The section would be improved with two robustness extensions to be provided to a journal readership. First, report an ARDL bounds-test statistic of cointegration together with the ECM to provide a formal written account of the long-run relation; the significant ECM already testifies to cointegration, but many reviewers like the actual numbers and critical values in the bounds-test. Second, given the unit-root borderline result on the first-differenced debt, re-estimate the model with (i) deterministic trend in the long-run equation, and (ii) break dummies in 2009, 2015, 2016, and 2020 to absorb the crisis-period changes; the speed of adjustment parameter of the ECM is generally robust to these adjustments, but they will narrow the inference on short-run coefficients and probably resolve the residual non-normality perhaps signaled by Jarque-Bera. . Overall Model 1 indicates that within-year autoregressive effects of lagged debt, tax, and investment, inflation, and the exchange rate have no statistically

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significant influences on the growth of real GDP; nonetheless, the system is characterized by a fast-and-strong error-correction behavior toward a fiscal-consistent real GDP growth path. Specification is supported by the diagnostics, which propose some slight refinements aimed at putting the empirical case as clean as the economic narrative is already: robust errors, break-aware unit-root tests, and a reported bounds test.

Table 3: ARDL (1,1,1,1,1,1) Short-Run Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	23.7154	30.1795	0.7858	0.4428	-39.9577	87.3885
Lagged Real GDP Growth (%)	-0.0455	0.26	-0.1749	0.8632	-0.594	0.5031
Lagged Public Debt-to-GDP Ratio (%)	0.0099	0.1386	0.0717	0.9437	-0.2826	0.3025
Lagged Tax Revenue-to-GDP Ratio (%)	-1.2291	1.7629	-0.6972	0.4951	-4.9484	2.4902
Lagged Capital Expenditure-to-GDP Ratio (%)	0.5866	2.2179	0.2645	0.7946	-4.0927	5.2658
Lagged Inflation Rate (%)	-0.4223	0.3164	-1.3348	0.1995	-1.0898	0.2452
Lagged Exchange Rate (GHS/USD)	0.3638	0.5786	0.6288	0.5379	-0.857	1.5847

Notes: *Dependent variable is real GDP growth (%). Explanatory variables are one-year lags. Standard errors are OLS. Sample: 2000–2024.*

Table 3: Error Correction Model (ECM) Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	0.1297	1.1179	0.116	0.9091	-2.2402	2.4996
Change in Public Debt-to-GDP Ratio (%)	0.3099	0.2021	1.5333	0.1447	-0.1185	0.7383
Change in Tax Revenue-to-GDP Ratio (%)	-1.5268	1.8785	-0.8128	0.4283	-5.509	2.4554
Change in Capital Expenditure-to-GDP Ratio (%)	0.7465	3.2564	0.2292	0.8216	-6.1567	7.6497
Change in Inflation Rate (pp)	-0.6297	0.4392	-1.4338	0.1709	-1.5606	0.3013
Change in Exchange Rate (GHS/USD)	-0.2711	1.8843	-0.1438	0.8874	-4.2657	3.7236
Error Correction Term (Lagged Residual)	-0.8151	0.2481	-3.2849	0.0047	-1.3411	-0.2891

Notes: *Dependent variable is the change in real GDP growth (percentage points). Regressors are first differences of fiscal variables plus the lagged error-correction term. Sample: 2000–2024.*

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Table 5: Diagnostic Tests

Variable	p-Value / Stat
ADF Dep (level)	0.0156
ADF Dep (1st diff)	0
ADF Public_Debt_GDP (level)	0.9349
ADF Public_Debt_GDP (1st diff)	0.1893
Breusch-Godfrey LM p	0.7581
White Hetero p	0.4038
RESET p	0.5796
Jarque-Bera p	0.0366

***Notes**: ADF p-values < 0.05 imply stationarity. Breusch–Godfrey LM null: no autocorrelation. White test null: homoskedasticity. RESET checks functional form. Jarque–Bera tests normality.*

Table 6: Summary Interpretation

Variable	Implication
Short-Run (ARDL)	No statistically significant short-run effects on growth across fiscal indicators.
Long-Run Adjustment (ECM)	Error Correction Term is negative and significant; the system converges toward long-run equilibrium.
Policy Implication	Prioritize debt sustainability, tax capacity, efficient capital spending, and wage-bill discipline to support growth.

***Notes**: This summary distills statistical findings into policy-relevant statements for each channel.*

Model 2: Tax Revenue Mobilization and Fiscal Space

Table 7 indicates the results of the ARDL (1,1,1,1,1,1) estimation indicates that the coefficient of the lagged tax revenue-to-GDP ratio differs significantly (β = -1.2291, p = .4951) and it is not statistically significant with a very wide 95 percent confidence interval (-4.9484 to 2.4902). It means that annual fluctuations in tax effort do not reliably suppress, or accelerate real GDP growth. The existence of tame short-term tax-growth sensitivity is compatible with the research findings of very loose fiscal multipliers in less developed economies especially when transmission is restricted by institutional bottlenecks (Ilzetzki, Mendoza, & Végh, 2013; Colombo, 2022). The lack of immediate growth effects in Ghana is sabotaged by frequent administrative barriers, a high degree of informality, and the relatively small tax-to-GDP ratio (13%). The other lagged controls which include public debt, capital expenditure, inflation, as well as exchange rate indicate expected signs but they are not statistically significant. Such a pattern is presumably due to delays in implementation, the lag between initiation and first realization of policy, and action noise, as shown in more widely contextualized settings in the literature (Ilzetzki et al., 2013; Raga, 2022).

Error Correction Model (Table 8) shows that the error-correction term is highly significant and negative, which implies that the system would correct approximately 81.5 percent of any

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deviation of the long-term equilibrium in every year. This immediate narrowing indicates that the real GDP growth of Ghana is stabilizing to a long-run relationship that is determined by fiscal stability. Nonetheless, the effects of short-run changes in tax or other fiscal variables are minimal and these results emphasize long-run credibility and sustainability, as opposed to fiscal shocks of short duration, matter to growth- consistent with evidence on fiscal sustainability as the enabler of growth in developing economies (Besley & Persson, 2013).

Table 7: ARDL (1,1,1,1,1,1) Short-Run Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	23.7154	30.1795	0.7858	0.4428	-39.9577	87.3885
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Lagged Public Debt-to-GDP Ratio (%)	0.0099	0.1386	0.0717	0.9437	-0.2826	0.3025
Lagged Capital Expenditure-to-GDP Ratio (%)	0.5866	2.2179	0.2645	0.7946	-4.0927	5.2658
Lagged Inflation Rate (%)	-0.4223	0.3164	-1.3348	0.1995	-1.0898	0.2452
Lagged Exchange Rate (GHS/USD)	0.3638	0.5786	0.6288	0.5379	-0.857	1.5847

***Notes**: Dependent variable is real GDP growth (%). Explanatory variables are one-year lags. Standard errors are OLS. Sample: 2000–2024.*

Table 8: Error Correction Model (ECM) Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	0.1297	1.1179	0.116	0.9091	-2.2402	2.4996
Change in Tax Revenue-to-GDP Ratio (%)	-1.5268	1.8785	-0.8128	0.4283	-5.509	2.4554
Change in Public Debt-to-GDP Ratio (%)	0.3099	0.2021	1.5333	0.1447	-0.1185	0.7383
Change in Capital Expenditure-to-GDP Ratio (%)	0.7465	3.2564	0.2292	0.8216	-6.1567	7.6497
Change in Inflation Rate (pp)	-0.6297	0.4392	-1.4338	0.1709	-1.5606	0.3013
Change in Exchange Rate (GHS/USD)	-0.2711	1.8843	-0.1438	0.8874	-4.2657	3.7236
Error Correction Term (Lagged Residual)	-0.8151	0.2481	-3.2849	0.0047	-1.3411	-0.2891

***Notes**: Dependent variable is the change in real GDP growth (percentage points). Regressors are first differences of fiscal variables plus the lagged error-correction term. Sample: 2000–2024.*

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Table 9: Diagnostic Tests

Variable	p-Value / Stat
ADF Dep (level)	0.0156
ADF Dep (1st diff)	0
ADF Tax_GDP (level)	0.0005
ADF Tax_GDP (1st diff)	0.5198
Breusch-Godfrey LM p	0.7581
White Hetero p	0.4038
RESET p	0.5796
Jarque-Bera p	0.0366

***Notes**: ADF p-values < 0.05 imply stationarity. Breusch–Godfrey LM null: no autocorrelation. White test null: homoskedasticity. RESET checks functional form. Jarque–Bera tests normality.*

Table 10: Summary Interpretation

Variable	Implication
Short-Run (ARDL)	No statistically significant short-run effects on growth across fiscal indicators.
Long-Run Adjustment (ECM)	Error Correction Term is negative and significant; the system converges toward long-run equilibrium.
Policy Implication	Prioritize debt sustainability, tax capacity, efficient capital spending, and wage-bill discipline to support growth.

***Notes**: This summary distills statistical findings into policy-relevant statements for each channel.*

Model 3: Government Expenditure Patterns and Economic Outcomes

The short-run (Table 11) estimates of ARDL (1,1,1,1,1,1) determines the impacts of lagged fiscal indicators (especially capital expenditure-GDP ratio) to Ghana real GDP growth in 2000-2024. Lagged capital expenditure coefficient is significant but less than qualitative level, 0.5866 (0.7946). This implies that enhanced public investment purchases do not generate measurable growth affect in less than one year, which may be as a result of delays in the implementation process, project implementation complications, and the long gestation duration commonly imposed on the infrastructure schemes (Khan & Kumar, 1997; Bom & Ligthart, 2014). Likewise, other lagged fiscal and macroeconomic variables- public debt, tax revenue, inflation, and the exchange rate, are not statistically significant in their signs, although they correspond to theoretical expectations. As an example, the lagged inflation coefficient (95 percent CI) has a negative sign (95 percent CI: -0.4223), concurring with the macroeconomic theory that high inflation depresses growth due to uncertainty and lessened expenditure in growth (Barro, 2013). The insignificant positivity in the coefficient of the exchange rate might imply that the gains of competitiveness due to the depreciation of the currency have been realized and yet the slight impact also points out the overwhelming role of structural restraints in trade and production base in Ghana. These results are supported by the empirical evidence on sub-Saharan Africa that suggests that the effects of short-term fiscal expenditures were

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usually constrained by vague growth because of poor absorptive capacity as well as patent wasteful delays in procurement and large recurrent spending ratios that dampened capital investments (Adam & Bevan, 2005; Arizala et al., 2017).

An Error Correction Model (Table 12) shows that there is a large and negative error-correction term (ECT = -0.8151, p = 0.0047), which means that there is a strong long-run equilibrium tendency. In particular, about 81.5 percent of the deviations in the long-term growth path are treated within a year which implies a stabilizing effect of government expenditure patterns and more so capital investment over time. Nonetheless, variation in capital spending in the short-run is insignificant, which further affirms that the effects of government investment on growth in Ghana are long-run in character. This aligns with the so-called crowding-in hypothesis, according to which, long-term efficiency of sustained public capital investment generates productivity and expansion of the private sector, although it yields no short-term payoff (Aschauer, 1989; Calderon et al., 2015). According to ADF tests, real GDP growth can be characterized as a stationary variable at level (p = 0.0156), whereas capital expenditures-to-GDP can be characterized as a non-stationary variable at level, but does not reject non-stationarity at first difference. It is according to the acceptable method of ARDL that one will be allowed to have a combination of I(0) and I(1) variables. Serial correlation is not present (Breusch Godfrey LM = 0.7581), neither is heteroskedasticity (White = 0.4038), nor is the functional form in appropriate (RESET = 0.5796).

The Jarque-Bera statistic (p = 0.0366) indicates some evidence of residual non-normality, nor does that result seem surprising given the large structural shocks contributing to this macroeconomic time series: the 20142015-energy crisis in Ghana or the COVID19 pandemic for example, introduce fat tails. The large sample size is such that coefficient estimates are not biased by non-normality; however, inference would be preferably attained using robust standard errors.

Table 11: ARDL (1,1,1,1,1,1) Short-Run Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	23.7154	30.1795	0.7858	0.4428	-39.9577	87.3885
Lagged Real GDP Growth (%)	-0.0455	0.26	-0.1749	0.8632	-0.594	0.5031
Lagged Capital Expenditure-to-GDP Ratio (%)	0.5866	2.2179	0.2645	0.7946	-4.0927	5.2658
Lagged Public Debt-to-GDP Ratio (%)	0.0099	0.1386	0.0717	0.9437	-0.2826	0.3025
Lagged Tax Revenue-to-GDP Ratio (%)	-1.2291	1.7629	-0.6972	0.4951	-4.9484	2.4902
Lagged Inflation Rate (%)	-0.4223	0.3164	-1.3348	0.1995	-1.0898	0.2452
Lagged Exchange Rate (GHS/USD)	0.3638	0.5786	0.6288	0.5379	-0.857	1.5847

***Notes**: Dependent variable is real GDP growth (%). Explanatory variables are one-year lags. Standard errors are OLS. Sample: 2000–2024.*

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Table 12: Error Correction Model (ECM) Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	0.1297	1.1179	0.116	0.9091	-2.2402	2.4996
Change in Capital Expenditure-to-GDP Ratio (%)	0.7465	3.2564	0.2292	0.8216	-6.1567	7.6497
Change in Public Debt-to-GDP Ratio (%)	0.3099	0.2021	1.5333	0.1447	-0.1185	0.7383
Change in Tax Revenue-to-GDP Ratio (%)	-1.5268	1.8785	-0.8128	0.4283	-5.509	2.4554
Change in Inflation Rate (pp)	-0.6297	0.4392	-1.4338	0.1709	-1.5606	0.3013
Change in Exchange Rate (GHS/USD)	-0.2711	1.8843	-0.1438	0.8874	-4.2657	3.7236
Error Correction Term (Lagged Residual)	-0.8151	0.2481	-3.2849	0.0047	-1.3411	-0.2891

***Notes**: Dependent variable is the change in real GDP growth (percentage points). Regressors are first differences of fiscal variables plus the lagged error-correction term. Sample: 2000–2024.*

Table 13: Diagnostic Tests

Variable	p-Value / Stat
ADF Dep (level)	0.0156
ADF Dep (1st diff)	0
ADF Capital_Exp_GDP (level)	0.5492
ADF Capital_Exp_GDP (1st diff)	0.8708
Breusch-Godfrey LM p	0.7581
White Hetero p	0.4038
RESET p	0.5796
Jarque-Bera p	0.0366

***Notes**: ADF p-values < 0.05 imply stationarity. Breusch–Godfrey LM null: no autocorrelation. White test null: homoskedasticity. RESET checks functional form. Jarque–Bera tests normality.*

Table 14: Summary Interpretation

Variable	Implication
Short-Run (ARDL)	No statistically significant short-run effects on growth across fiscal indicators.
Long-Run Adjustment (ECM)	Error Correction Term is negative and significant; the system converges toward long-run equilibrium.
Policy Implication	Prioritize debt sustainability, tax capacity, efficient capital spending, and wage-bill discipline to support growth.

Notes: This summary distills statistical findings into policy-relevant statements for each channel.

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Model 4: Public Sector Employment and Fiscal Sustainability

This model investigates how the real GDP growth of Ghana relates to other major fiscal variables of that country, specifically; the public wage bill, public debt, tax revenue, inflation, and the exchange rate (1). The model is applicable in a space between 2000 and 2024, with a special focus on the relationship between wage bill pressure and the fiscal sustainability and sustainable economic growth.

The Short-run ARDL results in Table 15 show that, none of the lagged explanatory variables influences GDP growth at traditional significance levels. The parameter on the lagged ratio of the Public Wage Bill to GDP is positive (0.5316) yet highly insignificant (p = 0.8577), which means that the changes in the levels of wage bill during the preceding year do not have any quantifiable short-term effects on economic growth. A similar trend is evidenced in the lagged public debt-to-GDP, tax revenue-to-GDP, inflation, and exchange rate variables all of which lack significance in its short-run impact. This insignificance is accompanied by empirical observations in other sub-Saharan African nations that certificate rate expands tend to push out fruitful government investment and are simply unproductive in sparking tourism in the short-term (Folawewo & Adeboje, 2017; IMF, 2016). The most probable is that, in the economies where the productivity of capital links is relatively low, the growth of wage bills cannot be translated into the growth of aggregate supply in the short run as the addition is absorbed in the context of recurrent expenditure (World Bank, 2018).

A better story is offered by long-run ECM estimates in Table 16. The error correction term (ECT) is negative (-0.7715) and is statistically significant (p = 0.0094) which indicates that the proportion of the degree of disequilibrium in the very long run relationship is corrected within one year to the tune of 77 percent. This medium rapid rate of adaptation means that, the macro-fiscal system of Ghana readjusts towards imbalances quite swiftly, which indicates the existence of institutional and market forces restoring the aftershocks of equilibrium (Adam & Bevan, 2005). This ECT significance is observed despite the fact that there is insignificance in short-run first-difference coefficients in terms of wage bill, debt, tax revenue, inflation, and exchange rate. Even though the shift in the ratio of the public wage to GDP, though, is positive (7.5505), there is a large confidence interval (3.682961) and p-value (0.5509), signifying volatility and a lack of predictive power over the short term. The finding is consistent with the previous IMF (2016) findings which have highlighted delayed/muted growth effects of wage bill cuts in Ghana as being historically dominated by structural efficiencies in government sector productivity. Policy-wise, these results clearly show the significance of wage bill discipline as the element of fiscal sustainability. Although increasing the wage bill may not necessarily result in more growth, the ongoing growth at a rate disproportionate to the growth in revenue may compromise the fiscal capacity to support capital investment that is better associated with long-term growth (Asiedu et al., 2021). The long term stability of the economy of Ghana could also be improved by managing wage bill, correcting measures taken to increase tax revenue mobilization, and stabilizing debt levels at sustainable levels.

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Table 15: ARDL (1,1,1,1,1,1) Short-Run Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	27.8909	22.3163	1.2498	0.2283	-19.1925	74.9743
Lagged Real GDP Growth (%)	-0.0351	0.2575	-0.1365	0.8931	-0.5785	0.5082
Lagged Public Wage Bill-to-GDP Ratio (%)	0.5316	2.9206	0.182	0.8577	-5.6303	6.6935
Lagged Public Debt-to-GDP Ratio (%)	-0.0186	0.1082	-0.1715	0.8658	-0.2469	0.2098
Lagged Tax Revenue-to-GDP Ratio (%)	-1.6079	1.8528	-0.8678	0.3976	-5.5169	2.3011
Lagged Inflation Rate (%)	-0.3991	0.3464	-1.1522	0.2652	-1.13	0.3317
Lagged Exchange Rate (GHS/USD)	0.2531	0.8958	0.2826	0.7809	-1.6368	2.1431

Notes: Dependent variable is real GDP growth (%). Explanatory variables are one-year lags. Standard errors are OLS. Sample: 2000–2024.

Table 16: Error Correction Model (ECM) Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value	CI Lower	CI Upper
Constant	-1.2704	2.5011	-0.5079	0.6184	-6.5724	4.0317
Change in Public Wage Bill-to-GDP Ratio (%)	7.5505	12.3924	0.6093	0.5509	-18.7202	33.8212
Change in Public Debt-to-GDP Ratio (%)	0.3245	0.2099	1.546	0.1417	-0.1205	0.7694
Change in Tax Revenue-to-GDP Ratio (%)	-1.8464	1.9501	-0.9468	0.3578	-5.9803	2.2876
Change in Inflation Rate (pp)	-0.703	0.4173	-1.6848	0.1114	-1.5876	0.1816
Change in Exchange Rate (GHS/USD)	0.176	1.9021	0.0925	0.9274	-3.8563	4.2082
Error Correction Term (Lagged Residual)	-0.7715	0.2617	-2.9485	0.0094	-1.3262	-0.2168

***Notes**: Dependent variable is the change in real GDP growth (percentage points). Regressors are first differences of fiscal variables plus the lagged error-correction term. Sample: 2000–2024.*

Table 17: Diagnostic Tests

Variable	p-Value / Stat
ADF Dep (level)	0.0156
ADF Dep (1st diff)	0
ADF Wage_GDP (level)	0.714
ADF Wage_GDP (1st diff)	0.075

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Breusch-Godfrey LM p	0.8678
White Hetero p	0.4038
RESET p	0.2707
Jarque-Bera p	0.1475

***Notes**: ADF p-values < 0.05 imply stationarity. Breusch–Godfrey LM null: no autocorrelation. White test null: homoskedasticity. RESET checks functional form. Jarque–Bera tests normality.*

Table 18: Summary Interpretation

Variable	Implication
Short-Run (ARDL)	No statistically significant short-run effects on growth across fiscal indicators.
Long-Run Adjustment (ECM)	Error Correction Term is negative and significant; the system converges toward long-run equilibrium.
Policy Implication	Prioritize debt sustainability, tax capacity, efficient capital spending, and wage-bill discipline to support growth.

***Notes**: This summary distills statistical findings into policy-relevant statements for each channel.*

CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

Conclusion

The result of this article gives a logical story regarding the correlation between the fiscal position of Ghana and economic growth during 20002024. On the four models, viz. the dynamics of the government debt, the mobilisation of tax revenues, the trend of government spending and the employment level in the public sector, the evidence indicates that short-run impacts of the fiscal and macroeconomic variables in real GDP growth are on the whole weak and insignificant. Years to years changes of the public debt, tax effort, capital expenditure, wage bill, inflation and exchange rate do not have measurable contemporaneous influence on growth in output. Nonetheless, the long-run dynamics narrate otherwise. The error-correction terms in all the models are negative, significant and large in size, returned the error responses / adjustment rates very high between 77 to 82 percent per annum. It implies that the adjustment of divergence with respect to the long-run growth path path is fast so that fiscal sustainability and macro-fiscal credibility is a key to economic performance.

Implications

The implications of these findings are that the fiscal policy in Ghana has an impact on the growth, which is mainly based on its long-term set-up and not based on insignificant policy adjustments. The zero coefficients of significance in the short run should not be taken to imply that fiscal policy has nothing to offer, but is a reminder that fiscal levers are a source of

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uncertainties and lags in their effectiveness, and are subject to implementation bottlenecks; they also interact with structural aspects of the economy, like its biases, and policies to affect these directly can have short run effects. Such evidence accords with the escalation of fiscal sustainability, which asserts that growth paths are fragile to the compatibility of the trends of debt, revenues, and expenditure with long-term macroeconomic stability. In the instance of the public investing, the findings support the idea that prolonged hard and smooth capital expenditure fosters growth in the long-term, though its impacts are still understated in the short-term, courtesy of gestation delays and implementations of such projects. On the same note, though increase in wage bill does not result in short-term growth, continued growth without increase in productivity and growth in revenue can be threatening to fiscal space and crowded out by growth-enhancing capital expenditure.

Recommendations

In the policy sense, the research reaffirms the need to entrench medium-term fiscal platforms, which imbibe sustainable debt anchors, credible articles of revenue mobilization, and restrained expenditure management. Debt management should be aimed not just at maintaining debt levels at reasonable levels, but also at enhancing the mix of spending to avoid displacement-of high-quality capital projects by a recurrent expenses, wages and interest payments. It is important to enhance public investment management systems in terms of the following areas; project selection, procurement and monitoring, to limit delayed implementation and to generate maximum economic returns. Domestic revenue mobilization continues to form the core of increasing fiscal space and this should focus on broader tax base, increased compliance via digitization and decreased leakage instead of adopting steep and distortive tax increases. Discipline in wage bill is also critical, and changes are pegged to productivity and backed by auditing of the payroll and streamlining of the workforce.

Lastly, fiscal strategy must include macroeconomic stability especially towards the infection and exchange rate management so as to save the investor confidence and minimize costs of adjustments aftershocks. In view of the past economic upheavals experienced in Ghana e.g., COVID-19 pandemic, 2014-2016 energy crises, and the global financial crisis, policy formulations and empirical analysis must take into consideration structural breaks and crisis terms. Use of robustness analyses, heteroskedasticity- and autocorrelation-robust standard errors, bootstrap inference will increase credibility of fiscal-growth diagnostics. All in all, the evidence supports the claim that in Ghana fiscal policy does indeed matter in growth by way of persistence, credibility, and sustainability of the long-run fiscal trajectory rather than any year-on-year variation.

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REFERENCES

Abille, A., & Kiliç, C. (2023). Asymmetric effects of public debt on economic growth: Evidence from Ghana. *Economic Change and Restructuring, 56*(2), 987–1010. https://doi.org/10.1007/s10644-022-09396-5

Aboagye, A. Q. Q., & Agyire-Tettey, F. (2022). Government expenditure and economic growth in Ghana: Disaggregated analysis. *African Journal of Economic Policy, 29*(1), 1–23.

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). *Institutions as the fundamental cause of long-run growth*. In P. Aghion & S. Durlauf (Eds.), *Handbook of economic growth* (Vol. 1A, pp. 385–472). Elsevier. https://doi.org/10.1016/S1574-0684(05)01006-3

Alesina, A., Baqir, R., & Easterly, W. (2000). Redistributive public employment. *Journal of Urban Economics, 48*(2), 219–241. https://doi.org/10.1006/juec.1999.2166

Amegashie, J., & Bokpin, G. A. (2022). Tax revenue mobilization and macroeconomic stability in Ghana. *African Journal of Economic Review, 10*(1), 90–112.

Aschauer, D. A. (1989). Is public expenditure productive? *Journal of Monetary Economics, 23*(2), 177–200. https://doi.org/10.1016/0304-3932(89)90047-0

Bank of Ghana. (2024). *Monetary policy report: Fiscal developments – December 2024*. Bank of Ghana. https://www.bog.gov.gh

Barro, R. J. (1974). Are government bonds net wealth? *Journal of Political Economy, 82*(6), 1095–1117. https://doi.org/10.1086/260266

Barro, R. J. (1990). Government spending in a simple model of endogenous growth. *Journal of Political Economy, 98*(5, Part 2), S103–S125. https://doi.org/10.1086/261726

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.

Besley, T., & Persson, T. (2013). Taxation and development. In A. J. Auerbach, R. Chetty, M. Feldstein, & E. Saez (Eds.), *Handbook of public economics* (Vol. 5, pp. 51–110). Elsevier. https://doi.org/10.1016/B978-0-444-53759-1.00002-9

Boakye, D., Ackah, C., & Fosu, A. K. (2021). Public expenditure allocation and economic growth in Ghana: A sectoral analysis. *Journal of African Economies, 30*(3), 311–333. https://doi.org/10.1093/jae/ejaa023

Bohn, H. (1998). The behavior of U.S. public debt and deficits. *Quarterly Journal of Economics, 113*(3), 949–963. https://doi.org/10.1162/003355398555793

Bom, P. R. D., & Ligthart, J. E. (2014). What have we learned from three decades of research on the productivity of public capital? *Journal of Economic Surveys, 28*(5), 889–916. https://doi.org/10.1111/joes.12037

Cecchetti, S. G., Mohanty, M. S., & Zampolli, F. (2011). The real effects of debt. *BIS Working Papers, No. 352*. Bank for International Settlements. https://www.bis.org/publ/work352.pdf

Égert, B. (2015). Public debt, economic growth and nonlinear effects: Myth or reality? *Journal of Macroeconomics, 43*, 226–238. https://doi.org/10.1016/j.jmacro.2014.11.006

Hansen, B. E. (2000). Sample splitting and threshold estimation. *Econometrica, 68*(3), 575–603. https://doi.org/10.1111/1468-0262.00124

Ilzetzki, E., Mendoza, E. G., & Végh, C. A. (2013). How big (small?) are fiscal multipliers? *Journal of Monetary Economics, 60*(2), 239–254. https://doi.org/10.1016/j.jmoneco.2012.10.011

International Monetary Fund. (2022). *Ghana: Staff report for the 2022 Article IV consultation*. IMF Country Report No. 22/125. https://www.imf.org

Article DOI: 10.52589/AJAFR-MBNNPPZ1
DOI URL: https://doi.org/10.52589/AJAFR-MBNNPPZ1

International Monetary Fund. (2023). *Fiscal monitor: On the path to policy normalization*. IMF. https://www.imf.org

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The worldwide governance indicators: Methodology and analytical issues. *World Bank Policy Research Working Paper No. 5430*. https://doi.org/10.1596/1813-9450-5430

Kemoe, L., & Lartey, E. K. K. (2022). Public debt and growth in sub-Saharan Africa: The role of institutional quality. *Applied Economics, 54*(24), 2742–2759. https://doi.org/10.1080/00036846.2021.2001474

Krugman, P. (1988). Financing vs. forgiving a debt overhang. *Journal of Development Economics, 29*(3), 253–268. https://doi.org/10.1016/0304-3878(88)90044-2

Mensah, L., Garr, E., & Tsoekeku, R. (2022). Public debt threshold and economic growth in Ghana: Evidence from a threshold regression approach. *African Development Review, 34*(2), 189–203. https://doi.org/10.1111/1467-8268.12567

Ministry of Finance Ghana. (2023). *Annual budget statement and economic policy of the Government of Ghana for the 2023 financial year*. Ministry of Finance. https://mofep.gov.gh

Ministry of Finance Ghana. (2024). *Public debt statistical bulletin – December 2024*. Ministry of Finance. https://mofep.gov.gh

Mirrlees, J. A. (1971). An exploration in the theory of optimum income taxation. *Review of Economic Studies, 38*(2), 175–208. https://doi.org/10.2307/2296779

OECD. (2023). *Revenue statistics in Africa 2023*. OECD Publishing. https://doi.org/10.1787/87b3eb7a-en

Pattillo, C., Poirson, H., & Ricci, L. (2004). What are the channels through which external debt affects growth? *IMF Working Paper No. 04/15*. International Monetary Fund. https://doi.org/10.5089/9781451843480.001

Quartey, P., & Afful, K. (2022). Public sector employment and fiscal sustainability in Ghana. *Institute of Statistical, Social and Economic Research (ISSER) Working Paper*. University of Ghana.

Reinhart, C. M., & Rogoff, K. S. (2010). Growth in a time of debt. *American Economic Review, 100*(2), 573–578. https://doi.org/10.1257/aer.100.2.573

Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy, 98*(5, Part 2), S71–S102. https://doi.org/10.1086/261725

World Bank. (2023). *Ghana public expenditure review 2023*. World Bank. https://documents.worldbank.org

Yogo, T. U. (2017). Crowding-out effect of public investment on private investment: The role of public debt. *African Development Review, 29*(2), 319–330. https://doi.org/10.1111/1467-8268.12252

Article DOI: 10.52589/AJAFR-MBNNPPZ1
DOI URL: https://doi.org/10.52589/AJAFR-MBNNPPZ1