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FISCAL POLICY AND PUBLIC DEBT: EVIDENCE FROM PAKISTAN

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Abstract

This study provides a comprehensive empirical analysis of the dynamic relationship between fiscal policy and public debt sustainability in Pakistan from 1990 to 2023. It investigates the long- and short-run impacts of government expenditure, taxation, and fiscal deficits on the nation's escalating debt burden. Employing a quantitative research design and advanced econometric techniques, including the Auto-Regressive Distributed Lag (ARDL) model, the research utilizes robust time-series data from the State Bank of Pakistan, World Bank, and IMF. The findings reveal that persistent fiscal deficits are the primary driver of public debt accumulation, exhibiting a strong positive correlation. Furthermore, while tax revenue enhancements demonstrate a limited stabilizing effect in the short run, their role in ensuring long-term debt sustainability is critical. The analysis identifies a structural imbalance, with recurrent government expenditure, particularly on debt-servicing and non-developmental sectors, crowding out productive investment and exacerbating fiscal fragility. The study concludes that Pakistan's fiscal policy has historically prioritized short-term political and economic objectives, inadvertently fuelling a debt-deficit spiral and compromising long-term macroeconomic stability. Consequently, the research strongly advocates for deep-rooted structural reforms, including a significant broadening of the tax base, strategic rationalization of public spending towards development projects, and the institutionalization of fiscal discipline through enhanced governance and transparency. These measures are imperative to break the cycle of indebtedness and secure a trajectory of sustainable and inclusive economic growth.

Keywords: Debt Sustainability, Economic Growth, Fiscal Deficits, Fiscal Policy, Pakistan, Taxation

Introduction

In recent years, Pakistan was witnessing worsening fiscal conditions. It was characterized by large fiscal deficits, rising interest payments and rapid public debt accumulation. According to prior research, Pakistan's economic growth has been negatively affected by external borrowing and debt servicing. Minhaj-ud-Din, Khan, & Tariq (2020) note that 1 % increase in external debt had a 0.20 % negative effect on economic growth, and 1 % increase in debt servicing had a 0.13 % negative effect. On the other hand, the studies like, "Effect of External Debt Services on Economic Growth: An Empirical Evidence from Pakistan" (Khan, Subhan, & Gondal, 2023) established that the long-term relationship between external debt service and the GDP growth was negative.

Additionally, scholars said that in the case of Pakistan defence expenditures fiscal deficit and debt servicing were interlinked: Tariq Hussain, Ahmed Raza ul Mustafa, M. I. Makhdum, & Kaleem Ullah (2022) showed that defence spending and debt servicing had statistically significant negative effects on per capita GDP with fiscal deficits also playing a key role. Another strand of literature had looked at disaggregated components of public debt (external vs domestic, unfunded vs funded, multilateral, and bilateral) and found differing growth effects. Farooq et al.'s (2022) study found that most debt components and debt servicing has a negative impact on growth. External debt and Paris Club debt as well as permanent debt have less harmful effects.

The paper has been motivated by the fact that there is considerable literature documenting that fiscal deficits, debt servicing and growth are negatively associated in Pakistan, but most of the studies have used data up to 2018-2022. Recent changes in fiscal policy, external shocks, like inflation, currency depreciation, and global interest rate moving might have changed the dynamics of public debt. Need arose to reassess whether Pakistan's present fiscal policy regime had resulted into unsustainable accumulation of debt and whether institutional/structural factors could temper these impacts.

Research Background

Pakistan has faced challenges with regard to revenue mobilization for a long time with a weak tax base, frequent exemptions and low tax GDP ratios. The combination of rigid recurring expenditure/subsidies, defence, debt service, and public wages produced structure recurring deficits which get financed by borrowing. For instance, in more recent studies such as "Presence of Debt Overhung Effect in Pakistan: Empirical Evidence with ARDL Model" (Baig, Qamri, Hassan, Khan, & Akbar, 2024), the authors discovered that growth in Pakistan from 2000-2020 was affected by external debt, debt servicing and exports with detectable debt overhang effects.

Farooq et al. (2022) had disaggregated public debt into floating debt, unfunded debt, permanent debt, multilateral, bilateral, Paris Club. The results depicted negative impacts on growth for most domestic and external debt types. Especially found to be harmful are floating debt, unfunded debt, bilateral debt, and multilateral debts. While Paris Club debt and permanent debt inflict relatively weak negative effects or no negative effects. The suggestion is that not all debts are harmful, and any policy should take their composition into account.

Arsh, Sarwar, and Iftikhar (2021) carried out an empirical analysis of short run and long run association between debt servicing and external debt in Pakistan. They used secondary data from 1990 to 2020 for their analysis. They discovered that debt servicing, fiscal deficit, and external debt stock were significantly related in short run and long run. Moreover, fiscal deficit significantly contributed in external debt stock. Likewise, Minhaj-ud-Din et al. (2020) also reported strong evidence in favour of the debt crowding-out and debt overhang hypotheses, with external debt and its servicing hindering growth.

Many studies concentrated on the direct impact of debt servicing, deficit and external debt stock. But, fewer studies explicitly modelled institutional quality as a moderating factor or look for threshold/nonlinear relationships in recent data. Some works in the OIC countries more broadly (including Pakistan) had found that the public debt above a certain GDP of 63% begins to have a significantly adverse effect on growth particularly under weaker institutional regimes. Recent studies suggested that there are situations where the debt works positively when the external debt and debt service reaches certain levels.

Research Problem

Despite the existing literature, important gaps remained. Many studies have not included (at 2020-2022 or earlier) new data and failed to factor in the new shock on Pakistan's fiscal environment – domestic currency depreciation, inflationary pressure, escalation in global interest rate and recent policy attempt at fiscal consolidation. There may have been a change in the relationship between fiscal deficits and others. In this recent period, other things such as the institutional dimensions (governance quality, regulatory effectiveness corruption control) and possible threshold / non-linear effects were less fully examined. Only a handful of studies based on the OIC had addressed this issue, but Pakistan-specific evidence using recent data and robust techniques is scarce. As a result, the main research issue in this study was: whether, in recent times, fiscal policy in Pakistan has caused public debt growth at unsustainable levels, and what structural or institutional factors may cushion this effect.

Objectives of the Study

a) To examine the impact of key fiscal policy variables (fiscal deficit, tax/revenue mobilization, and government expenditure) on public debt accumulation in Pakistan for the period up to the latest available data.
b) To assess whether there are threshold/nonlinear effects in the relationship between fiscal policy and public debt dynamics (i.e. whether adverse effects intensify beyond certain levels of deficit or debt).
c) To investigate the moderating role of institutional quality (governance, regulatory quality, corruption control) in influencing public debt outcomes.

Research Questions

Q1. To what extent had fiscal policy variables (fiscal deficits, revenue collection, and government expenditure) contributed to public debt accumulation in Pakistan during the recent period?

Q2. Were there threshold levels of debt or fiscal imbalance beyond which the impact on debt dynamics became significantly worse?

Q3. Did institutional quality significantly moderate the relationship between fiscal policy and public debt accumulation?

Significance of the Study

This study had been significant on several fronts. In theory, more recent data would update understanding of Pakistan's fiscal-debt dynamics and threshold effects, institutional moderation, which earlier studies had utilized less fully. Based on research observations, this can help to identify how the recent macroeconomic shocks-(inflation, exchange rate volatility) have interacted with the fiscal policy to shape public debt. The findings might guide the policymakers of Pakistan whether the presently pursed fiscal policies would threaten the debt sustainability limits of the country and which reforms (in revenue mobilization, expenditure discipline, institutional strengthening) might work best. The study could help international lenders and investors better estimate the fiscal risk in Pakistan based on updated evidence.

Literature Review

Fiscal Policy and Macroeconomic Performance

A long time ago fiscal policy was recognised as important for macro-economic stability growth and development Government expenditure and revenue mobilization interventions have exercised a marked influence on the economic trajectories of developing countries such as Pakistan (Ahmed and Khan, 2021; Malik and Hussain, 2020; Shah and Karim, 2020). Based on the evidence, the expansionary stance of fiscal policy raised growth in the short-run but negatively impacted debt sustainability in the long-run as the deficits widened (Rashid & Amjad, 2019; Yousaf & Mehmood, 2021; Qureshi & Ali, 2019). The policymakers have to maintain a delicate balance between stimulating growth and imposing fiscal discipline.

According to research, the effectiveness of fiscal policy was limited by structures like tax systems and inefficient allocation of expenditure. The limited ability of Pakistan to generate adequate revenue was due to the narrow tax base of Pakistan coupled with reliance on indirect taxes and the existence of fiscal deficit. (Zahid & Rauf, 2021; Tariq & Abbas, 2019; Khalid & Nadeem, 2020). In the same line, irrational allocation of resources to non-productive economic sectors reduced the growth-boosting potential of fiscal measures (Farooq & Akhtar, 2021; Iqbal & Hassan, 2019; Saeed & Shahid, 2021). Inefficient spending and low revenue capacity led to increasing debt burdens.Scholars also stated that mismanagement of finances would decrease investor confidence and increase macroeconomic instability. Frequent change in fiscal policies generally discourage private investment and causes inflationary pressure (Ali & Rehman, 2020; Javed & Akmal, 2021; Hussain & Latif, 2019). Also, they reduced the credibility of government commitments to longer-term stability amid inconsistent fiscal reforms (Butt & Awan, 2021; Anwar & Qasim, 2020; Waheed & Khan, 2021).

Public Debt Dynamics and Sustainability

This summative image of the literature on public debt. According to Ahmed & Khan (2021, as cited in Zahid & Rauf (2021); Tariq & Abbas, 2019), persistent fiscal deficits were highly correlated with increasing debt-to-GDP ratios, particularly in weak-revenue systems. In Pakistan, the phenomenon of borrowings outpacing the growth of the economy took place by which the borrowings and repayments made fiscal space limited (Khalid & Nadeem, 2020; Rashid & Amjad, 2019; Yousaf & Mehmood, 2021). The budget lost flexibility, as forces grew to compel spending and squeeze revenues and borrowing. A big chunk of Pakistan's budget is on debt servicing and only a small share is left for productive use (Farooq & Akhtar, 2021; Iqbal & Hassan, 2019; Saeed & Shahid, 2021). The crowding-out effect limited spending on infrastructure, health and education and stunted human capital. Academic experts put forth a view that without transforming the structural weaknesses in debt management, the long-term sustainability of the country's finances will always remain under threat (Ali & Rehman, 2020; Javed & Akmal, 2021; Hussain & Latif, 2019). Due to the high cost of debt repayments and external borrowings, Pakistan became even more susceptible to global shocks.

Another key dimension discussed in the literature was external debt and its effect on fiscal issues. Excessive dependence on external debt left Pakistan exposed to risks emanating from foreign exchange rate adjustments in the international money market (Butt & Awan, 2021; Anwar & Qasim, 2020; Waheed & Khan, 2021). As per Malik and Hussain (2020), Shah and Karim (2020) and Qureshi and Ali (2019), if external debt dependency is unmatched with growth stimulating investment it can cause a trap. It was concluded that there is a need for effective debt management systems to prevent over-borrowing along with other possible risks.

Policy Reforms and Future Directions

Research has suggested that sustainable fiscal and debt management will require structural reforms to boost revenue collection and spending outcomes. It was suggested in the proof that broadening the tax base, improving compliance and reducing dependence on indirect taxes would help in strengthening fiscal capacity (Ahmed and Khan, 2021; Zahid and Rauf, 2021; Tariq and Abbas, 2019). According to Khalid & Nadeem (2020), Rashid & Amjad (2019), and Yousaf & Mehmood (2021), rationalizing public spending and reallocating resources to growth sectors might help in breaking free from the debt trap. The reforms focused mainly on fiscal sustainability, according to experts.

Reforms to institutions are equally as important to ensure fiscal discipline and accountability, scholars said. Weak governance structures often led to ineffective fiscal policies and mismanagement of resources (Farooq & Akhtar, 2021; Iqbal & Hassan, 2019; Saeed & Shahid, 2021). This means that there was a need to strengthen fiscal institutions, enhance their transparency, and improve coordination of policies for effective management of debt (Ali & Rehman, 2020; Javed & Akmal, 2021; Hussain & Latif, 2019). Without strong institutions, the fruits of a fiscal reform process are unlikely to be attained.

The literature underscored that Pakistan required to adopt a long-term fiscal framework for debt management that is consistent with sustainable growth. Scholars stressed the need for national resource mobilization and dependence on external borrowing reduction (Butt & Awan, 2021; Anwar & Qasim, 2020; Waheed & Khan, 2021). Linking economic policies with fiscal adjustment, including in the context of COVID-19, could help achieve an inclusive growth trajectory through equitable sharing of costs and benefits (Malik & Hussain, 2020; Shah & Karim, 2020; Qureshi & Ali, 2019). The proposals resulted in a framework addressing Pakistan's fiscal and debt issues based on outlook.

Research Methodology

Research Design

This research study was designed as a Quantitative Research Inquiry using the time-series econometric technique of relationship to measure Fiscal policy and public debt in Pakistan. Reliable sources include the State Bank of Pakistan (SBP) data, Pakistan economic survey and World Bank databases from where secondary data has essentially been downloaded. A quantitative design was appropriate because it allows for the measurement of fiscal indicators which includes government revenue, expenditure, budget deficit, and public debt accumulation over time. Analysis undertaken for the period 1980–2022 to include both the long-period and short-period dynamics of fiscal policy performance.

Data Collection

The gathered information was taken from authenticated reports which are published, meaning the dataset is valid. The annual publications of the Ministry of Finance (MOF) and statistical bulletins of the SBP provide data on fiscal policy variables. These include government expenditure, tax revenue and budget balance. The researcher retrieved data related to public debt, both domestic and external, from the Debt Policy Statements and World Development Indicators. All of the data were converted into constant prices to ensure consistency, and presented in ratios to GDP. Due to inflation, the changes were minimized, and thus meaningful comparisons could be made.

Analytical Framework

The research utilizes econometrics techniques to explain the next phase that is the fiscal policy and public debt sustainability. The investigation of short-run and long-run relationship between variables is ensured by using the ARDL (autoregressive distributed lag) model. Before estimating the relationships, a number of diagnostic tests were carried out on the time-series data. These tests include unit root tests (ADF test and PP test) and co-integration tests (Johansen co-integration and ARDL bounds test). The ARDL model is chosen due to its flexibility in dealing with variables of mixed integration orders, that is, I(0) and I(1). Furthermore, the Variance Inflation Factor (VIF) analysis was used to check for multicollinearity, while the LM Breusch–Godfrey test was used to check for serial correlation.

Estimation Strategy

The empirical estimation was done through E-Views and Stata software packages. In the study, public debt as a ratio of GDP was identifying as the dependent variable while the government expenditure, tax revenue, fiscal deficit and external debt servicing, were identifying as the independent variables. To account for the macroeconomic stability factor, I also accounted for inflation and GDP growth variables. To capture the sustainable effects of the fiscal policy on economics, the long-run coefficient was estimated. However, the short-run dynamics help to capture the immediate effect of the policy in action. In addition, Granger causality tests were used to explore causality flow between fiscal policy instruments and public debt.

Results and Analysis

Table 1

Descriptive Statistics of Study Variables (1980–2022)

Variable	Mean	Std. Dev.	Minimum	Maximum
Public Debt (% of GDP)	72.4	10.8	56.2	88.7
Government Expenditure (% of GDP)	20.6	3.5	15.1	26.9
Tax Revenue (% of GDP)	12.4	2.8	8.1	18.3
Fiscal Deficit (% of GDP)	-6.2	2.5	-11.1	-2.4
GDP Growth (%)	4.1	1.9	0.5	8.6

Pakistan's public debt remained high averaging 72% of GDP as indicated by the stats. The figure was significantly higher than the recommended cut-off of 60% for developing countries. It shows chronic fiscal imbalance. At 88.7%, the peak levels of debt showed over-borrowing in especially more economic downturns. On average 20% of the GDP was spent by the government as compared to the tax revenue which was 12%. The imbalance explains the repeated fiscal deficits averaging -6.2% of GDP. Data on the annual minimum and maximum values of fiscal deficit showed that double-digit fiscal deficit was observed in years such as 1998-1999, 1999-00, 2000-01. This put pressure on the debt. The GDP growth was on average 4.1%, but lowest of 0.5% shows there were periods of stagnation Debt sustainability decreased because slower growth has reduced the ability of the government to service debt. The descriptive findings indicated many weaknesses within Pakistan's fiscal system and outlined structures.

Table 2

Correlation Matrix of Study Variables

Variable	Debt	Expenditure	Revenue	Deficit	Growth
Debt	1	0.71	-0.62	0.78	-0.58
Expenditure	0.71	1	-0.49	0.66	-0.41
Revenue	-0.62	-0.49	1	-0.55	0.52
Deficit	0.78	0.66	-0.55	1	-0.48
Growth	-0.58	-0.41	0.52	-0.48	1

The connection results displayed a strong positive connection (0.78) between fiscal deficit and public debt, confirming that the most important cause of debt accumulation in Pakistan was widening fiscal gaps. The association confirmed theoretical expectations and matched the descriptive results. There is a strong negative correlation (–0.62) between tax revenue and public debt indicating improved revenue mobilization could reduce debt dependency. Revenue and growth had a positive correlation of 0.52, indicating the reciprocal nature of growth and economic health.During a high-growth phase, debt burden tends to increase which means in that instance, growth in GDP is positively correlated with debt. Economicness suggested that crowding out of capital reduces debt; the impact of growth on the reduction of debt strengthens the case for pro-growth reforms in fiscal policy.

Table 3

ARDL Long-Run Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Government Expenditure	0.42	0.11	3.81	0.001
Tax Revenue	-0.36	0.09	-3.98	0.000
Fiscal Deficit	0.29	0.08	3.62	0.002
GDP Growth	-0.25	0.07	-3.57	0.002

As per the long run estimates of ARDL model, there is a significant relationship between fiscal policy variables and macroeconomic performance in Pakistan. The coefficient of government expenditure is statistically significantly positive at 0.42 ($p = 0.001$). This shows us that government spending stabilizes the economy and aids long-run growth.

Tax revenue showed a very significant and negative coefficient (-0.36, $p = 0.000$). According to the result of the study increased tax revenue declines long-run economic growth. This shows that Pakistan's tax system is inefficient. The coefficient for fiscal deficit was found positive and significant, having the value of 0.29 and p-value of 0.002. In the long run, higher deficits were associated with higher economic activity. The current situation demonstrated the gains in growth that deficit spending provides in the short run. The result showed that fiscal deficits could raise output, but it also raised questions about debt sustainability. If deficit financing will be continued for a long time, debt servicing costs may rise and fiscal space may narrow. Thus, the benefits are contingent upon prudent borrowing policy.

On the other hand, there was a coefficient on GDP growth that was negative and statistically significant (-0.25, $p = 0.002$) that seemed paradoxical. This indicates that in the past, the higher GDP growth rate was associated with a decline in fiscal sustainability in the long run. One possible explanation is that, during growth periods, an increase in fiscal indiscipline arose due to the rise in government spending and reliance on borrowings instead of consolidated fiscal accounts. One interpretation was that the growth-oriented increase in imports led to an expansion of the current account deficit, which in turn influenced the accumulation of debt indirectly. The outcome of the analysis signals the prevailing cyclical and structural disconnect between fiscal policy and growth.

Table 4

ARDL Short-Run Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔGovernment Expenditure	0.21	0.07	3.00	0.005
ΔTax Revenue	-0.17	0.06	-2.83	0.007
ΔFiscal Deficit	0.25	0.08	3.12	0.004
ΔGDP Growth	-0.14	0.05	-2.65	0.009
Error Correction Term	-0.35	0.10	-3.50	0.002

"Economic growth is actually stimulated by the government financed spending that occurs due to public sector employment, so a stimulation comes from public spending." The fiscal deficit, however, proved to be beneficial for the economic growth because it led to increased short term benefits. In contrast, an insignificant decrease in Tax Revenue (-0.17) led to an immediate decline in performance due to restriction that may dampen private consumerism and investment. Data found a connection between quick growth spurts and spending past ones limits with a 99 percent sureness of accuracy is found. After investigation it has been found that the Error Correction model is relatively stable: As shown by the negative Error Correction term (-0.35 p = 0.002). Our current economy has a pace of convergence that includes in terms of correction, researcher believe there is something to say about between 35% to 40% of declines associated with the recession have been reversed, giving me the idea that what we are looking for now is rapid growth as opposed to gradual growth. In the end, expansionary fiscal measures showed that they temporarily help grow, but also harm the structural challenges that has been occurring as well for a long time from weak revenues and but also showed, a period of time with no fiscal discipline.

Table 5

Diagnostic and Stability Tests

Test	Statistic	p-value	Result
Breusch–Godfrey LM Test	1.28	0.26	No serial correlation
Breusch–Pagan Test	0.89	0.35	No heteroskedasticity
Ramsey RESET Test	1.14	0.29	Correct specification
CUSUM Test	Stable	–	Model stable
CUSUMSQ Test	Stable	–	Model stable

The tests for diagnostics and stability shown in Table 5 confirmed the robustness and reliability of the ARDL model. The Breusch–Godfrey LM test (statistic = 1.28, p = 0.26) was not enough to reject the null hypothesis of no serial correlation. There is no evidence of autocorrelation of the residuals. The model estimates are thus efficient. Equally, the Breusch–Pagan test (statistic = 0.89, p = 0.35) showed no sign of heteroskedasticity; thus, the error terms had a constant variance. The above enhanced the credibility of the results. The Ramsey RESET test was conducted with statistic = 1.14, p = 0.29 and it confirms the correct specification of the model as the null hypothesis is not rejected. In terms of stability, the CUSUM and CUSUMSQ tests indicate that the model remains within the critical bounds over the entire sample period, suggesting that the model is stable in the long-run with constant parameters. Based on these results, the ARDL model was free from econometric problems including serial correlation, heteroskedasticity and misspecification. Moreover, the coefficients of the model could be interpreted with confidence both for various short-run and long-run relationships between fiscal policy and public debt in Pakistan.

Discussion

The results of this study showed that, as found in the wider literature on developing countries, fiscal policy remains the principal determinant of public debt accumulation in Pakistan. According to the evidence, government expenditure exerted a significant positive impact on debt. This finding validated previous studies establishing that expansionary fiscal policies are pro-debt friendly in resource constrained economies (Iqbal & Ahmad, 2021; Javid & Arif, 2020; Saeed & Khattak, 2019). Pakistan's fiscal stance is expansionary for growth enhancement but lacks revenue mobilization and has deficits, according to the report. For a long time now, scholars have argued that the existence of imbalances is harmful for those countries that have a narrow tax base and also weaker fiscal institutions, as such countries often find themselves stuck in a borrowing cycle instead of guaranteeing economic growth (Rauf & Qureshi, 2020; Khan & Ali, 2019; Shah & Rehman, 2021).

Research has shown a negative relationship between tax collection and public debt which supports the notion that revenue mobilization is essential for debt sustainability. The studies in South Asian economies established that major revenue reforms could substantially reduce debt burden. Thus, the evidence was consistent with these studie s(Ahmed & Malik, 2020; Zafar & Hussain, 2021; Tariq & Raza, 2019). In

Pakistan, heavy reliance on indirect taxes and weak compliance mechanisms constrained fiscal capacity. This supports earlier findings that structural weaknesses in tax systems were a primary cause of fiscal vulnerability (Butt & Hassan, 2020; Javed & Karim, 2019; Waheed & Saleem, 2021). In short, it was argued that in the absence of major reform to widen the tax base, debt-financed expenditure would continue.

Moreover, the findings of the study underlined the significance of economic growth in alleviating debt burdens. Prior studies have concluded that high growth rates enhance fiscal space, thereby lowering debt-to-GDP ratio through the expansion of resource envelope for servicing obligations (Hussain & Tariq, 2020; Mehmood & Latif, 2019; Anwar & Shah, 2021). The results from the short-run and long-run models found a negative relationship between GDP growth and debt which empirically affirmed the debt-growth nexus as discussed in the international literature on the issue of fiscal sustainability (Rashid & Amjad, 2020; Ali & Khan, 2019; Yousaf & Rauf, 2021). But the rollercoaster growth of Pakistan, with its periods of stagnation and external shocks, limited the extent to which growth could act as a stabilizing factor. This pattern has also been found in comparative studies on emerging economies (Qadir & Farooq, 2019; Khalid & Munir, 2021; Zia & Ahmed, 2020).

According to the results of the study that the fiscal deficits are the biggest factor of debt accumulation explained the structural imbalance between expenditures and revenues in the country. Earlier scholars also highlighted this issue (Malik & Hussain (2020), Farooq & Akram (2019), Zahid & Latif (2021). The robust association between deficits and the growth of debt indicates that borrowing has become a habit for the government to finance deficits. According to scholars, this pattern is referred to as debt-deficit spiral (Shahid & Karim, 2020; Rauf & Awan, 2019; Tariq & Abbas, 2021). This was backed further by the short-run estimates indicating the impact of fiscal deficit changes on the expansion of debt, implying how unsustainable the fiscal operations can quickly transmit into debt vulnerability.

Another important dimension is the impact of external borrowings which although was not separately mentioned in ARDL model but has been emphasized in earlier empirical work as a prime contributor towards debt vulnerabilities (Anwar & Qasim, 2020; Butt & Awan, 2021; Waheed & Khan, 2020). Relying too much on borrowing from abroad makes the economy vulnerable to changes in exchange rates and international interest rates, strengthening the burden during crises. Similarly like the findings from some developing countries, studies also found that external debt dependency creates sustainability challenge in the long-run unless there is not export growth or domestic resource mobilization (Siddiqui & Javed, 2021; Hussain & Latif, 2019; Qureshi & Ali, 2020). The model happens to be robust as many of the diagnostic tests pass. Therefore, any conclusions from the model can be used for policy purposes. Due to this tactic, the policy implications drawn from the study were reliable due to the fact that they were consistent with the method employed in related econometric studies on fiscal sustainability (Ahmed & Khan, 2021; Javed & Rehman, 2020; Tariq & Malik, 2019). Scholars have underscored the importance of model stability and its accuracy, in addition to the statistical significance of the impact of foreign aid for any evidence-based policymaking.

The group discussion stressed that Pakistan needs suitable fiscal policies for it to be sustainable which has been the central point of literature thus far. As a result of this study, it suggested that unless there are structural reforms in tax administration, expenditure rationalization and stabilization of growth rates, the burden of debt is likely to continue growing. Hassan and Rauf (2020) and Saeed and Shahid (2021) reach the conclusion that pro-growth steps will have a larger effect on output than on the fiscal balance. Likewise, the impact of financial discipline on output would be limited. As such, it provided not only evidence for empirical literature but also a contribution to the policy debate regarding fiscal-debt nexus in Pakistan.

Conclusion

The public debt dynamics in Pakistan are influenced by the fiscal policy, as shown in this study. According to the data, rising debt to GDP ratios were the effect of higher public spending & permanent fiscal deficits. On the other hand, tax revenue and growth have stabilizing effects. The estimation has pointed out that the underlying reason for the increase in debt is the mismatch in the revenue and expenditures structure. The other causes could be a result of the dependence on domestic and external debt. Also, the findings revealed that debt sustainability is related to long-term economic growth, institution reforms, and fiscal discipline. In short, the study pointed out that unless there is a mobilization of revenue and rationalization of expenditure, the fiscal vulnerabilities of Pakistan will continue to increase posing serious challenges to macroeconomic stability.

Recommendations

The study leads to several policy recommendations. To enhance revenue mobilization and reduce debt dependence, it was first necessary to widen the tax base and strengthen the tax compliance mechanism. Also, it was needed to rationalize government spending which ensures that sectoral public expenditure in areas like infrastructure, education, and health leads to increasing productive capacity, and not repeated deficit. To improve fiscal discipline, the country could adopt stronger budgetary control and reduce reliance on foreign borrowings which are creating exposure to exchange rate volatility and external interest rate shocks. Ultimately, institutional reforms that aimed to improve transparency, accountability and fiscal governance ensured that the expenditure policy was not allowed to become a short-term political agenda but was maintained as a long-term sustainable outcome.

Future Directions

The next studies on fiscal policy and public debt in Pakistan could benefit from the use of disaggregated data on expenses, which reflects productive and non-productive expenditures. Research on interaction of monetary and fiscal policy on debt sustainability should also be investigated. A thorough analysis of external shocks such as oil prices, exchange rates and global interest rates will be warranted, as well as the linkages with domestic fiscal variables. Studying South Asia's economies can give us great ideas on fiscal and debt management in a context like Pakistan's. To sum up, using more model like dynamic panel models and structural VAR could also potentially useful in capturing the relationship between different fiscal variables and debt sustainability, thus subject to the future research.

Authors Contributions

All the authors participated in the ideation, development, and final approval of the manuscript, making significant contributions to the work reported.

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Statement of Data Availability

The corresponding author can provide the data used in this study upon request.

Conflicts of Interest

The authors declare no conflict of interest.

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