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THE IMPACT OF FISCAL POLICY ON ECONOMIC GROWTH: EVIDENCE FROM ECONOMY OF PAKISTAN

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KEYWORDS	ABSTRACT
Taxes, Expenditures, Debt, ECM, Fiscal Measures	There is a growing interest among researchers in analyzing the relationship between fiscal policy and economic growth. The theoretical and empirical studies across many countries have laid groundwork for understanding this emerging phenomenon, providing solid foundation for further exploration of fiscal & economic dynamics. The major justification is given by economic and business analysts who showed inverse relationship between economic growth and fiscal policy. The current analysis evaluated the formulation of different fiscal policies and economic growth based on important variables consisting of government expenditures, tax revenue, and foreign debt. In addition, existing research created a strong connection between economic growth and fiscal policy, has proved to be confusing for the sake of positive and negative approaches. The findings indicate that both tax revenue and government expenditure, have a significant positive impact on economic growth whereas public debt has a significant negative impact on economic growth. These results confirm the effectiveness of fiscal policy on economic growth of Pakistan, highlight the need for policymakers to adopt reliable fiscal measures.
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INTRODUCTION

The saving and investing decisions are closely linked to income usage, fiscal policy serves as the primary foundation for both (Yamin, Kasasbeh, Alzghoul & Alsheikh, 2024). This is accomplished using the fiscal policy tool, which mobilizes funds through taxes, fees, commissions, loans and uses them to promote economic expansion. Fiscal policies, like government spending and taxation, have a higher influence on the direction of economic impacts. Spending by the government is one way to

encourage economic growth (Samra, Omoregbee, Ajasa & Olumuyiwa, 2023). Moreover, majority of emerging nations rely on public spending as their primary tool for fostering economic expansion. There are some ways in which government spending may support economic growth & development strategies in Nigeria (Tahin, 2022). Through outlays in infrastructure, healthcare, and education, government spending fosters long-term economic growth, boost human capital and productivity. Prohibitive tax laws may have an impact on people's desire to work, save, and invest. Tax reductions, especially on income and corporate profits, may stimulate entrepreneurship and investment, thus fostering economic growth.

During recessions or downturns in the economy, fiscal stimulus programs, such as tax rebates and increased government spending, can increase aggregate demand. Keynesian economists, who hold that unless government intervenes to spur economic growth, a country in a lower spirit will proceed on the same course, embrace this viewpoint (Nawaz & Khawaja, 2020). According to Keynesians, economic development is therefore the result of an expansionary fiscal policy that either increases government spending or stimulates investment and consumption through tax breaks for the analysis of basic variables impacts (Kasasbeh, 2021). There is a common disagreement between Keynesian & classical economists on whether or not government expansionary fiscal policy promotes economic growth. Increased borrowing-financed government spending, according to rivals of expansionary fiscal policy, would displace private investment (Karagoz & Keskin. 2016). The out effect occurs when the government borrowing raises interest rates, discouraging private sector borrowing and investment and negating the simulative impacts of fiscal policy. So, to ensure continuous economic betterment, all the stakeholders, especially the economies that are on track to success, have worked on the economic growth, which entails decreasing taxes or increasing public spending as a means of achieving development.

This is particularly noticeable in Pakistan for the years 1991 and 2019, state expenditures improved in line with the growth of internal expenses and its utilization to offset economic crisis. There are different theories and empirical studies about effect of taxes on economic growth (Blanchard, 2019). Tax cut advocates contend that high tax rate discourages investment and, as result, slows economic expansion. Additionally, they contend that excessive taxes keep people from benefiting from their ingenuity. Argue that taxes impede economic progress by "reducing effective use of human capital, affecting labor supply, deterring investments, and lowering growth output and capital's marginal productivity all of which have far-reaching implications for economic growth and stability. (Samra, Omoregbee, Ajasa & Olumuyiwa, 2023). However, proponents of higher tax rate argue that taxes for the utilization of developmental and non-developmental funds for the development of society. They contend that since taxes support public goods, which in turn provide the revenue for company owners, greater taxes are preferable (Najaf, 2018). It suggests that the targeted and specific research be conducted for the importance of comprehending the relationship between definite strategies and the development of the economy because of the theoretical as well as empirical controversy surrounding this subject.

Moreover, according to the notion, raising government expenditure will boost demand, which will accelerate economic expansion. Consequently, government expenditure is viewed in this light as a

means of promoting economic expansion and development (Nawaz, 2020). In developing countries like Pakistan, conducting this research on the relationship between special strategies and policies for Pakistani output is supported on several grounds, including knowledge gaps, debt sustainability, structural change, and helping to attain development objectives, or stimulating economic progress and addressing socio-economic challenges. Based on the literature assessment, it appears that little nominal work has been done to date on the interaction of Pakistan and Zambia's point of view using both Auto Regressive Distributed Lag (ARDL) and Vector Error Correction Model (VECM) models. This study thereby closes this gap. So, for developing economies like Zambia, realizing sustainable economic growth, improving the living standards, and reducing poverty are typically challenging goals. To address these problems, prudent fiscal policy can promote fair growth and development (Ndubuisi, 2017).

Many emerging economies, including Zambia, are undergoing the structural reform to promote the economy to get rid of outdated sectors like farming and forestry and toward more operational and scientific industries. Fiscal policy can aid in this transition by providing incentives for investment in new businesses and infrastructure (Alesina & Ardagna, 2009). The continuity of debt is generally hampered by the developing economies' weak fiscal capacity and vulnerability to external shocks (Nawaz, 2016). In this linking, the detailed examination of how fiscal policy impacts the burden of loans, sustainability & economic growth is needed to avert debt crises and preserve macroeconomic stability. In this connection, the study's findings are expected to assist decision-makers in Zambia and other developing nations in determining the three basic parameters, government expenditure, tax income, and debt, that best contribute to economic growth. The literature review is the main topic of the next section. While part four concentrates on the findings and their discussion, section three explores the methodological strategies used in this investigation. The main objective of study is to analyze the impact of government expenditure, tax revenue, and public debt on the economic growth of Pakistan.

LITERATURE REVIEW

The findings confirmed that neither tax income nor public expenditures had a substantial impact on actual GDP promotion in these nations. Ngakosso (2018) used the mathematical model created by Huart to examine fiscal policies and economic cycles using quarterly data spanning 1989 to 2015. The study found that fiscal policies with counter-cyclical restraint were more favored than those with restrictive measures. Moreover, pro-cyclical expansionary fiscal policy did not result in debt repayments and accrued arrears. Ndubuisi (2017) investigated the dynamic relationship between economic growth and Nigeria's budgetary policies. Najaf (2016) looked into how Indian economy was impacted by fiscal policy shocks partial by domestic policies and global economic conditions. The study used secondary data from 1981 to 2010. Variance decomposition, vector error correlation (VEC), and Johansen co-integration test model were all applied. The analysis discovered a strong correlation over long run between fiscal policy factors & GDP as rising public debt, and inefficient resource allocation have hampered sustainable growth. Nawaz and Khawaja (2016) investigated relationship amid economic development and public expenditure decisions by employing different economic models.

The results, which used panel data from 56 countries, showed that fiscal policy in wealthy countries positively impacted economic growth while having a negative effect on leading economies. Using the Bayesian Vector Auto Regression (BVAR) approach, (Karagoz & Keskin 2016) examined how expenditure strategies affected economy's total aggregates between 2003 and 2015. The analysis discovered that the stock market index, foreign spending, GDP, and other macroeconomic variables interest rates, inflation, and government spending had little influence on each other. The impact of different economic strategies was empirically examined by Richter and Paparas (2015). They used data from 1995-2008 and Ordinary Least Squares approach in their study. The empirical evidence showed that fiscal policy's two main pillars, taxation and spending, kept an effect of monetary and economic expansion. In this connection, Macek and Junku (2015) analyzed the relationship between federal expenditure decisions and economic development using the organizational settings and context in African countries between 2000 and 2012, Least Squares (LS) method was thus applied in the investigation.

The results demonstrated that the decision of the state kept a favorable effect on sustained growth in countries with lesser levels of trade openness but adverse influence in those with greater levels. The analysis found that taxes were significant in economies with strict organizational structures. For this, our analysis perceived that organizational feature have an impact on the link between federal measures and the development of economies. Al-Shatti (2014) investigated connection between the decisions of the federal government and the economies in the context of Sri Lanka. To achieve this purpose, the outcome developed an advanced manipulation to examine the facts from 1990 to 2018. The findings showed that tax revenues, expenses, and fiscal policy all had a favorable effect on Jordan's economic development. Nonetheless, fiscal interventions remain crucial for addressing structural issues, the analysis discovered a negative relationship between economic progress and government capital spending. Shihab (2014) conducted additional research in Jordan, examining the direct linkage for analysis and all the decisions. Using data from 2000 to 2012 and the Granger Methodology, the results showed that variations in economic growth may account for variations in the budget deficit.

The study also confirmed unidirectional Granger causation between Jordan economic development and budgetary policies. The findings showed that tax revenues, expenses, and fiscal policy all had a favorable effect upon Jordan's economic development. Nonetheless, analysis discovered a negative relationship amid economic progress and government capital spending. Shihab (2014) conducted additional research in Jordan, examining accidental interaction between decisions and economy. Using data from 2000 to 2012 and the Granger Methodology, the results showed that variations in economic growth may account for the variations in the budget deficit. The study also demonstrated unidirectional Granger causation between Jordan's economic development and budgetary policies. The analysis of the connection between federal decision factors and the development of financial factors in Pakistan from 1980 to 2010 was carried out by (Khan & Zaman, 2012), the results of this study showed that government expenditure significantly hampered real economic development, although tax revenues had a beneficial effect. In this linking, the present study also discovered that

the magnitude of the budget deficit has continuous and diverse impact on the actual development of different policies.

Audu (2012) used data from 1970 to 2010 to investigate how fiscal policies affected the Nigerian economy. The latest research found the linkage for VECM. The new results extracted that Nigeria's fiscal policies and GDP are causally related in both directions. Boballola and Amino (2011) Used data from 1977 to 2009 to investigate how federal decisions affected the development of economy in African economies. As per results found from Augmented Dickey-Fuller (ADF) model utilized in the investigation, followed by an Engle-Granger joint integration test. The frequent and advanced analysis showed that production of goods and services used for expenses of the economy has a direct influence on development of the economy, and test for linkage of variables has verified interaction of all variables available in model for estimation. Alesina and Ardagna (2009) studied significant changes in federal decisions in OECD nations, with emphasis on taxation and government spending. The study, which looked at the fiscal adjustment and fiscal stimuli using data from 1970 to 2007, discovered that tax cut-based fiscal stimuli had higher chance of boosting growth than expenditure increase-based stimuli.

RESEARCH METHODOLOGY

The data set is analyzed quantitatively and direct case studies on research methodology are utilized in current work (Dawson, 2013). According to Dawson (2013), analysts mostly believe in previous, important pre-information to conceive certain scenarios. For the yearly period from 2000 to 2024, the secondary data the same was obtained from (WDI), which used total foreign outlays, the total expenditures of government, and the revenue in total used as regressor up until 2024 and GDP, the proxy for economic growth, as dependent variable. Total public debt (abbreviated DEBT) is total of all central government debt represented in Pakistani rupees, while total expenditure (abbreviated EXP) is sum of all public spending by Pakistani government, whether directly, indirectly, expressed in Pak rupees.

Total tax revenue (abbreviated TR) is the sum of all taxes gathered by the state, which are shown in Pakistan. The GDP growth rate, which is a proxy for economic growth, is the annual average change of gross domestic product (GDP). The data analysis in terms of quantitative mode was conducted by employing Stata 15 and EViews 10. According to Saunders et al. (2000), research tried to analyze the cause-and-effect relationship between two variables may be categorized as outsider models of research. The objective of the indirect approach is to establish the causal relationship between the variables. This approach is based on assessing the theories that were created with the three different objectives in mind.

Model Specification and Econometric Application

It is theoretical base that economic growth (GDP) is derived as fiscal policy economic growth nexus in Pakistan which followed (Symoom, 2018), (Khan & Zaman, 2012):

GDP = f (TR, PEXP, PDEBT) --(1)

Whereas,

$lnGDP_t$ = natural log of GDP that is the proxy of the economic growth it is the dependent variable.

TR = Tax revenue, EXP = Total spending of government, DEBT = Public debt. The function has been transformed as log-log function as:

$$\ln GDP_t = \alpha_t + \beta_1 \ln TR_t + \beta_2 \ln EXP_t + \beta_3 \ln DEBT_t + \mu_t \text{----------------------------------(2)}$$

RESULTS OF STUDY

Table 1 Summary Statistics

	GDP	TR	EXP	DEBT
Mean	3.912	2.551	3021.21	3.213
Median	3.212	3.213	2423.173	5.532
Max.	11.321	5.421	7412.341	8.342
Min.	-9.431	0	878.589	3.321
Std. Dev.	2.912	6.421	3312.0921	5.421
Obs.	30	30	30	30

The summary statistics indicate that the gross domestic product growth of Pakistan on average has been 3.912 and has reached a maximum of 11.321. The tax revenue has a mean value of 2.551 with a maximum of 5.421. while, on the other hand, total debt has been on average 3.213 with a maximum value of 8.342.

Table 2 Summary of ADF Unit Root Test Procedures

Variable	t-test at level	t-test 1st diff:	P-value 1st diff:	Integration Order
GDP	-3.06**	4.321**	0.0001	I(1)
TR	-0.19	-6.055**	0.0002	I(1)
EXP	4.39	-2.77**	0.013	I(1)
DEBT	-2.24	-3.81**	0.034	I(1)

Note: *, ** & *** indicate that 1%, 5%, and 10% level of significance respectively.

The study has applied the Augmented Dicky Fuller (ADF) test to problem of a unit root in variables. Thus, the null hypothesis of the ADF test assumes the presence of a unit root against the alternative hypothesis of No unit root. Unit root testing was conducted using only individual intercepts. The results in the table above indicate that all the variables are stationary at I (1) except GDP which is stationary at I (0).

Table 3 Correlation Matrix

	GDP	TR	EXP	DEBT
GDP	1			
TR	-0.205	1		
EXP	0.011	0.812	1	
DEBT	-0.266	0.666	0.522	1

To find the linear correlations between study's variables, we performed correlational relationships. From the results, it was found that there is weak negative correlation amid GDP & total tax revenue (TAX_REV) & total debt (T_DEBT), while there is slight positive link amid GDP and government spending (G_EXP).

Table 4 Summary of the Johansen Co-Integration Test Result

	Trace	Max
$r = 0$	47.45*	23.21*
$r < 1$	27.41	12.31
$r < 1$	14.31	8.15
$r < 1$	3.51	3.12

The Bayes Information Criterion (BIC) is used to determine the outcomes, which are based on the VAR model with lag order 2. Notes: Max denotes Johansen's Max-Eigen value rank test statistic; Trace denotes Johansen's Trace statistic; as well as * denotes rejection of the null hypothesis at the 0.05 level.

Table 5 Error Correction Model (Dependent Variable: GDP)

Variables	TR	EXP	DEBT	C	ECM
Co-efficient	3.231*	2.461*	-3.213*	-38.231	-0.441*
S. E	1.421	0.712	1.921	0.172	-0.075
t-statistic	1.812	3.201	0.772	0.331	-3.21
Probably.	0.0432	0.0421	0.0021	0.021	0.0001

Note: *, ** & *** indicate that 1%, 5%, and 10% level of significance respectively.

The results mentioned in ECM are very clear and desirable as suggested by diverse diagnostic tests and probability values. Results indicate that TR (Tax revenue) and EXP (Government Expenditures) have a significant positive impact on GDP (Economic growth), DEBT (Public debt) has a significant negative impact on economic growth. After undergoing diagnostic testing, model was determined to be good because it wasn't serially correlated. The residuals were found to be regularly distributed and neither correlated nor heteroscedastic. The ECM model's Bound test was then used to confirm the long-term link.

CONCLUSION

This study sought to ascertain short-term and long-term correlations between Pakistan's economic development and exogenous central decisions, as well as the impact of this policy upon growth. The outcomes of time series data analysis have indicated that tax revenue and government expenditure have a positive and significant impact on economic growth. On the other hand, public debt affects economic development significantly negatively. The ECM showed overall model convergence and established both the short-term and long-term linkage between federal/central decisions and economic growth in Pakistan. In this regard, understanding the impact of fiscal policy on Pakistan's economic growth is essential for policymakers, economists, and development practitioners that can unlock the country growth potential while ensuring economic stability & social equity. The robust negative coefficient of error term supported the presence of short- and long-term linkage for the variables available in model for the estimation of endogenous and exogenous analysis. As a result, long-term correlation amid expansionary fiscal decisions & economic development was confirmed by the ECM model.

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