



Fiscal Policy, Institutional Quality and Economic Growth: Some Evidence from Pakistan

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Abstract: The purpose of this research is to look at the link between fiscal policy, institutional quality, and economic growth in Pakistan. The research employs time series data spanning twenty-five years, from 1996 to 2020. The ADF unit root test is used to verify variable stationarity, the Engle Granger technique is used for cointegration dynamics, and the Error Correction model is used for short term relationships. Overall, the findings demonstrate that both productive and wasteful government spending have a favorable influence on economic growth in the short and long run. In the short and long run, institutional quality has a favorable influence on economic growth. While inflation has a short-term favorable influence on economic growth, but it has a long-term negative impact. The findings suggest that the government should distinguish between productive and unproductive spending and increase investment on productive businesses. The government should place a greater emphasis on improving institutions in order to achieve long-term economic growth.

Introduction

Pakistan's policymakers have a strategic problem in transitioning to a more sustainable economic model while retaining strong growth rates. Pakistan has a variety of fiscal policy measures, but government spending and taxation remain at the forefront. Different ways to fiscal administration have been devised in order to cut expenditure that played little part in the national economy's development goals. Instead of focusing on the entire impact of fiscal policy tools on economic growth, a disaggregated methodology will be used for effective analysis (Rexha et al., 2021). Since Adam Smith's day, the role of administration in economic

progress has been a source of contention. Last wave of privatization in many emerging and undeveloped nations was built on the belief that "the role of administration in policy should be decreased in order to achieve sustainable development and efficient production" (Abbadi et al., 2021; Symoom, 2018).

The importance of institutions of governance in macroeconomic decisions and economic development in nations, particularly Pakistan, has attracted significant focus in the literature. According to research, effective governance institutions are crucial in ensuring that

macroeconomic policies are correctly executed to promote economic growth and improve the quality of life for individuals (Acemoglu and Robinson, 2010; Acemoglu et al., 2005). It is widely understood that strong institutions help to ensure that a country's resources are handled properly, resulting in a stable economic ecology that encourages investor and market confidence. Quality institutions improve the inflow of money and talent into an economy, boost productivity, enable businesses to develop along the Global Value Chain (GVC), and boost growth and prosperity for all participants (Dollar and Kidder, 2017).

The role of government expenditure or taxation is the subject of the investigation. Economists now hold opposing opinions on the role of administration in the economy. According to the new – Classical model, dropping the role of the private sector crowding effect is crucial because it lessens inflationary pressures; increasing debt raises interest rates, which reduces inflation. The Economy and manufacturing Keynesian multiplier in response is new. Argue that increasing government expenditure will stimulate demand and thereby growth (Attinasi & Klemm, 2016; Cottarelli & Jaramillo, 2013).

Government spending accounts for a sizable portion of overall expenditure in Pakistan. It has a direct influence on inflation since it may induce inflation and indirectly affect the budget deficit. As a result of fiscal policies, inflation has risen. A variety of studies have been conducted to examine the relationship between inflation, the budget deficit, and the money growth that developing nations get (Abdullah et al., 2019; Symoom, 2018; UGWUANYI & UGWUNTA, 2017). As in other developing nations with significant inflation, when the government attempts to manage the deficit via formation, in today fast-paced world in Pakistan, inflation is also caused by the formation of the state to fund running expenditures. Previous research has either compared monetary policies and fiscal policies or determined the

combined impact of monetary and fiscal policy on economic growth. This research lays the groundwork for long-run and short-run fiscal variables. Pakistan's government debt is growing, and the economy is suffering from fiscal imbalance, necessitating the need for long-term growth. It is hard to build the economy effectively using traditional means such as national income and public loans (Abdullah et al., 2007).

Policymakers agree that fiscal regulation is an important tool for economic development. Economic regulatory policy necessitates the government's monitoring of these goals and tactics. Overall economy and macroeconomic stability can be used as a strategy to support economic policy norms (Abu Hasan, 2016). The imbalance in Pakistan Contributed to a slowdown in economic development and investment, resulting in an increase in poverty. The European Parliament enacted the Fiscal Responsibility and Debt Relief Act (violin) in June 2005. Is there a financial regulatory law in the nation that encourages and encourages competent financial management in order to assure the administration and stimulate public discussion on fiscal policy? It is critical that the administration be explicit about its short run and long run budgetary plans, as well as set strong ethics of accountability. All this is accomplished through keeping a sustainable balance among taxation, expenditure, and borrowing (Hamza & Milo, 2021).

The determination of this research was to look at the influence of several economic indicators on Pakistan's growth. According to empirical literature, state spending is negatively linked to economic growth due to inefficiency in the public sector, particularly in poorer countries, and a large portion of public expenditure in these developing countries is referred to non-development spending such as debt interest payments and defense, and Pakistan is no exception (Hodzic et al., 2020; Osuala & Jones, 2014).

Review of Literature

According to the literature, fiscal policy has the greatest impact on economic performance outcomes from two perspectives. The 1st is the classical economic view, which holds that in administration, every rise in the dollars are offset by reeducation of the dollars in private expenses, and the crowding is completed in this way (Yusuf & Mohd, [2021](#)). In contrast, there is a Keynesian viewpoint that suggests that consumption has a beneficial influence on the economy (Brock & Taylor, [2010](#)). Supporters of the classical perspective argue that government expenditure has little long-term impact and is ineffective, particularly when employment, output, and price adjustment are at their peak. The influence of fiscal policy on economic development has created a large amount of empirical research with various conclusions using panel data cross sectional and time series. Some are cross national studies, while others are nation specific. The influence of taxation and government expenditure on economic development in twenty-one OECD nations was examined, but the study's findings failed to offer evidence in support of fiscal policy led growth (Ge, [2012](#)).

Makhoba et al. ([2019](#)) The fundamental relationships between growth and fiscal policy in the United Arab Emirates were rigorously examined using error-correction and co-integration frameworks. This study's findings presented evidence in support of the presence of co integration between government spending and GDP. The results of the causality tests revealed that connection shifts from government expenditure to GDP. Tan et al. ([2020](#)) The empirical data showed that a 1% increase in public spending increased real GDP by 0.562 percent in Thailand, 1.265 percent in Singapore, and 1.15 percent in Thailand. The data also revealed the presence of long-term links between the three nations. Makhoba et al. ([2019](#)) evaluated the relationship between economic growth and fiscal policy in South Africa using predicted time series data from 1990 to 2018. The empirical findings

revealed a lack of evidence that fiscal policy has a favorable influence on economic growth. Finally, the study suggested that fiscal policy may be employed by government officials to indirectly effect economic growth. Arvin et al. ([2021](#)) examined the relationship between institutional quality with economic growth in low- and lower-middle-income nations was empirically examined. They discovered that the quality of institutions had a considerable beneficial influence on economic growth for both poor and lower-middle income nations. Abu Hasan ([2016](#)) The auto regressive distributed technique was used to analyse the influence of fiscal and monetary policy on economic growth. The empirical findings indicated that monetary policy, fiscal policy, and economic growth had a long-term link. Furthermore, the data revealed a negative influence of inflation and the currency rate, but a considerable and beneficial impact of government investment on growth. Saputro et al. ([2019](#)) examined the influence of the financial sector on the GDP and found with tax exemptions for a large rise in development costs. The government decreases taxes, which are the highest and in a negative sense, because the character appears to be weak. A real influence on how lengthy you were in the interest rate path. This is consistent with the expected reaction rate of GDP to the appearance of the sun. Stoilova & Todorov ([2021](#)) investigated the fiscal policy and growth and found that many costs have a direct influence on the tax rate and the show's aesthetic perception. In fact, I've come to realize that the entire concept is expanding.

Perotti (2011) evaluated the impact of fiscal policy on GDP, inflation, and interest rates in five OECD nations He employed a structural Vector Auto regression strategy. He discovered that fiscal policy has a minor impact on GDP. He also investigated if tax cuts had a greater impact than increased spending. After 1980, the influence of government expenditure shocks and tax cuts weakened over time and was inversely connected to private investment. Government expenditure had a favorable influence on long-run interest

rates after 1980. He also discovered that when the real interest rate is maintained constant in the impulse responses, the fall in GDP response disappears. Nawaz & Idrees Khawaja (2019) researched on fiscal policy and economic growth literature. They developed a unified approach to examine the impact of government spending and revenue on long-run growth. They discovered that several expenditure categories and tax rates had a direct influence on the economy's growth rate. They also proposed that future empirical research should concentrate on the effects of the overall tax system on economic growth.

Cottarelli & Jaramillo (2013) stated fiscal policy, development level, and economic growth rate. They used historical cross-sectional data from recent years, and public investment. They discovered that fiscal policy has a considerable influence on development levels, and that while impoverished nations rely heavily on international commerce, taxes are only considered as significant in wealthy countries. Investment in telecommunications and taxation is also linked to growth. Attinasi & Klemm (2016) established a generalized fiscal policy model and its impact on output growth. He analyzed data from 107 nations. He adjusted the data to account for any endogeneity in government policies. He discovered a significant negative influence of taxation and government spending on growth. Gemmell et al. (2011) examined the influence of fiscal policy on growth in 22 OECD nations using a collection of panel data. They discovered that distortionary taxes and wasteful government spending do not promote economic growth, but non-distortionary taxes and productive government spending do.

Methodology and Data Source

Data Source

The research examines the effect of fiscal policy and institutional quality on economic growth in

Pakistan. The data of productive and unproductive government consumption spending were taken from the Economic Survey of Pakistan and data of real GDP, inflation, net taxes and capital expenditure are taken from World Development Indicators (WDI), and data of institutional quality was taken from Worldwide Governance Indicators.

Methodology

The model specification is given below:

Mathematical Model

$$LRGDP = f(LPGC, LUPGC, LINQ, LCPI, LNT, LKE)$$

Econometric Model

$$LRGDP_t = \varphi_1 + \varphi_2 LPGC_t + \varphi_3 LUPGC_t + \varphi_4 LINQ_t + \varphi_5 LNT_t + \varphi_6 LKE_t + \varphi_7 LCPI_t + U_t$$

Where all variables are in logarithmic form

$$RGDP_t = GDP.$$

PGC_t = consumption of productive government spending on education, health and economic services.

$UPGC_t$ = consumption of unproductive government spending is defined as the total recurring government spending less recurrent spending education, health and, economic services.

INQ_t = institution quality

NT_t = net tax.

KE_t = capital expenditures.

CPI_t = consumer price index.

To evaluate the link between fiscal policy and economic growth in the short and long run. In the literature, there are numerous ways for verifying cointegration; we apply the ADF unit root test on the residuals generated by regression. Using the Engle Granger cointegration method. Find long-run relationships using the Engle Granger technique and short-run relationships using the Error Correction Mechanism.

Results and Discussions

Table 1. Unit Root Test

Variables	Order of unit root test	Test equation		ADF stats	p-values
LRGDP	1 st difference	Intercept		-3.3002**	0.023
		Intercept and Trend		-3.7585**	0.033
		Non		-1.8714**	0.059
LPGC	1 st difference	Intercept		-4.6618***	0.000
		Intercept and Trend		-4.6399***	0.004
		Non		-3.7893***	0.000
LUPGC	1 st difference	Intercept		-8.4565***	0.000
		Intercept and Trend		-8.3286***	0.000
		Non		-7.2064***	0.000
LINQ	1 st difference	Intercept		-6.6718***	0.000
		Intercept and Trend		-5.6489***	0.000
		Non		-3.7453***	0.000
LNT	1 st difference	Intercept		-2.4893	0.128
		Intercept and Trend		-4.5915***	0.007
		Non		-1.6534	0.100
LKE	1 st difference	Intercept		-4.4310***	0.001
		Intercept and Trend		-4.5834***	0.005
		Non		-3.6475***	0.000
LCPI	1 st difference	Intercept		-5.8306***	0.000
		Intercept and Trend		-5.8900***	0.0002
		Non		-5.9346***	0.0000

Note: a) Authors calculation by using EViews a Statistical software

b) * indicates ADF stat is significant at 10%. ** represents ADF stat is significant at 5%. *** indicate stat significant at 1%

If all of the variables are non-stationary at the level, use the unit root test to find the first difference. All variables are stationary at 1st difference. with statistically Significant. Based on these findings, we concluded that the Engle Granger methodology should be used to determine long run interaction because all

variables are statistically significant at 1st difference.

Engle Granger Results

Create a residual series before running the ADF unit root test.

Table 2. Engle granger results

Equ	Unit root test		ADF. statistics	prob-values
OLS equation After residual series	level	Intercept	-3.268661*	0.0253
		Intercept and trend	-3.664311**	0.0409
		Non	-3.354905***	0.0015

Note: a) Authors calculation by using EViews a Statistical software. b) * ADF stat is significant at ten percent. ** indicates that ADF stat is significant at five percent. *** indicate the ADF stat is significant at one percent.

Long term cointegration requires residual series to remains stationary at level, either with intercept, trend, and intercept or without. The

residual series in this investigation is stable at the level encompassing the test equation non. It implies that cointegration exists in the long term.

Results of long run

Table 3. Long run results of Dependent Variable is LR GDP

Variables	Coefficient	t-stat	Prob-values
LPGC	0.5151	3.5483	0.001
LUPGC	0.5733	2.4502	0.021
LINQ	0.3834	1.6724	0.053
LCPI	-0.0786	0.0312	0.019
LKE	0.3025	0.2912	0.308
LNT	0.0323	0.0655	0.625
C	1.742711	1.785396	0.3380

Authors calculation by using EViews a Statistical software

The long-term coefficients of productive and unproductive government expenses for real GDP are both positive and significant, demonstrating that both productive and unproductive government expenditures enhance real GDP in the long term. The results show that increasing productive government expenditures by one unit increases real GDP by 0.5151%, because PGC includes expenditures on health, and economic

services, that would improve the host nation's human capital and result in productive activities in the economy, boosting economic growth (Chu et al., 2020; Irmén & Kuehnél, 2009; SIJABAT, 2017). The coefficient of unproductive government consumer spending demonstrates that one unit increase in unproductive expenditure corresponds to a 0.57 percent rise in growth (Chu et al., 2020; Rexha et al., 2021;

SIJABAT, 2017). According to the coefficient of institutional quality, one unit increase in institutional quality improves growth by 0.381 percent. The empirical findings of the current research reveal a negative relationship between real GDP and inflation (CPI). Because real GDP is

adjusted for inflation, there is always a negative relationship between them. Inflation reduces people's purchasing power, resulting in low-productivity domestic activities or decreased investment, resulting in a decline in real GDP (Živkov et al., 2020).

Error correction Model

Table 4. Results of ECM for short-run

Regressors	Coefficients	T-Ratio	P-values
D(LPGC)	0.1677	2.0509	0.051
D(LUPGC)	0.2857	1.9700	0.060
D(LINQ)	0.2125	4.7269	0.000
D(LCPI)	0.0194	1.0296	0.313
D(LKE)	-0.0704	-0.4768	0.637
D(LNT)	0.1069	3.1571	0.004
RES (-1)	-0.5565	-2.939	0.007
C	0.0428	4.6181	0.000

Authors calculation by using EViews a Statistical software

The lagged error term correction coefficient (-0.556) indicates how fast or slowly these variables return to equilibrium. This coefficient must be significant with a negative sign in order to establish the short run association between variables; otherwise, the trend will continue to move outward. The coefficient of the EC component defines the rate of adjustment to return to equilibrium, and the sign, which is negative, indicates convergence in the short-run model. The coefficient of res (-1) indicates that 55.65% of shocks justified the long-term trend in each era. The most effective technique of proving cointegration is to use a lag linked with the error correction component that is negative (-1) and has a significant coefficients and p-value (0.007). The coefficient of res (-1) in the model is very significant, implying that productive and unproductive govt spending have a considerable and positive influence on economic growth in Pakistan when economic growth is the dependent variable.

This research looks on the association between fiscal policy, institutional quality, and economic growth. To do this, we separate productive and unproductive government consumption expenses and use a net tax proxy of distortionary fiscal income to prevent erroneous results. To obtain these conclusions, we use unit root test to assess the stationarity of variables, followed by the Engle Granger method for long run dynamics and the Error Correction Mechanism for short run dynamics. The findings show that productive government spending has a favorable influence on economic growth. Fiscal revenue has a beneficial influence on economic growth, and the quality of institutions has a positive link with economic growth. While inflation has negative influence on economic growth. Net taxes and capital also have positive link with GDP. As a result, this paper advises that the government enhance productive government spending on health, education, and economic services, as well as devote greater attention to strengthening institutions for long-term growth. Further, our research suggests that fiscal policy can assist

Conclusion and Recommendations

Chinese policymakers in engineering a gradual and seamless transition to a more sustainable development paradigm while maintaining robust growth rates. Fiscal policy, particularly government expenditure, appears to have a considerable and favorable influence on output, both in the short and long run. Because local government spending, in particular, appears to effect output, there is an urgent need to encourage local governments to make smart and efficient financial decision because as their expenditures can promote to long-term growth.

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