Journal of Financial Risk Management, 2026, 15(4), 371-386
https://www.scirp.org/journal/jfrm
ISSN Online: 2167-9541
ISSN Print: 2167-9533

The Effect of Fiscal Policy and Government Spending on Economic Growth of Burundi

Joseph Ngendabanka[1], Emmanuel Kwizera[2], David Byamungu Banguwabo[3]

[1]Ecole Doctorale, Université du Burundi, Bujumbura, Burundi
[2]Institut Supérieur de Commerce, Université du Burundi, Bujumbura, Burundi
[3]Faculté des Sciences de Gestion et Statistiques, Université du Cinquantenaire de Lwiro, Bukavu, République Démocratique du Congo
Email: josephwalioba6621@gmail.com

How to cite this paper: Ngendabanka, J., Kwizera, E., & Banguwabo, D. B. (2026). The Effect of Fiscal Policy and Government Spending on Economic Growth of Burundi. *Journal of Financial Risk Management, 15,* 371-386.
https://doi.org/10.4236/jfrm.2026.154021

Received: September 6, 2026
Accepted: October 31, 2026
Published: November 3, 2026

Copyright © 2026 by author(s) and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
http://creativecommons.org/licenses/by/4.0/
Open Access

Abstract

This study set out to assess the effect of fiscal policy and government spending on the economic growth of Burundi. It was based on two research hypotheses, namely: There is no significant effect of fiscal policy and government spending on the economic growth of Burundi, and there is a significant effect of fiscal policy and government spending on the economic growth of Burundi. The results indicated that there is a weak positive and non-significant relationship between fiscal policy and economic growth, and a strong positive and significant relationship between government spending and economic growth. The results also revealed that the null hypothesis was rejected while the alternative hypothesis was accepted. The study recommended that there is a need for the Burundi government to invest a lot in the production sector rather than allocating a lot of its budget to consumption services in order not to depend almost only on taxes.

Keywords

Fiscal Policy, Government Spending, Economic Growth, Burundi

1. Introduction

Human beings throughout all centuries are characterized by one of the most important aspects of human development: the ability to have a decent standard of living. The secret of the "economic miracle" of many countries that have a high standard of living, in fact, is simple and quite obvious. All these countries are characterized by high and sustained development of the national economy, a low unemployment rate, and growth of income and consumption. There is no doubt that

economic growth leads to an increase in the wealth of the country as a whole, extending its potential in the fight against poverty, unemployment, and solving other social problems. That is why a high level of economic growth is one of the main targets of economic policy in many countries around the world (Romer, 2001).

Sub-Saharan African countries such as Chad, Ghana, and Mozambique have been extremely poor throughout their histories and have been unable to obtain any sustained growth in average incomes. As a result, their average incomes have remained close to subsistence levels while average world income has been rising steadily. Other countries exhibit more complicated growth patterns. Côte d'Ivoire was held up as the growth model for Africa through the 1970s. From 1960 to 1978, real income per person grew at an average annual rate of 3.2 percent. But in the three decades since then, its average income has not increased at all, and it is now lower relative to that of the United States than it was in 1960. To take another example, average growth in Mexico was very high in the 1950s, 1960s, and 1970s, negative in most of the 1980s, and moderate with a brief but severe interruption in the mid-1990s since then (Romer, 2001).

Nations that grow at a faster pace for sustainable periods of time have the ability to drastically reduce poverty, improve democratic and political stability, achieve greater quality in the natural environment, and minimize the volume of crime and violence. However, EAC member countries have had sluggish economic growth, with annual GDP per capita growth between 2000 and 2013 varying from low to high rates: −2.4% and the highest 5.5% for Kenya, 2.0% and 4.9% for Tanzania, −0.1% and 7.1% for Uganda, −0.09% and 7.9% for Rwanda, and −2.8% and 1.8% for Burundi. The annual per capita GDP (GDPPC) growth rates fluctuate frequently, with Rwanda generally having higher per capita GDP growth rates compared to the other countries and Burundi having relatively low GDPPC growth rates. Economic growth has therefore been a serious issue to the extent that it has called for strategic visions for EAC member countries such as Vision 2030, Vision 2035, Vision 2025, Vision 2020, and Vision 2025 for Kenya, Uganda, Tanzania, Rwanda, and Burundi, respectively (Onyango & Were, 2015).

In Burundi, according to Nkurunziza & Ngaruko (2005), before independence, Burundi's economy was integrated with those of Rwanda and Congo, the three Belgian colonies, using Bujumbura as the industrial base serving Burundi, Rwanda and Eastern Congo. Until Congo's independence in 1960, this area used the same currency. Congo adopted its own currency after independence in 1960, but the Burundi and Rwanda currency union was terminated only in 1964, two years after the two countries' independence in 1962, as economic independence was thought to give teeth to political independence; Rwanda and Eastern Congo decided to create their own industries. Disintegration of the common market was damaging to Burundi's economy following the loss of the Rwandese and Eastern Congolese markets, in addition to the loss of qualified manpower after the Belgians left Burundi; firm capacity utilisation dropped to about 25 - 50 percent in 1962-1963.

Burundi, under kingdom as a mode of rule, its economic system was not formal.

It became formal with the Republic regime as a mode of governance. The economic system of any country is guided by its laws, rules, principles, and practices. Some of them are fiscal policies. Generally, fiscal policies allow any government to raise revenue and to redistribute it fairly in public goods and services. The action of redistribution of the government's revenue is manifested through its public budget. Budget balance, budget surplus, or budget deficit is a result of the fiscal policy of a government (Greenaway & Milner, 1990). For Nkurunziza & Ngaruko (2005), Burundi's economic policies evolved from one period to another. From 1960 to 1976 is characterised by policy instability resulting in economic decline; from 1976 to 1988 (2nd Republic under Bagaza) saw the expansion of the basis for economic growth and per capita GDP increased. From 1988 to 2005 was the period characterised by war and an unprecedented economic crisis.

From 2005 to 2014, growth was largely driven by the expansion of services followed by the industrial sector. The services sector accounted for 42 percent of GDP during this period, closely followed by agriculture (41 percent) and industry (only 18 percent). However, the contribution to growth of the services and industry sectors was significantly higher. The boom in services may be explained by the growth impetus that followed the successful implementation of investment climate reforms over the 2007-2014 period. The contribution of the underperforming agricultural sector to GDP declined over time as a result of production and international price shocks affecting coffee and tea, Burundi's main export crops. This added to the volatility of growth.

The political crisis of 2015 halted 11 years of positive growth experienced in Burundi since the Arusha Agreement. Real GDP declined by 3.9 percent (2015), driven by a sharp drop in the urban formal and semi-formal economy that is so dependent on development aid. Commercial and industrial activities were stopped in the capital, Bujumbura, for several weeks in April-June 2015 due to riots, significantly disrupting productivity. Weak domestic demand resulting from both businesses' and donors' negative response, compounded by the tense political situation and acute insecurity during the second half of 2015, held the economy at a low equilibrium.

Economic activity recovered slowly in the wake of the 2015 political crisis. Real GDP declined further in 2016 by 0.6 percent, due to unfavourable weather conditions, which dampened agricultural production and energy supplies. The crisis also dramatically affected Burundi's fiscal performance. The general government fiscal deficit remained above 5 percent of GDP in 2016 (from 3.4 percent in 2014), and external budget support declined.

According to the African Development Bank Group (2019), the country policy and Institutional Assessment (CPIA) for 2018 confirms Burundi's weak institutional capacity, with an overall score of 3.1 against 3.2 (2016). This is noticeable in economic management (fiscal policy and monetary policy), sector policies (the financial sector in particular), and governance. On the contrary, in terms of trade policy and regional integration, progress is encouraging. Because of political tur-

moil, real GDP growth had fallen sharply to −0.3% (2015) from 4.2% (2014) and 4.5% (2013). Since then, the growth rate has fluctuated (1.7% in 2016, −0.2% in 2017, and 1.4% in 2018). The recovery is expected to continue in 2019 and 2020, albeit only modestly, with projections of 0.4% and 1.2% for 2019 and 2020, respectively, assuming that the political situation does not deteriorate any further with the presidential elections scheduled for 2020. The economic recovery could then be driven by an increase in coffee and tea exports, and a slight uptick in public investment. According to the African Economic Outlook (AEO) (2021), Burundi fell into a recession (2020), largely the result of the effects of the COVID-19 pandemic. Real GDP contracted by 3.3%, after growing 4.1% (2019). The pandemic hit hardest in industry, which saw a 4.5% decline in output, and services, whose output fell 1.8% compared with 2019. On the demand side, investment fell by approximately 3%. However, if the pandemic is under control by the second half of 2021, an economic recovery could occur with projected growth rates of 3.5% (2021) and 2.1% (2022). Inflation would come down to 5.4% (2021) and 3.2% by 2022 from 7.6% (2020). Thanks to measures to increase tax revenue in the 2020-2021 Finance Law, and the prospect of a drop in current spending, the overall budget deficit is expected to decrease to 7.9% of GDP (2021) from 8.7% (2020). Regarding the above information, the economic growth of Burundi is under an undesirable index of standards of living, which is an implication of poor economic growth. There must be a reason for that, as soon as there are limits literatures about that in Burundi. The study brought added value to the existing literature and contributed to the stabilization of the Burundian economy.

Burundi is classified among the poorest countries in the world and lags behind on many human development indicators. Average per capita consumption is only US$270 per year, placing Burundi at the bottom of the low-income category. The first and only survey with the level of detail necessary to compile a complete profile of consumption poverty suggests that, in 2014, Burundi had the fourth highest rates of extreme poverty in the world. According to the Central Bank of Burundi (2021), the GDP Annual Growth Rate in Burundi was 5.1% (2010); it decreased to 4% (2011), and it increased to 4.4% (2012) and continued to increase to 4.9% (2013). From 2013, it decreased from 4.9% to 4.2% (2014).

It continually decreased to −0.4% (2015), and to −3.2% (2016). From 2018, it increased to 3.8% (2017) and to 4.2% (2018). Now, it decreased to 4.1% (2019) and to −0.3% (2020). States that inflation, as measured by the consumer price index, reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. Furthermore, on June 25, 2021, the institution reported the historical data of Burundi's inflation rate from 2010 to 2020 as follows. In 2010, the inflation rate was 6.49%, and it increased to 9.59% (2011). It galloped to 18.16% (2012), decreased to 7.94% (2013), and continued to decrease to 4.41% (2014). In 2015, it increased to 5.54% and continued to increase to 5.56% (2016). It galloped again to 16.05% in 2017, decreased to −2.81% (2018), and continued to decrease

to −0.69% (2019). It finally increased to 7.32% (2020). This study then aimed to examine the effect of fiscal policy on the economic growth of Burundi and provide ways to promote the economic growth of Burundi. Thus, the study was based on the following research hypotheses:

- H0: There is no significant effect of fiscal policy and government spending on the economic growth of Burundi.
- Ha: There is a significant effect of fiscal policy and government spending on the economic growth of Burundi.

Fiscal policy is about the laws, rules, and standards established by the government of any country that allow it to collect or raise revenue and redistribute it fairly in public goods and services. Fiscal policy is about changes in government taxes and spending that affect the level of GDP to stabilize the economy (O'Sullivan, Sheffrin, & Perez, 2012). According to O'Sullivan, Sheffrin, and Perez (2012), fiscal policy is changes in government taxes and spending that affect the level of GDP to stabilize the economy, while McConnell & Brue (2008) state that fiscal policy consists of deliberate changes in government spending and tax collections designed to achieve full employment, control inflation, and encourage economic growth. The adjective "fiscal" simply means "financial." In addition, fiscal policy has conventionally been associated with the use of taxation and public expenditure to influence the level of economic activity. The role of fiscal policy in the long-run growth process has been central in macroeconomics, especially since the appearance of endogenous growth models. Different authors have focused on different types of fiscal policy as engines of balanced growth (Benos, 2009).

According to Afonso & Alegre (2007), the role of fiscal policies on economic growth has driven several studies both on the theoretical and empirical fronts. Governments need to acknowledge whether their public activities serve as an incentive to growth or if they pose an obstacle, since the development of appropriate fiscal policies could lead to a persistent increase in economic growth. Cited by Nwankwo, Kalu, & Chiekezie (2017), Raihan & Anjum (2020) argue that fiscal policy is undoubtedly one of the highly valued tools or policies used by the government to trace and achieve macroeconomic stability of the economy of most developing countries. Monetary policy is synonymous with fiscal policy, as it is the tool which the central bank uses to monitor and influence the money supply in the economy.

Government spending refers to the actions of redistribution of the government's revenue. It is manifested through its public budget balance; "a budget surplus or budget deficit is a result of the fiscal policy of a government" (O'Sullivan et al., 2012). Joharji & Starr (2010) discussed whether government spending can boost the pace of economic growth. They examined the relationship between government spending and non-oil GDP in the case of Saudi Arabia. Using time-series methods and data for 1969-2005, they found that increases in government spending have a positive and significant long-run effect on the rate of growth. Estimated effects of current expenditure on growth turn out to exceed those of capital expendi-

ture, suggesting that government investment in infrastructure and productive capacity has been less growth-enhancing in Saudi Arabia than programs to improve administration and operation of government entities and support purchasing power. Contrary to this, the Keynesians agree that the relationship between government spending and economic growth does exist, but the effect runs from government spending to economic growth. Moreover, the neo-classical school agrees with the Keynesian school on the existence of the relationship between government spending and economic growth, but disagrees with it in the direction of this relationship. While the Keynesians argue that the impact of government spending on economic growth is positive, the supporters of the neo-classical school suggest that the relationship between the two is negative.

Economic growth refers to a long-term expansion in the productive potential of the economy to satisfy the wants of individuals in the society. Sustained economic growth of a country has a positive impact on the national income and level of employment, which further results in higher living standards. Apart from this, it plays a vital role in stimulating government finances by enhancing tax revenues. This enables the government to earn extra income for the further development of the economy. According to Karlan, Morduch, & Startz (2014), an economy is the way people manage their resources. Economic growth is an important macroeconomics topic which refers to the ability of an economy to produce increasing quantities of goods and services. Hubbard & O'Brien (2015) state that economic growth is important because an economy that grows too slowly fails to raise living standards. For them, long-run economic growth is the process by which rising productivity increases the average standard of living. An economic growth model is a model that explains real GDP per capita over the long run. According to Karlan, Morduch, & Startz (2014), most governments in both rich and poor countries aim to limit poverty and inequality to some extent. Yet, views differ about how to do so. It's also a difficult and controversial area of policymaking. Often, policymakers look for investments that will spur future economic growth. In addition, McConnell & Brue (2008) state that Economists define and measure economic growth as either an increase in real GDP occurring over some time or period, or an increase in real per capita GDP occurring over some time or period. Growth is a widely held economic goal. The expansion of total output relative to population results in rising real wages and incomes and thus higher standards of living. An economy that experiences economic growth is better able to meet people's wants and resolve socioeconomic problems.

Hubbard & O'Brien (2015) point out that the aggregate expenditure model is a macroeconomic model that focuses on the short-run relationship between total spending and real GDP, assuming that the price level is constant. States that budget deficit or budget surplus is one of the most important macroeconomic factors that have an impact on economic growth. Contrary to this, as cited by Mohammed and Suraya (2019), the Ricardian school of thought supports that the effect of government spending, whether financed by government debt or tax revenues, on eco-

nomic growth is neutral. In other words, this relationship between government spending and economic growth does not exist.

It is indicated by many studies that there is a relation between budget deficit and economic growth; however, the impact of the budget deficit on growth is directly related to the source of the budget deficit. Mainly, increases in productive spending and non-productive spending will result in a budget deficit but would have different impacts on economic growth. As argued by the above authors, "budget deficit has to be considered as a main problem for the economy." He added that the source of the budget deficit could be explained either with inability of collecting taxes or high government spending or both of them. But it does not matter what would be the answer the problem is common for each case: the result is budget deficit.

Developing countries vote for expansionary fiscal policy; however, developed countries vote for low inflation. But high government spending or budget deficit, according to him, does not always result in a negative impact on the economy. If the budget expenditure is too high and if the government uses it for productive purposes and not for political interest, then the budget deficit could result in economic growth. Economic growth is obtained by an efficient use of the available resources and by increasing the capacity of production of a country. It facilitates the redistribution of incomes between population and society. A series of slightly different growth rates in just a decade may add up to a significant divergence in the long run. Redistribution of income is also more feasible in a dynamic and growing society than in a static one. Yet the impact of government expenditure on development is likely to differ from country to country, because the quality of governance and institutions affect the productivity of government expenditure (Rajkumar & Swaroop, 2008).

Boroacă (2012) examined possible correlations between fiscal policy and economic growth in three EU countries: France, Germany, and Greece for the period 1996-2009. He found that Fiscal policy is a major component of a country's economic policy, and to counteract the negative effects of economic or extra-economic factors, the State can use a series of countercyclical policies. Finally, he noted that fiscal policy is one of the most important short-term policies that can be applied at the macroeconomic level, so it can therefore affect a country's economic development. However, the effectiveness of fiscal policy reported in European countries may not be generalisable to Burundi due to differences in institutional capacity, limited fiscal capacity, economic structure, and tax administration.

Based on the literature surveyed and reviewed, there is an abundance of literature on the relationship between fiscal policy and economic growth. Most studies were conducted in European, Asian countries and in some African countries special Nigeria, Ghana, South Africa, EAC, and Zimbabwe (Romer, 2001; Nkurunziza & Ngaruko, 2005; Onyango & Were, 2015). However, few studies have been done in Burundi, and the existing ones have not considered tax collection procedures,

tax smoothing, GDP, and inflation reduction to measure the relationship between fiscal policy and economic growth. Therefore, the study was conducted within the Burundian context in order to determine the kind of relationship existing between fiscal policy and economic growth. Consequently, it was the contribution of the researcher's work for Burundian government decision-makers in general and people of Burundi in particular, and for internal and external investors.

2. Methods and Methodology

Methodologically, the study opted for a correlational and cross-sectional design and employed deductive reasoning using a quantitative approach. The study population of 52 staff from Planning and Statistics Department and the Verification and Reimbursement Department of the OBR; staff of ISTEEBU's Department of Economic and Financial Statistics and staff of Budget Department of the Ministry of Finance that gave the sample size of 46 staff respondents was used. Under probability, simple random sampling was used to select the members from ISTEEBU because all ISTEEBU's National Account staff members possess the same information, and under non-probability, purposive sampling was used to select staff members of Budget Department of the Ministry of finance because they don't have the same information even if they are concerned with the establishment of Burundi government budget and they are also in charge of government's budget allocation. For the members of the Planning and Statistics Department and the Verification and Reimbursement Department of OBR, purposive sampling was used because, even if they were in charge of planning and the statistical establishment of taxes collected by OBR, they were not in possession of the same information. These categories were the only ones chosen because their functions were related to the fiscal policy for the Budget Department of the Ministry of Finance and OBR. The OBR was concerned with the tax collection system in Burundi; ISTEEBU calculates the GDP. Both primary and secondary sources were combined in this study. The survey questionnaire was used as a data collection method, while a self-administered questionnaire was used as a data collection tool. For the validity and reliability test of the instrument, the pilot study was carried out. Experts validated the questionnaire, while 10 staff were used for the reliability test. The results showed a Cronbach's alpha coefficient of 0.782, which is above 0.7. The data collected from the field were analysed using SPSS, whereby both Pearson correlation and linear regression analysis were computed to find out the relationship and effect between the study variables.

3. Main Results Analysis and Discussion

The results were based on the correlational test, assumptions of the multiple regression model (Normality, linearity, multicollinearity, and homoscedasticity tests), and multiple regression analysis.

Pearson Correlation Results

Pearson correlation coefficient was used to determine the degree of relationship

between the study variables (Table 1).

Table 1. Pearson correlation coefficient for the study variables.

		Economic Growth
Fiscal Policy	Pearson Correlation	0.266
	Sig.(2-tailed)	0.074
	N	46
Government Spending	Pearson Correlation	0.784**
	Sig.(2-tailed)	0.000
	N	46

**Correlation is significant at the 0.01 level (2-tailed).

The results of this study indicated that there is a weak positive and non-significant relationship between fiscal policy and economic growth of Burundi (r = 0.266). It showed that the way that fiscal policy is conceived influence at a certain level although weak the growth of economy in Burundi. These results were in contradiction with the results of Zulfiqar (2018), who asserts that fiscal policy plays a significant role in achieving inclusive economic growth, as it can reduce inequalities and mitigate poverty and generate productive employment opportunities by regulating public expenditures and taxes (Jonya et al., 2023; Nduwimana & Sindayigaya, 2025; Sindayigaya, 2023). On the other hand, fiscal policy is one of the most powerful instruments that governments use to maintain macroeconomic stability for growth, as well as for intra- and intergenerational transfers of wealth.

The results of this study indicated that there is a strong positive and significant relationship between government spending and economic growth in Burundi (r = 0.784**). These results showed that government spending has a lot of an impact on the growth of the economy in Burundi. This met the results of Mehmood & Sadiq (2010) who, while studying the relationship between government expenditure and poverty, found that government spending is positively related to economic growth. While analysing the relationship between government spending and economic growth in the Czech Republic, as cited by Irena (2011), the results of the Johansen cointegration test proved the existence of a long-run positive relationship between GDP and total government spending, public order and safety, and economic affairs spending functions. As findings verify, they tend to follow GDP and adapt to GDP changes.

Assumptions of Multiple Regression Model Results

The study used four assumptions that include normality, linearity, multicollinearity, and the homoscedasticity test. When these assumptions are not met, the results may not be trustworthy.

Normality Test

To test this assumption, assumption visual inspection of data plots, skewness, kurtosis.

Table 2. Test for normality.

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Fiscal policy	4.33	0.391	−0.023	0.350	−1.028	0.688
Government spending	3.41	0.461	−0.335	0.350	0.059	0.688
Economic growth	3.18	0.444	−0.123	0.350	−0.570	0.688
Valid N (listwise)						

The results indicated that the values of Skewness were both within the acceptable value of <3 and the values of Kurtosis were <10 (Table 2).

Linearity Test

Standard multiple regression can only accurately estimate the relationship between dependent and independent variables if the relationships are linear in nature. If the relationship between independent variables and the dependent variable is not linear, the results of the regression analysis will underestimate the true relationship (Osborne & Waters, 2002).

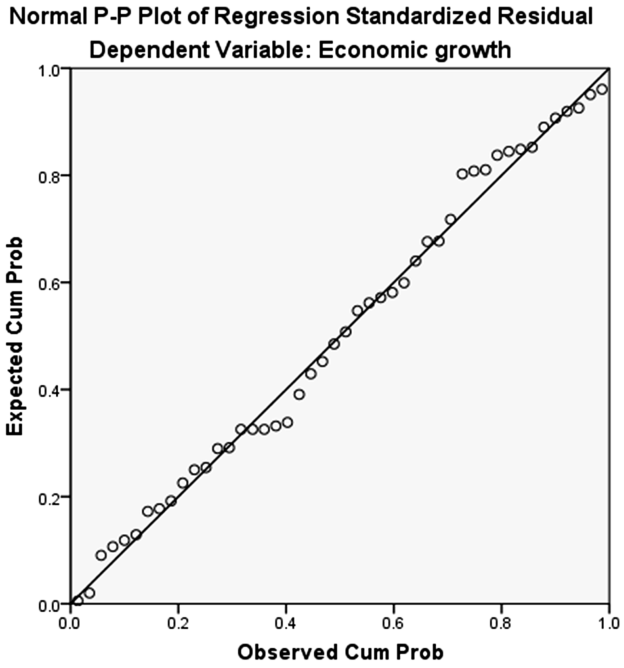


Figure 1. Linearity.

For this study, linearity was tested using a PP plot, and the results indicated that data points were linearly distributed (Figure 1).

Multicollinearity Test

Multicollinearity occurs when the independent variables are too highly correlated with each other. Multicollinearity may be checked in multiple ways: First, Multicollinearity can be checked through a correlation matrix. When computing a matrix of Pearson's bivariate correlations among all independent variables, the

magnitude of the correlation coefficients should be less than 0.80. Second, through the Variance Inflation Factor (VIF): The VIFs of the linear regression indicate the degree to which the variances in the regression estimates are increased due to multicollinearity. VIF values higher than 10 indicate that multicollinearity is a problem. Additionally, multicollinearity is detected by examining the tolerance for each independent variable. Tolerance is the amount of variability in one independent variable that is not explained by the other independent variables. Tolerance values of less than 0.10 indicate collinearity.

Table 3. Results of multicollinearity.

Model		Collinearity Statistics	
		Tolerance	VIF
1	Fiscal policy	0.978	1.022
	Government spending	0.978	1.022

a. Dependent variable: economic growth.

The findings in the **Table 3** showed that the VIF values for all the independent variables were below 10 and the findings didn't present a tolerance value which was less than 0.1. Based on these findings, for all the independent variables, there was no presence of multicollinearity. In other words, between fiscal policy and government spending none can replace another.

Homoscedasticity Test

According to Berry & Feldman (1985), homoscedasticity means that the variance of errors is the same across all levels. Slight heteroscedasticity has little effect on significance tests; however, when heteroscedasticity is marked, it can lead to serious distortion of findings and seriously weaken the analysis. In this study, heteroscedasticity was measured by Levene's test, which examines whether or not the variance between independent and dependent variables is equal. If the Levene's Test for Equality of Variances is statistically significant at $\alpha = 0.05$ (that is, less than 0.05), this indicates that the group variances are unequal or heteroscedastic and not homoscedastic.

Table 4. Results of homoscedasticity.

	Levene Statistic	df1	df2	Sig.
Fiscal policy	1.870	9	24	0.107
Government spending	1.885	9	24	0.104

The findings revealed that homoscedasticity is not a problem with both fiscal policy and government spending, as their P-values are >0.05 (**Table 4**).

Multiple Regression Analysis

A multiple regression analysis of the variables in this study was computed to assess the effect of independent variables (Fiscal policy and Government spending)

on the dependent variable. The results are presented in Tables 5-7:

Table 5. Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.798[a]	0.637	0.620	0.273

a. Predictors: (constant), government spending, fiscal policy.

In this study, the R tests the prediction of the model. A value of 0.798 (R = 0.798) indicates a relatively high level of prediction. The coefficient of determination (R^2 = 0.637) shows that the independent variables explain 63.7% of the variability of economic growth, which is the dependent variable, while, according to this study's findings, 36.3% is explained by other factors not used in this study.

Table 6. Analysis of variance (ANOVA).

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.650	2	2.825	37.775	0.000[b]
	Residual	3.216	43	0.075		
	Total	8.866	45			

a. Dependent variable: economic growth; b. Predictors: (constant), government spending, fiscal policy.

The F-ratio in the ANOVA table (Table 6) tested whether the overall regression model was a good fit for the study data and, statistically, the results showed that fiscal policy and government spending, which were the independent variables, predicted economic growth significantly, which was the dependent variable (P < 0.05). From the results in the table above, the null hypothesis that there is no significant effect of fiscal policy and government spending on economic growth was rejected, while the alternative hypothesis that there is a significant effect of fiscal policy and government spending on economic growth was accepted (Bahati Sebasore et al., 2024; Nduwimana & Sindayigaya, 2025; Nyabenda & Sindayigaya, 2023; Sindayigaya, 2023).

Table 7. Coefficients of regression.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	−0.067	0.512		−0.131	0.896
	Fiscal policy	0.174	0.105	0.153	1.646	0.107
	Government spending	0.733	0.089	0.761	8.196	0.000

a. Dependent variable: economic growth.

For this study, the general model equation to predict the growth of the economy in Burundi is given below: Y = −0.67 + 0.174X1 + 0.733X2. The regression model for this study shows that the growth of the economy of Burundi is −0.067 units ($\beta 0 = -0.067$) when fiscal policy and government spending are zero. Thus, one unit of government spending increases the growth of the economy of Burundi by 0.733 units ($\beta 2 = 0.733$). Furthermore, an increase of one unit of fiscal policy increases the growth of the economy of Burundi by 0.174 units ($\beta 1 = 0.174$).

4. Conclusion

The results revealed an overall statistically significant regression model F = 37.775, P < 0.05, where 63.7% of the variance of economic growth was explained, whereby we could reject the null assumption that the fiscal policy and government spending have no combined and significant impact on growth (Bahati Sebasore et al., 2024; Bashangwa et al., 2024; Matabaro & Sindayigaya, 2024; Nijimbere et al., 2025a; Nijimbere et al., 2025b). Based on separate analyses, we discovered that the role of influence is asymmetrical, where government spending had a strong positive and significant impact on growth ($\beta = 0.733$, P < 0.001), while fiscal policy had a weak and non-significant positive impact on growth ($\beta = 0.174$, P = 0.107). Moreover, the linear relation between fiscal policy and government spending is non-significant and weak (r = 0.148, P = 0.325).

5. Recommendations

Based on the objectives of this study, for promoting economic growth of Burundi, this study recommended the following:

- The government of Burundi should strengthen the fiscal policy framework, showing clearly how to allocate and redistribute revenues in an equitable manner targeting the stabilization of the economy.
- The Government of Burundi should reorient public expenditure towards productive capital investments rather than consumption services.
- The Government of Burundi should implement evidence-based, growth-enhancing fiscal policies that stimulate productive investment, expand the tax base, improve productivity, and accelerate sustainable GDP growth.

Author Contributions

All the authors make the same contribution to this article.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

Afonso, A., & Alegre, J. G. (2007). Economic Growth and Budgetary Components: A Panel Assessment for the EU. *Empirical Economics, 41,* 703-723. https://link.springer.com/article/10.1007/s00181-010-0400-9

African Development Bank Group (2019). *East Africa Economic Outlook 2019: Macroeconomic Developments and Prospects, Political Economy of Regional Integration*. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2019AEO/REO_2019_-_East_Africa_.pdf

African Economic Outlook (AEO) (2021). *Index of Economic Freedom*. https://trademarkafrica.com/wp-content/uploads/2025/09/afdb-African-Economic-Outlook-2021.pdf

Bahati Sebasore, F., Bula Basuayi, C., Kadhafi, I., & Sindayigaya, I. (2024). Prudential Measures and Monetary Policy on Mortgage Loans in The Economic Community Africa. *International Journal of Science Academic Research, 5,* 1-9.

Bashangwa, J. K., Niyongabo, G., Nahayo, P. S., Nsengiyunva, T., Masingo, D. K., & Sindayigaya, I. (2024). Prudential Regulation in Strengthening the Financial Capacity of Congolese Banks. *Open Journal of Social Sciences, 12,* 452-468. https://doi.org/10.4236/jss.2024.1210031

Benos, N. (2009). *Fiscal Policy and Economic Growth: Empirical Evidence from EU Countries*. University of Ioannina, Munich Personal RePEc Archive. https://mpra.ub.uni-muenchen.de/19174/

Berry, W. D., & Feldman, S. (1985). *Multiple Regression in Practice*. Sage University Paper Series on Quantitative Applications in the Social Sciences, Series No. 07-050, Newbury Sage Publications, Inc. https://books.google.bi/books?hl=en&lr=&id=dCNZDwAAQBAJ&oi=fnd&pg=PA11&dq=Berry,+W.+D.,+%26+Feldman,+S.+(1985).+Multiple+Regression+in+Practice.+Sage+University+Paper+Series+on+Quantitative+Applications+in+the+Social+Sciences,+Se-ries+No.+07-050.+Newbury+Park,+CA:+Sage+Publications,+Inc.&ots=XnThmdxzjI&sig=S7eCmS1s6cbI0j17-9kDvRi1XFk&redir_esc=y

Boroacă, L. R. (2012). *Fiscal Policy and Economic Growth in France, Germany, and Greece*. Studia Universitatis "Vasile Goldiş" Arad, Seria Ştiinţe Economice Anul, Partea. https://repository.unsri.ac.id/11764/1/RAMA_60201_01021381320072_0010076003_0009037706_01_front_ref.pdf

Central Bank of Burundi (2021). *Burundi Inflation Rate—Historical Data from 2010 to 2021*. https://www.theglobaleconomy.com/Burundi/inflation/

Greenaway, D., & Milner, C. R. (1990). Policy Appraisal and the Structure of Protection in a Low-Income Developing Country: Problems of Measurement and Evaluation in Burundi. *Journal of Development Studies, 27,* 22-42. https://doi.org/10.1080/00220389008422180

Hubbard, G. R., & O'Brien, P. A. (2015). *Macroeconomics* (5th ed.). Pearson Education. https://www.abebooks.com/9780133455496/Macroeconomics-5th-Edition-Pearson-Series-0133455491/plp

Irena, S. (2011). Relationship between Government Spending and Economic Growth in the Czech Republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 59,* 415-422. https://pdfs.semanticscholar.org/bebd/e185d97f99648ace1a50547035b67ec5dc5a.pdf

Joharji, G. A., & Starr, M. A. (2010). Fiscal Policy and Growth in Saudi Arabia. *Review of Middle East Economics and Finance, 6,* 24-45. https://ideas.repec.org/a/bpj/rmeecf/v6y2011i3n2.html

Jonya, J. C., Toyi, O., Ndendi, A. A., & Sindayigaya, I. (2023). Qualification and Employability of Women in Burundian Public Industrial Tea and Energy Companies. *Applied Mathematical Sciences, 17,* 445-452. https://doi.org/10.12988/ams.2023.917425

Karlan, D., Morduch, J., & Startz, L. M. (2014). *Economics*. McGraw Hill Education.

https://www.mheducation.com/highered/product/economics-karlan.html?viewOption=student

Onyango, R. A., & Were, M. S. (2015). Determinants of Economic Growth in the East African Community. *International Journal of Economics, Commerce and Management, 3,* 1-14. https://www.researchgate.net/publication/343480795_DETERMINANTS_OF_ECONOMIC_GROWTH_IN_THE_EAST_AFRICAN_COMMUNITY

Matabaro, S., & Sindayigaya, I. (2024). Financial Behavior Analyses: Engel's Law in the Modern Domestic Economy of the City of Goma. *International Journal of Scientific and Management Research, 7,* 197-212. https://doi.org/10.37502/ijsmr.2024.71118

McConnell, R. C., & Brue, L. S. (2008). *Macroeconomics: Principles, Problems, and Policies*. MacGraw Hill. https://ieoeconomics.org.cn/wp-content/uploads/2024/11/Economics-Irwin-Economics-21th-Campbell-McConnell.pdf

Mehmood, R., & Sadiq, S. (2010). The Relationship between Government Expenditure and Poverty: A Cointegration Analysis. *Romanian Journal of Fiscal Policy, 1,* 29-37. https://hdl.handle.net/10419/59799

Mohammed, A., & Suraya, I. (2019). Government Spending and Economic Growth: Contemporary Literature Review. *Journal of Global economics, 7,* Article ID: 1000343. https://www.researchgate.net/publication/338188441_Government_Spending_and_Economic_Growth_Contemporary_Literature_Review?utm_source=chatgpt.com

Nduwimana, J. P., & Sindayigaya, I. (2025). The Analysis of Tax Rate Increases and Their Implications for Budgetary Policy. *International Journal of Scientific and Management Research, 8,* 40-51. https://doi.org/10.37502/ijsmr.2025.8204

Nijimbere, B., Kaboneka, S., Nishimwe, K., Nduwimana, A., Nijimbere, S., & Sindayigaya, I. (2025a). Analysis of Common Bean Production Constraints in Burundi's Acid Soils. *Open Journal of Social Sciences, 13,* 63-82. https://doi.org/10.4236/jss.2025.136005

Nijimbere, B., Kaboneka, S., Nishimwe, K., Nduwimana, A., Nijimbere, S., & Sindayigaya, I. (2025b). Practices and Systems Applied in Common Beans Farming in Burundi. *Open Journal of Social Sciences, 13,* 624-641. https://doi.org/10.4236/jss.2025.136041

Nkurunziza, D. J., & Ngaruko, F. (2005). *Why Has Burundi Grown So Slowly*? https://www.academia.edu/397960/Why_Has_Burundi_Grown_So_Slowly

Nwankwo, D. J., Kalu, C. U., & Chiekezie, M. O. (2017). Fiscal Policy-Economic Growth Correlates: Further Evidence from Nigeria Economy. *International Journal of Academic Research in Business and Social Sciences, 7,* 1-11. https://doi.org/10.6007/ijarbss/v7-i1/2549

Nyabenda, A., & Sindayigaya, I. (2023). The Child's Rights to Quality Food for Children Residing with Their Mothers in Prison: Case of Mpimba Prison, Burundi. *Open Journal of Social Sciences, 11,* 32-40. https://doi.org/10.4236/jss.2023.1111002

O'Sullivan, A., Sheffrin, M. S., & Perez, J. S. (2012). *Economics: Principles, Applications, and Tools* (7th ed.). Pearson Education, Inc. https://www.pearson.com/en-us/subject-catalog/p/economics-principles-applications-andtools/P200000006006/9780135639818?srsltid=AU7gw4XUf-Gd752dPE00r4M2_qhLjus_O17XFgD-DYfF8c2tJ0EcJERx

Osborne, J. W., &Waters, E. (2002). Four Assumptions of Multiple Regression That Researchers Should Always Test. *Practical Assessment, Research, and Evaluation, 8,* Article No. 2.

Raihan, S., & Anjum, I. (2020). Effectiveness of Fiscal Policy in Stimulating Economic

Growth: An Empirical Study on Bangladesh. In M. Hossain (Ed.), *Bangladesh's Macroeconomic Policy: Trends, Determinants and Impact* (pp. 197-215). Springer. https://doi.org/10.1007/978-981-15-1244-5_7

Rajkumar, A. S., & Swaroop, V. (2008). Public Spending and Outcomes: Does Governance Matter? *Journal of Development Economics, 86,* 96-111. https://doi.org/10.1016/j.jdeveco.2007.08.003

Romer, D. (2001). *Advanced Macroeconomics* (2nd ed.). MacGraw-Hill.

Sindayigaya, I. (2023). The Overview of Burundi in the Image of the African Charter on Rights and Welfare of the Child. *Beijing Law Review, 14,* 812-827. https://doi.org/10.4236/blr.2023.142044

Zulfiqar, K. (2018). Fiscal Policy for Inclusive Growth: A Case Study of Pakistan. *Pakistan Economic and Social Review, 56,* 21-46. https://www.jstor.org/stable/26616731