

Role of Public Revenue and Public Expending in Achieving Sustainable Economic Development in the Perspective of Local Project Approach

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Abstract: Stabilization of the economy is a top priority; hence fiscal policy is heavily used to reorient the economy. However, little research is being conducted in Pakistan on the effect of allocating public income between productive and nonproductive costs on long-term economic growth. For this purpose, the study organized a dynamic association among government revenue, productive and nonproductive expenditure, and sustainable economic development spanning 1978-2021 from the perspective of ARDL and local projects with an impulse response function. The findings elaborate that a 1% increase in direct and indirect tax, productive expenditures, and money circulation will assist in attaining sustainable economic development by 0.32%, 0.219%, 0.63%, and 0.35%, respectively. Moreover, all diagnostic tests (coefficient, residual, and stability) favor the study. At the same time, the local project with impulse response reveals that indirect tax, money circulation, and productive and nonproductive expenditures positively participate in future time to attain sustainable economic development. Therefore, the government should educate people that tax is the responsibility, not the penalty. Moreover, the government should carefully employ public revenue to attain sustainability.

Keywords: Direct Tax; Productive Expenditure; Sustainable Economic Development
JEL Classification Codes: D4, E4

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1. Introduction

In advanced and emerging countries, fiscal policy is a well-known tool for fostering economic growth, development, and long-term viability. Sustainability may be attained by the policy's use of taxation and spending (Faria-e-Castro., 2021). A central aspect of Keynesian economics is that changes in government expenditure and tax revenues affect aggregate demand and economic output (Chen et al., 2021). Indirect and direct taxes are the primary means through which the government brings in money (Büyükbaşaran et al., 2020). Government spending, likewise, has both productive and nonproductive components. As a result, more money is compulsory to keep up with rising costs (Kim et al., 2021).

Government spending in Pakistan has been rising steadily in recent years to boost the country's sluggish economy. However, it is difficult for emerging markets to increase their tax revenues to cover this rising public spending. Generally, tax and non-tax income is used to fund these costs, but in recent years, public debt has made the difference (Shafiq et al., 2021). As a result, Pakistan has a meager tax collection rate (Jahnke and Weisser., 2019). After independence from India in 1947, Pakistan adopted the Indian-drafted Act of 1935. The Act of 1973 eventually superseded it. It was settled that the federal government would be responsible for levying taxes and that the provincial governments would be allowed some authority to levy direct taxes (Venkataraman and Urmi., 2017).

As time passed, new policy acts were enacted to increase the tax circle in the economy; however, despite the financial arrangement being outfitted with the new targets and goals. It was unable to achieve the destination due to the ineffective government arrangement and the incapability of the duty of gathering technique (Minh Ha et al., 2022). A budget deficit occurs when a government's spending exceeds its revenues. Therefore, the government needs more workforce and money to investigate these incidents. The state employs tactics such as taxation (to collect more reserve, the government raises the expense ratio reenacting economic development, rising to evaluate age) and central bank printing of money, known as the obligation adaptation ((KENYA: Economic Survey 2021, 2021).

Reportedly, endogenous growth models may be used to predict economic expansion. According to these hypotheses, a boost in economic development is the outcome of the accumulation of any policy-supportive factor input (Hakim., 2020). Thus, these models help the government formulate a comprehensive and efficient development strategy. To better understand how a nation might boost its economic growth by adjusting the ratio of productive to nonproductive government spending, researchers classified government expenditures into two broad categories: productive and nonproductive (Hakim., 2020); (Rexha et al., 2021a)

Spending on productive government programs affects economic development since it directly increases private sector productivity. (Korkmaz et al., 2019). Nonproductive expenditure, which often affects residents' well-being, is likely to have zero or a negative influence on GDP.

Unpredictable and random shocks may significantly impact the economy and are often the subject of debate (Kalaš et al., 2020).

This topic aims to accurately portray the dynamic impact of productive, nonproductive, direct, and indirect tax, interest rate, and money circulation on sustainable economic development. Each of these issues threatens the long-term viability of the economy. To what extent do all of these factors influence economic expansion? It also tries to capture the behavior of all other variables if the first variable varies. This research uses cutting-edge methods to provide a new viewpoint on a topic that has received less attention. The rest of the work is structured as follows: chapter 2 is devoted to a review of the relevant literature; chapter 3 examines the methods; chapter 3 presents the findings. Fifth, deliberately explore the discussion, and last comprises conclusions and policy implications.

1.1 Literature Review

Numerous published works discuss the impact of taxes on economic growth, each focusing on a unique set of variables. This study employs a multifaceted approach to understand how direct and indirect taxes, productive and nonproductive spending, interest rates, and money flow affect Pakistan's long-term economic viability. One primary source of government revenue is a direct tax, but wasteful expenditures constitute a significant drain on resources (Agunbiade and Idebi., 2020).

It was (Alekhina and Ganelli., 2020) when including government expenditure in a development model radically alters how the relationship between government, fiscal growth, and the economy's savings is calculated (Cai et al., 2020). The economic growth will suffer if policymakers choose to increase the share of expenditure that goes to non-essentials. However, according to the Keynesian economist, there is a link between price and the money supply (Oyinlola and Adedeji., 2021). The chances of future success are increased when money is spent efficiently, but the opposite is true when money is wasted (Ogundana et al., 2017).

While national budgets typically consist of mandatory and discretionary spending, the details of each system vary. Many initiatives and strategies, when first conceived, were expected to benefit the economy and steer the economic process in a more balanced direction; nevertheless, the actual outcomes of many endeavors and strategies were counterproductive (Korkmaz et al., 2019). Furthermore, the size of the country is a significant issue; if the economy is developed, the response will be positive, but in a developing economy, it will be harmful for the same reasons. However, over 80% of spending in non-OECD nations is done on the assumption that it would generate a favorable reaction. It also relies on the mix of expenditure, which varies from country to country (Hakim., 2020).

A vast body of research argues that various government programs and initiatives have a chilling effect on individuals' propensity to save and invest, which in turn causes a marginal increase in taxation (Arabi and Elbeely., 2019). In particular, wasteful expenditure has been shown to have a

significant, countervailing impact on economic growth (Munir and Sultan, 2018). In this way, the idea is articulated that wasteful government spending ultimately triumphs, slowing economic growth (Popescu and Diaconu., 2021). Crowding out and wasteful government expenditures negatively influence economic development (Divino et al., 2020). During this time, governance improved substantially. As money development drops, expenditure rises. It might indicate the detrimental influence of government spending on financial development (Shahbaz et al., 2013).

On the contrary, (Maulid et al., 2021), Transport, education, telecom, power, and health strengthen the economy. Financing might ruin organic goods. Given the recent rise in the duty ratio by the government. It wastes resources and reduces productive consumption (Mandala., 2020).

In official applications, neo-classical and Keynesian economics agree that a rise in state consumption is good for economic growth (Dangal and Gajurel., 2021). However logical it may seem, increasing the tax rate will have the opposite effect and slow economic growth (Ahuja and Pandit., 2020). However, neoclassical models typically predict a decline in private usage following an increase in daylight uses due to the negative wealth impacts (Onifade et al., 2020).

According to conventional wisdom, large-scale expenditure disrupts economic growth (Barlas, 2020). When it comes to financial processes, larger economies have a detrimental impact. (Onifade et al., 2020) Put out the idea that the state may produce cash, although slowly and sporadically, by redirecting its wasteful expenditure on the military. Due to the insignificance of their coefficient, countries like Sweden, Norway, and United States were not included in the overhead reference group (Aluthge et al., 2021).

(Gurdal et al., 2021) Examine G7 GDP growth, indirect tax, and direct tax. Indirect taxation was shown to have a clear correlation with economic growth. At the same time, direct taxes benefit economic development (Nyasha and Odhiambo., 2019). Similarly, using an error-correction method to track the correlation between GDP growth and direct tax revenue (ERTEKİN and BULUT., 2021).

(Arvin et al., 2021) supervises research into the economies of Pakistan and India to link direct and indirect taxation. In contrast to India's economy, which would benefit from an indirect tax system, Pakistan would be best served by a direct tax (Zeynalova., 2020). Furthermore, he states that direct economic taxation would help Pakistan accomplish its goals. However, India's economy will benefit significantly from an indirect tax policy (Sethi et al., 2020).

(Maulid et al., 2021) Analyzed how developing nations like Pakistan, India, and Bangladesh might benefit (Kamis et al., 2020) concludes that in the long run, the state may help by using its wasteful expenditure in the military industry to produce new weaponry for sale, bringing in a massive influx of cash. In contrast, military speculation in the near term is useless to the state and might be discouraging to the government (Abdel-Khalek et al., 2020).

(Gurdal et al., 2021) It is established that government spending slows economic growth. These results may be linked to crowding out, which occurs when inefficient costs are prioritized in

planning total government spending. (ERTEKİN and BULUT., 2021). Financing the supposed prosperity of the government, or by payments on government-managed savings (i.e., the final consequence), slows the pace of monetary growth because of wasteful spending (Maulid et al., 2021).

(Putri and Prasetyo., 2020) The greater growth rate might result from public debt money being used to redirect savings into investment. (Azimi., 2022) advocated that a healthy economy requires a growth rate of money that is lower than the pace of production. Money's role in growth was analyzed by including monetary expansion in the utility function of a hypothetical representative family that maximizes utility overtime periods (Samargandi et al., 2020). The results showed that money had no lasting effects and that a faster capital increase led to more significant inflation.

To investigate the numerous impacts of real interest rate as an exogenously defined component in an economy on economic growth, as the literature is continually expanding our understanding of the effects of each of these elements individually (Matarr and Momodou., 2021). A high-interest rate discourages investment, reducing the potential for local investment to grow and supporting only a shaky market structure (Achyar and Hakim., 2021). We investigated this preexisting idea in depth and posed the issue of whether or not high. The real interest rate has an inverse multiplier impact on economic growth by altering the behavior of other explanatory components of economic growth and affecting the economic transition from an investment-savings standpoint (Haruna and Abu Bakar., 2020).

(Đurović-Todorović et al., 2019) Discovered that direct taxes have a detrimental effect on economic expansion. The economies of the six Eastern European nations studied show a good correlation. (Tiwari and Shukla., 2021) Study the breakdown of government spending and its impact on the economy's growth. Using an endogenous growth model, researchers discovered that higher levels of productive expenditure in both tall- and low-income nations positively influenced the growth ratio. (K. Rai and K. Sharma., 2020). (Ur Rehman et al., 2020) analyses the impact on economic growth brought on by a relatively beneficial change in the indirect tax mix. A favorable change in the structure of direct taxes will also dampen economic development in the long run.

Consequently, we can say that many researchers utilized factors that resemble each other. Moreover, sustainable economic development never deals with public revenue, public expenses, interest rate, and money circulation, especially in developing economies. Therefore, the current study took the initiative to discuss the issue of public revenue, public expenditures concerning interest rates, and money circulation in the developing economy. Thus, the main objective of this study is to determine the participation of public revenue, public expenditures, interest rate, and money circulation to ensure sustainable development. Time-series data is arranged (1978-2021) to accomplish the objective.

Furthermore, modern econometric methods such as ARDL bound test, ARDL, and local projects with impulse response were employed to enlist the influence of the public revenue, public expenditures, interest rate, and money circulation, ensuring sustainable development. The available research in this area utilized odd or even factors to evaluate their influence on sustainable

development. However, no comprehensive work can be found in this regard. Therefore, the current study employed all the possible factors which can influence or highlight the issue of sustainable development. Furthermore, due to the latest dataset and modern evaluation methods of econometrics, this work provides a fresh perspective on this field.

2. Methodology

This study is commenced to understand how changes in government spending (productive and nonproductive), tax income, interest rates, and monetary circulation affect long-term economic growth. The research accomplished this by compiling a time series dataset that spans 1978-2021. The primary source of the data is the World Development Indicator (WDI). The general, it can be reported.

$$SEG_{it} = \theta_{it} + \Phi_{1it}DRT_{it} + \Phi_{2it}TNI + \Phi_{3it}IRT_{it} + \Phi_{4it}M2_{it} + \Phi_{5it}NPE_{it} + \Phi_{6it}PRO_{it} + \eta_{it} \quad (1)$$

(Ivanova et al., 2021) Develop a plan for the growth-inducing effects of public expenditure and the outsized impact of specific categories of government spending on GDP expansion. However, when the government decides to shape economic development, it will boost the country's growth (Ivanova et al., 2021). Numerous researchers have developed various models to enlist the influence on sustainability to examine the connection between public spending and economic expansion. Still, the here study employed reframing the critical equation of (Yilmaz and Kanaci., 2021) and (Kim et al., 2021).

$$SE_i = b_i + \delta_1 \left(\frac{E_{pro,i}}{E_{pro,i} + GE_{unpro,i}} \right) + \kappa_1 \left(\frac{E_{pro,i}}{Y_i} \right) + \eta_i \quad (2)$$

$$SE_i = b_i + \delta_2 \left(\frac{GE_{unpro,i}}{E_{pro,i} + GE_{unpro,i}} \right) + \kappa_2 \left(\frac{GE_{unpro,i}}{Y_i} \right) + \eta_i \quad (3)$$

$$SE_i = b_i + \delta_3 \left(\frac{E_{pro,i}}{E_{pro,i} + GE_{unpro,i}} \right) + \kappa_3 \left(\frac{TA_i}{Y_i} \right) + \eta_i \quad (4)$$

$$SE_i = b_i + \delta_4 \left(\frac{GE_{unpro,i}}{E_{pro,i} + GE_{unpro,i}} \right) + \kappa_4 \left(\frac{TA_i}{Y_i} \right) + \eta_i \quad (5)$$

$$SE_i = b_i + \delta_5 \left(\frac{E_{pro,i}}{E_{pro,i} + GE_{unpro,i}} \right) + \kappa_4 \left(\frac{IM_i}{Y_i} \right) + \eta_i \quad (6)$$

$$SE_i = b_i + \delta_5 \left(\frac{GE_{unpro,i}}{E_{pro,i} + GE_{unpro,i}} \right) + \kappa_5 \left(\frac{IM_1}{Y_i} \right) + \eta_i \quad (7)$$

To establish a link between sustainable economic growth and public revenues, expenditures, interest, and money circulation. (Chu et al., 2020). Moreover, flow chart 01 expresses all the steps in a single glance, which the study will follow.

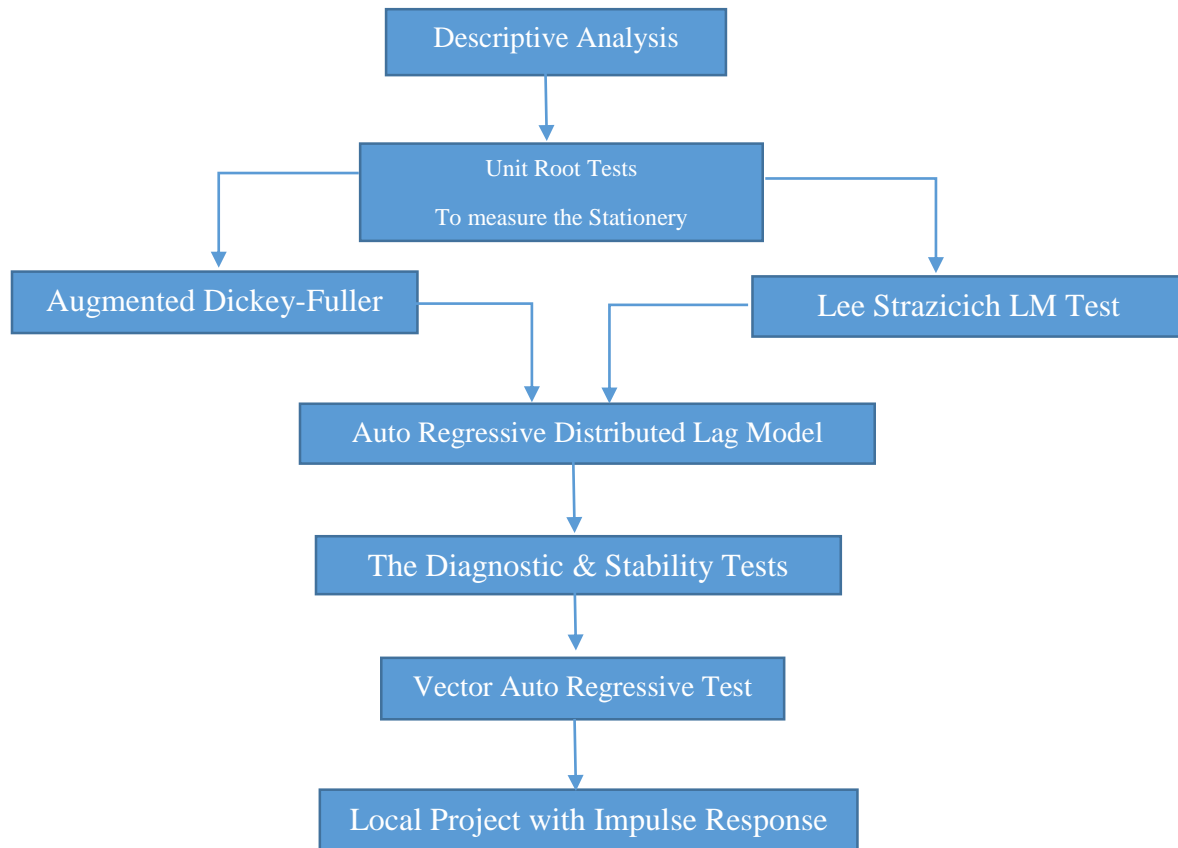


Fig 01. Flow Chart

3. Results

A time series dataset is structured from 1978 to 2021 to reflect the impact of public revenue, public spending, and money circulation on long-term economic growth. To summarize the overview of the factors, descriptive analysis is employed. The descriptive analysis comprises four segments. First, it explains the tendency of the elements consisting of mean, median, maximum, and minimum values. Secondly, it elaborates on the deviation from the mean, defines the spread of the data via skewness and kurtosis, and explains the high-tailed or low-tail data. Lastly, Jarque-Bera (JB) discloses the model's goodness of fit. The results are reported in Table 02.

Table 02: Descriptive Analysis

Variables	SEG	DRT	INT	IRT	M2	NPE	PRO
Mean	1.479	0.205	0.867	0.587	-5.292	0.440	0.201
Median	1.576	0.427	0.739	0.504	-5.588	0.585	0.411
Maximum	2.323	2.290	1.918	2.858	0.000	2.370	2.670
Minimum	0.014	-3.117	0.023	-2.008	-7.898	-2.493	-3.133
Std. Dev.	0.496	1.777	0.680	1.473	1.917	1.508	1.794
Skewness	-0.879	-0.282	0.181	-0.016	0.497	-0.293	-0.255
Kurtosis	3.486	1.650	1.418	1.792	2.560	1.907	1.664
Jarque-Bera	6.101	3.924	4.828	2.675	2.166	2.821	3.751

The information in Table 02 elaborates that tendency of data toward mean lies in the maximum and minimum range. At the same time, the deviation values from the means of all factors lie in the thumb rule value (± 2). Further, the outcome of skewness and kurtosis defines that the values of all factors lie under the thumb rule value, i.e., (± 3 for skewness & ± 10 for kurtosis). Moreover, JB elaborates the goodness fit of the model, and the outcomes of JB are also in the study's favor. However, the trend of the variables is reported in figure 01, which is based on the statistical data.

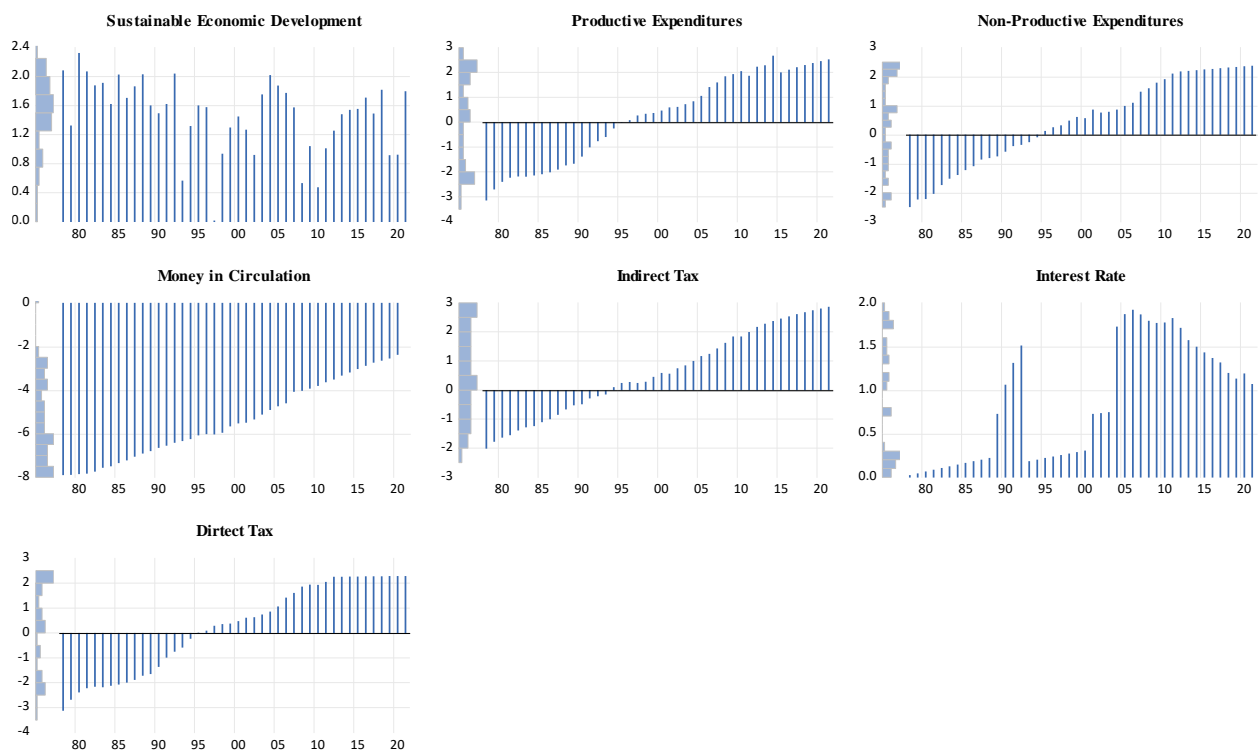


Fig 01: Profile of the Variables

The next step in the time series analysis is stationary, simplifying that the dataset should be stationary. For this purpose, Augmented Dickey Fuller (ADF) is employed. The outcome is reported in Table 03.

Table 03: Unit Root Estimation

Variables	at level		at 1st Difference	
	t stat	p-value	t stat	p-value
SEG	-4.562***	0.001	-6.703***	0.000
DRT	-1.148	0.688	-3.782***	0.006
IRT	-1.449	0.550	-6.462***	0.000
NPE	-3.055**	0.038	-3.136**	0.032
PRO	-1.801	0.375	-6.936***	0.000
INT	-1.656	0.446	-5.941***	0.000
M2	2.143	1.000	-1.565*	0.079

Note: ***, **, and * denotes the 1%, 5%, and 10% significant level, respectively.

Table 3 discloses that SEG and NPE have zero mean and constant variance at a level while all study variables have a unit root at 1st difference. However, the study employed the Lee Strazicich LM unit Root Test (2018) (LSLM) to determine the break in the trend and intercept exogenously.

Table 04: Lee Strazicich LM unit Root Test

Variables	t-stat	Year
SEG	5.258***	1994
DRT	-6.604***	2009
IRT	-4.443**	1997
NPE	-4.466**	2002
PRO	-6.651***	2007
INT	-4.818**	2002
M2	-5.171***	2009

The outcomes of LSLM in Table 04 elaborate that at one break, all the factors have a discontinuity in different years. Consequently, it concludes that all the elements have unit roots and a gap in the data, which exists in an additional year.

However, the study employed the autoregressive distributed lag model (ARDL) test to find out the long-term and short affiliation between the study factors. It is used to segregate short-term collaboration of factors from the long-term because the ARDL bound test only elaborates the cumulative long-term association. Therefore, the prior study employs the ARDL bound test, the ARDL test. The outcomes of the ARDL bound test are reported in Table 5.

Table 05: ARDL Bound Test

F-Bounds Test		Null Hypothesis: No levels of relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	8.061973	10%	1.99	2.94
k	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

The information in Table 5 discloses that long-term affiliation among SEG, DRT, IRT, NPE, PRO, INT, and M2 prevails. However, to segregate the short-term influence from long-term employed, the ARDL model is reported in Table 06.

Table 06: ARDL Estimation

Long Term Affiliation				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
SEG(-1)	-0.897***	0.150	-5.975	0.000
DRT	0.322**	0.682	0.472	0.040
IRT	0.219**	0.950	3.072	0.004
NPE	-1.347**	0.469	-2.869	0.007
PRO	0.630**	0.634	0.992	0.028
INT	0.577**	0.214	2.695	0.011
M2	0.358*	0.193	1.855	0.073
Short Term				
INT	0.577***	0.183	3.148	0.004
M2	0.358**	0.133	2.698	0.011
ECT	-0.897***	0.117	-7.667	0.000

The information above in Table 6 elaborates that INT and M2 have a short-term influence on the SEG. While in the long term, all the factors such as DRT, IRT, NPE, PRO, INT, and M2 are associated with the SEG. Consequently, it concludes that in the long term, all the study factors are related to the SEG, indicating that they play their role in stabilizing the economy. Moreover, the top 20 ARDL models are reported in figure 02.

Akaike Information Criteria (top 20 models)

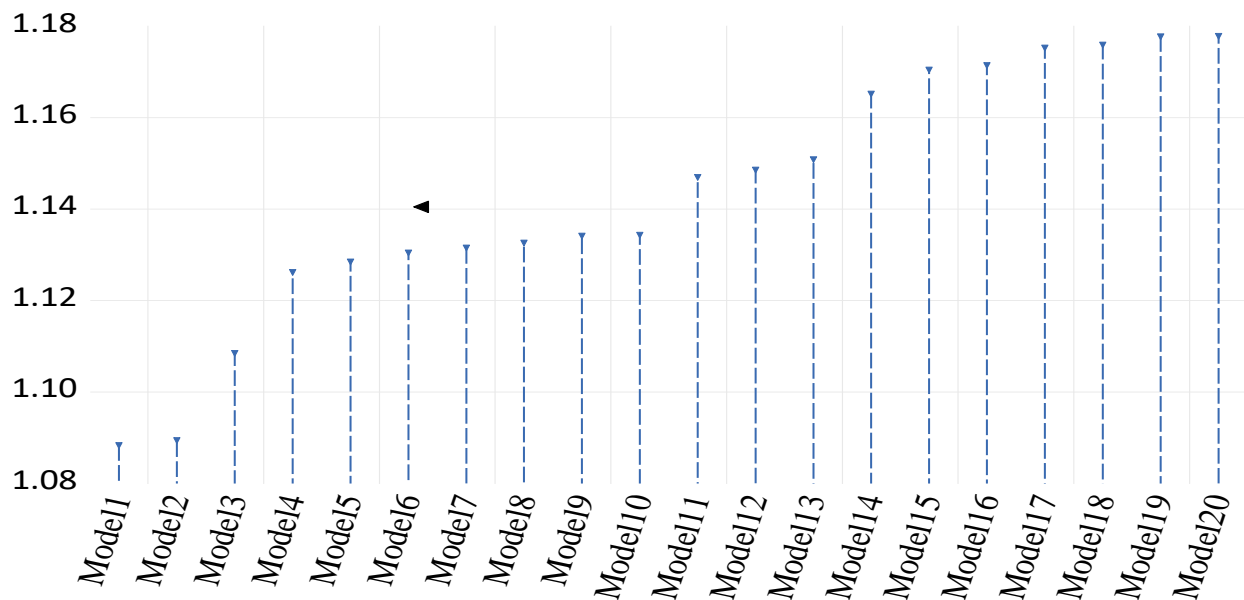


Figure 02: Top 20 ARDL models

However, various diagnostic tests (Robustness Check) are employed to examine the reliability and stability reported in Table 07. In addition, the study utilizes several econometric diagnostic techniques to determine the model's significance and strength. The results are depicted in table 07.

Table 07: Robustness Check

Wald Test		
F-Stat	Degree of Freedom	Prob.
6.67	(2,33)	0.06
Diagnostic Test		
ARCH Test		
F-Stat	Degree of Freedom	Prob.
6.67	(2,33)	0.07
Brusch-Godfrey Serial Correlation LM Test		
X ² - Stat	Degree of Freedom	Prob.
	1	0.07
Ramsey RESET Test		
F-Stat	Degree of Freedom	Prob.
0.01	(1,39)	0.06

The information in Table 7 elaborates that coefficient, residual, and stability tests favor the study, simplifying that the model is stable in its current shape.

The next step is just to apply the well-known stochastic process of the vector autoregressive model, which scholars used to find the linear relationships between the different time series. In the VAR model, all variables are connected via equations. Policymakers utilized the VAR technique because data carry a lot of information; therefore, policymakers, The outcome of VAR is mentioned in Table 08.

Table 08: VAR Estimation

Variables	SEG	DRT	IRT	NPE	PRO	INT	M2
	0.087	-0.049	-0.017	-0.031	-0.067	0.038	-0.145
	0.186	0.042	0.022	0.034	0.056	(0.119)	0.132
SEG(-1)	0.469	-1.169	-0.783	-0.914	-1.200	0.324	-1.099
p-value	0.000	0.004	0.023	0.03	0.001	0.041	0.032

The information mentioned in Table 8 explains a long-term affiliation among the factors. However, to report the long-term behavior of a variable when it fluctuates from its equilibrium position, the study employed the local project function with the impulse response (LPIR). The results are reported in figure 03.

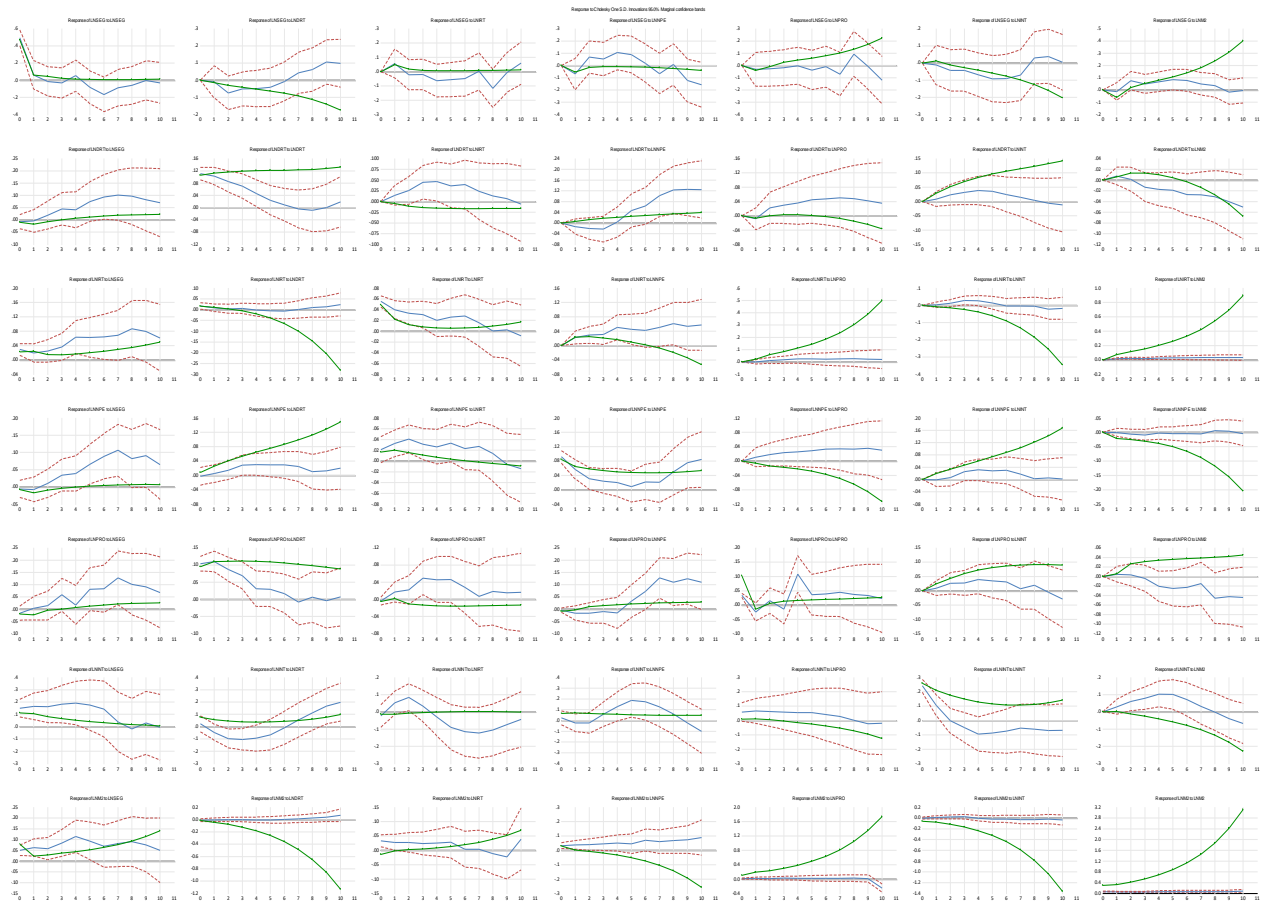


Figure 03: Local Project with Impulse Response Function

The outcomes describe that when one standard deviation shock of DRT and INT is given to the SEG, the local project and impulse initially respond positively and then move to an anti-equilibrium position. While IRT, PRO, NPE, and M2 react positively in the future. Simplifying that in the reaction of shock (Impulse response), all the factors respond positively in the long term. At the same time, the local project reveals that except DRT and INT, all the elements react positively in the long term.

4. Discussion

Sustainable economic development is the dream of each economy. That is why each economy, whether it belongs to a developing or developed region, design efficient and effective policy to attain sustainability in the long term. For this purpose, to measure the influence of productive expenditures, nonproductive expenditures, direct tax, indirect tax, interest rate, and money circulation on sustainable economic development, arranged a time series dataset spinning from 1978 to 2021.

The study finds that with a 1% increase in direct tax collection and indirect tax, sustainable economic development increased by 0.322% and 0.219%, respectively, indicating that public revenue is directly associated with sustainable economic growth. As the level of public revenue

upsurges, more opportunities are in the hand of the government to attain sustainability. The results are supported by (Aleksandar Nikoloski, 2020), (Rexha et al., 2021b) (Chimezie et al., 2020), and (Kim et al., 2021).

While there was a 1% increase in productive expenditures, sustainable economic development upsurged by 0.63%. In the country, 1% increase in nonproductive spending, and sustainable economic development declined by about 1.34%. It is because the productive expenses boost the performance of many affiliated sectors and collaborate. At the same time, nonproductive payments move out from the circulation of money, increasing unnecessary demand. The findings are along the line ((Maulid et al., 2021), (Mandala, 2020), (Dangal and Gajurel, 2021), (Kharel and Adhikari, 2021) and (Kamis et al., 2020)).

Most importantly, the rate of interest and money circulation play a positive role in stabilizing the economy. The finding discloses that 1% increase in the rate of interest and money circulation, sustainable economic development will increase by 0.57% and 0.35%, respectively. The results are supported by (Matarr and Momodou, 2021), (Alkhaldeh et al., 2020), (Panigrahi et al., 2020), (Achyar and Hakim, 2021), and (Hasyiyati, 2022).

4.1 Conclusion

This study investigates the dynamic influence of direct tax, indirect tax, productive expenditures, nonproductive expenditures, interest rate, and money circulation on sustainable economic development while utilizing the time series dataset revolving around 1978 to 2021.

The study finds out that the components of public revenue (direct and indirect tax) are affiliated with sustainable economic development. At the same time, the components of public expenses (productive and nonproductive) are associated with sustainable economic growth. Moreover, interest rates and money circulation are significantly related to sustainable economic development.

Moreover, the findings also elaborate that if the government increases the direct and indirect tax circle, it will positively influence sustainability in the long term. In addition, productive expenditures, interest rates, and money circulation positively affect sustainable economic growth. Furthermore, the robust tests affirmed that the model is stable and credible in its current shape. Finally, a local project with an impulse response elaborates that if one standard deviation shock of each factor is given, economic development can be assimilated in the long term.

4.2 Implication

The findings suggest that administrative legislation is required. Since taxation sustains economies, widespread education about its significance is essential. The government should be careful with its spending as a significant contributor to economic inflation. Additionally, nonproductive

expenses should be redirected to remove obstacles to economic growth. Further, both fiscal and monetary policy should prioritize long-term viability and economic development.

4.3 Limitations and future research directions

The current study has some limitations, as it employed many variables and a limited period, which can be expanded by adding more variables or tax index and expenditures index. Further, the SVAR model can be utilized for better exploration. Because SVAR provides the opportunity to impose restrictions on some elements to capture the influence of remaining factors in a restricted scenario.

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