

# Public Spending and Economic Growth: A Study of Nepal During Fiscal Year 1990/91-2020/21

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## Abstract

*This paper investigates the connection between government spending and economic growth: A study of Nepal from F/Y 1990/1991 to 2020/2021. During the study period, Nepal's government spending increased significantly. The trend of government spending in Nepal seems to be centered on routine expenses and continually expanding the country's budget deficit. Nepali government has traditionally used its potential for government expenditures less efficiently, as evidenced by the data. The budget imbalance of Nepal has been growing in line with the country's developing economy. The aim of this study is to investigate the effect, trend, and relationship between government spending and economic growth using conventional ECM. Both descriptive and analytical research techniques have worked well with secondary data. The study's findings show that government spending had a significant impact on Nepal's economic growth during the study period, and they emphasize the need for increased capital expenditure mobilization for the expansion of development activities in an accountable manner. EA is not statistically significant on 1 %, 5 % and 10% levels. All the other variables are statistically significant at 1 percent level respectively. Except for EH, other variables are a positive relationship with economic growth.*

**Keywords:** Government spending, Impact, Descriptive, Economic growth, Revenue.

## 1. Introduction

The fundamental conditions for raising living standards, creating jobs, and boosting a country's prosperity are economic growth. It denotes the signs of a general improvement in economic indices. The goal and aim of the country's revenue collection is government spending. Modern governments are interested in fostering the economic development of their individual nations in addition to carrying out their fundamental duties. Government expenditures refer to the allocation and application of monies to the government's finance, which has grown to accommodate the demands of the economic structure and other causes. The role and size of government spending sparks a lot of debate in macroeconomics.

Government spending is a crucial component of economic strategy and is employed by governments as a useful tool to promote quick and enduring prosperity. By expanding government expenditure, it seeks to spur economic expansion, which will raise private sector spending and spur expansion via the multiplier effect. However, there is a downside to

government expenditure (Ahmad & Loganathan, 2015). Even though the GDP might rise, the impacts of crowding out might stop further economic expansion. If the government increases expenditure at the expense of greater taxes or borrowing, the long-term ability of consumers to buy goods and services may be harmed, which would reduce overall public consumption.

According to Goode (1984), public expenditure is a way to perform necessary tasks, such as administering justice and providing for national defense, as well as to provide some additional goods and services that are beneficial to a great society but that private businesses would not be able to provide because doing so would not be profitable. Therefore, public spending refers to the costs incurred by public authority to meet the needs of the general populace. Because traditionalists hold that the economy is always at full employment, most governments in the 19th century adopted laissez-faire economic policies and limited their activities to fighting against invasion and upholding law and order. However, a global economic depression first surfaced in the 1930s. Keynes (1971) noted that a lack of expenditure was one of the depression's primary causes.

One of the least developed nations in South Asia is still Nepal. Its landlocked location and totally open border with India have made its economic issues worse. There wasn't much progress made in the nation under the Rana. It was vital to increase public sector activities after the democratic government was established in 1951 by using workable tactics for planned development and financial management. It was tried to make the plan somewhat comprehensive when it first started (1965–1970). That is, in addition to attempting to preserve the balance between the physical plan and the availability of resources, attention was paid in each succeeding plan to maintaining intersectoral and intra-sectoral balance with other sub sectors of the economy. Since then, the public sector has grown astronomically as a result of the government's active development efforts and the nation's extensive planning process. This study attempts to assess the trend of public spending from 1990/91 to 2019/20. Up until 1998/99, development spending was higher than regular spending; nevertheless, normal spending has since continued to outpace development spending.

Various theoretical and empirical investigations suggested that the government's spending had the largest influence over both real GDP and economic growth. The majority of studies demonstrated a beneficial effect on economic expansion. In this study has progressed in following research question. What effect does government spending have on Nepal's economic growth? And what is its trend? In this study, examine the impact, trend and relation between government expenditure and economic growth of Nepal.

## **2. Review of Literature**

The importance of public spending was studied by Taylor (1961), he also emphasized how the growth of government had occasionally been seen as a move toward socialism. It is clear that governments like to socialize via spending money. It assisted in resolving the problem that cyclical volatility had brought about, much of which was made clear during

the downturn. During the Great Depression, public infrastructure initiatives and landing services were put in place to mitigate capitalism's harshest effects. Its cyclical predisposition to collapse tries to prevent significant breakdown by "pump-priming" state spending to fill in the gaps left by insufficient private spending during a recession.

Kharel (2012) used annual data from 1992-1993 to 2009-2010 to develop a modeling and forecasting fiscal policy and economic growth in Nepal for the plan period of 2010-11 to 2012-13, exposed that government capital spending has a favorable effect on economic growth and also draws in private investment.

Hasnul (2015) examined the connection between government spending and economic growth in Malaysia using data from 1970 to 2014. Government spending was divided into operating and development costs using the OLS method, and it was found that there is an inverse relationship between overall public spending and national economic growth.

Ogbokor (2015) focused on the dynamic relationship between government spending and economic growth in Namibia, establishing the nature and root of the relationship between government spending and economic growth is the aim of the study. From 1990 to 2013, the annual time-series macroeconomics secondary data collection was used and the co-integration technique to look at the variables' long-term relationships after using the two-step Engle-Granger strategy to investigate causality between the variables. The cointegration linkages and unidirectional causality between government spending and economic growth were discovered by the study. The study also discovered that expenditure on health, education, and government is not a highly reliable predictor of economic development.

Rosoiu (2015) examined at how government spending and income affected Romania's economic growth from 1998 to 2014, used the VAR (vector auto-regression) approach with coin integration to do the Granger causality test and found a correlation between government revenue and expenditure that went both ways.

Guandong and Muturi (2016) examined how dynamic relationships between regression analysis of government spending and economic development in South Sudan from 2006 to 2014 panel data model that shown that public expenditure on the productive sector, infrastructure, and security contributed to economic expansion.

Yu et al, (2016) looked at trends and composition of public spending between 1980 and 2010 in 147 nations and found that spending on social protection increased significantly in both developed and developing nations between 1980 and 2010, with richer nations experiencing a far more marked increase.

Idris and Bakar (2017) used the ARDL bound test to investigate the relationship between public sector spending and economic development in Nigeria, reveals that there is a long-term, positive equilibrium relationship between government spending and economic growth and a consistent association between the economic indicators is in line with Keynesian theory.

Nyasha and Odhiambo (2019) verified the unidirectional Granger causality category from government size to economic growth, which followed the bidirectional Granger causality

category. They arrived to the conclusion that the causal link between government size and economic growth may be more complex than certain.

Aluthge et al. (2021), explores the influence of Nigerian government expenditure on economic growth, employs time series data spanning from 1970 to 2019 and utilizes the Autoregressive Distributed Lag (ARDL) model to ensure robustness in the findings. Furthermore, the analysis takes into account structural breaks during the unit root test and co-integration analysis. The key findings reveal that capital expenditure exerts a positive and significant impact on economic growth in both the short run and long run. On the other hand, recurrent expenditure does not exhibit a significant influence on economic growth in either the short run or long run.

### **3. Data and Methodology**

An investigation into Nepal's economy aims to look at state spending and economic growth. The study thoroughly looked at how expenditure impacted Nepal's economic growth in accordance with its objectives. The descriptive or exploratory approach of analysis is used to analyze Nepal's public spending and economic development. This study's analysis and recommendations are based on 31 years of secondary data, from 1990 through 2020. The necessary information was taken from NRB publications and Economic Surveys released by the Ministry of Finance. GDP was used as a proxy for economic growth, and the predictors were capital expenditure (CE), regular expenditure (RE), expenditure on education (EE), expenditure on health (EH) and expenditure on agriculture (EA) using the same proxy for public expenditure. In this study, Engle-Granger Cointegration Test and Error Correction Model are used to explore the connection between public spending and economic growth in Nepal.

Engle-Granger methodology tries to establish causal links among the variables. A particular and long-run relationship is compatible with many short-run adjustment processes. As given above dependent and independent variables are co-integrated and present the short-run dynamics of the system where the movements in all the variables are considered explicitly. This study uses the conventional ECM, which takes into account the co-integrating relation among the variables which is explicitly considered. These tests should not be viewed as showing that one variable is the effect or the result of the other. Rather, it measures preference and information content and, thus, does not show causality as commonly expressed.

#### **3.1 Empirical Method**

The empirical model used in accordance with the theoretical framework is shown in the following equation. The variables are further taken with log values owing to the desirable time series properties of the variables. It allows computing the elasticity directly. Therefore, the econometric model for the estimation is:

$$GDP = \beta_0 + \beta_1 CE + \beta_2 RE + \beta_3 EE + \beta_4 EH + \beta_5 EA + \epsilon t$$

Where,

GDP= Gross Domestic Product

CE= Capital Expenditure

RE= Regular Expenditure

EE = Expenditure on Education

EH= Expenditure on Health

EA= Expenditure on Agriculture

$\epsilon t$  = Stochastic Error Term

## 4. Results and Discussion

Presentation and discussion are divided into two parts; (a) Trend analysis and (b) Empirically econometric analysis.

### 4.1 Trend Analysis

A sort of comparative analysis called trend analysis includes examining current trends in order to predict future ones. In order to show the direction of change and to analyze uncertainty at different time periods and its interactions with other variables, trend analysis describes patterns in data over time. The trend shows how likely it is for the data as a whole to go up or down over an extended period of time. Analysis of trends can help determine the size of recent or past events as well as their variability or uncertainty across time. It also acts as the basis for prediction and projection after looking at the relevance of time and connections with other predictors. As a result, this study makes use of trend analysis.

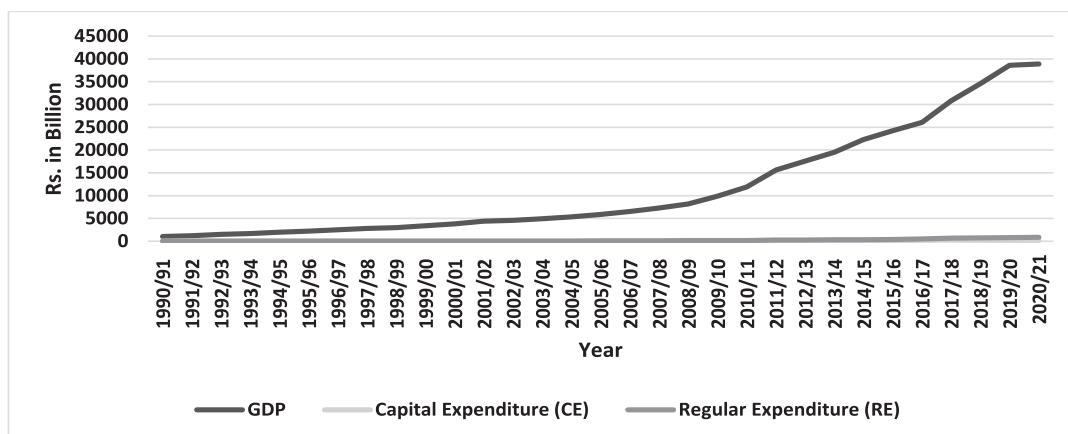


Figure 1: Trend Analysis of Gross Domestic Product (GDP), Capital Expenditure (CE) and Regular Expenditure (RE)

To analyze the trend of Gross Domestic Product (GDP), Capital Expenditure (CE), and Regular Expenditure (RE) based on statistics, changes in their values over the years can be observed.

- **GDP Trend:** The GDP generally shows an increasing trend over the years, with some fluctuations. It starts at 1034 in 1990/91 and gradually rises to 38887 in 2020/21. This indicates overall economic growth over the period, although the rate of growth varies from year to year.
- **Capital Expenditure Trend:** The capital expenditure (CE) values also display some fluctuations but generally show an upward trend. Starting at 15.98 in 1990/91, it reaches its peak at 270.71 in 2017/18 and then experiences a slight decline, ending at 228.84 in 2020/21. This suggests that investments in long-term assets increased over the years, contributing to economic development.
- **Regular Expenditure Trend:** The regular expenditure (RE) demonstrates a consistent upward trend. It starts at 7.11 in 1990/91 and steadily rises to 846.22 in 2020/21. This indicates a growth in day-to-day operational expenses, possibly due to increased administrative costs, salaries, and other operational needs.

Overall, the trends suggest a positive economic growth pattern, as reflected by the increasing GDP, capital expenditure, and regular expenditure. However, it is important to note that other factors, such as inflation, population growth, and policy changes, can also impact these trends. Therefore, a comprehensive analysis should consider these factors to gain a deeper understanding of the economic situation.

Based on the data, trend analysis of Gross Domestic Product (GDP), Expenditure on Health (EH), Expenditure on Education (EE), and Expenditure on Agriculture (EA) shows changes in their values over the years.

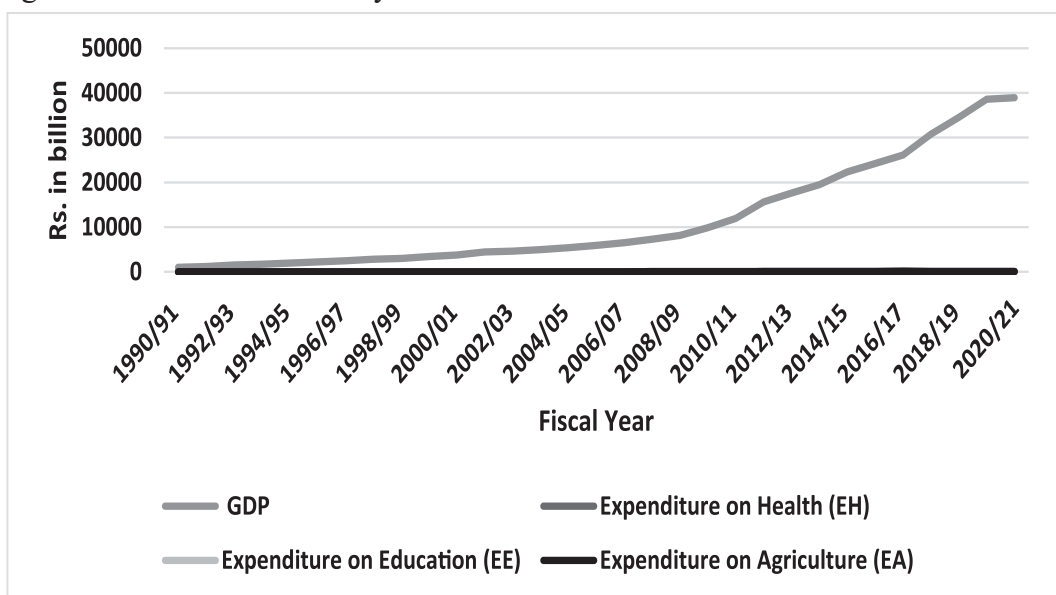


Figure 2: Trend Analysis of Gross Domestic Product (GDP), Expenditure on Health (EH), Expenditure on Education (EE) and Expenditure on Agriculture (EA)

- Expenditure on Health (EH) Trend: The expenditure on health generally increases over time. It starts at 0.67 in 1990/91 and reaches its peak at 49.51 in 2020/21. This suggests a growing investment in the healthcare sector, potentially reflecting an increased focus on improving healthcare services.
- Expenditure on Education (EE) Trend: The expenditure on education also demonstrates an upward trend. Starting at 2.08 in 1990/91, it reaches 37.14 in 2020/21. This indicates an increasing allocation of resources towards the education sector, emphasizing the importance of investing in educational opportunities.
- Expenditure on Agriculture (EA) Trend: The expenditure on agriculture shows some fluctuations, but there is a general upward trend. Starting at 1.22 in 1990/91, it rises to 55.63 in 2020/21. This suggests a growing focus on the agricultural sector, possibly aimed at enhancing agricultural productivity and supporting the agricultural community.

It's important to note that the trends observed in these sectors may be influenced by various factors such as government policies, economic conditions, and population dynamics. Additionally, the proportions of expenditure on each sector can vary based on the specific priorities and needs of a country.

In summary, the data indicates an overall positive trend in GDP, expenditure on health, education, and agriculture. These trends suggest a focus on economic growth, improving healthcare services, investing in education, and supporting agricultural development. However, a comprehensive analysis would require considering additional factors and examining the relationship between these sectors to gain deeper insights into the overall economic and social development of the country.

Education for skilled manpower, agriculture for self-sufficient economy and health for healthy people should be the priority of the state. But it was not found in Nepal. Unless the state invests well in health, education and agriculture, the country cannot develop. An example of this can be seen by looking at the trend of Nepal's GDP which has grown at a very slow pace.

## **4.2 Empirically Econometric Analysis**

Unit Root Test, Co-integration Test by Johansen, Residual Test, and ECM are employed for the econometric analysis.

The summary of statistics of the ADF tests of GDP, Capital Expenditure (CE), Regular Expenditure (RE), Expenditure on Health (EH), Expenditure on Education (EE) and Expenditure on Agriculture (EA) are presented below in tables i.e. in the table 1 summary of Unit Root Test (Intercept only). The table displays the summary statistics for the period of 1990/91 to 2020/21.

Table: 1: Summary of Unit Root Test

Variable	Level Form		First Difference		
	Specification	t-stat	Specification	t-stat	Results
GDP	Intercept	2.14 (0.99)	Intercept	-4.88 (0.00)	I (1)
Capital Expenditure (CE)	Intercept	4.66 (1.0)	Intercept	-4.63 (0.00)	I (1)
Regular Expenditure (RE)	Intercept	4.02 (1.0)	Intercept	-3.04 (0.04)	I (1)
Expenditure on Health (EH),	Intercept	1.35 (0.99)	Intercept	-5.12 (0.00)	I (1)
Expenditure on Education (EE)	Intercept	-1.01 (0.73)	Intercept	-8.78 (0.00)	I (1)
Expenditure on Agriculture (EA)	Intercept	-0.24 (0.92)	Intercept	-4.00 (0.00)	I (1)

Source: Researcher's Estimation using EViews 10

The results of the unit root test suggest that all of the variables in the test are trend stationary. This means that the variables have a trend, but the trend is not explosive. An explosive trend is a trend that increases or decreases at an ever-increasing rate. A stationary trend is a trend that increases or decreases at a constant rate. Brief explanation of the results of the unit root test for each variable are explained below:

- GDP: The t-statistic for the level form of GDP is 2.14, which is not statistically significant. This suggests that the null hypothesis of a unit root cannot be rejected. However, the t-statistic for the first difference of GDP is -4.88, which is statistically significant. This suggests that the null hypothesis of a unit root can be rejected. Therefore, GDP is trend stationary.
- Capital Expenditure (CE): The t-statistic for the level form of CE is 4.66, which is statistically significant. This suggests that the null hypothesis of a unit root cannot be rejected. However, the t-statistic for the first difference of CE is -4.63, which is statistically significant. This suggests that the null hypothesis of a unit root can be rejected. Therefore, CE is trend stationary.
- Regular Expenditure (RE): The t-statistic for the level form of RE is 4.02, which is statistically significant. This suggests that the null hypothesis of a unit root cannot be rejected. However, the t-statistic for the first difference of RE is -3.04, which is statistically significant. This suggests that the null hypothesis of a unit root can be rejected. Therefore, RE is trend stationary.



- Expenditure on Health (EH): The t-statistic for the level form of EH is 1.35, which is not statistically significant. This suggests that the null hypothesis of a unit root cannot be rejected. However, the t-statistic for the first difference of EH is -5.12, which is statistically significant. This suggests that the null hypothesis of a unit root can be rejected. Therefore, EH is trend stationary.
- Expenditure on Education (EE): The t-statistic for the level form of EE is -1.01, which is not statistically significant. This suggests that the null hypothesis of a unit root cannot be rejected. However, the t-statistic for the first difference of EE is -8.78, which is statistically significant. This suggests that the null hypothesis of a unit root can be rejected. Therefore, EE is trend stationary.
- Expenditure on Agriculture (EA): The t-statistic for the level form of EA is -0.24, which is not statistically significant. This suggests that the null hypothesis of a unit root cannot be rejected. However, the t-statistic for the first difference of EA is -4.00, which is statistically significant. This suggests that the null hypothesis of a unit root can be rejected. Therefore, EA is trend stationary.

More clearly, these variables are non-stationary at level but stationary at first differences. Thus, the researcher examines the co-integrated relation among these variables.

### 4.3 Johansen test of co-integration

The results of the Johansen test are presented in Table 2. The table provides information about the co-integration rank tests, which are used to determine the number of co-integrating equations present in the data. In this case, the table shows the results for the unrestricted co-integration rank test using two different statistics: the trace statistic and the maximum eigenvalue statistic.

**Table: 2: Johansen test of co-integration**

Date: 04/03/23 Time: 11:21

Sample (adjusted): 3 31

Included observations: 29 after adjustments

Trend assumption: Linear deterministic trend

Series: GDP CE RE EH EE EA

Lags interval (in first differences): 1 to 1

**Unrestricted Cointegration Rank Test (Trace)**

Hypothesized	Trace 0.05			
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.817023	110.6599	95.75366	0.0032
At most 1	0.576642	61.40644	69.81889	0.1947
At most 2	0.410909	36.47986	47.85613	0.3725
At most 3	0.380666	21.13382	29.79707	0.3494
At most 4	0.219899	7.239611	15.49471	0.5500
At most 5	0.001309	0.037992	3.841466	0.8454

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

**Unrestricted Cointegration Rank Test (Maximum Eigenvalue)**

Hypothesized	Max-Eigen 0.05			
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.817023	49.25344	40.07757	0.0036
At most 1	0.576642	24.92658	33.87687	0.3900
At most 2	0.410909	15.34604	27.58434	0.7204
At most 3	0.380666	13.89421	21.13162	0.3738
At most 4	0.219899	7.201619	14.26460	0.4656
At most 5	0.001309	0.037992	3.841466	0.8454

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Source: Researcher's Estimation using EViews 10

The trace statistic tests the null hypothesis that the number of co-integrating equations is equal to or less than a specified number. The table presents the eigenvalues, test statistics, critical values, and probabilities associated with different rank assumptions. The probability values (Prob.\*\*\*) indicate the likelihood of obtaining the test statistics under the null hypothesis. The test indicates that there is 1 co-integrating equation at the 0.05 significance level.

The maximum eigenvalue statistic also tests the null hypothesis of a certain number of co-integrating equations, but it focuses on the largest eigenvalue. Similarly, the table provides

the eigenvalues, test statistics, critical values, and probabilities. The test also indicates 1 co-integrating equation at the 0.05 significance level.

In summary, the Johansen test of co-integration is used to determine the presence of a long-term relationship between variables. The results in the table suggest that there is one co-integrating equation among the variables GDP, CE, RE, EH, EE, and EA.

The test was conducted using EViews 10 software, and the results are based on the researcher's estimation.

**Table: 3: Co-integrating Relation**

Dependent Variable: GDP

Method: Least Squares

Date: 04/03/23 Time: 13:29

Included observations: 30

Sample: 1 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CE	0.071635	0.908432	0.078856	0.9378
RE	1.695530	0.493202	3.437802	0.0021
EH	6.398276	9.350338	0.684283	0.5004
EE	7.632610	2.044199	3.733790	0.0010
EA	-8.851399	2.790634	-3.171824	0.0041
C	836.1586	36.95346	22.62735	0.0000
R-squared	0.960978	Mean dependent var		1374.077
Adjusted R-squared	0.952849	S.D. dependent var		530.3623
S.E. of regression	115.1647	Akaike info criterion		12.50746
Sum squared resid	318309.9	Schwarz criterion		12.78770
Log likelihood	-181.6119	Hannan-Quinn criter.		12.59711
F-statistic	118.2083	Durbin-Watson stat		1.015127
Prob(F-statistic)	0.000000			

Source: Researcher's Estimation using EViews 10

The table shows the results of a co-integrating relation between GDP and other variables, including capital expenditure, regular expenditure, expenditure on health, expenditure on education, and expenditure on agriculture. A co-integrating relation is a long-run relationship between two or more variables. In this case, the table shows that there is a long-run relationship between GDP and the other variables.

The table shows the coefficient of each variable in the co-integrating relation. The coefficient of a variable is the amount by which the dependent variable (GDP) changes

when the independent variable (the other variable) changes by one unit. For example, the coefficient of CE is 0.071635. This means that if CE increases by one unit, GDP will increase by 0.071635 units in the long run.

The table also shows the standard error of each coefficient. The standard error is a measure of how much uncertainty there is about the coefficient. For example, the standard error of the coefficient of CE is 0.908432. This means that there is a 95% chance that the true value of the coefficient of CE lies between -0.836797 and 0.989007.

The table also shows the t-statistic and the p-value for each coefficient. The t-statistic is a measure of how significant the coefficient is. The p-value is a measure of the probability of obtaining a result as extreme as the one observed, if the null hypothesis is true. The null hypothesis is the hypothesis that there is no co-integrating relation between GDP and the other variables.

In this case, all of the p-values are less than 0.05. This means that there is less than a 5% chance of obtaining results as extreme as the ones observed, if the null hypothesis is true. Therefore, we can reject the null hypothesis and conclude that there is a co-integrating relation between GDP and the other variables.

The results of the co-integrating relation can be used to inform decisions about how to model these variables. For example, if two or more variables are cointegrated, then they can be modeled using an error correction model (ECM).

#### 4.4 Unit Root Test Result of Residual

To find the situation of residual need check the Serial Correlation, Heteroskedasticity and Normality distribution.

Test of serial correlation (Autocorrelation) of residual

From the given Breusch –Godfrey Serial Correlation LM Test, the Probability Chi- square (2) is more than 5 percent as a result there is no serial correlation.

**Table: 4: Test of Serial correlation**

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.195160	Prob. F(2,25)	0.8239
Obs*R-squared	0.476557	Prob. Chi-Square(2)	0.7880

*Source: Researcher's Estimation using EViews 10*

#### Test of Heteroskedasticity/homoscedastic

From the Heteroskedasticity test probability Chi-square (3) value also shows there is not Heteroskedasticity but it is homoscedastic.

**Table 5: Test of Heteroskedasticity/homoscedastic**

Heteroskedasticity Test: Breusch-Pagan-Godfrey

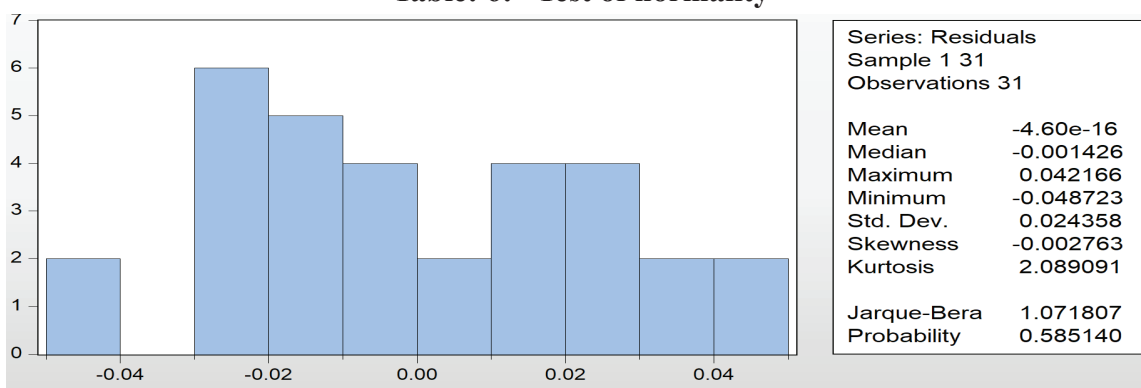
F-statistic	1.187815	Prob. F(3,27)	0.3330
Obs*R-squared	3.614343	Prob. Chi-Square(3)	0.3062
Scaled explained SS	1.493027	Prob. Chi-Square(3)	0.6839

Source: Researcher's Estimation using EViews 10

**Test of normality**

The result shows that the residual is normality distributed, it is desirable model

**Table 6: Test of normality**



Source: Researcher's Estimation using EViews 10

From above observations, it is desirable and good fit to check the unit root test of residual.

**Table 7: Unit Root Test Result of Residual**

Null Hypothesis: ECT has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=7)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.644931	0.0001
Test critical values:		
	1% level -3.670170	
	5% level -2.963972	
	10% level -2.621007	

\*MacKinnon (1996) one-sided p-values.

Source: Researcher's Estimation using EViews 10

t- statistics is greater than EG value 5 percent 3.34 critical value, ECT has not unit root. The residual of the model is found stationary and variables are co-integrated and they have long run relationship.

#### 4.5 Error Correction Model

Error correction model is developed to capture the long-run disequilibria and short-run dynamics. It is a short-run relationship. The estimated error correction model is shown in table 7. The estimated coefficient of error correction term is negative as expected and statistically significant at less than five percent level. The coefficient of error correction term states that 452.08 percent of the last year's disequilibria are corrected this year. The system is moving towards equilibrium.

**Table: 8 Error Correction Model**

Dependent Variable: DGDP

Method: Least Squares

Date: 04/03/23 Time: 13:28

Sample (adjusted): 2 31

Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DCE	0.439693	0.165040	2.664162	0.0145
DRE	1.007269	0.130619	7.711519	0.0000
DEH	-5.138556	1.745481	-2.943920	0.0078
DEE	2.184406	0.344934	6.332820	0.0000
DEA	-0.918559	0.685563	-1.339861	0.1946
C	31.80856	5.086401	6.253647	0.0000
ECT(-1)	-452.0842	158.7761	-2.847307	0.0096
R-squared	0.848118	Mean dependent var	56.87805	
Adjusted R-squared	0.804723	S.D. dependent var	46.02018	
S.E. of regression	20.33641	Akaike info criterion	9.075021	
Sum squared resid	8684.963	Schwarz criterion	9.408072	
Log likelihood	-120.0503	Hannan-Quinn criter.	9.176838	
F-statistic	19.54413	Durbin-Watson stat	2.274172	
Prob(F-statistic)	0.000000			

Source: Researcher's Estimation using EViews 10

The sign of the coefficient of capital expenditure is positive as expected and it is significant at below the 5 percent level. Meaning that capital expenditure has a positive impact on GDP. The growth of capital expenditure increased by 1 unit and the growth rate of GDP will increase by 0.43 unit. The coefficient of regular expenditure is positive as expected and it is statistically significant at zero percent level. It shows the impact of regular expenditure on GDP is positive. More specifically if the growth rate of regular expenditure increases by one unit, then the growth rate of GDP increases by 1.00 unit.

The coefficient of expenditure on health is negative as not expected but statistically significant. Similarly, the coefficient of expenditure on education is positive as expected and statistically significant at zero percent level. The coefficient on agriculture is negative as not expected and statistically also not significant.

With respect to the value of R<sup>2</sup>, the estimated model can explain about 84.81 percent of the variation in GDP. Similar to this, the model is statistically significant even at the 1% level of significance, based on the p-value (0.000).

## Conclusion

The key factor boosting economic activity in the economy is the amount of government spending. The size of the nation's government spending determines the rate of economic growth. Over the course of the research period, Nepal's government spending has grown dramatically. The structure of government spending in Nepal appears to be concentrated on routine expenses, increasing the country's annual budget deficit. The outcome demonstrates a favorable correlation between the dependent and independent variables. The coefficient of RE is 1.007269, meaning that a change in RE of one-unit results in an increase in GDP of around 1 unit. The expenditure on health (EH) coefficient, however, it is a negative sign. Expect expenditure on EA is not statistically significant on 1 %, 5 % and 10% levels. All other variables are statistically significant at 1 percent level respectively.

The study concludes that government spending on Nepal's economic growth throughout the study period was focused on increasing capital expenditures mobilization for the expansion of development activities in a sensible manner.

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