

Analyzing the Determinants of Economic Growth in Nepal

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Abstract

This research provides a detailed examination of Nepal's economic growth, emphasising the transition from agricultural to non-agricultural businesses, the adoption of policies to boost capital formation, and the macroeconomic challenges encountered. It identifies critical variables like the currency rate and technical advancements. The study aims to investigate the relationship between rising per capita GDP and the variables that impact it to uncover useful information about the forces that drive economic progress.

Infrastructure development, human capital investment, political stability, macroeconomic stability, trade and investment, agricultural productivity, industrial development, natural resource management, financial inclusion, technological advancements, institutional quality, and global economic conditions are all important factors influencing Nepal's economic development. Their interdependent links have a considerable impact on the nation's economic trajectory, necessitating regular monitoring and evaluation. To ensure long-term and equitable economic development, policymakers must develop effective policies that include these complexities. Conducting a rigorous empirical inquiry is critical for understanding Nepal's unique situation and delivering policy recommendations.

This study used an ex post facto research methodology to investigate the relationship between per capita GDP growth and numerous contributing factors. The analysis is based on secondary data gathered from the World Bank website, which spans the period 1981–

2020. The data is logarithmically transformed for analysis, and econometric approaches such as the Autoregressive Distributed Lag (ARDL) model are utilised using E-Views 12 and Microsoft Excel. To ensure the strength and reliability of the research, the study uses descriptive statistics, quantitative techniques, and econometric tools such as unit root and co-integration tests. To explain per capita GDP, the research uses an econometric model that includes variables such as broad money, imports, inflation, and school enrollment rate. Ordinary least squares (OLS) regression is used to test the model's adherence to key assumptions such as linearity, zero-mean error term, absence of multicollinearity, and regularly distributed error terms. This work contributes to a better understanding of the reasons for per capita GDP growth and provides valuable insights for policymakers and academics.

This research thoroughly investigates the factors of economic growth in Nepal, including everything from infrastructure development to global economic conditions. Using an econometric model, it highlights the importance of broad money in achieving long-term economic growth, with school enrollment rates showing a significant positive relationship with per capita GDP. Importantly, imports and inflation have short-term impacts, but their long-term effects on GDP per capita are considered minor. Co-integration studies demonstrate persistent links between variables, but practical policy recommendations emphasise the need to import capital goods for technological progress and address issues related to inflation and broad money. These findings provide helpful insights for policymakers, assisting in the development of strategies to promote sustainable and equitable economic growth in Nepal.

Keywords : GDP per capita, Autoregressive distributed lag model, Broad money, Inflation, School enrolment rate.

Introduction

The analysis of Nepal's economic development reveals notable trends and factors influencing its trajectory. Research indicates a declining share of agriculture in the GDP, coupled with a rise in non-agricultural industries, underscoring the changing dynamics of economic growth (Chaudhary & Mishra, 2021). The emphasis on encouraging capital creation and productive sector investments aligns with the observed boost in domestic savings and investments, contributing to economic development (Oli & Xie, 2022). In addition to microeconomic considerations, policymakers in Nepal grapple with crucial

macroeconomic factors such as money supply, inflation, and capital spending (Mahara, 2021). Certain macroeconomic variables, including the exchange rate, Gross Fixed Capital Formation (GFCF), and imports, have been identified as more impactful on economic growth, while exports, Foreign Direct Investment (FDI), and inflation play relatively lesser roles. Furthermore, technological advancements, the efficiency of the financial system, and workforce training are identified as pivotal contributors to Nepal's economic progress (Shreezel, 2020).

Keywords :

The multifaceted nature of Nepal's economic performance necessitates a comprehensive understanding of various factors for an in-depth analysis of the driving forces behind its economic development. The assessment of GDP growth serves as a standard metric for evaluating economic expansion. Several key elements, examined over time, play crucial roles in shaping Nepal's economic landscape. While not exhaustive, the factors highlighted above significantly contribute to the ongoing development of Nepal's economy.

The Objective of the Study

The study aims to examine the relationship between per capita GDP growth and the variables influencing it. The following is what this research is hoping to accomplish.

1. To explain the nature and trend of GDP per capita and its influencing factors.
2. To analyse the short-term and long-term relationship between GDP per capita and its explanatory variables

Research Hypothesis

The following primary concept will serve as the foundation for the study:

H₀: GDP per capita and the selected determinant factors are not statistically significant.

H₁: GDP per capita and the selected determinant factors are statistically significant.

Review of the literature

Infrastructure development plays a crucial role in fostering economic growth and attracting new investments (World Bank, 2014). Well-developed infrastructure, including

roads, railroads, airports, and energy sources, contributes to economic expansion by providing efficient means of communication and transportation (Duflo, 2012). Human capital and education are vital for a productive and creative workforce, ultimately supporting economic growth. Funding public services, such as schools, hospitals, and vocational schools, is essential to maintain a healthy economy (Heckman, 2006).

Political stability is a prerequisite for confident business planning and investment. A stable political climate promotes economic growth, while political instability leads to uncertainty, reduced investment, and slower economic development (Knack & Keefer, 1995).

Macroeconomic stability, characterized by low inflation, responsible government spending, and a stable currency exchange rate, is essential for sustained economic growth (Barro, 1997).

Trade and investment contribute significantly to economic flourishing by increasing market access, knowledge transfer, and capital inflows (Grossman & Helpman, 1990).

The agricultural sector's productivity is crucial for economic expansion in Nepal. Implementing cutting-edge methods, improving infrastructure, and expanding access to consumer markets can boost agricultural output and contribute to overall economic growth (Fuglie et al., 2019).

Industrial development, including the promotion of manufacturing sectors, leads to increased employment, higher exports, and reduced dependence on imports (Rodrik, 2006). Natural resource management and environmental protection are integral for long-term economic development (Dasgupta, 2007). Sustainable practices ensure the availability of resources for future generations. Financial inclusion, by increasing access to banking services for underserved populations, stimulates business formation, job creation, and overall economic expansion (Beck et al., 2007). Technological advancements contribute to increased output, efficiency, and competitiveness in various industries, driving economic growth (Romer, 1990).

The quality of institutions, characterized by strength, openness, accountability, adherence to the rule of law, and protection of private property, encourages investment and economic development (Acemoglu et al., 2001). Global economic conditions significantly impact Nepal's economy, with vulnerabilities to shifts in global trade,

commodity prices, and financial markets (IMF, 2019). The complex interplay between these factors results in dynamic effects and feedback loops. For instance, better access to education fosters creativity, contributing to economic flourishing (Lucas, 1988). Improved infrastructure facilitates trade, positively impacting the economy (Canning & Pedroni, 2008). A stable political climate attracts more investment, leading to increased financial outlays and economic growth (Hakkala et al., 2008). Technological progress enhances productivity and employment, further contributing to economic expansion (Aghion & Howitt, 1992).

The significance of these factors may evolve and be influenced by Nepal's unique economic circumstances. Conducting a thorough empirical study that considers historical data and the country's specific situation is necessary to better understand the drivers of economic development in Nepal (Dollar & Kraay, 2002). Policymakers can utilize these insights to formulate effective policies that promote economic development for the benefit of all citizens.

It is crucial to recognize that these connections are not necessarily linear and may be impacted by internal and external variables. Therefore, policymakers should consider these dynamic interactions when formulating plans and policies to promote sustainable and equitable economic development in Nepal (Krugman & Obstfeld, 2006). Regular monitoring and evaluation of these drivers and their interactions over time are essential for efficient financial planning and policy execution (World Bank, 2019).

In conclusion, the multifaceted elements influencing economic development in Nepal underscore the complexity of the interplay between various factors. Infrastructure development, human capital investment, political stability, macroeconomic stability, trade and investment, agricultural productivity, industrial development, natural resource management, financial inclusion, technological advancements, institutional quality, and global economic conditions collectively shape the trajectory of Nepal's economic growth. The relationships among these factors are dynamic and may evolve, requiring constant monitoring and evaluation. A thorough empirical study, considering historical data and Nepal's unique circumstances, is essential to deepen our understanding of the drivers of economic development in the country. Policymakers can utilize these insights to formulate effective policies that foster sustainable and equitable economic growth for the benefit of all citizens. It is crucial to acknowledge that these connections are not necessarily linear, and policymakers should consider dynamic interactions when devising

plans and policies to ensure the continued prosperity of Nepal's economy (Krugman & Obstfeld, 2006; World Bank, 2019).

Research Methodologies

The research methodology used here is *ex post facto* (after the event) since the data utilised are secondary data. The Secondary data sources from 1981 to 2020 are used for this study's data collection and analysis. The data has been taken from the World Bank website. The raw data is log-transformed for research, and model estimation is performed using E-views 12 and Microsoft Excel. Descriptive statistics, quantitative methods, and econometric tools were all used in the model's data analysis. The study has used statistics in tables, figures and graphs. The study also used unit root and co-integration tests to ensure smooth connections between variables. The researcher performs an empirical test using the Autoregressive Distributed Lag (ARDL) technique.

Model

The following is the econometric model built around the information utilised in this study.

GDP per capita = f(Broad Money, Import, Inflation, School enrolment rate).....(1).

A linear version of the equation may be expressed as follows:

GDP per capita = $\alpha + \beta_1 \text{BM} + \beta_2 \text{Import} + \beta_3 \text{Inflation} + \beta_4 \text{SER} + \varepsilon$(2)

The natural log must be placed on both sides to write the equation in natural log form.

$\ln \text{GDP} = \alpha + \beta_1 \ln \text{BM} + \beta_2 \ln \text{Import} + \beta_3 \ln \text{Inflation} + \beta_4 \ln \text{SER} + \varepsilon$(3)

Where α is the constant term, β_1 , β_2 , β_3 , and β_4 are the coefficients of the

Variables. GDP per capita, BM, and SER are Gross Domestic Product per capita, Broad Money and School Enrolment Rate, respectively. The model is analysed and characterised in terms of the following ordinary listed square (OLS) regression characteristics: First, the error term and all of the coefficients in the regression model are linear. Second, The error term has a population mean of zero. Third, the error term has nothing to do with the control variables. Fourth, There is no causal relationship between the errors in the observational period. Fifth, There is no heteroscedasticity in the error

term's variance. Sixth, there is no straight-line connection between the independent and other variables. Seventh, The conflict in the error terms is normally distributed.

Table 1:*Descriptive statistics*

	LN_GDP	LN_BROAD...	LN_IMPORT	LN_INFLATION	LN_SCHOO...
Mean	10.69953	3.888324	3.364735	2.063700	1.922511
Median	10.67658	3.933468	3.417940	2.051811	1.695098
Maximum	11.31184	4.761896	3.724960	3.283826	2.839767
Minimum	10.20303	3.172963	2.934244	1.121777	1.147250
Std. Dev.	0.322568	0.449286	0.228335	0.495038	0.533215
Skewness	0.311953	0.135282	-0.508792	0.161269	0.368340
Kurtosis	2.009170	1.798811	2.011617	2.524017	1.653645
Jarque-Bera Probability	2.285005 0.319020	2.526768 0.282696	3.353965 0.186937	0.550985 0.759198	3.925615 0.140464
Sum	427.9812	155.5330	134.5894	82.54799	76.90042
Sum Sq. Dev.	4.057957	7.872455	2.033345	9.557437	11.08841
Observations	40	40	40	40	40

Source: Author's calculation by using E-views 12

In Table 1 above, the Jarque-Bera Probability values of all variables are more than 0.05. It shows the variables are all normally distributed. GDP, Broad Money, Inflation and school enrolment are positively skewed due to the positive values of these variables. Only the import skewness value has a negative value, which is negatively skewed. The kurtosis values of all the variables are less than three, so the distribution is platykurtic.

Table 2:

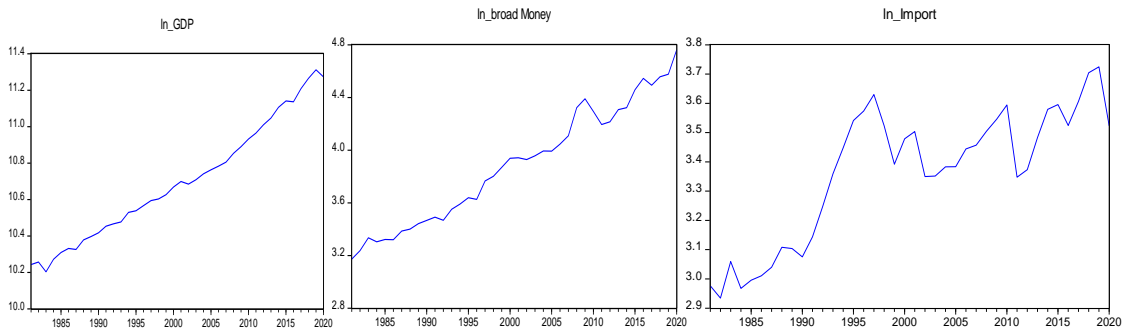
Correlation Matrices

	LN_GDP	LN_BROAD...	LN_IMPORT	LN_INFLATION	LN_SCHOO...
LN_GDP	1	0.98063478...	0.81609841...	-0.3476027...	0.89133227...
LN_B...	0.98063478...	1	0.82356551...	-0.3589298...	0.86611233...
LN_IM...	0.81609841...	0.82356551...	1	-0.4076093...	0.61272218...
LN_IN...	-0.3476027...	-0.3589298...	-0.4076093...	1	-0.0639807...
LN_S...	0.89133227...	0.86611233...	0.61272218...	-0.0639807...	1

The above table 2 shows the correlation between dependent variables and explanatory variables. If the correlation value is around 80 % there is no multicollinearity. Broad money and GDP has 98 per cent correlation; it shows a high correlation between them. School enrolment also has a high correlation with GDP. The rest of the variables are moderately correlated with GDP. There can not be a high correlation between the dependent and explanatory variables. So the multicollinearity problem does suffer in this model.

Figure 1:

Trend Analysis of the Variables at level data



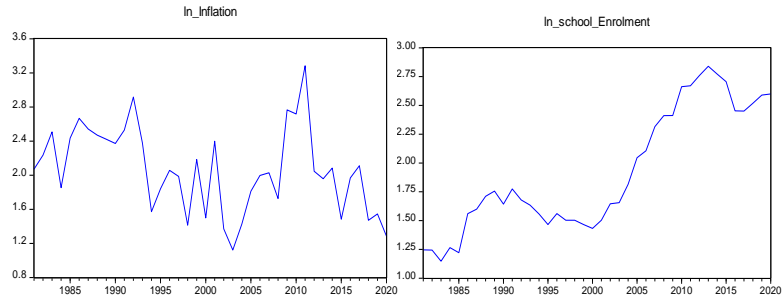


Figure 2:

Trend Analysis of the variable at first differences

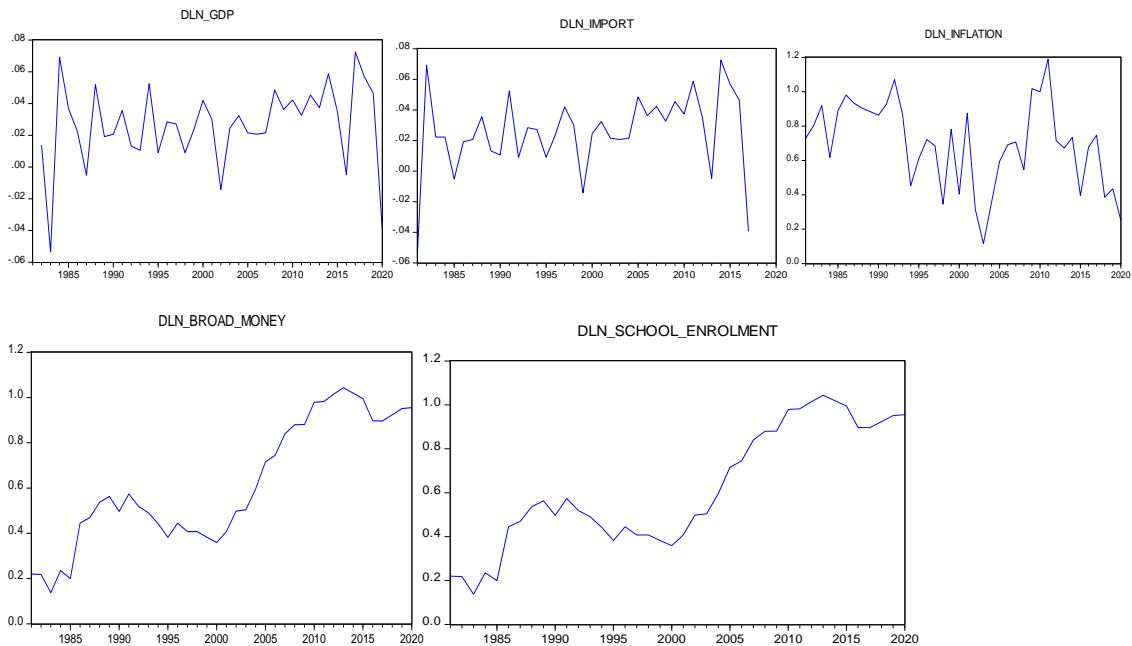


Figure 1 and Figure 2 show the trend pattern of the dependent and explanatory variables. The Unit Root represents a preliminary statistical check. By observing the first figure, Inflation is stationary at level. Similarly, the data shows broad money is also stationary at the level. The variables which are not stationary at level seem stationary at the first difference in Figure 2. This graph shows that after accounting for the initial contrast, all variables exhibit tiny fluctuations around their average mean.

Table 3:*Unit Root Test Result at level*

Null Hypothesis: the variable has a unit root						
At Level						
		LN_GDP	LN_BROAD MONEY	LN_IMPORT	LN_INFL ATION	LN_SCHOO L ENROLM
With Constant	t-Statistic	0.9771	0.2994	-1.7392	-3.456	-0.663
	Prob.	0.9955	0.9753	0.4042	0.0148	0.8443
		n0	n0	n0	**	n0
With Constant & Trend	t-Statistic	-2.2429	-3.7148	-2.0442	-3.863	-3.393
	Prob.	0.4537	0.0334	0.5596	0.0234	0.0691
		n0	**	n0	**	*
Without Constant & Trend	t-Statistic	6.4412	3.9991	0.8793	-0.8072	1.6257
	Prob.	1.0000	0.9999	0.8949	0.3597	0.9726
		n0	n0	n0	n0	n0

Source: Author's calculation by using E-views 12

Table 3.1:*Unit Root Test Result at level*

At First Difference						
		d(LN_G DP)	d(LN_BRO AD_MONE Y)	d(LN_IMP ORT)	d(LN_INF LATION)	d(LN_SCHOO L ENROL MENT)
With Constant	t-Statistic	-6.4325	-5.2171	-5.3601	-9.0642	-5.5581
	Prob.	0.0000	0.0001	0.0001	0.0000	0.0000
		***	***	***	***	***
With Constant & Trend	t-Statistic	-6.8539	-5.2028	-4.9122	-8.981	-5.4797
	Prob.	0.0000	0.0007	0.0017	0.0000	0.0003
		***	***	***	***	***
Without Constant & Trend	t-Statistic	-0.0047	-3.8652	-5.2746	-9.1626	-5.1864
	Prob.	0.6741	0.0003	0	0.0000	0.0000

Source: Author's calculation by using E-views 12

Broad money and Inflation are stationary at level. GDP, Import, Inflation, and school enrolment are stationary at the first difference, so the variables are mixed type. Due to this, the auto-regressive distributed lag (ARDL) model is suitable for finding the co-integration test.

Table 4:*Lag length selection*

VAR Lag Order Selection Criteria

Endogenous variables: LN_GDP LN_BROAD_MONEY LN_IMPORT LN_INFLATION ...

Exogenous variables: C

Date: 08/01/23 Time: 12:54

Sample: 1981 2020

Included observations: 37

Lag	LogL	LR	FPE	AIC	SC	HQ
0	40.33521	NA	1.02e-07	-1.910011	-1.692319	-1.833265
1	219.2895	299.8693*	2.51e-11*	-10.23186*	-8.925714*	-9.771385*
2	237.6645	25.82434	3.89e-11	-9.873756	-7.479148	-9.029545
3	268.2340	34.70052	3.56e-11	-10.17481	-6.691744	-8.946866

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

Economic modelling using time-series data requires careful consideration of the time delays to be used. Hence, picking lag with the proper criteria is crucial. Selecting a time series data analysis approach requires many rounds of examination. Among them, the Akaike Information Criterion (AIC) and the Schwarz Information Criterion (SIC) stand out as the most popular choices. The final result of the VAR structured lag selection criteria is shown in Table 4. According to the lag selection criterion table 4.4 results, the Schwarz information criterion recommends that one lag be used for future ARDL processing.

Table 5 level equation shows the long-run significance of the variables. This result shows broad money is significant at 10 percent with a positive coefficient. If the Broad money supply is increased by one percent by the central bank, it leads to an increase in the GDP growth of Nepal by 40 per cent. Import and Inflation are insignificant according to this result. They do not affect the per capita GDP directly in the long run. Inflation has a negative coefficient, which means Inflation and per capita GDP are negatively related. School enrolment rate is significantly determined by the per capita GDP. If school enrolment is increased by one per cent, per capita GDP will increase by 28 per cent in the long run. To determine whether the equation's variables are cointegrated over the long term. The F or Wald tests may test this long-term link between the variables. The lag variables' coefficients are set to zero to do the Wald test. According to Devkota (2019), the Wald test's decision criteria are as follows: If F- statistics are more prominent than I(1), the critical values and co-integration exist. There is no co-integration if F-statistics is less than the lower (1) critical value. If F-statistics are between the upper and lower critical levels, co-integration cannot be determined.

Researchers utilised the SIC method to choose several models. The outcomes of the bound test are shown in **Table 5**. The F-statistic value was calculated at 11.39205, and the confidence intervals were 3.09, 3.49, 3.87 and 4.37. Table 5's top-level significance tests show that 11.39205 is more significant than I (1). Accepting the null hypothesis is impossible since the variables are intertwined across time. The next step of the investigation involves making long- and short-term economic impact estimations.

Table 5:
Long run Co-integration and Bound Test Result

Levels Equation				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_BROAD_MONEY	0.400417	0.215212	1.860567	0.0723
LN_IMPORT	0.175851	0.236019	0.745071	0.4618
LN_INFLATION	-0.131351	0.077907	-1.686008	0.1018
LN_SCHOOL_ENROL...	0.287384	0.143639	2.000739	0.0542
C	8.476396	0.567164	14.94524	0.0000

$$EC = LN_GDP - (0.4004*LN_BROAD_MONEY + 0.1759*LN_IMPORT - 0.1314 *LN_INFLATION + 0.2874*LN_SCHOOL_ENROLMENT + 8.4764)$$

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	11.39205	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37
Actual Sample Size	39		Finite Sample: n=40	
		10%	2.427	3.395
		5%	2.893	4
		1%	3.967	5.455
			Finite Sample: n=35	
		10%	2.46	3.46
		5%	2.947	4.088
		1%	4.093	5.532

Source: Author's calculation by using E-views 12

Table 6 demonstrates that the co-integration is statistically significant, with the expected negative sign, at the 1% level. The error correction coefficient is statistically significant and has a negative sign, suggesting a long-term relationship between the variables under study. The 0.144411 value for the ECM -1 coefficient implies that the following year's GDP returns to its long-run equilibrium level. The values of ECM reveals that the equilibrium can be obtained within seven to eight year if the economy starts to run disequilibrium due to the change in macroeconomic variables. The model has an R^2 of 0.41 per cent, which means that 41% of the variables are explained, and 59% are left open. The variables in the model have a significant impact on the final result. In the short run, the Broad Money is significant at a five per cent level, but the coefficient is negative. Import is significant at a five-percent level, and the coefficient is positive. If the Import is increased by one percent in the short run it leads to growth of thepercapita GDP by 10 percent.

Table 6:*Short-run model (ECM Model)*

ARDL Error Correction Regression
 Dependent Variable: D(LN_GDP)
 Selected Model: ARDL(1, 1, 1, 0, 0)
 Case 2: Restricted Constant and No Trend
 Date: 08/01/23 Time: 12:59
 Sample: 1981 2020
 Included observations: 39

ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LN_BROAD_MONEY)	-0.158696	0.050641	-3.133725	0.0038
D(LN_IMPORT)	0.109644	0.037230	2.945015	0.0061
CointEq(-1)*	-0.144411	0.016209	-8.909370	0.0000
R-squared	0.427804	Mean dependent var		0.026402
Adjusted R-squared	0.396016	S.D. dependent var		0.025812
S.E. of regression	0.020060	Akaike info criterion		-4.906391
Sum squared resid	0.014486	Schwarz criterion		-4.778425
Log likelihood	98.67462	Hannan-Quinn criter.		-4.860478
Durbin-Watson stat	2.296244			

* p-value incompatible with t-Bounds distribution.

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	11.39205	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Author's calculation by using E-views 12

Table 7:*Serial correlation LM Test*

Breusch-Godfrey Serial Correlation LM Test:

Null hypothesis: No serial correlation at up to 1 lag

F-statistic	1.273967	Prob. F(1,30)	0.2680
Obs*R-squared	1.588693	Prob. Chi-Square(1)	0.2075

In **Table 7**, the serial correlation result is shown. If the f-statistic value is more than 0.05, the serial correlation problem will not exist in the data. Here F- statistic value is 0.2680, and the observed R square value is 0.20 75, which is more than 0.05, so the data is free from serial correlation in this model.

Table 8:*Heteroskedasticity Test Breush_ Pagan-Godfrey*

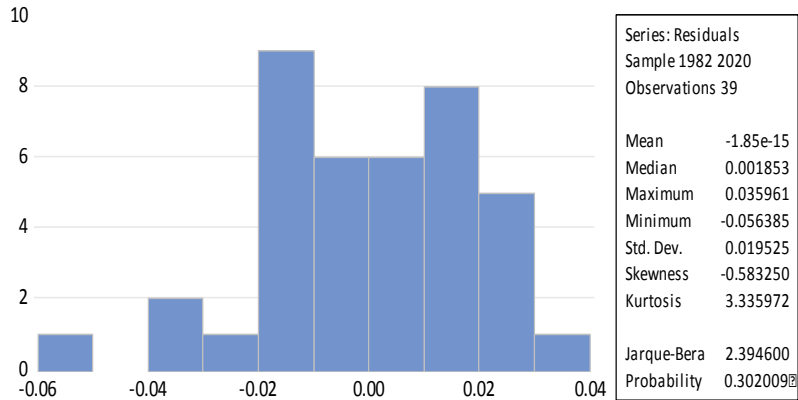
Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	1.046827	Prob. F(7,31)	0.4199
Obs*R-squared	7.456308	Prob. Chi-Square(7)	0.3830
Scaled explained SS	5.502445	Prob. Chi-Square(7)	0.5989

Table 8 result of the Heteroskedasticity Test, shows that the data do not suffer from heteroskedasticity due to the observed R square value being more significant than 0.05. i.e. observed R square value 0.3830 is more than 0.05, so the data are homoscedastic.

Figure 3:
Normality test



The above **figure 3** shows the normality test result of the data. The probability value of Jarque -Bera is more than 0.05, or the probability value of Jarque-Bera is 0.302009, which is more than 0.05, so the test shows that the data are normally distributed, and there is no Non-stationary problem in the model.

Figure 4:
CUSUM Test

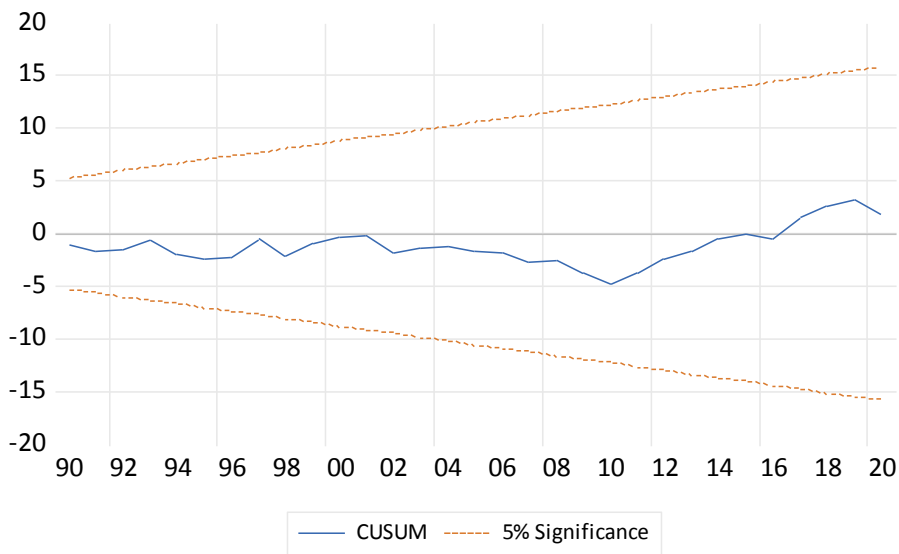


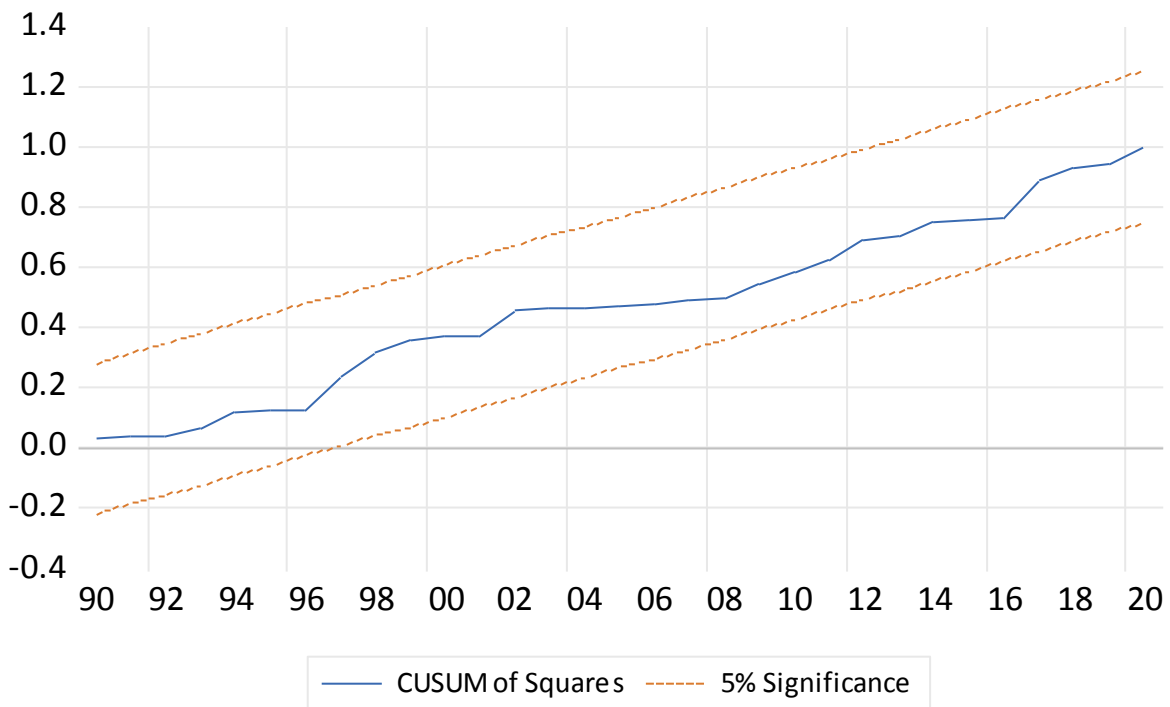
Figure 4 shows that the growth trend line is within the margin of error at the 5% significance level. Thus, the model predicts a steady rate of economic expansion.

According to the research results in **Figure 5**, CUSUMQ ensured the consistency of the model. The null hypothesis of parameter stability cannot be rejected in this case if

The CUSUMQ plot is inside the 5% critical limit. The lines in Figure 5 represent the significance levels of 5 and 10 per cent. From 1981 to 2020, the model has been stable and reliable because of its effective long-run and short-run coefficients. Mathematical models must first pass this diagnostic test to have adequate econometric parameters.

Figure 5:

CUSUM Q Test



Conclusion and Policy Recommendation

In conclusion, the research extensively investigates the determinants of economic growth in Nepal, covering diverse factors such as infrastructure development, human capital, political stability, macroeconomic stability, trade and investment, agricultural productivity, industrial development, natural resource management, financial inclusion, technological advancements, institutional quality, and global economic conditions. The empirical analysis, employing an econometric model, highlights the pivotal role of broad money in driving long-term economic growth, suggesting that increasing the money supply positively impacts GDP per capita. Short-term influences of import and inflation are identified, but their long-term effects on per capita GDP are found to be negligible. Noteworthy is the substantial positive association between school enrollment rates and per capita GDP in the long run. Co-integration tests confirm a lasting relationship among variables, with the error correction mechanism indicating the system's speed in returning to equilibrium. The short-run model underscores the importance of broad money and import in affecting per capita GDP. The research concludes with practical policy recommendations, underscoring the significance of importing capital goods for technological progress, advocating an import substitution policy, and addressing concerns related to inflation and broad money. Overall, the findings provide valuable insights for policymakers, aiding in the formulation of strategies that foster sustainable and equitable economic development in Nepal.

In the short run, the government should focus on importing capital goods such as technology, machine, raw materials, and skilled human resources. Other consumption goods should be controlled to Import in the long run for the betterment of our economy. Education and monetary sectors significantly impact our economy, so resources should be utilised in these sectors. An import substitution policy is essential in the long run, so the government should effectively make and lunch such an import substitution policy. Broad money should be decreased to improve economic growth in the short run, and in the long run, Inflation should control by implementing the appropriate procedure.

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Annex 1:

GDP per capita (constant LCU), Broad money, Imports of goods and services (% of GDP), Inflation, GDP deflator (annual %), School enrollment tertiary (as %GDP)

Year	GDP per capita	Broad money	Imports	Inflation,	School enrollment
1981	28079.10505	23.87812666	19.61768132	7.937356408	3.477440119
1982	28469.30477	25.45178845	18.80727975	9.347409673	3.467959881
1983	26984.85418	28.06635071	21.31516677	12.2886911	3.14951992
1984	28920.35827	27.23026211	19.44909971	6.377949974	3.545919895
1985	30004.03491	27.71991585	19.99957112	11.42183276	3.389909983
1986	30679.88628	27.6570239	20.30274209	14.39257008	4.761559963
1987	30520.25049	29.54262182	20.90661405	12.69680187	4.951129913
1988	32145.11349	29.9747744	22.38186877	11.8153102	5.53166008
1989	32765.47992	31.23379897	22.28332344	11.25837291	5.789070129

1990	33449.15174	32.01448519	21.66144504	10.71588515	5.171649933
1991	34662.46571	32.82000953	23.18430384	12.5446382	5.89812994
1992	35121.51776	32.0610892	25.73568701	18.48909464	5.36398983
1993	35491.66458	34.84227183	28.75661707	10.77490928	5.124660015
1994	37402.01076	36.24207114	31.43813481	4.815986185	4.743760109
1995	37739.38083	38.03490362	34.51735942	6.30086156	4.327929974
1996	38824.83036	37.5773463	35.64019356	7.823035562	4.761750221
1997	39892.09211	43.19522673	37.70769982	7.279092987	4.496520042
1998	40252.195	44.77937144	33.88755007	4.10785067	4.496520042
1999	41220.1487	47.92581083	29.71850916	8.887047436	4.327929974
2000	42987.4894	51.33647424	32.42658529	4.472433713	4.188159943
2001	44299.57183	51.52594886	33.23914736	11.01714829	4.496520042
2002	43673.82039	50.83245038	28.49358898	3.9348579	5.183740139
2003	44753.75222	52.29433504	28.54801912	3.070304961	5.236159801
2004	46225.59592	54.23225475	29.46459146	4.166427157	6.140979767
2005	47229.70783	54.19872632	29.47926069	6.11939041	7.736219883
2006	48215.39998	57.13533566	31.3153968	7.360039271	8.218429565
2007	49263.28171	60.86018588	31.72361014	7.603288945	10.13185024
2008	51713.95312	75.40009579	33.26038609	5.619854525	11.14513016
2009	53621.93794	80.66311212	34.66009358	15.90833021	11.15701008
2010	55934.78454	73.24216062	36.4023696	15.14693245	14.33990002
2011	57788.84911	66.3423142	28.42756981	26.67763661	14.45016003

2012	60470.22123	67.71797811	29.17161477	7.74115003	15.78096533
2013	62770.19247	74.31554963	32.57071706	7.082650999	17.11177063
2014	66570.35442	75.36051884	35.85859949	8.035366196	15.99374962
2015	68937.81949	86.38039633	36.4511418	4.409045433	14.96646023
2016	68605.5861	94.20586025	33.93590808	7.150334788	11.62351036
2017	73765.43274	89.40497103	36.83022197	8.261412549	11.59123039
2018	78079.75959	95.33178294	40.63174592	4.355858468	12.41086006
2019	81784.26371	97.16987778	41.46959011	4.691155935	13.32682991
2020	78624.94766	116.9674847	33.88702849	3.608984337	13.45773983

Annex 2:

Data transform into the Log form of the variables

ln_GDP ln_broad Money ln_Import ln_Inflation ln_school_Enrolment Year

10.24278099	3.172962837	2.976431268	2.071580274	1.246296425	1981
10.25658176	3.236786014	2.934244016	2.235099265	1.243566491	1982
10.20303103	3.334571375	3.059418874	2.508679417	1.147250035	1983
10.27230106	3.304328932	2.967800782	1.852846725	1.265797617	1984
10.30908715	3.322151139	2.995710829	2.435526678	1.220803367	1985
10.33136255	3.319879725	3.010755955	2.666712107	1.560575338	1986
10.32614569	3.385834028	3.040065571	2.54135014	1.599615816	1987
10.37801573	3.400356175	3.108251201	2.469396165	1.710487966	1988
10.3971308	3.441500809	3.103838571	2.42111211	1.755971679	1989
10.41778171	3.466188463	3.075533954	2.371727234	1.643191774	1990

10.4534127	3.491038376	3.143475491	2.529293339	1.774635341	1991
10.46656926	3.46764312	3.247878628	2.917181079	1.679708069	1992
10.47705315	3.550831357	3.3588679	2.377220216	1.634064184	1993
10.52947975	3.59022063	3.44802164	1.571940839	1.556830093	1994
10.53845941	3.638504254	3.541462369	1.84068638	1.465089362	1995
10.56681528	3.626401377	3.573474034	2.057072659	1.560615294	1996
10.59393339	3.765729997	3.629864313	1.985006265	1.503303774	1997
10.60291982	3.801747574	3.523047692	1.41289994	1.503303774	1998
10.62668246	3.869654208	3.391770056	2.184594872	1.465089362	1999
10.66866441	3.938401498	3.47897862	1.497932715	1.432261483	2000
10.69873029	3.942085542	3.503728319	2.399452994	1.503303774	2001
10.68450413	3.928534938	3.349679114	1.369874769	1.64552683	2002
10.70893057	3.956888049	3.351587551	1.121776892	1.655588367	2003
10.74128895	3.993275838	3.383189253	1.427058872	1.814984301	2004
10.76277838	3.992657409	3.383686989	1.811462485	2.045913181	2005
10.78343375	4.045422763	3.444109887	1.996065268	2.10637914	2006
10.80493429	4.108579199	3.457061203	2.02858091	2.315683951	2007
10.85348291	4.322808545	3.504367082	1.726305778	2.411002646	2008
10.88971355	4.390281372	3.545588984	2.766842885	2.412068007	2009
10.93194173	4.29377122	3.594633871	2.717798033	2.663045863	2010
10.96455111	4.194827917	3.347359442	3.283825634	2.670705489	2011
11.00990631	4.2153517	3.37319614	2.046550259	2.758804488	2012

11.0472356	4.308320212	3.483413635	1.957648273	2.839766568	2013
11.10601463	4.322283515	3.579583412	2.083852573	2.772197997	2014
11.14096021	4.458760756	3.595972783	1.483658211	2.705811713	2015
11.13612924	4.54548239	3.524473689	1.967159179	2.453029802	2016
11.20864551	4.493176285	3.606318757	2.111595584	2.450248811	2017
11.26548614	4.557363259	3.70454968	1.471521713	2.518571901	2018
11.31184013	4.576460764	3.72496039	1.54567902	2.58977929	2019
11.27244433	4.761895988	3.523032301	1.283426386	2.599554393	2020