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Correlation between Foreign Direct Investment and Economic Growth in Nepal

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Abstract

Nepal's strategic location between India and China, coupled with favorable market access and lower tariffs, presents an enticing prospect for foreign investors. Despite these advantages, the nation faces challenges, including a fragile financial sector, bureaucratic hurdles, and political instability, hindering substantial Foreign Direct Investment (FDI). This study investigates the correlation between FDI and economic growth in Nepal, recognizing the critical role of FDI in the country's development. The goal of the study is to examine the linear relationship between these factors while analyzing the trajectory and structure of foreign direct investment and economic growth in Nepal. Among the specific goals are looking at FDI inflow by sector, assessing the link between FDI and economic growth, and developing theories based on these goals. The research design is explorative, descriptive, and analytical, employing time series data from FY 1994 to 2021. Data is sourced from government bodies like NRB, MOF, MOI, and CBS, and econometric tools are applied for analysis. Limitations include reliance on secondary data and a study period of 25 years. The study underscores the need for an investor-friendly environment to attract foreign investments and addresses the challenge of accumulating capital domestically. Recognizing the indispensable role of FDI in Nepal's economic development, the study provides insights for policymakers and recommends investment-friendly policies to promote FDI inflows and contribute to economic growth.

Keywords: economic growth, market access, bureaucratic hurdles, investor-friendly environment, foreign direct investment

Introduction

The economic growth of emerging nations has been significantly influenced by foreign direct investment (FDI), which has a history of oscillating in response to changes in investment climates, governmental regulations, and more general economic frameworks. This dynamic has been evident since the 1950s, encompassing phases such as import substitution, natural resource-led development, structural adjustment, and the transition to market economies, with the private sector gaining prominence in the 1990s.

FDI is widely defined by the International Monetary Fund (IMF) as the acquisition of a significant stake in a foreign firm. More specifically, it refers to businesses in which non-residents own at least 25% of the voting share capital; this is a crucial sign of globalization. FDI

occurs when a foreign investor buys assets in another nation with the intention of managing them. FDI, which is acknowledged as a crucial component of globalization, provides limited management and talent, enhanced marketing expertise, and channels for non-traditional exports in addition to finance and technology.

According to the World Investment Report (UNCTAD, 2018), global FDI flows experienced a 23 percent decline in 2017, with developing economies stabilizing at US$671 billion. Developing Asia, retaining its status as the largest FDI recipient, received US$476 billion. However, least developed countries (LDCs) witnessed a 17 percent drop in FDI flows, raising concerns among policymakers regarding the indispensable role of international investment in sustainable industrial development.

Sharma (2009) emphasizes FDI as a principal complement to domestic investment and capacity building in LDCs. FDI, uniquely packaged with resources like capital, technology, skills, and management know-how, contributes to income, employment, and capacity building in the host economy. These benefits go beyond the quick returns on investment for multinational organizations; they also create connections and knock-on effects that improve the capacities of local businesses and human capital.

Adhikari (2013) underscores Nepal's subsistence economy, limited domestic market, and the need for capital mobilization to exploit existing resources for economic growth. Challenges, including population growth, poverty, and external shocks like the 2015 earthquake and Indian blockades, have underscored the vulnerability of Nepal's economy. Bista (2010) asserts that FDI is a major source of capital and knowledge, facilitating industrialization and international business expansion. FDI promotes foreign commerce, strengthens institutions and human resources, and encourages domestic investment, all of which support economic progress in emerging nations. Nepal's Regulatory Environment: Based on the Foreign Investment and Technology Transfer Act, 1992, Gautam and Prasain (2006) describe Nepal's foreign investment legislation. The influence of FDI on the nation's economic development has been little, despite efforts to encourage it.

The study aims to comprehensively analyze the historical evolution of FDI in developing countries, with a focus on Nepal. By examining global trends, the role of FDI in LDCs, Nepal's economic context, post-disaster impacts, and the regulatory environment, the research aims to provide insights into the intricate relationship between FDI and economic development in the Nepalese context.

Statement of the Problem

Nepal, strategically positioned between the emerging nations of India and China, holds considerable appeal for foreign investors. Enjoying unrestricted access to the Indian market and boasting lower tariffs on imported raw materials and components compared to other South Asian countries, Nepal presents an enticing prospect. The nation's diverse climate, natural resources, and terrain offer numerous untapped opportunities, particularly in sectors such as tourism, energy, light manufacturing (apparel), and mineral deposits. While Nepal has managed to attract modest foreign direct investment (FDI) in these niche areas, the impact on employment

generation has been limited, primarily concentrated in low-technology, labor-intensive production. Despite the liberalization of FDI laws in 1992, persistent obstacles hinder investors, and Nepal faces challenges in meeting the minimum FDI requirements.

Several weaknesses contribute to this situation, including a fragile financial sector, inefficient administrative functions, government mandates, geographical constraints, policy instability, bureaucratic insecurity, unclear investment policies, political instability, corruption, and a lack of corporate governance. The frequent movements and disruptions caused by parties, including the Maoists, pose threats to bilateral and multilateral development projects. The critical challenge for Nepal is establishing an investor-friendly business climate that complements its relatively small bureaucracy, a crucial factor in attracting foreign investment.

Given these complexities, accumulating capital resources domestically becomes a genuine challenge. Recognizing the indispensable role of foreign investment in the country's economic growth and development, a comprehensive assessment of the reasons behind the declining FDI becomes imperative.

Research Questions

The investigation is guided by the following research questions:

i. What is the pattern of Nepal's economic development and inflow of foreign direct investment by sector?
ii. How does Nepal's economic development correlate with foreign direct investment?

Objectives for the Research

The main objective of this research is to examine the connection between Nepal's economic expansion and foreign direct investment. The following are the specific objectives:

i. Analyzing Nepal's economic development and foreign direct investment trend and structure.
ii. ii. To examine the connection between Nepal's economic expansion and foreign direct investment.

Literature Review

Foreign direct investment (FDI) has distinct purposes: market-seeking for access to foreign markets and resource-seeking for securing natural resources. The impact of FDI on economic growth is debated. Neoclassical economists argue it positively affects growth if it influences technology permanently. The endogenous growth model sees FDI as crucial for human capital, technology transfer, and organizational advancements, fostering growth. Modernization theory suggests FDI fuels growth through capital accumulation, while dependency theory contends heavy reliance on foreign investment may hinder growth, leading to foreign dominance and stagnant development in developing countries.

Chitrakaar (1994) conducted an extensive examination of Foreign Direct Investment (FDI) in Nepal, drawing cross-country references from the SAARC region. Utilizing both primary and secondary sources, the study analyzed the trends and forms of foreign investment, its determinants, the facilities and incentives offered to attract it, and the reasons for the subdued flow of FDI in Nepal. Despite the adoption of more liberal policies and promised facilities and incentives, Chitrakaar found that the influx of foreign investment in Nepal remained less impressive than that of neighboring countries.

Pyakuryal (1995) focused on the impact of economic liberalization on attracting foreign investment in Nepal. The study aimed to assess the effects of economic liberalization on various sectors of the economy, relying on secondary data published by different government agencies.

Pant and Sigdel (2004) investigated the existing hurdles in attracting FDI in Nepal, employing annual data from 1988 to 2003 and an economic model for analysis. The study identified attracting FDI as a challenging task, especially for small countries with limited resources and undeveloped infrastructure like Nepal. The authors recommended policy measures to counterbalance competition and emphasized learning from the experiences of other developing countries.

FNCCI (2005) portrayed Nepal as attracting significantly less FDI inflow, providing data on joint ventures, the present economic situation, legal provisions, and useful information for foreign investors. The report aimed to offer prospective investors insights into the overall investment climate in the country.

Gautam and Prasain (2006) acknowledged the initiation of Joint Ventures (JVs) and Multinational Companies (MNCs) in Nepal in the early 1980s. The Foreign Investment and Technology Act of 1982 aimed at achieving high economic growth and narrowing the saving-investment gap. The authors perceived foreign investment as essential for reducing foreign debt, fostering economic stability, and national security. However, they noted that Nepal's proportion of foreign investment to total GDP was less than one percent, emphasizing the need for a more liberal FDI policy.

Regmi (2009) found that FDI significantly contributed to economic growth in Nepal by supplementing domestic savings and investment, facilitating essential imports for industrial growth, and maintaining expenditure on education and health services. FDI was credited with providing skill manpower, technical skills, and organizational ability.

Sharma (2009) underlined that foreign direct investment (FDI) offers a plethora of novel technology, management strategies, funding, and market access to facilitate the production and distribution of products and services. The report did point out that there are obstacles to overcome before Nepal can foster foreign direct investment (FDI), which calls for cooperation from leaders in industry, politics, and bureaucracy.

Bista (2010) outlined some conditions of FDI in Nepal, noting that most investments were small, and investors were predominantly individuals rather than companies. The study

highlighted that approximately 40 percent of FDI in Nepal was Indian, given the open border and historical links between the two countries.

Pokhrel (2010) identified a long-term relationship between variables and suggested a weak positive relationship between FDI and the Gross Domestic Product (GDP) growth rate in Nepal. The study also indicated non-stationarity in the levels of the variables and a long-run equilibrium relationship among them.

Risal (2010) explained that while Nepal had implemented market-oriented reforms and promoted FDI, the benefits from global economic integration through FDI were yet to be fully realized. The study noted that foreign firms were involved in import-substitution activities, often motivated by tariff differentials between Nepal and India.

Dangal (2011) examined the nature, necessity, and scope of foreign direct investment (FDI) in Nepal, evaluating policy, regulations, and other relevant factors. The study, which drew support from primary and secondary sources, showed that free-market incentives and reforms notwithstanding, Nepal's foreign investment landscape remains bleak. The study showed that under liberal policies, FDI into Nepal increased significantly.

Pokhrel (2011) examined the relationship between FDI and GDP, acknowledging that while the marginal effect may not be significant due to autocorrelation, FDI inadequately describes GDP without it. The study recognized the weakness of not providing a representative picture of the overall FDI and GDP situation in Nepal and highlighted the use of data from 1983 to 2007 only.

Jha, Agrawal, Gupta, and Mishra (2012) studied FDI determinants in six South Asian countries, finding positive impacts of trade openness, GDP, and direct investment on FDI, with labor having a negative influence. The study emphasized South Asia's attractiveness for business process outsourcing and cost-effective mass manufacturing due to cheaper labor.

Thapa (2013) detailed the government's intention to impose additional requirements on international companies wishing to register as cargo brokers in Nepal. Given the crucial role that foreign investors play in the cargo industry, the Department of Industry sought to impose an investment cap and mandate that foreigners bring in new technology.

Adhikari (2013) highlighted Nepal's potential for both market-seeking and resource-seeking investors, with opportunities in hydropower, travel and tourism, infrastructure projects, and various industries. The study emphasized the need for a hospitable investment climate to attract foreign investors.

Timilsina and Mahato (2014) explained that FDI serves as a means of industrialization in Nepal, attracting capital, technology, and expertise. The study highlighted the importance of foreign investment in diversifying the economy, emphasizing the shortage of these factors in Nepal.

Despite these contributions, a research gap exists in synthesizing these findings to comprehensively understand the evolving dynamics and impediments of FDI and its impact on economic growth in Nepal.

Research Methodology

Research Design

This study uses an exploratory, descriptive, and analytical research approach with the goal of examining the linear relationship between FDI inflows and Nepal's economic growth. The conceptual framework of the study uses variables that were gathered chronologically from different government agencies to go from data gathering to empirical analysis. Following data collection, econometric techniques are used for additional analysis.

Sample Size

The data span from FY 1994 to 2021, encompassing a total of 25 years of observations collected from diverse government entities such as the National Reserve Bank (NRB), Ministry of Finance (MOF), Ministry of Industry (MOI), and Central Bureau of Statistics (CBS) in Nepal. The study's sample size includes 25 years of observations, collected from multiple government bodies like CBS, NRB, MOF, and MOI.

Nature and Source of the Data

This research adopts a descriptive, analytical, and statistical approach, with data in time series format from fiscal year 1994 to 2021. Data on Approved FDI, Actual FDI, percentage changes in GDP growth rate and FDI inflow, sector-wise information, etc., are sourced from government bodies such as NRB, MOF, MOI, and CBS. Logarithmic transformation methods are applied to the collected data when necessary.

Limitations of the Study

Primarily conducted for academic purposes, this study acknowledges certain limitations in terms of data and statistical tools:

- Reliance on secondary data for analysis and interpretation, making the accuracy contingent on the reliability of available information.
- The study covers a limited period of 25 years from FY 1995/96 to 2022/21 due to the moderate time series sample.

Methods of Data Collection

In economics, both primary and secondary methods are prevalent for data collection. Primary methods involve sampling (both systematic and random) and non-sampling or total enumeration methods. Secondary methods entail the collection of data from authorized sources, whether published or unpublished.

Model Specification

Spanning from FY 1995 to 2021, this study utilizes time series data to assess the impact of FDI on Nepal's economic growth through linear empirical modeling. The preferred model is a simple linear regression, specifically ordinary least squares. Following the verification of the basic asymptotic properties of the time series data, the study applies further econometric model selection. The dependent variable is real gross domestic product (RGDP), while the independent variables consist of real foreign direct investment (RFDI) and real gross capital formation (RGCF), expressed in the economic modeling equation: RGDP = F(RFDI, RGCF). The aim is to determine relationships that are both meaningful and statistically significant.

Results and Analysis

Trend and Structure of Foreign Direct Investment in Nepal

This section delves into the trends and structure of Foreign Direct Investment (FDI) and economic growth in Nepal, analyzed by sector, year, and country-wise categorization of FDI inflow and economic growth spanning fiscal year 1995/96 to 2020/21.

Over the last 25 years, the trend in FDI and economic growth in Nepal has exhibited fluctuations, primarily influenced by political stability and peace—a prerequisite for attracting substantial FDI. Nepal's economy has grappled with issues like political instability and structural constraints, hindering its ability to attract a significant FDI inflow. Comparative statistics indicate that Nepal's FDI remains relatively small compared to other South Asian countries. Data reveals the approval of 206 FDI projects, with a total investment of 265 million at the end of 2020/21. Noteworthy contributions come from joint ventures with India, China, the USA, Japan, Germany, and South Korea, with China's joint ventures constituting 12 percent of the total FDI.

Despite being rich in natural and human resources, Nepal has not optimally utilized these assets. Foreign investment and technology transfer play a crucial role in steering the national economic system towards self-dependency, fostering resilience, dynamism, and competitiveness through optimal resource utilization. This enhanced business culture significantly contributes to economic development by expanding industrial development and internal revenue.

Trend of Foreign Direct Investment and Economic Growth

FDI is regarded as a source of economic development and modernization. The table below illustrates the percentage change in foreign direct investment and the percentage change in Gross Domestic Product in Nepal from fiscal year 1995/96 to 2020/21.

Table 1

Percentage Change in GDP and FDI Inflow in Nepal

Fiscal Year	Percentage change in Economic growth	Percentage change in actual FDI in Nepal
1995/96	3.47	17.5
1996/97	5.33	67.7
1997/98	5.05	34.2
1998/99	3.02	34.7
1999/00	4.41	16.4
2000/01	6.20	-1.1
2001/02	4.80	-23.3
2002/03	0.12	53.6
2003/04	3.95	-
2004/05	4.68	8.3
2005/06	3.48	-18.0
2006/07	3.36	11.4
2007/08	3.41	3.0
2008/09	6.10	29.2
2009/10	4.53	31.3
2010/11	4.82	64.0
2011/12	3.42	128.8
2012/13	4.67	45.8
2013/14	3.53	15.9
2014/15	6.01	6.5
2015/16	3.98	38.8
2016/17	0.43	88.8
2017/18	8.98	31.4
2018/19	7.62	51.3
2019/20	6.66	51.1
2020/21	-2.37	60.6

Sources: (MOF Nepal 2021)

Table 1 asserts the percentage (%) change in GDP growth rate is the percentage (%) change in Net FDI inflow is presented from fiscal 2005/06 to 2021. In 2005 the GDP growth rate is 3.48 and FDI inflow is -18.0 %. The highest economic growth rate is 8.98 % in 2017 and lowest economic growth rate is -2.37 % in 2020. The highest FDI inflow is 128.8 % in the fiscal year 2011 and lowest FDI inflow is -18.0 % in 2005. In fiscal year 2017 to 2019 there is positive relation between Net FDI inflow and Economic growth rate. In last two years the net FDI inflow is increasing but the GDP growth rate is decreases.

Year wise Approval and Actual FDI inflow in Nepal.

Foreign direct investment FDI is an important sources of finance for many countries including Nepal butt the trend and structure of year wise flow of foreign direct investment in Nepal is erratic and unpredictable. The approval and Actual foreign direct investment in Nepal is presented by following table

Table 2

Year Wise Approval and Actual FDI Inflow in Nepal

Fiscal year	Approval FDI	Actual FDI
1995/96	2219.9	388.0
1996/97	2395.5	1621.0
1997/98	2000.3	685.0
1998/99	1666.4	578.0
1999/00	1417.6	233.0
2000/01	3002.6	-33.0
2001/02	1209.7	-282.3
2002/03	1793.8	961.4
2003/04	2764.8	-
2004/05	1635.8	136.0
2005/06	2606.3	-469.4
2006/07	3186.0	362.3
2007/08	9812.6	293.9
2008/09	6255.1	1829.2
2009/10	9100.0	2852.0
2010/11	10053.2	6437.1
2011/12	7138.3	9195.4
2012/13	19818.7	9081.9
2013/14	20132.4	3194.6
2014/15	67455.0	4382.6
2015/16	15254.3	5920.9
2016/17	15206.5	13503.9
2017/18	55760.5	17504.6
2018/19	25484.4	13065.2
2019/20	37805.8	19478.7
2020/21	32172.8	19512.7

Sources NRB/MOICES (2021)

Table 2 presents the approval and Actual Net foreign direct investment since 2005 to 2021. In fiscal year 2005/06 the approval FDI is 2606.3 million and actual Net FDI is -469.7 million. The approval and actual foreign direct investment is increasing up to the fiscal year 2007/08. In Fiscal year 2014/15 the approval FDI is 67455.0 million and Actual net FDI is 4832.

6million.Which is the greatest amount of approval FDI inflow in the history of Nepal. Since the fiscal year 2014/15 to 2016/17 the approval and actual FDI was decreasing. The approval and actual FDI is not satisfactory in fiscal year 2020/21 as compare to the previous year.

Sector wise foreign direct investment in fiscal year 2078/79

One of the main drivers of a nation like Nepal's economic growth is foreign direct investment. Every year, foreign direct investment rises in a variety of economic sectors. A table is used to list some of the important sectors below.

Table 3

Sector Wise Foreign Direct Investment in Nepal

Sector of the economy	No. of projects
Agro and forest based	4
Energy based	1
ICT based	6
Information	4
Manufacture	37
Minerals	**0**
Service	73
Tourism	81
Total	206

Sources MOI 2078/79

Table 3 shows sector wise number of projects and FDI inflow in fiscal year 2078/79. The FDI inflow is higher in tourism and service sector where 81 projects are running in tourism and 73 projects are running in service sector. In total 206 projects, the FDI inflow is not satisfactory in agro and forest based industry, energy and ICT based sectors.

Country wise foreign direct investment in fiscal year 2078/79

Foreign direct investment is a category of cross-border investment. Nepal has received FDI from different countries in fiscal year 2078/079.

Table 4

County wise FDI inflow in Nepal

Country	Amount in (Rs crore)
China	1970

India	991
USA	154
South-Korea	128
Japan	33
UK	77
Switzerland	30
Canada	33
Singapore	75
British vergin Tapu	111

Sources MOF 2022

Table 4 explore about the country wise flow of FDI in Nepal in fiscal year 2078/079. China is the largest foreign direct investor with NRP 1970 crore and followed by India NRP 991 crore, USA is 154 and South-Korea is 128 crore respectively. It shows higher FDI inflow in Nepal from Asian continent than other continent.

FDI inflow in Nepal from south Asian countries in 2020/21

Nepal is one of the member of SAARC. Where there are eight member countries. The reason behind establishment of SAARC is to establish mutual relationship between south Asian countries and financial co-operation. The FDI inflow in Nepal from south Asian countries are presented below.

Table 5

FDI Inflow from South Asian Countries

Country	**Amount in (US$ Billion)**
Afghanistan	0.02
Bangladesh	2.9
Bhutan	0.0
India	44.7
Maldives	0.4
Pakistan	2.1
Sri-lanka	0.6

Sources CBS Nepal 2021

The table 5 shows south Asian countries and FDI inflow in Nepal. Where India is the largest foreign direct investor country with NRP 44.7 Billion. Bangladesh stands at second position with NRP 2.9 Billion. Bhutan is not interested to invest in Nepal in the form foreign direct investment.

Descriptive Statistics of the variables

The following table displays descriptive data on real gross domestic product (RGDP), foreign direct investment (FDI), and real government expenditure (RGCE). It includes information on mean, median, maximum and lowest values, standard deviation, skewness, and other factors.

Table 6
Descriptive Statistics of the Variables

	RGDP	FDI	RGCE
Mean	411135.3	669168.4	53.22378
Median	366224.7	280513.0	57.02000
Maximum	949885.8	3458793	112.8800
Minimum	143079.6	16601.00	10.55000
Standard Deviation	228022.4	889055.7	32.29987
Skewness	0.659096	1.629933	0.095763
Kurtosis	2.368299	4.729584	1.741178
Jarque-Bera	4.006272	25.53410	3.039964
Probability	0.134912	0.000003	0.218716
Sum	1850108	30112573	2395.070
Observations	25	25	25

Certain variable data are regularly distributed, whereas others are not, as demonstrated by descriptive statistics of variables. Thus, the results of regression may be manipulated by employing this data.

Stationary Test

To verify the co-integration between real GDP and FDI, the Engle-Granger co-integration model must first determine whether or not the data utilized for the regression analysis are stable. The initial step in converting non-stationary data into stationary data is essential. When time series

data are stationary, it indicates that their mean, variance, and auto covariance (at different lags) are constant throughout time; in other words, they are time invariant.

The study uses the Augmented Dickey Fuller (ADF) test to verify the Stationary test. The methodology chapter provides an explanation of the unit root test detail model.

Table 7

Augmented Dickey Fuller Tests for Unit Root

Variables	Level Form		First Difference (in log)		Remarks
	Intercept	Trend and Intercept	Intercept	Trend and Intercept	
LnRGDP	0.9636 (0.99)	-3.1825 (0.14)	-7.4697 (0.00)*	-7.6005 (0.00)*	I (1)
LnRFDI	0.164485 (0.96)	-2.187053 (0.48)	-7.32282 (0.00)*	-7.239424 (0.00)*	I (1)
LnRGCE	-1.5126 (0.51)	-0.6606 (0.96)	-5.1350 (0.00)*	-5.1414 (0.00)*	I (1)

Source: Author's Calculation through EViews.10.

Note: *shows 1% level of significance; ** shows 5% level of significance and numeric value in the parenthesis expresses p-values. The p-values are based on MacKinnon (1996) one-sided p-values.

The ADF test statistics for the relevant research variable are displayed in the table. At the level, every variable is non-stationary, but at the first difference, they are all stationary. All of the variables are stationary at the 1% level of significance at first difference, according to the enhanced Dickey Fuller tests. It follows that every variable is integrated of order 1, or I (1). Since every variable is stable at initial difference, the Engle Granger technique is used in this study to examine the variable's long-term co-integration.

Granger Co-Integration Test and Model of Error Correction

The Engle-Granger co-integration test states that the stationary of the residual term error correlation term in the long run model may be assessed in order to determine the long run co-integration of the variables. The study looks for a relationship between RGDP and FDI. The long-term models were developed using the OLS technique, as shown below.

Table 8

Long run model result by using OLS Method

Dependent Variable: LNGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LFDI	0.1250*	0.03485	3.5890	0.0014
LnRGCE	0.2000*	0.00245	3.6678	0.0012
C	10.8771	0.35141	30.7160	0.0000

R-squared	=	0.900763	F-statistic	=	113.4617
Adjusted R-squared	=	0.89285	Prob(F-statistic)	=	0.000000
Sum squared residual	=	0.3160	Durbin-Watson stat	=	1.8725

Source : Authors own calculation through EViews.10

Note: */**/*** denotes statistically significant at 1 percent, 5 percent, 10 percent

The long run model and the so-called long run coefficient are displayed in Table 8. In order to assess the long-term coefficient between the variables, the residual term must be stable. To do it, we must verify the residual term's stationary state. There is a long-term link between the variable and the long-run model if the long-run model's residual is stationary at level. Thus, the model is not erroneous. ADF verifies the residual's stationary test.

Table 9

ADF Test Result of Residual of First Model

Null Hypothesis: ECT has a unit root

Exogenous: None

F		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.407393	0.0000
Test critical value	1% level	-2.618579	
	5% level	-1.948495	
	10% level	-1.612135	

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

Source: Authors calculation through EViews-10.

Table 9 displays the residual ADF test result. At the 5% percentile of significance, the Augmented Dickey-Fuller test statistics table value of 5.381876, as shown in Appendix VII, is higher than the crucial Engle-Granger co-integration value of 4.700. The ECT is stationarity at level, i.e., the null hypothesis that the ECT has a unit root is rejected. As a result, the residual

term is stable at level form, indicating that the variables have co-integration and that the long-term model won't be misleading.

Findings

The following is a summary of the study's main conclusions:

1. According to the results of the Augmented Dickey-Fuller (ADF) test, all of the variables used in this study are integrated of order 1 (I(1)), with stationarity appearing only after the first difference.

2. The results of the Engle-Granger co-integration test support the long-run Ordinary Least Squares (OLS) model's immunity to spurious regression by demonstrating the co-integration of the variables utilized in this investigation.

3. Although this association is not significant in the near term, the analysis finds a substantial long-term relationship between Real Gross Domestic Product (RGDP) and Foreign Direct Investment (FDI). The long-run model shows that, when all other parameters are held constant, a one percent increase in FDI leads to a 0.12 percent rise in RGDP.

4. The first model's Error Correction Model (ECM) shows that FDI and RGDP have a negligible positive connection in the near term. The data indicates that FDI and other explanatory factors are heading toward long-run equilibrium, as indicated by the negative and significant coefficient of Error Correction Term (ECT) (-1) at the 1 percent significance level.

5. FDI has a longer-term, more noticeable effect on RGDP than it does in the near term. The coefficient of foreign direct investment (FDI) is 0.007 in the short term and 0.12 in the long run.

6. According to the findings of the CUSUM of squares and Cumulative Sum (CUSUM) test, the model is also inside the 5 percent significant threshold.

Conclusion

Foreign Direct Investment (FDI) has a longstanding presence in developing countries, characterized by fluctuations influenced by changes in the investment environment, governmental FDI policies, and broader economic frameworks. From import substitution in the 1950s and 1960s to resource-driven development in the 1970s, structural adjustments leading to market economies in the 1980s, and a greater role for the private sector in the 1990s, the evolution of FDI trends reflects changes in policy approaches by developing nations.

FDI plays a pivotal role in stimulating economic growth by elevating productivity, encouraging efficient resource utilization through linkages with foreign trade, fostering positive externalities in the industrial sector, and addressing financial resource gaps. Additionally, FDI contributes to capital accumulation, employment generation, goods supply, spillover effects, and the enhancement of skills and technology. Furthermore, it serves as a source of foreign exchange through equity capital and exports of goods and services. Given the challenge of accumulating

capital domestically in Nepal, recognizing the undeniable role of foreign investment in the country's economic growth and development becomes imperative.

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