Contributions of FDI, Import and Export in Economic Growth

Ramesh Budha
Assistant Professor, Graduate School of Humanities and Social Science
Mid-West University, Nepal

Abstract

GDP measures a country's economic output, influenced by factors like foreign investment, inflation, market openness, supply, demand, population, and political environment. Natural forces, environment, and sustainable development also impact economic growth. Academics argue that FDI and GDP are causally related, impacted by inflation, and positively related to import and export. A consistent set of economic indicators cannot be built using a single set, but subjective assessment and potential duplication are used. This research helps Nepalese officials respond to external shocks and crises, focusing on economic growth and overall economic improvement. The data from 1970 to 2020 shows a 1.72 GDP average with a 6.56 standard deviation, with FDI, EX, and IM being reliable factors, with import to export being the least reliable. Ordinary least square estimation reveals a positive, statistically significant relationship between imports and exports, contrasting FDI and GDP. GDP and export are inversely connected, with a 1% change in export causing a -6.36% reduction in GDP. However, nonstationary variables and low Durbin Watson values may indicate incorrect regression.

Keywords

Export, FDI, GDP, Import, Inflation

1. Introduction

The economic output of a country is measured by its gross domestic product (GDP). The operation of economies is influenced by a number of essential variables, including foreign direct investment, inflation, import and export of goods and services, market openness, supply and demand for goods and services, population, political environment, and others. Natural forces like diversification, the environment, and sustainable development all have an impact on economic growth.

A nation's capacity to experience rapid economic growth is significantly influenced by foreign direct investment (FDI). Foreign direct investment (FDI) is the flow of both financial and nonfinancial resources into the country of origin. It is a way to obtain trustworthy, long-term funding for business operations through international channels. Foreign direct investment (FDI) occurs when a foreign company buys a majority stake in a local business. Through FDI, foreign businesses actively take part in ongoing activities in the host nation. This implies that they bring more than just financial support; they also bring technology, knowledge, and skills. Regarding the precise connection between monetary inflation and financial performance, there is limited consensus. There is still much to learn about the mechanism by which monetary inflation affects financial behavior. A few people are not the only ones affected by rising prices associated with monetary inflation; total financial performance is also affected.

Foreign investment in developing countries leads, first and foremost, to increased employment. Foreign direct investment plays a significant role in the economic development of any country. When a country's growth rate is slow, FDI inflows are low (Riedel, 1987). Inflation is a contentious issue because it is a direct effect of the country's economic success. The dependent variable in this study is gross domestic product. Cost-push inflation and demand-pull inflation are the two types of inflation. When there is an increase in total demand and a scarcity of supply, prices rise as a result of demand pull inflation.

2. Statement of the Problem

The primary issue that this study seeks to address is whether foreign direct investment affects economic growth, and if so, what kind of relationship should exist between it and GDP, inflation, exports and imports of goods and services, and Inflation.

3. Objectives of the Study

The objective of the study are as follows:

i. To examine the effect of foreign direct investment on economic growth.

ii. To examine the connection and casualties between inflation (INF), export of goods and services (EX), import of goods and services (IM) and gross domestic product (GDP).

4. Research Questions

This study attempts to answer the following research questions:

i. What is the effect of foreign direct investment on economic growth?

ii. How is inflation, import and export of goods and services and Gross Domestic Product interrelated?

5. Literature Review

Without capital formation, economic expansion is not even imaginable. Remittances and foreign direct investment are the two main sources of cash generation in developing nations like Nepal. The economies of the sending and investing nations may both grow and be supported by FDI. Developing countries have backed FDI as a method to finance new infrastructure and provide jobs for locals. Remittances from abroad, government development aid, and foreign direct investment are the key drivers of growth in poor countries (Alfieri & Havinga, 2006).

In essence, a nation's development is influenced by its rate of economic growth. Economic expansion is therefore seen as a crucial part of long-term development. Indonesia's economic growth varies and exhibits generally erratic trends. An administration that masks both internal and external economic and political volatility is necessary for a nation. A number of policies can aid in bringing the situation under control so that it is more beneficial. A nation's economy has been significantly impacted by the government (Economic Growth - Econlib, n.d.).

To grow, an economy needs a robust finance sector. The promotion of efficient resource allocation and the provision of more thorough information on projects that may be financially successful are the results of financial development. In other words, as financial institutions have expanded, the price of information collecting has come down while the efficiency of transactions and contracts has increased. Expanding financial access also instills dynamic efficiency in the system by causing structural change through innovation and bringing welfare benefits to the entire economy (Guru & Yadav, 2019).

Economic development is the process of social and economic change. This procedure often follows a well-organized flow and exhibits characteristics of different nations (Thirlwall 1999). Every country strives for urgent economic advancement despite several challenges such stale social and economic conditions (Todaro 1997).

Many nations have struggled with the negative consequences of internal and external forces and have been unable to determine their growth path due to bad socioeconomic rigidities and economic weakness. Foreign trade is thought to be a key element in fostering economic growth. The majority of nations participate in international trade to boost employment, savings, gains in foreign exchange, and investment productivity. The main way that developing nations can gain from globalization is through trade. Imports boost domestic markets' rivalry and variety, which is good for consumers (Hussain 1996).

Businesses profit from international trade because it increases productivity and gives them access to more modern capital inputs like tools and equipment. International trade promotes the redeployment of labor and capital to more productive industries. In example, it has made it easier for some manufacturing and service businesses to continue moving from developed to developing countries, creating new growth prospects (WDR 1999/2000). According to the World Development Report (1999/2000), the share attributed to developing nations increased from 23 to 29 percent during the 1990s, growing twice as quickly as the global GDP.

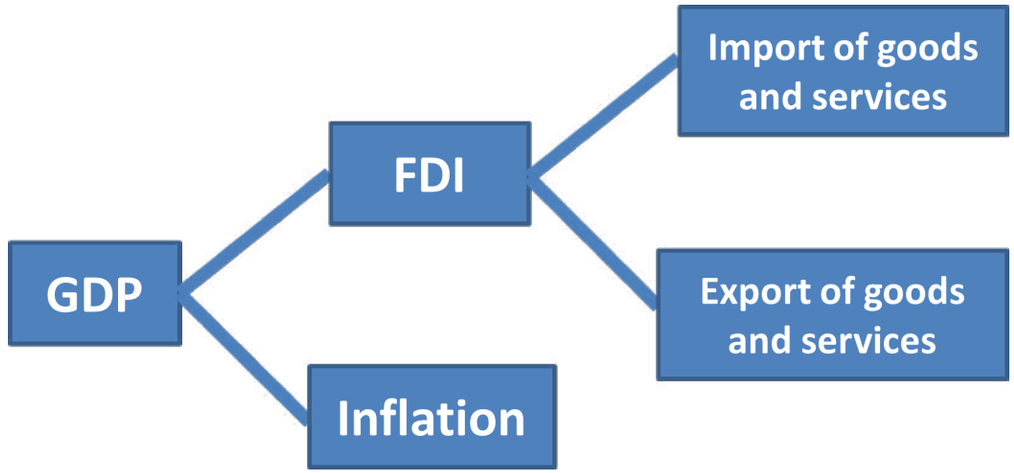
One of the key reasons for Nepal's inadequate industrial base is that it is a landlocked nation, which is related to an increase in raw material and equipment exports and imports. The 25% unexpected rise in information and communication technology between 1994 and 1997 has given emerging countries new opportunities. Its trade with other nations has also been impeded by its expansive border with India and its lacking shipping facilities. The only economically feasible alternative for

any commercial traffic is India because it is almost impossible to transit through China. In reality, Nepal is more reliant on a single country for transportation services than any other country (apart from Bhutan) (Poudyal 1998).

The majority of prior transit and trade agreements between these two nations demonstrate that Nepal's assistance in providing incentives to Indian commodities inside Nepalese territory in exchange for transit services was almost always given by India. Due to its economic dependence on India, Nepal has the smallest window of opportunity for international trade, with only one partner remaining in the possibilities based on comparative advantage. Naturally, neither foreign trade nor the economy cannot be expected to increase much under such conditions.

The study came to the conclusion to design and adopt the following frameworks to examine the relationship among the variables gross domestic product, foreign direct investment, inflation rate, import and export of goods and services of Nepal and used secondary annual time series data from 1990 to 2020, sourced from Central Bank of Nepal (NRB). This was done after reviewing the previous related study in the review of literature chapter and established theory.

This section aims at describing the Gross domestic product (GDP).



6. Dependent Variable

Gross Domestic Product (GDP): The total market value of all currently created final goods and services from each and every producing unit within a country's geographical authority over a certain time period is known as the gross domestic product, or GDP. In other words the total amount of finished goods and services produced in a specific location over a given time period is known as the gross domestic product, or GDP. The Gross Domestic Product (GDP), which is calculated in monetary terms, only includes commodities and services intended for further processing and manufacture. A typical indicator of the health of an economy is GDP because it measures production activity.

The study has taken the Growth rate of GDP as the dependent variable.

7. Independent Variables

A. Foreign direct investments (FDI): Examples of foreign investments include joint ventures, portfolio investments, concessions, and other types including greenfield and brownfield investments, mergers, acquisitions, and so on.

B. Inflation (INF): Inflation is the term used to describe an increase in the cost of the majority of everyday or regularly used products and services, such as food, clothing, housing, recreation, transportation, consumer staples, and so forth. By tracking the average price increase over time, inflation is determined using a basket of goods and services. The opposite, less typical fall in the price index for this basket is called deflation. The loss of a unit of a country's currency's purchasing power is referred to as inflation. Inflation is expressed in percentage.

C. Export of goods and services (EX): Between citizens and non-residents, it includes transactions including the exchange of goods and services. Export contributes to GDP growth and shows that local companies are present in foreign markets.

D. Import of goods and services (IM): It consists of business dealings with locals and visitors exchanging goods and services. Export has a detrimental effect on GDP growth because it lessens the positive effects of export and increases a nation's dependency on imports.

8. Methods of Analysis

The relationship between Nepal's GDP (the dependent variable), foreign direct investments, imports and exports of goods and services, and inflation (the independent variables) was analyzed during the entire period of the study (from 2090 to 2020). The NRB was used to get the statistics information. E-Views software is employed for model comparison and analysis.

9. Nature and Sources of Data

The information used in this article was taken from the NRB, the World Bank, and their published materials, as well as from several issues of the Economic Survey issued by the Ministry of Finance and other research papers.

10. Tools and Methods of Data Analysis

The study of the data in the paper was descriptive and analytical. Mean and standard deviation will be employed in descriptive research, and the OLS method will be used in analytical research to assess the dependent and control variables. The study looked at the factors influencing GDP and utilized E-Views software to analyze the data.

11. Model Specification

A simple model for the determinant of the gross domestic product becomes

GDP = F (FDI, INF, EXP, IMP) ..... (i)

The OLS model that represents the model is presented in the equation as

GDP = a + b1 FDI + b2 INF + b3 EX + b4 IM + e ..... (ii)

Where;

GDP = Growth rate of GDP

FDI = Foreign Direct Investment

INF = Rate of Inflation

EX = Export of goods and service

IM = Import of goods and services

a = Constant

e = Error term

b1, b2, b3 = constant parameter

12. Data Analysis and Interpretation

Descriptive Statistics

The results of the descriptive statistics performed prior to the inflowing time series analysis are displayed in the following table.

Table: 1.1

Statistical analyses of selected variables

	GDP	FDI	INF	EX	IM
Mean	1.72E+10	40298277	8.306422	14.56143	32.28336
Median	1.59E+10	14778086	7.279093	12.85566	32.57072
Maximum	3.06E+10	1.96E+08	26.39731	26.32784	41.46959
Minimum	8.25E+09	-6647984.	3.070305	6.805290	21.66145
Std. Dev.	6.56E+09	55376010	5.075985	6.029252	4.514770
Skewness	0.521746	1.454313	1.825627	0.480325	-0.240420
Kurtosis	2.203162	4.291868	6.606931	1.898734	3.041244
Jarque-Bera	2.226609	13.08332	34.02458	2.758531	0.300841
Probability	0.328472	0.001442	0.000000	0.251763	0.860346
Sum	5.34E+11	1.25E+09	257.4991	451.4042	1000.784
Sum Sq. Dev.	1.29E+21	9.20E+16	772.9688	1090.557	611.4943
Observations	31	31	31	31	31

Source: Authors' calculation through E-views

The 31 observational years covered by the data are 1970 to 2020. The GDP average is 1.72, with a standard deviation of 6.56, as per the descriptive data. Additionally, 40298277, 14.561, and 32.28336, respectively, are the means for FDI, EX, and IM4. This shows that GDP is more reliable than other factors, with import to export being the least reliable. GDP also has a positive skew compared to other factors.

Table: 1.2

Statistical analysis of selected variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI	26.84887	11.36464	2.362492	0.0259
INF	-1.89E+08	80687905	-2.347976	0.0268
EX	-6.36E+08	88616373	-7.171659	0.0000
IM	6.33E+08	1.13E+08	5.600013	0.0000
C	6.52E+09	3.58E+09	1.822970	0.0798

R-squared	0.915322	**Mean dependent var**	1.72E+10
Adjusted R-squared	0.902295	**S.D. dependent var**	6.56E+09
S.E. of regression	2.05E+09	**Akaike info criterion**	45.86721
Sum squared resid	1.09E+20	**Schwarz criterion**	46.09850
Log likelihood	-705.9417	**Hannan-Quinn criter.**	45.94260
F-statistic	70.26173	**Durbin-Watson stat**	1.345729
Prob(F-statistic)	0.000000		

Source: Authors' calculation through E-views

13. Result

The results of the ordinary least square estimation show a positive and statistically significant relationship between imports and exports, in contrast to the non-significant association between FDI and GDP. GDP and export of goods and services are inversely connected, which means that a change in export of 1% causes a reduction in GDP of -6.36%. R-squared is equal to 91%, which indicates that changes in all independent variables combined explain 91% of the variation in GDP. The nonstationary nature of the variable that biases the OLS estimation and the low Durbin Watson value, however, may be indicators of incorrect regression.

14. Conclusion

In conclusion, academics can assert that FDI and GDP are causally related in both directions. Additionally, both FDI and GDP are impacted by inflation. Finally, compared to the insignificant association between foreign direct investment and GDP, there is a positive and statistically significant relationship between import and export.

A consistent set of indicators on the status of the economy cannot be built using a single set of economic indicators. When selecting these indications, the authors' subjective assessment is employed, and their interdependence as well as the potential for duplicity are taken into account.

Economic officials may find the research findings useful in determining how best to respond to external shocks and crises, enabling them to concentrate their efforts more precisely on economic growth and the general betterment of the Nepalese economy.

References

Acharya, A., (1997). Nepal Rastra Bank and Monetary Policy.

Ahmad, D., Afzal, M., & Ghani, U., (2016). Impact of Monetary Policy on Economic Growth Empirical Evidence of Pakistan. International Journal of Applied, 4(6).

Bruno, M. and Easterly, W., (1998), Inflation Crises and Long-Run Growth, Journal of Monetary Economics, Vol. 41(1), pp. 3-26

Chaudhry, I. S., Qamber, Y., & Farooq, F., (2012). Monetary policy, inflation and economic growth in Pakistan: Exploring the co-integration and causality relationships. Pakistan Journal of Commerce and Social Sciences, 6(2), 332.

Economic Growth - Econlib. (n.d.). Retrieved September 15, 2022, from https://www.econlib.org/library/Enc/EconomicGrowth.html

Guru, B. K., & Yadav, I. S., (2019). Financial development and economic growth: panel evidence from BRICS. Journal of Economics, Finance and Administrative Science, 24(47), 113–126.

Mallik, G. and Chowdhury A., (2001). Inflation and Economic Growth: Evidence from South Asian Countries, Asian Pacific Development Journal, Vol. 8(1), pp. 123-135

Mencinger, J. (2003). Does Foreing Investment Always Enhance Economic Growth? International Review for Social Sciences, 56(4):491–508; p. 534-547.

Mahmoodi, M., Mahmoodi, E., (2016). Foreign direct investment, exports and economic growth: evidence from two panels of developing countries. Economic Research, 29:1, 938-949. DOI: 10.1080/1331677X.2016.1164922.

Nestorović, O., (2015). Da li strane direktne investicije doprinose privrednom rastu zemalja u tranziciji?, Ekonomske teme 53(2), 273–282.UDK 339.727.22:338.1.

Petrakis, P. E., Valsamis, D. G., & Kafka, K. I., (2020). Economic Growth and Development Policy. https://doi.org/10.1007/978-3-030-43181-5