Foreign Direct Investment and Economic Growth of South Asia

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Abstract

The study aims to investigate the effect of foreign direct investment on the economic growth of four countries in South Asia. The inflow of foreign direct investment, inflation, and public expenditure used as independent variables. Whereas economic growth rate used as a dependent variable. All variables are based in current price and data has been collected from the source of World Bank from the fiscal year 2000 to 2022 A.D. Considering the large amount of public expenditure in the South Asian Countries in 2022 AD, Four countries viz. India, Bangladesh, Pakistan, and Nepal were selected to collect the data. Panel regression has been used for effect analysis. Empirical study shows that there is a positive and statistically significant effect of foreign direct investment on economic growth. However, public expenditure has positive but insignificant effect as well as inflation has a negative and statistically insignificant effect on economic growth.

Keywords*:* Foreign Direct Investment, Economic Growth, South Asia, Public Expenditure, Inflation

I. Introduction

According to OECD (1996), "Foreign direct investment (FDI) reflects the objective of obtaining a lasting interest by a resident entity in one economy ("direct investor") in an entity resident in an economy other than that of the investor ("direct investment enterprise")". More than remittances, private loan and portfolio equity, and official development aid combined, FDI has been the main external financing source for many developing nations (UNCTAD, 2019). Increased FDI inflows have the potential to reduce capital constraints, boost GDP (Borensztein et at., 1998; Choe 2003; Hansen & Rand 2006), stimulate employment growth (Fu & Balasubramanyam, 2005; Harding & Javorcik, 2011), and increase the aggregate productivity through technology transfers and positive productivity spillovers (Das, 1987). Additionally, FDI strengthens trade ties (Freund & Pierola, 2012). Therefore, FDI and the existence of overseas affiliates can both be important catalysts for economic growth.

The recent economic growth theories have predicted that FDI and economic growth go together, which further creates the situation of a sustainable economy in those countries where foreign capital inflows (De Jager, 2004). The role of FDI should be considered in economic progress, production improvement, and employment creation. Higher foreign direct investment flows worldwide reflect a better economic climate, economic reforms, and investment-friendly policies. Many emerging economies have recognized foreign direct investment as their primary source of growth (Hoang et al.,2010). On theother hand, FDI also causes intense competition for domestic companies, exploitation of domestic resources by foreign companies, and environmental degradation.

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The inflow of FDI comes in two ways i.e. as foreign portfolio investment, a specific form of bringing foreign investment in stocks, bonds, and currencies into the host economy. The second one is foreign direct investment, defined as physical investment made by foreign firms in resident country businesses. The policymakers highlighted that direct investment is far better than portfolio investment for developing countries.

The role of FDI in the growth process is different based on nations adopting the varying trade policy framework. In this context, Balasubramanyam et al. (1996) found that the countries adopting export promoting (EP) policy has stronger effect of FDI on economic growth than countries adopting the import substitution (IS).

In the post-liberalization period, many countries have increased the inflow of FDI. This increment has also realized social, economic, and human development. To increase the inflow of foreign capital, many governments have focused on particular investment sectors; they have made institutional and policy improvements, reduced barriers, and created an atmosphere where both internal and external capital can flourish. During the last thirty years, neighbor countries, China, India, and Bangladesh, have significantly increased the flow of FDI and gained economic growth, resulting in a mass reduction in poverty and prosperity. As mentioned in the study, Nepal is not able to do so (Adhikari, 2013). Whether FDI has created economic growth or not in the eco-political debate has always been questioned. Though developing an environment to attract and retain foreign capital is one of the significant economic challenges of Nepal (Pant, 2010). Therefore, it should be made clear whether foreign direct investment causes economic growth or not.

II. Literature Review

There are numbers of theoretical approaches regarding the role of FDI on economic advancement. All classical economists were involved in search for new economic perspectives to analyze growth and development of different countries. Smith (1776) said that growth can be generated in manufacturing as well as agriculture through expansion of markets, increased specialization of economic functions and development and application of scientific and technical methods. Considering natural resources main constraint, Ricardo (1815) showed that output expansion slows due to diminishing marginal productivity of labour on fixed land, implying that the most productive land is brought into cultivation first, then the lesser productive, and so on. The other main ingredient in the classical time is the Malthusian idea that population expands endogenously with output. Whenever output grows, population is also slowly expand until average consumption drops to the level of subsistence. In the production cycle theory, Vernon (1966) explained that American companies had the advantage of technology over European companies, so, at the first stage, they began to export the products. At first, they invested in research and innovation and produced new and innovative products for the domestic market. When such innovative products became popular in America, such firms started to export the same product to Europe. European customers had raised income and were ready to consume more quality products. American products were becoming popular in this regard. When European firms started to copy American companies' technology and production process, in the second stage, American companies was compelled to establish their firms in Europe through foreign direct investment and sell the product. So, in this regard, export has limitations and FDI can minimize such limitations and further encourages FDI. In the theory of exchange rate, Itagaki (1981) and Cushman (1985) describe that, as the market is imperfect and investor initially considers the foreign exchange risk from the global trade perspective it becomes less risky to invest then trade in countries with higher currency fluctuation. This theory highlights the FDI from monetary perspective.

In internationalization theory, economists attempt to explain the expansion of multinational corporations and the drivers of rising foreign direct investment. Buckley and Casson (1976) first formulated the theory, followed by Hennart (1982) and Casson (1983). The theory was initially introduced by Coase (1937) in a home context, and then Hymer (1976) clarified this in an international context. Further they found two critical factors of FDI in his doctoral dissertation- removal of competition and advantages of firms possess in a particular activity.

In economic growth side there are number of theoretical developments. Keynes (1937) describes that economic growth is the wealth maximization process of any nation. Though it is described on a short-term basis, it can be understood as a long-term process in the context of economic progress and growth. Economic advancement can only occur when human resources are prepared to obtain and use technology, natural resources, and capital to increment production and employment.

Harrod and Domar (1939) extended Keynes's static equilibrium model (1937) of The General Theory. They raised the issue that when the rate of investment and saving are equal (which is called static equilibrium), what income growth rate is required for such equilibrium to occur through different times? In essence, the model suggests that the rate of economic growth is directly proportional to the level of saving and inversely proportional to economy's capital output ration. The capital output ration represents the amount of capital required to produce an additional unit of output. HD model assumes constant capital-output ratios, which may not hold true in reality.

Even if the actual and projected economic growth rates are equal, full utilization of capital does not mean full utilization of labor. New arrangements need to be made for maximum utilization of labor. Utilization of labor is dependent on two major factors. First is the growth of the labor force, and second is labor productivity. Both variables have a cumulative effect on maximization of labor productivity. The real growth rate must coincide with the natural rate if all labor is to be utilized. Structural unemployment will increase if the actual growth rate is lower than the natural rate.

Though it is impossible to find a combined principle regarding the role of different variables on economic development and prosperity, there are segmented fragmented principles that describe the partial role of several variables in economic growth. Two popular models described by Solow (1956) focuses on the role of capital investment, and the theory of endogenous growth, described by Romer (1986); Lucas (1988), focuses on the role of human capital, innovative work, research and development efforts, and other factors in economic development are among widely described.

Marx (1867) was the pioneer philosopher, economist, historian, and political scientist. The Marxian theory of economic growth is predicated on a few key ideas. First, there is the law of bourgeois accumulation, which states that capitalists' main goal is to continue gathering wealth. Second, the law of the propensity for profit rates to fall is fundamental in the collapse of the capitalist system. Further it has developed the idea by introducing the marginal price theory. Third, according to the law of increasing capital concentration and centralization, which exemplifies the development of capitalism, fierce competition among capitalists will result in the obliteration of smaller businesses by larger ones, strengthening monopolies and increasing the concentration of economic power. Fourth, the rule of rising 'pauperization' suggests that the working class's unhappiness increases as capitalism develops. This would be reflected in salaries tied to the subsistence level and an increase in the percentage of unemployed people. In the other hand Schumpeter (1934) and endogenous growth theory is shifting from a capital-centric development approach to a human-centric development approach. One branch of

endogenous growth theory heavily uses three specific contributions of this theory. One is the idea of change "clusters" and economic innovation, which are closely related to externalities in the creation and use of knowledge and technological changes. Second, it discusses the state of imperfect competition and how much innovation benefits the businesses in question through rents. Rapid invention diffusion increases overall productivity. Thirdly, it is a dynamic source that includes waves of creation and, occasionally, devastation.

Macroeconomic variables like financial liberalization, FDI inflows into Nepal have exhibited a broadly consistent pattern (Adhikari, 2013). However, a noticeable increase in investment was only seen following the conflict years of 2002 to 2007. Though Nepalese authorities have made an effort to increase the inflow of FDI, there has yet to be such a visible increment. With a new and liberal economy wave everywhere, some developing countries benefit from this (Stallings, 2001). This also increases competition among the countries that want to attract foreign investment. Those hungry countries must improve their competitive situation to get such a limited investment. So, it became difficult for Nepal to get foreign capital (Adhikari, 2013). The positive relationship has been found between foreign investment in the manufacturing sector and economic growth in research conducted by considering many countries from 1981-1999 (Alfaro, 2003). According to Blomström and Kokko (2003), the role of FDI in economic development could be seen mainly as filling the gap between required capital and existing domestic investment. It also fills the skills gap, increases employment opportunities, and reduces poverty. Hymer (1976) describes how market imperfections cause the emergence of multinational corporations. Market structure and inherent market imperfections create a beneficial situation for some industrial enterprises. This principle emphasizes that market imperfections situation causes the inflow and outflow of capital from one country to another. Companies seek comparative advantage, and for this, they search new areas.The "FDI-led growth hypothesis" claims that FDI inflows can boost growth for the host nations by boosting capital stocks, generating new employment possibilities, and simplifying technological transfers (Borensztein et al., 1998).

The South Asian Association of Regional Corporation was founded in 1985, where seven countries, Nepal, India, Pakistan, Bangladesh, Sri Lanka, Bhutan, Maldives, and the eighth country, Afghanistan, joined in late 2007. SAARC was formed to develop technological and economic strength and self-reliance skills among member countries. SAARC was the result of increasing regional integrations at the world level. Further, the leading economies promoted trade and investment among developed economic regions rather than individual countries with maximum trade costs. The primary objectives of establishing SAARC were to secure a diverse range of benefits and further the economic integration of economies. In this sequence, South Asian Preferential Trade Area (SAPTA) was designed to meet this requirement in 1995. It was the interim step towards forming the economic integration. Later on, in 1996, the SAARC countries discussed framing the SAFTA that was finalized in a summit held in 2001 to reduce trade costs and easy flow of goods. It was framed on the policies of free trade with non-least developed countries to LDC state with members by 2008, and third countries followed up to 2010. Both approaches are supported to reduce the cost and to encourage explosive trade with steep promotion of foreign investment in SAARC countries.

III. Research Methodology

This study follows the descriptive and causal relation research design. The nature of data is secondary. The data has collected from web site of World Bank. The study period has been taken for 20 years, between 2003 and 2022 A.D. The trend in South Asian FDI, government expenditure, and inflation influences for 2003 to 2022 is necessary to look at and evaluate the potential determinants of economic growth. Here, countries have been selected on the basis

of larger government expenditure in the year 2022 A.D.

To analyze the data, descriptive tools such as mean, maxima, minima, standard deviation has been used. Similarly, covariance analysis, Husman test, chi-square test, and D.W. test also have been performed for the inferential analysis.

$EG_{it} = \beta + \beta 1FD_{it} + \beta 2GE_{it} + \beta 3IN_{it} + e_{it}$…….....(i)

Where,

E.G. = Economic Growth

F.D. = Foreign Direct Investment

G.E. = Government Expenditure

IN = Inflation

β = Constant

$\beta 1$, $\beta 2$ and $\beta 3$ = Constants for respective variables

e = Standard Error

IV. Results and Conclusion

This section depicts the analysis and interpretation of collected data. The results of different statistical tools of the research are mentioned below

Table 1

Descriptive Statistics of Variables

	EG	FDI	GOVEXP	INF
Mean	5.319494	9.483038	22.42429	7.359114
Median	6.010000	1.740000	13.84579	6.920000
Maximum	9.100000	64.36000	104.5709	20.29000
Minimum	-6.600000	-0.010000	0.744396	2.270000
Std. Dev.	2.562543	16.21460	24.13360	3.293737
Skewness	-1.830677	1.724935	1.504188	1.456375
Kurtosis	8.405197	4.587761	4.278715	6.716144
Jarque-Bera	140.2963	47.47436	35.17292	73.38388
Probability	0.000000	0.000000	0.000000	0.000000
Sum	420.2400	749.1600	1771.519	581.3700
Sum Sq. Dev.	512.1970	20507.22	45429.61	846.1986
Observations	79	79	79	79

Note. Authors' calculations

Based on the above analysis, it is found that the average economic growth of South Asian selected countries is 5.3%. In contrast, the average FDI, government expenditure, and inflation rate are 9.4 billion USD, 22.42 billion USD, and 7.4%. The standard deviation of variables is high because the economic size, growth, and macroeconomic situation of selected countries vary significantly.

The relationships between the variables are presented in table 2.

Table 2

Ordinary Covariance Analysis

	EG	FDI	GOVEXP	INF
EG	1.000000			
FDI	0.025147	1.000000		
GOVEXP	0.110307	0.930810	1.000000	
INF	-0.222785	-0.108062	-0.082134	1.000000

Note. Authors' calculation

The table 2 depicts that there is a strong positive association between government spending and FDI but a week positive relationship between foreign direct investment and economic growth. Similarly there is weak positive relationship between government expenditure and economic growth of selected South Asian nations but strong positive relationship between government expenditure and foreign direct investment. However, weak negative relationship between inflation and economic growth rate, foreign direct investment as well as government expenditure.

One of the main objectives of this study is to find out the effect of foreign direct investment on economic growth. Therefore, the study applies Husman test for the appropriateness of panal analysis. It tells whether the random effect model is appropriate or not. It is assumed that the change in cross-section brings the change in intercept, in this situation there is used random effect model. But, If the p-value of the Husman test is less than 5 percent, it suggests rejecting the random effect model and follow the fixed effect model.

Table 3

Panel Data Analysis- Cross-section Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.994339	0.690339	8.683179	0.0000
FDI	0.100518	0.042561	2.361768	0.0208
GOVEXP	0.072522	0.028524	2.542477	0.0131
INF	-0.183157	0.076840	-2.383627	0.0197
	Weighted Statistics			
R-squared	0.111793			
Adjusted R-squared	0.076264			
S.E. of regression	2.462890			
F-statistic	3.146577		Durbin-Watson stat	1.598882
Prob(F-statistic)	0.029968			
	Unweighted Statistics			
R-squared	0.111793			
Sum squared resid	454.9372		Durbin-Watson stat	1.598882

Note. Authors' calculation

Table 4

Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	20.369860	3	0.0001

Note. Authors' calculation

Table 4 shows that the 'p' value of Hausman test is 0.0001 i.e. less than 5%, so the random effect model does not fit. Therefore, it needs to examine whether the fixed effect model or the Pooled least square model is appropriate. This examination needs to perform the Chow Test. The result of the fixed effect model is presented here.

Table 5

Panel Least Square Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.779319	0.777576	8.718533	0.0000
FDI	0.162356	0.048130	3.373292	0.0012
GOVEXP	0.041768	0.030640	1.363196	0.1771
INF	-0.116430	0.080780	-1.441319	0.1538
R-squared	0.307664	Mean dependent var		5.319494
Adjusted R-squared	0.249970	S.D. dependent var		2.562543
S.E. of regression	2.219272	Akaike info criterion		4.516669
Sum squared resid	354.6122	Schwarz criterion		4.726620
Log-likelihood	-171.4084	Hannan-Quinn criteria.		4.600782
F-statistic	5.332636	Durbin-Watson stat		1.905155
Prob(F-statistic)	0.000134			

Note. Authors' calculation

Table 6 presents the result of Chow test and compare the p-value to identify whether the regression model as per the fixed effect model fits or not.

Table 6

Chow test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.789953	(3,72)	0.0004
Cross-section Chi-square	19.681634	3	0.0002

Note. Authors' calculation

The table 6 shows the p-value of the cross-section chi-square test is 0.0002, which is less than 5 percent. A fixed effect model is appropriate. If the p-value is more than 5 percent, POLS would be appropriate. So, the regression model fits in the Fixed effect model.

According to the above analysis, there is a 30.7% effect of FDI, government expenditure,

and inflation on the economic growth of SAARC countries. The remaining effect is from other variables. An increase in FDI by 1 unit increases the economic growth by 0.16%. It indicates FDI has a positive and statistically significant effect on the economic growth of selected South Asian nations. On the other hand, 1 percent increase in inflation causes reduction in economic growth by 0.11 percent but this result is not statistically significant. This result reveals even though there is negative effect of inflation on economic growth of selected South Asian regions there is not sufficient evidence to accept it. Among the selected countries, FDI is higher in India, and economic growth is higher in India and Bangladesh.

The result is consistent with many studies. The study is consistent with the Keynesian theory that the injection in investment from the Government and the private sector creates growth. The positive relationship of FDI with economic growth in the long run is consistent with Blomström and Kokko (2003). The result is also consistent with the Bosworth and Collins (1999) conducted an empirical study of 58 developing countries, including Latin America, South Asia, and many African countries, during 1978-1995. In his study, they considered the investment, i.e., FDI, Portfolio, and bank loans, on the domestic investment. The scholars concluded that an increase in one dollar of FDI is associated with an increase of about 50% of domestic investment in sample countries.

Findings of the recent economic growth theories on the prediction of Foreign Direct Investment (FDI) positively affecting economic growth and sustainable economy in the receiving economy (De Jager, 2004) are also consistent with this research.

Conclusion and Implication

The study concludes that the increment of FDI has a positive effect on the economic growth of South Asian countries. It is because, as per the inflow of FDI there is also technology transfer, meeting the gap of resources. It leads to promoting productivity as well as production and ultimately higher economic growth. Government expenditure increment also has a more positive effect on economic growth. Governments should increase their Expenditure and inject more money into the economy to create prosperity and growth. When the Government creates more Expenditure, an additional amount of money exists in the economy. It creates further employment and income and creates a multiplier effect. However, inflation should be controlled for better economic growth. Higher inflation results in lower growth. All the members of the SAARC region are facing the problem of higher inflation, so monetary and other measures need to be applied to control inflation effectively.

Among the selected countries, FDI is higher in India, and economic growth is higher in India and Bangladesh. Governments can apply different measures to increase FDI in the long term as the relationship between FDI and government expenditure has shown positive and higher; increasing government expenditure further increases foreign direct investment. With control of inflation, the objective of sustainable growth can be achieved.

There is the possibility of policy research focusing on increasing the inflow of FDI. The policy maker need to take necessary revisions in investment act by which there is possibility of large inflow of FDI on productive sectors. Further, the sector-wise effect of FDI on economic growth could also be measured as well as the province-level effect could also be measured in the case of Nepal and other federal countries. In the case of government expenditure. The policy maker as well as executer need to develop programs and plans for the significant rise of economic growth due to the government expenditure. Inflation could also be analyzed in terms of monetary and fiscal policy formation.

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