



Drivers of Economic Growth in South Asia: An Empirical Panel Data Study

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Abstract

Economic growth is the outcome of different factors as foreign direct investment, gross capital formation, size of population, government expenditure, technological improvement, rate of inflation and many others. Therefore, this study attempts to analyze the effects of foreign direct investment, gross capital formation, government expenditure, population growth rate and inflation rate on growth rate of gross domestic product (i.e. economic growth rate) of South Asia except the Maldives, through descriptive and causal research design. Panel data were taken from the World Bank data statistics between the periods of 2001 to 2023 AD. Data were analyzed by using fixed effect model on the basis of Redundant Fixed Effects Tests and Hausman Test. The study finds that population growth rate and gross capital formation positively affect the economic growth of South Asia, whereas there has been negative effect of foreign direct investment, government expenditure and inflation rate on economic growth. The study concludes that there is a critical role of population growth rate and capital formation in fostering economic growth in South Asia, with minor effect of foreign direct investment. Policymakers are advised to focus on enhancing capital investments and leveraging population growth dynamics to achieve sustainable economic growth.

Keywords: Economic growth, fixed effect, population growth rate, capital formation, South Asia

Introduction

The economic growth pattern in any region involves the analysis of the relationship between macroeconomic variables like foreign Direct Investment (FDI), government expenditure, gross capital formation, population growth rate, inflation rate



and the economic growth, even more significant for developing regions like South Asia. The world has widely accepted the importance of foreign direct investment (FDI) as a vehicle of economic development, providing capital as well as technology transfer and productivity (Kafle, 2022; Sapkota & Gautam, 2023). The Asian Perspective Over the last 4 decades, many of the Asian economies have used Foreign Direct Investment (FDI) as an instrument of their Economic Development Strategy, with varying degrees of success. South Asia, which includes Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka, somewhat acts as a special case for these macroeconomic variables given that these countries are driven under different socio-economic conditions (Islam, 2021; Kaur, 2022). Although the region has undergone many economic changes in the last few decades, it remains in dire need of key transformational steps as exemplified by high inflation rates, changing population growth patterns, and government expenditure (Rahman et al., 2020; Din et al., 2024), which all impact the pace of economic growth.

In South Asia, the economic structure is featured with a high population growth rate, which could act as a demographic dividend or a demographic burden, depending on the ability of region in job creation and provide service (Abeywardhana, 2019; Janifar et al., 2020). The inflation has also affected purchasing power and investment decisions in these countries (Madurapperuma, 2016; Karki et al., 2020). Government spending can act as a growth momentum as investments in diverse sectors including infrastructure and public services, but excessive government expenditure without generating current revenue may also cause inflationary pressure (Rao et al., 2020; Budhathoki et al., 2024). Gross capital formation i.e. net increase in physical assets, is vital to economic stability and growth over the long term but is frequently disrupted by external and internal economic shocks (Bal et al., 2016; Shafrullah et al., 2024). Therefore, in order to develop a sound economic policy in South Asia, it is important to understand the complicated interaction of these variables.

To date, while FDI, government expenditure, gross capital formation, population growth, and inflation are acknowledged as important determinants of economic growth, there is still a substantial gap in the empirical literature investigating these relations in the South Asian region. Past studies have mostly focused on a specific variable or been conducted in several selected countries, so an in-depth, worldwide analysis of how these factors interplay to determine the economic outcome has not been available (Nguyen, 2022; Husnain et al., 2023). Paucity of such detailed analysis adds to the dilemma faced by policymakers, who need more nuanced understanding of the interlinkages, in order to formulate effective policies aimed at unlocking these variables for the ultimate goal of achieving sustainable growth.

Previous studies regarding the economic growth of South Asia have focused primarily on the effects of FDI and inflation individually (Nguyen, 2018; Nguyen,

2022; Sapkota & Gautam, 2023) while the simultaneous effects of government expenditure, gross capital formation, and population growth have received scant notice in the literature. Furthermore, even though a few attempts have been made in understanding the relationship between the inflation growth nexus, the majority of them do not consider the moderating impact of other macroeconomic factors (Karki et al., 2020; Din et al., 2024). In this regard, this research aims to shed light on the complex linkages amongst primary macroeconomic factors and their cumulative effects on economic growth of South Asia. Moreover, by filling in the existing deficiencies in the literature, the study intends to help in the formulation of the policies that will be most effective in stimulating economic growth in the region.

Literature Review

Foreign Direct Investment (FDI), government expenditure, gross capital formation, population growth rate and inflation rate have attracted a considerable amount of academic attention in the context of economic growth in South Asia. Therefore, this section presents the theme of different growth theories and outcomes of empirical study in the context of determinants of economic growth.

Theoretical Foundation

Economic growth remained a central issue for policy makers and researchers, especially in the context of developing and emerging economies where structural challenges and capital constraints exist. In this regard, several growth theories have formulated advocating the different drivers of economic growth. The neoclassical growth theory postulates that economic growth is determined by capital accumulation and labor force growth, and technological advancement. Alper (2018), aligning with this theory, emphasizes FDI as a stimulatory of growth, because it contributes capital, technology and managerial know-how which may improve productivity and output.

In contrast to the neoclassical growth theory, Keynesian economics emphasized the role of government expenditure in stimulating the economic activity via demand side intervention. According to Keynes (1936), increased public spending on infrastructure, healthcare, and education can enhance the aggregate demand, create jobs, and accelerate growth, during the period of economic slowdown. It shows that public spending is not only the fiscal tool rather a vital stimulus for sustainable economic growth.

The endogenous growth theory believes that long run economic growth depends upon internal factors rather than only the external capital. The founder of endogenous growth theory, Romer (1990) views that technological progress, human capital development, and innovation are central drivers of long-term economic growth,

rather than external factors alone. This theory emphasizes the role of FDI as a conduit for technology transfer and productivity enhancement. By introducing advanced technologies and managerial expertise, FDI can stimulate domestic innovation and spillover effects, fostering sustained growth (Borensztein et al., 1998). This theory is relevant with present study, because government expenditure made on education and health promote the human capital as well innovation capacity of human being. Similarly, inflow of FDI results transfer of technology and technical know-how. These activities leads towards long-run economic growth.

Several investigations worldwide have shown a linkage between FDI and economic growth, some of which include Stojanov et al. (2019), connoting a greater influence of FDI has over economic growth in especially in developing regions, including South Asia, as this leads to capital accumulation and technology transfer. The several studies show a positive contribution of FDI in GDP growth in terms of capital formation, technology transfer, and employment generation. For example, Nguyen (2022) states that FDI plays the positive impact on the economy of South Asian countries, confirming earlier studies that emphasize the role of FDI in promoting economic growth through best practices and technology spillovers. In a similar line of reasoning, Chaudhury et al. (2020) claim that the nature of FDI, including sectoral components, is very influential in determining its effectiveness to promote growth. Abbas argues that the increase in FDI correlates with improved economic performance and that both phenomena may reinforce each other (Abbas, 2022). All the studies show that there is positive effect of FDI on economic growth. However, magnitude of effect is varied as per the structure of economy and absorption capacity of different nations.

Government spending is one of the most important determinants of economic growth, especially in the developing economies. Hummaira et al. (2021) discusses that government spending, in conjunction with FDI, has a significant impact on economic growth in Southeast Asian contexts, because public investment can act complementarily with private investment towards the growth of economic activity. Similarly, Sahoo and Sethi's findings also uphold this relationship, pointing out that if directed wisely, government expenditure can enhance the productivity of FDI, thereby fostering growth (Sahoo & Sethi, 2020). In the same line Das (2021) concludes that the optimum utilization of government expenditure made on required infrastructure support the inflow FDI on productive sectors and gives the maximum benefit. Likewise, government expenditure made on health and education will lead to a significant increase in output for an economy (Ali & Khan, 2020). The studies indicate that expenditure made by government creates the supportive role for inflow of FDI on the other hand development of human capital in side the nation, which promotes the economic growth. However, effect depends upon the efficient and transparent utilization fund.

Another important factor determining the economic growth is Gross Capital

Formation (GCF), which refers to the net increase of any physical assets. In Choe's study, it has been mentioned that the GCF largely influences economic growth, suggesting that there is a necessity for increased rates of formation of capital for economic development to be sustained (Choe, 2003). Particularly true of South Asia, where shortages of capital have limited growth in the past, the inflow of FDI into the domestic economy can significantly enhance GCF. In addition, with sufficient investment into infrastructure and industry, the overall economy might gain momentum through this inflow FDI (Sahoo & Sethi, 2020). Along the same lines, Adebayo and Kalmaz (2020) affirmed that gross fixed capital formation positively influences economic growth. The above studies suggest that, gross capital formation plays a vital role for the promotion of overall economic activities.

Population growth in terms of economic growth is a double-edged sword. On the one hand, a rising population could serve as a larger workforce that would yield growth in economy. On the other, it may engender higher unemployment and drain on resources if not accompanied by job opportunities creation and infrastructural development. The relationship between or the interaction of population growth with economic growth is a complex one. Abbas (2022) highlighted that demographic changes could be harnessed for economic growth if properly put in check. Furthermore, FDI is largely influenced by population growth because large size of market due to large sized population also attracts foreign investment which acts as a catalyst for economic growth (Chaudhury et al., 2020). The suitable size of population according to the economic condition, highly skill full population that can properly mobile the resources promotes the economic growth otherwise adverse effect on growth.

Inflation rate as an often-used destabilizing factor has implications that are complicated with regards to economic growth. Generally, inflation-growth relationships are described in terms of a non-linear threshold effect, whereby moderate inflation causes growth but beyond that too much inflation becomes damaging. Adeyemi et al. (2023) point out the presence of a threshold or critical level of inflation beyond which economic growth is destroyed. Likewise, Karki et al. (2020) further add by explaining that high inflation leads to the erosion of savings and investment, hence unconducive to economic growth. In view of the high fluctuations in inflation rates within South-Asian counterparts, it is imperative to effectively manage inflation in order to preserve economic stability and growth (Iqbal & Awaz, 2022). All the studies suggest that higher inflation reduces economic growth via the reduction of purchasing power, saving and capital formation.

The interconnection between FDI, gross capital formation, government expenditure, population growth, and inflation are complex for understanding economic growth in South Asia. The literature reveals that these factors play important role in

establishing economic outcomes, suggesting integrated policies leveraging FDI, increasing efficient government spending, and managing demographic and inflationary pressures to allow sustainable growth.

Methods and Procedures

Research Design

The study employed descriptive and causal research design for the investigation of economic and social phenomena of seven South Asian countries, namely Nepal, India, Bangladesh, Bhutan, Pakistan, Afghanistan, and Sri Lanka. Descriptive research design systematically explains the characteristics of population, situation, or phenomenon by gathering and examining quantifiable data to uncover patterns, trends, and relationships, without altering variables. Similarly, causal research design is a methodology used to determine the causes and effects between independent and dependent variables.

Observation

This study consists of seven selected South Asian countries, each explanatory and dependent variable were observed annually from 2001 to 2023 AD. The study has a total of 161 observations focusing on specific economic indicators Gross Domestic Product Growth, Foreign Direct Investment, Government Expenditure, Gross Capital Formation, Population Growth Rate and Inflation Rate. The countries were chosen because they represent through diverse economic condition which is critical to understanding regional dynamics including policy implications (Syaifullah et al., 2024).

Nature of Data

The panel-data approach allows the referencing of both cross-sectional and time-series data, providing a robust structure for the understanding of dynamics of various economic indicators over time. The design is particularly suited for addressing cross-country heterogeneity while controlling for unobservable variables that might influence the outcomes of interest (Supianti, 2023; Rüttenauer & Kapelle, 2024). This dual nature of data enhances the analysis by providing more variability, which reduces multicollinearity issues and improves the efficaciousness of the estimators (Keča & Marčeta, 2016; Aji, 2022). The panel data will encompass both dependent and independent variables instrumental in affecting economic growth and social development, including investment, education, and health expenditures (Gautam et al., 2021; Prawoto & Basuki, 2022).

Source of Data

The data for this study are obtained from reputable international databases, like the World Bank data statistics. Such sources contain vast datasets critical for rigorous panel data analysis. The analysis rests on secondary data because it was built-upon established statistics to polish the uncertainty in the findings (Tebaldi, 2011; Kumar & Saxena, 2024).

Data Analysis Techniques

The analysis was used multiple panel data regression techniques, including Pooled Ordinary Least Squares (POLs), Fixed Effects Model (FEM), and Random Effects Model (REM). The selection of appropriate model is based upon the Redundant Fixed Effects Tests, Correlated Random Effects - Hausman Test, Omitted Random effect: Lagrang Multiplier (Syaifullah et al., 2024). In addition, common diagnostic tests will be conducted like Autocorrelation tests to check for violations common in the panel data (Rahim et al., 2018).

Methods of Analysis

This study has used a panel data approach that spans nations like India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, and Afghanistan across a period like 2001 to 2023 in order to investigate the effect of foreign direct investment (FDI) on economic growth in South Asia. To meet the research objectives, we applied the following econometric model to achieve the study goals.

$$EG_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 GEX_{it} + \beta_3 LNGCF_{it} + \beta_4 INF_{it} + \beta_5 POP_{it} + \epsilon_{it} \dots (1)$$

Where,

EG = Economic Growth

FDI= Foreign Direct Investment LNGCF = Gross Capital Formation calculated in log form

INF = Inflation

POP = Population Growth Rate

β = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = Constant Coefficients of Respective Variables

ϵ = Standard Error

Results

This section covers data analysis and interpretation of results as well as discussion part. Below are the results of the different statistical tools:

Descriptive Statistics

The given table 1 presents the descriptive statistics of all employed dependent and independent variables.

Table 1

Descriptive Statistics of Dependent and Independent Variables Used under the Study

	EG	FDI	GEX	INF	LNGCF	POP
Mean	4.823842	8.18E+09	13.28537	7.815809	24.34816	1.274522
Median	5.765130	1.62E+09	12.95545	6.644547	24.34986	1.131483
Maximum	11.93187	6.44E+10	19.90532	49.72110	27.73308	2.677157
Minimum	-10.21840	-16553760	5.038812	2.007174	20.18174	-0.651321
Std. Dev.	3.653296	1.53E+10	3.242024	6.335486	2.013014	0.564071
Skewness	-1.834391	2.019724	-0.100638	4.221293	-0.284074	0.300094
Kurtosis	7.278435	5.757954	2.923258	25.91698	2.540157	4.337498
Jarque-Bera	111.1774	83.73208	0.162404	2087.628	1.869863	7.521951
Probability	0.000000	0.000000	0.922007	0.000000	0.392613	0.023261
Sum	405.2027	6.87E+11	1115.971	656.5279	2045.246	107.0598
Sum Sq. Dev.	1107.765	1.95E+22	872.3897	3331.486	336.3348	26.40864
Observations	84	84	84	84	84	84

The descriptive statistics presented in table 1 reveal high volatility across the six variables. The Economic Growth (EG) of South Asia ranges from a mean of 4.82 with the highest ever economic growth realized at 11.93 and the lowest -10.21. Foreign Direct Investment (FDI) contains an enormous mean (8.18E+09) and is highly right-skewed (2.02) with a kurtosis of 5.76 showing isolated large flows. Inflation (INF) is too fluctuating with high of 49.72 and low 2.00 whereas value of mean inflation was held constant at 7.81. Value of standard deviation of inflation was also held constant at 6.33, which is far higher than any other variable. It shows too much inflation fluctuation. The mean of South Asian nations' Government Expenditure (GEX) was 13.28, with a maximum of 19.90 and minimum of 5.03., whereas LNGCF and POP have moderate dispersion.z

Table 2
Correlation Matrix

Correlation	EG	FDI	GEX	INF	LNGCF	POP
EG	1.000000 -----					
FDI	0.109501 0.3214	1.000000 -----				
GEX	0.179838 0.1016	0.115001 0.2976	1.000000 -----			
INF	-0.405099 0.0001	-0.086667 0.4331	-0.390891 0.0002	1.000000 -----		
LNGCF	0.192660 0.0791	0.705266 0.0000	-0.271116 0.0126	0.016927 0.8785	1.000000 -----	
POP	0.144740 0.1890	-0.054289 0.6238	-0.034602 0.7547	0.013542 0.9027	0.127114 0.2492	1.000000 -----

Table 2 depicts the correlation matrix which indicates that economic growth (EG) is weakly and positively correlated with foreign direct investment (FDI) ($r = 0.1095$, $p = 0.3214$), government expenditure (GEX) ($r = 0.1798$, $p = 0.1016$), log of gross capital formation (LNGCF) ($r = 0.1926$, $p = 0.0791$), and population (POP) ($r = 0.1447$, $p = 0.1890$), though none of them are significant, and all show negligible positive correlation with economic growth of South Asia. Conversely, inflation (INF) has a moderate negative relationship with EG ($r = -0.4051$, $p = 0.0001$), which indicates that inflation strongly inhibits economic growth by lowering the purchasing power and raising uncertainty. These results demonstrate that inflation is one of the important constraints on growth, and other variables might need to be explored further to establish stronger causality.

Estimation Method

Panel data has used under this study, which combines cross-sectional and time-series data. It is widely used in econometrics and social sciences as it can account for unobserved heterogeneity, improve efficiency in estimation, and allow the examination of dynamic changes over time. The advantage of panel data is that multiple entities can be tracked over time, which helps to understand the temporal dynamics and causal relationships among variables. This data setup can prevent omitted variable bias because it allows researchers to control for individual-specific impacts that do not change over time, thus arriving at more trustworthy estimates of the relationships being explored (Ambya & Hamzah, 2022; Venegas-Martínez & Aali-Bujari, 2021).

In model estimation of panel data, different approaches can be employed, including Pooled Ordinary Least Squares (POLS), Fixed Effects (FE), and Random Effects (RE) models. The approach employed can depend on data characteristics and assumptions about the error structure and individual effects.

Pooled OLS Method

The POLS is a straightforward approach that combines panel data as if it were a standard cross-sectional data set. It assumes that there are no individual-specific effects influencing the dependent variable. POLS is easy to implement, but it can generate biased estimates when there is unobserved heterogeneity. In order to take the decision of selection of POLS, there is conducted Redundant Fixed Effect-Likelihood Ratio test and if the value of cross section F and Cross section Chi-square > 0.05 (pvalue).

Random Effects Method

The Random Effects (RE) model assumes individual-specific effects are uncorrelated with the independent variables. The model is particularly useful in a scenario where interest is in the examination of the impact of variables changing across time with control over the unobserved heterogeneity across entities. The selection criteria for the use of RE are the Hausman test, which tests the null hypothesis that the random effects are uncorrelated with the regressors. Failure to reject the null hypothesis renders the RE model more desirable due to its efficiency in the estimation of parameters (Ambya & Hamzah, 2022). In addition, RE models can be useful when the number of time periods is large compared to the number of entities as they can exploit the additional information provided by the panel structure.

Fixed Effects Method

The Fixed Effects (FE) model, on the other hand, controls for time-invariant characteristics by manipulating the data, typically by differencing or demeaning. This method is particularly advantageous if the individual-specific effects are correlated with the independent variables because it readily removes the bias caused by omitted variables that are time-invariant. The basis of selection of the application of FE is the significance of the individual effects and the Hausman test results, which, if significant, suggest that the FE model is a better model compared to the RE model. FE models are most useful if the primary interest is in the within-entity changes over time and not in the between-entity differences.

Finally, in order to select the appropriate on between fixed effect and pols there is conducted the Redundant Fixed Effect-Likelihood Ratio test. If the 'p' value of cross

section F and Cross section Chi-square >0.05 there is selected pols otherwise fixed. Similarly, selection decision between fixed and random effect is based on Hussman test. If the p value of is >0.05 random effect model is selected otherwise fixed effect model.

Table 3

Redundant Fixed Effects Test: Likelihood Ratio Test

Effects Test	Statistic	d.f.	Prob.
Cross- section F	4.051136	(5,73)	0.0027
Cross-section Chi-square	20.570385	5	0.0010

Table 3 depicts that p value of cross section F and Chi-square is less than 0.05 level of significance. It indicates that Fixed effect model is appropriate than POLS.

Table 4

Correlated Random Effects – Hausman Test

Effects Test	Statistic	d.f.	Prob.
Cross- section random	20.255681	5	0.0011

Table 4 shows that p value of cross-section random is less than 0.05 level of significance. It suggests that fixed effect model is better than the random effect model. Therefore, the study has used the fixed effect model for the estimation.

Table 5

Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI	-1.00E-10	5.23E-11	-1.915190	0.0594
GEX	-0.041187	0.148980	-0.276458	0.7830
INF	-0.179826	0.058929	-3.051581	0.0032
LNGCF	1.439905	0.778348	1.849950	0.0684
POP	2.302207	1.094820	2.102818	0.0389
C	-30.39703	20.00654	-1.519354	0.1330
R-squared	0.406034	Mean dependent var		4.823842
Adjusted R-squared	0.324669	S.D. dependent var		3.653296
S.E. of regression	3.002225	Akaike info criterion		5.158132

Sum squared resid	657.9748	Schwarz criterion	5.476453
Log likelihood	-205.6415	Hannan-Quinn criter.	5.286094
F-statistic	4.990268	Durbin-Watson stat	1.897800
Prob (F-statistic)	0.000017		

Table 5 present the effects of different independent variables on dependent variable as economic growth. FDI appears with a slightly negative and significant coefficient ($\beta = -1.00E-10$, $p = 0.059$), indicating a weakly negative effect on economic growth, possibly due to crowding-out effects or mismatched sectoral inflows. INF significantly slow down growth ($\beta = -0.180$, $p = 0.003$). It means as per the increase in inflation rate by 1 percentage, economic growth rate decline by 0.003 percentages. This is in line with theories linking high inflation with investment uncertainty. Nevertheless, POP growth tends to favor growth with a positive impact ($\beta = 2.302$, $p = 0.039$), which could be seen to be due to the so-called demographic dividends. The value of beta coefficient indicates that economic growth rate of South Asia will increase by 2.302 percentage due to the increase in population growth rate by 1 percentage. The LNGCF appears to have a mildly positive influence on growth ($\beta = 1.440$, $p = 0.068$) as capital formation does play a role. GEX is found not to be significant ($p = 0.783$), implying it does not enhance growth. The model accounts for 40.6% of the total variance in growth ($R^2 = 0.406$), thus moderately explaining the variation in growth. The significant F-statistic ($p = 0.000017$) is enough to imply the significance of the group of chosen predictors. With a Durbin-Watson stat at 1.898, there seems to be no indication of autocorrelation, and this enlarges the reliability of this model. Admittedly, major drivers (INF, POP) offer insights to be taken into consideration by policymakers; however, the unexpected negative nature of FDI and the insignificance of GEX might need revisiting.

Discussion

These findings offer both support for and a contrast with key themes in the existing literature. The negative effect of FDI on growth sharply contrasts with those studies which emphasizes FDI's growth-boosting capacity through capital and technology spillovers (Sapkota & Gautam, 2023; Kifle, 2022), yet is consistent with critiques pointing to a crowding-out effect or sectoral misallocation in institutionally weak economies (Chaudhury et al., 2020; Abbas, 2022). Likewise, the significant

negative effect of inflation corroborates the evidence of high inflation giving rise to uncertainty regarding investment and reducing real purchasing power (Karki et al., 2020; Adeyemi et al., 2023).

The positive association between population growth and economic growth does dovetail with demographic dividend theories depending on employment generation (Abeywardhana, 2019; Abbas, 2022). However, this measure is at odds with the findings of research cautioning against unchecked population growth without job creation (Janifar et al., 2020). The tentative positive role of gross capital formation provides weak support for its theoretical position in growth models (Bal et al., 2016) but diverges with studies underscoring its vulnerability to outside disturbances (Shafrullah et al., 2024).

Notably, the insignificance of government expenditure conflicts with literature advocating its complementary role with FDI (Humaira et al., 2021; Sahoo & Sethi, 2020) but is in agreement with critiques relating to fiscal inefficiency and risks of inflation (Budhathoki et al., 2024; Rao et al., 2020). These inconsistencies only reinforce the region's peculiar socio-institutional dynamics, which need policies that concern themselves with structural bottlenecks while leveraging context-specific synergies.

Conclusion

This study attempted to investigate the direction and magnitude of effect of selected macroeconomic variables on economic growth of South Asia. The research concludes that there are multifaceted determinants of economic growth in South Asia, revealing both expected and counterintuitive relationships. Inflation consistently undermines growth, aligning with its destabilizing theoretical role, while population growth exhibits a positive association, contingent on employment opportunities and skill development. Therefore, maintaining the inflation rate at optimum certain threshold level, aligned with the economic status of nations. Similarly, implementation of human capital development policies, capable of harnessing the demographic dividend, is necessary for the higher economic growth rate. Contradictory to the conventional expectations, FDI shows a weak negative connection with economic growth which suggests potential structural inefficiencies in its absorption or sectoral misalignment. Gross capital formation shows tentative positive effect, though its effect is moderated by external shocks and infrastructural gaps. Specially, government expenditure lacks statistical significance, implying inefficiencies in fiscal allocation. The model's

moderate explanatory power highlights the influence of unobserved factors, such as institutional quality, geopolitical dynamics as well as informal sector contributions. These findings collectively emphasize the region's unique socio-economic landscape, where growth paths are shaped by a complex interplay of structural bottlenecks, demographic realities, and policy effectiveness.

Policymakers should prioritize inflation stabilization through prudent monetary and supply-side measures to safeguard growth. FDI strategies require recalibration to align with productive sectors and institutional reforms that enhance absorptive capacity. Demographic dividends must be leveraged through targeted investments in education, vocational training, and labor market expansion. Strengthening gross capital formation demands resilient infrastructure development and risk-mitigation frameworks. The null impact of government expenditure necessitates fiscal reforms to improve spending efficiency, prioritize growth-oriented sectors, and avoid inflationary financing. Future research should investigate nonlinear relationships, institutional mediators, and informal economy dynamics to refine policy frameworks. Addressing these dimensions holistically could foster sustainable growth in South Asia's evolving economic context.

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