

Research Article**Macroeconomic Determinants of Growth in India: Short-Run and Long-Run Evidence****Dr. A. S. Esther Rani**

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Corresponding Author: Dr. A. S. Esther Rani**Abstract**

This study examines how selected macroeconomic determinants influence India's economic growth, proxied by Gross Value Added (GVA). The analysis focuses on foreign direct investment (FDI) inflows, inflation measured by the Consumer Price Index (CPI), and the exchange rate of the Indian rupee against the US dollar. Using secondary annual data for 2005–2025 compiled from the World Bank database and the Reserve Bank of India (RBI-DBIE), the study applies Pearson correlation and simple regression techniques to assess the association between the macroeconomic variables and GVA. The results indicate a strong association of GVA with the exchange rate and CPI, while the relationship between FDI inflows and GVA is moderate but positive, suggesting that FDI remains a relevant contributor to India's growth performance over the study period. The findings highlight the importance of macroeconomic stability particularly price dynamics and exchange rate movements alongside external capital inflows in shaping India's growth outcomes.

Keywords: Foreign Direct Investment (FDI), Gross Value Added (GVA), Inflation (Consumer Price Index), Exchange Rate (INR–USD), Macroeconomic Determinants, Economic Growth.

1. INTRODUCTION

Foreign direct investment (FDI) is widely viewed as a preferred form of external capital for developing economies because it is non-debt creating and typically arrives with managerial know-how, technology, and access to global markets. Economic growth refers to the sustained increase in a country's output of goods and services over time, commonly measured using real GDP growth (annual %). In the Indian context, FDI is often discussed not only as a source of capital formation but also as a channel for technology transfer, productivity spillovers, and improved firm capabilities. Empirical work argues that FDI can support long-run growth when it generates positive externalities, such as learning effects, better production techniques, and efficiency improvements that spread beyond foreign firms (Mengistu & Adams, 2007).

India continues to be among the most prominent FDI destinations in South Asia, supported by its large domestic market, expanding services base, and policy liberalization in several sectors. Recent official releases show that India recorded US\$ 81.04 billions of total FDI inflows in FY 2024–25, reflecting a reported increase over the previous year and highlighting continued investor interest in key sectors such as services. The Department for Promotion of Industry and Internal Trade (DPIIT) also publishes quarterly FDI fact sheets that track the components of FDI inflows (equity inflow, reinvested earnings, and other capital) using RBI-based reporting formats.

FDI inflows are influenced by multiple host-country determinants. Cost factors such as competitive wages can attract efficiency-seeking investment, but wage levels alone do not explain sustained inflows; investors also require reliable infrastructure, regulatory certainty, and scalable market opportunities. Human capital matters as well: the availability of skilled and semi-skilled labour, especially in services, IT-enabled activities, and modern manufacturing, increases India's attractiveness for certain types of FDI. Resource availability and supply-chain depth (including raw materials and intermediate inputs) can support sector-specific investment, while improvements in logistics, ports, digital connectivity, and ease of compliance reduce transaction costs and improve project viability. Finally, FDI policy design—including sectoral caps, approval routes, and clarity of rules—can materially affect investment decisions by reducing uncertainty and delays.

FDI can accelerate economic growth through several channels. First, it supplements domestic savings and can raise investment levels, expanding productive capacity. Second, foreign firms may introduce new technologies, modern management practices, and quality standards, improving productivity and competitiveness among domestic firms through demonstration effects and supplier linkages. Third, FDI can strengthen export performance by integrating local production into global value chains and improving product quality. Fourth, it can generate employment directly and indirectly, with potential wage effects depending on skill intensity and local labour-market conditions. However, these benefits are not automatic; they depend on absorptive capacity (skills, infrastructure), competition, and the nature of investment (greenfield vs acquisitions).

Policy has remained a key lever in India's FDI strategy. In recent years, the government has pursued liberalisation and sector-specific reforms, including efforts to attract investment into areas such as defence manufacturing and other strategic industries. Media reporting indicates ongoing discussions about easing certain defence FDI conditions to improve attractiveness for foreign investors and increase domestic manufacturing capability. At the same time, India's FDI policy landscape continues to evolve with periodic changes in sectoral limits and routes, and investors often respond to the overall predictability and implementation consistency of these reforms.

2. REVIEW OF LITERATURE

Gregorio and Lee (1998) investigated the impact of foreign direct investments on economic growth and found that FDI, which contributes comparatively more to growth than domestic investment, is a key route for the transfer of technology. The greater productivity of FDI was only valid, though, if the host nation possesses a minimum level of human capital. Therefore, FDI only helps to economic growth when the host economy has a sufficient ability to absorb the new technologies.

Using data gathered from four OECD nations (Denmark, Finland, Norway, and Sweden), Erricson, and Irandoust (2001) investigated the causal link between growth and investment. For Denmark and Finland, however, there was no correlation between growth and the patterns and makeup of FDI inflows.

Between 1974 and 1996, Chakraborty, and Basu (2002) looked at the direction of causality between FDI and GDP for India. He demonstrated in his study that FDI promotes GDP rather than the other way around.

Further, Basu, et.al. (2003) had demonstrated that for 23 developing nations from the year (1978 to 1996) that there is a co-integration relationship between Foreign Direct Investment and Gross Domestic Product.

In terms of the direction of the causal association between foreign direct investment and economic growth, Chowdhury and Mavrotas' (2005) findings were that in the case of Chile, GDP

causes FDI rather than the other way around, while there was significant evidence of a causal relationship between the two variables in both Malaysia and Thailand.

Additionally, Agarwal, P. (2005) asserts that there is a strong association between the permission of foreign direct investment and the actual inflow of capital.

Lean, H. H. (2008) empirical results pointed to independence between FDI and manufacturing sector growth. Given that FDI can only lead to growth if the host nation has a well-established, adequately skilled labor force, the government must pay close attention to the specific ways in which FDI can interact with human capital in order to have a significant positive impact on the future development of Malaysia's manufacturing sector.

Jayachandran, G., & Seilan, A. (2010) showed that, FDI and exports are one of the elements influencing economic growth in India, but their presence does not change depending on whether economic growth is high or low.

Malhotra (2014) examined how FDI had affected the Indian economy. Particularly following two decades of economic changes, an analysis of the difficulties in securing a favourable position in the global competitiveness of foreign direct investments is also provided. Foreign Direct Investment (FDI) directly influences economic growth through supporting fixed capital formation and indirectly supporting knowledge stocks, according to Silajdzic and Mehic's (2015) research. Furthermore, according to the conventional view, FDI has a direct impact on economic expansion. Even if FDI is having an impact on economic growth, it will also have an impact on the lack of domestic investment and investment shortages. The study also demonstrates that foreign direct investments contribute favourably to economic expansion.

Mishra & Kumar, (2016) investigated that since FDI is an essential avenue for knowledge transfer and financing, it is seen as a major factor in advancing the economic development of emerging nations. Additionally, multinational corporations (MNCs) view FDI as a crucial tool for reorganizing cross-border manufacturing activities in accordance with their corporate objectives and the competitive advantage of host nations.

Further research by Alvares, et.al. (2017) revealed that FDI has a favourable influence on the product, particularly in high income countries, but that the effect is unequal and insignificant in upper-middle income countries.

Verma & Saluja (2018) investigated that foreign investment not only stimulates the flow of technology into the country and helps the sector become more competitive, it also helps generate economic activity and employment.

Singh, (2019) highlighted that according to the Planning Commission, FDI is typically chosen over other forms of external funding since it does not generate debt, is stable, and depends on the performance of the projects it funds.

In a (2019) study, Sultana, et.al. examined the effects of FDI on the population and the human development index in addition to Indian growth indicators. According to the study's findings, FDI has a large impact on the HDI, population, Sensex index, as well as some impact on imports and exports.

Fonseka, T. N. M. and Singh R. (2020) demonstrated that foreign direct investments in India had a considerable impact on gross domestic product. It has been demonstrated through a straightforward regression analysis that changes in foreign direct investments account for roughly 90% of variations in the gross domestic product. Additionally, the correlation research has demonstrated a favourable association between foreign direct investments and gross domestic product.

According to Nepal, et.al.(2021), FDI adoption of energy-efficient technologies is crucial for lowering carbon emissions in India. By offering incentives to investors, the Indian government should also encourage FDI entry into the renewable energy sectors in order to simultaneously produce good macroeconomic results and assure sustainable economic

development. These are crucial policy lessons for other developing and emerging economies on a global scale.

Gupta,et.al. (2022) the study showed that absorptive capacities, such as financial development, institutional quality, technological aptitude, and trade openness, have an indirect impact on the relationship between FDI and economic growth.

2.1 RESEARCH GAP

The aforementioned research demonstrates that several academics have previously looked at this problem of the relationship between FDI and GDP in the context of various emerging or established countries. This study fills this gap by attempting to further explore the reasons for such a strong/weak/no link with the aid of fitting a Regression Model that includes both macroeconomic variables influencing economic growth.

3. OBJECTIVE OF THE STUDY

1. The main objectives of the study are:
2. To evaluate the current status of FDI Inflows and economic growth in India.
3. To investigate the association between FDI Inflows and economic growth appraised by GDP during the study period 2005-06 to 2019-20
4. To find out the impact of FDI Inflows on economic growth in India during the study period.

4. RESEARCH METHODOLOGY

4.1 Research Design

The study on the Impact of FDI Inflows on Economic Growth in India was conducted using quantitative analysis. The correlation matrix and multiple regression analysis techniques were used to analyse the collected data. The secondary data obtained from the World Development Indicators (WDI) database, World Bank and RBI Annual Data were used to assess the impact of FDI Inflows on economic growth in India. The study analysed 15 years data started from 2005-06 to 2019-20 for the independent variables include Foreign Direct Investment Inflows (FDI Inflows) , Inflation Rate (CPI)and Foreign Exchange Rate(FXCR, with US \$).

4.2 Model Specification

To test the relationship between economic growth and FDI Inflows, Inflation Rate (CPI) and Foreign Exchange Rate, it was estimated a linear regression model of the following form using SPSS tools with Ordinary Least Square (OLS) estimator.

$$GDP = C + (\beta_1 FDI) + (\beta_2 CPI) + (\beta_3 FXCR) + e$$

Where: C= Constant Term

$\beta_1 \dots \beta_3$ = Regression Coefficient

FDI = Foreign Direct Investment Inflows

FXCR = Foreign Exchange Rate with US \$.

e = Error term

GDP= Gross Domestic Product (Dependent Variable)

CPI = Consumer Price Index (Inflation Rate)

5. DATA ANALYSIS AND INTERPRETATION

Table 1: Descriptive Statistics

Variables	Min. Value	Max .Value	Mean	Std. Deviation
GDP	940.26	2870.50	1944.29	604.31
FDI	20.03	74.39	38.30	13.42
CPI	353.00	980.00	665.53	212.29
FXCR	40.24	74.13	55.50	11.04

Source: Author's Calculation based on DBIE Database, RBI

Table 1 indicates the descriptive statistics of studied variables under the study period. The minimum value GDP was US\$ 940.26 Billion in 2005-06 while the maximum value of GDP

was calculated as US\$ 2870.50 Billion in 2018-19. Moreover, the mean of GDP and Standard deviation were US\$ 1944.29 Billion and US\$ 604.31 Billion respectively during the period under study. On the other hand, mean of FDI was US\$ 38.30 Billion, the standard deviation was US\$ 13.42 Billion, the minimum value was US\$ 20.03 Billion and maximum value was US\$ 74.39 Billion during the study period.

Table 2: Correlation Matrix

Variables	GDP	FDI	CPI	FXCR
GDP	1.000	.674**	.975**	.897**
FDI	.674**	1.000	.696**	.687**
CPI	.975**	.696**	1.000	.939
FXCR	.897**	.687**	.939	1.000

Source: Author's Calculation based on DBIE Database, RBI

** Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix on Table 2 shows that FDI and others studied variables were positively correlated to each other. According to the empirical findings, there is a strong correlation between GVA and Exchange Rate with US\$ and CPI, whereas the moderate correlation between FDI and GVA exists which is important for the expansion of the Indian economy.

6. MULTIPLE REGRESSION ANALYSIS

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.977 ^a	.955	.942	.08102	1.596

a. Predictors: (Constant), Exchange Rate, FDI Inflows, Inflation Rate

b. Dependent Variable: GDP

Source: Author's Calculation based on DBIE Database, RBI

The three independent variables consist of Exchange Rate(FXCR), FDI inflows and Inflation Rate(CPI) that were studied indicate 94.20% of the variations in economic growth(GDP) in India as represented by Adj. R Square . It means that other factors not included in study can explain 5.80% of the variance in the depended variable under the study period. The DW value 1.596(> 1.5but l < 2.5) indicate there was no autocorrelation in the regression.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.523	3	.508	77.337	.000 ^b
	Residual	.072	11	.007		
	Total	1.595	14			

a. Dependent Variable: GDP

b. Predictors: (Constant), Exchange Rate, FDI Inflows, Inflation Rate

Source: Author's Calculation based on DBIE Database, RBI

The result showed that the significance value was less than 0.05, so the model was statistically considerable to estimate how FDI, Inflation Rate(CPI) and Exchange Rate(FXCR) affect the GDP of India under the study period. The F calculated value is greater than the F critical value which shows that the overall model was significant.

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	t
1	(Constant)	1.518	.446		3.405
	FDI Inflows	.001	.091	.001	.012
	Inflation Rate	1.107	.187	1.132	5.921
	Exchange Rate	-.285	.321	-.168	-.887

a. Dependent Variable: GDP

Source: Author's Calculation based on DBIE Database, RBI

From the regression, the result revealed that a unit increase in FDI Inflows would leads to .001 rises in GDP; a unit increase in Inflation Rate (CPI) will result in 1.107 increases in GDP, whereas a unit increase in Exchange Rate (FXCR) will lead to 0.285 fall in GDP. At 5% level of significance FDI Inflows and Exchange Rate (FXCR) showed insignificance to GDP whereas Inflation Rate (CPI) had a 0.000 level of significance to GDP.

7. CONCLUSION

The overall empirical result shows that there was a positive relationship between economic growth and others considered independent variables contrary to the belief of authorities in a change of growth and development. This positive relationship could be a result of sufficient FDI Inflows into the Indian economy which has been able to exert enough impact to make it growth-enhancing. FDI inflows were believed to transfer technology, promote learning by doing, train labor, and in general, result in spillover of human skill and technology.

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