Foreign Direct Investment and Economic Growth: A Comparative Analysis of Developed, Developing, And Least Developed Countries

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Abstract:

Foreign Direct Investment (FDI) is widely recognized as a critical component of economic growth; however, its influence varies among developed, developing, and least-developed countries (LDCs). Global FDI flows reached over $1.3 trillion as of 2023, with developed countries receiving the largest share. Developing and LDC economies, on the other hand, faced structural obstacles when it came to using FDI to achieve sustainable growth. Policymaking requires an understanding of how FDI supports economic growth across various economic categories. The purpose of this study is to examine how FDI affects GDP growth in these three economic sectors. The main objectives are determining the degree to which foreign direct investment (FDI) affects economic performance and spotting the main macroeconomic factors affecting this link. With panel data for 30 selected nations from 2005 to 2023, this paper investigates the relationship between foreign direct investment (FDI) and GDP growth using Pooled Ordinary Least Squares (OLS) Regression, descriptive statistics, and correlation analysis. Independent variables are trade openness, inflation, political stability, government spending, R&D investment, debt levels, and unemployment. Developed nations exhibit low inflation, strong institutions, and high trade openness together to show economic stability. Although developing countries have modest increase, they suffer with labour market volatility and financial restrictions. Least developed nations battle with fiscal risks, poor institutions, and inflation. Economic development is much influenced by public expenditure and institutional quality.

Introduction:

Foreign Direct Investment (FDI) plays a crucial role in economic growth by providing capital, transferring technology, and generating employment opportunities. Its influence varies greatly, though, in developed, developing, and least-developed nations (LDCs). Thanks to their stable institutions, well-regulated financial systems, and business-friendly surroundings, developed economies usually gain most from FDI. On the other hand, underdeveloped countries sometimes deal with problems including inadequate financial systems, conflicting policies, and governance problems that would prevent the efficient use of foreign capital. Least-developed nations face even more challenges including political unrest, inflation, and inadequate infrastructure that limit their capacity to draw and maintain FDI flows. Although a lot of research has looked at the link between FDI and economic development in particular nations, a more comprehensive comparison study looking at how FDI supports economic growth in many economic categories is much needed. Using panel data analysis, this paper seeks to close this gap by examining, from 2005 to 2023, the influence of FDI in GDP growth across developed, developing, and least-developed countries.

Although FDI has clear advantages, depending on a nation's economic classification it affects economic growth in rather different ways. Whereas developing and least-developed nations struggle with structural and institutional flaws, developed nations efficiently use FDI because of stable government and strong financial systems. Lack of a thorough comparison study reduces legislators' capacity to develop sensible plans for optimizing FDI advantages. By analysing the

extent to which FDI affects GDP growth in various economic sectors and identifying the main macroeconomic elements influencing this link, this study aims to close this disparity.

Earlier studies focused on how well nations apply FDI inflows depending on institutional quality. Strong government systems and stable economies help nations to attract and gain most from foreign investments. Studies over time have grown to investigate how FDI affects nations with varying income levels, demonstrating that high-income countries are more suited to include FDI into their economies. More recent studies have examined the sectoral distribution and policy frameworks of FDI in developing nations, so stressing the different impacts of FDI depending on absorptive capacity and investment conditions. Furthermore, noted as important influences on FDI efficacy are macroeconomic elements including inflation, political stability, trade openness, and government spending. These results highlight the need of doing a comparative study to evaluate how FDI affects economic development in several economic levels. The main objectives of this research are:

1. To analyse the impact of FDI on GDP growth in developed, developing, and least-developed countries.
2. To examine the role of trade openness, inflation, and debt-to-GDP ratio in shaping the relationship between FDI and economic growth.
3. To assess the influence of governance quality and political stability in attracting and sustaining FDI.
4. To explore how government expenditure on infrastructure and public services enhances FDI's contribution to GDP growth.

Research Methodology:

Using panel data from 2005 to 2023, this study examines how FDI affects economic growth in developed, developing, and least-developed nations. Using Pooled Ordinary Least Squares (OLS) regression, a quantitative research design is used to effectively analyse trends.

In order to ensure diverse regional representation, the sample consists of 30 countries (10 per segment) categorized by the World Bank. The dataset's 570 observations (30 countries × 19 years) allow for thorough statistical analysis and provide insightful information about how FDI contributes to economic growth across a range of income levels.

The study employs the Pooled OLS regression model, as expressed below:

$GDPGrowth_{it}=\beta 0+\beta 1FDI_{it}+\beta 2X_{it}+\epsilon_{it}$

Table 1: List of Selected Countries

Segment	Countries
Developed	United States, Germany, United Kingdom, France, Japan, Canada, Australia, Switzerland, Netherlands, Sweden
Developing	India, China, Brazil, Indonesia, Mexico, Vietnam, South Africa, Philippines, Thailand, Malaysia
Least Developed	Bangladesh, Ethiopia, Nepal, Myanmar, Mozambique, Tanzania, Madagascar, Uganda, Rwanda, Zambia

Data Analysis:

Table 2: Descriptive Statistics for Developed Countries

	GDPG	FDI	TRADE	INF	PSI	IQ	LIR	GFCE	RDE	UR	D2G
Mean	1.63	3.88	72.59	1.91	0.81	112.12	3.47	19.98	2.55	5.86	76.59
Median	2.06	1.99	64.46	1.66	0.91	103.92	3.25	20.07	2.62	5.35	55.68
Standard Deviation	2.45	11.45	37.11	1.84	0.34	17.64	1.98	4.24	0.60	1.99	50.37
Sample Variance	5.98	131.13	1377.12	3.37	0.12	311.03	3.92	17.98	0.36	3.95	2537.16
Kurtosis	4.46	17.51	0.10	4.00	-0.19	1.05	-0.44	-0.33	-1.38	-0.66	0.54
Skewness	-1.45	2.67	0.89	1.65	-0.66	1.44	0.44	-0.60	-0.07	0.47	1.18
Range	18.87	118.53	161.03	11.35	1.52	66.61	8.53	16.11	1.94	8.84	198.53
Minimum	-10.30	-32.55	23.08	-1.35	-0.11	92.50	0.38	10.42	1.55	2.35	17.80
Maximum	8.58	85.98	184.11	10.00	1.42	159.11	8.91	26.53	3.49	11.19	216.33

Interpretation:

The mean GDP growth rate for developed countries is 1.63%, with a standard deviation of 2.45, indicating moderate variation. FDI inflows have a high range (-32.55 to 85.98), showing significant differences across countries. Trade openness is substantial, averaging 72.59% of GDP. Inflation remains low at 1.91%. Political stability and institutional quality scores are relatively high. Debt-to-GDP ratios vary widely, with a maximum of 216.33%, highlighting fiscal differences. Overall, developed countries exhibit economic stability with controlled inflation and strong institutional frameworks.

Table 3: Descriptive Statistics of a Developing Country

	GDPG	FDI	TRADE	INF	PSI	IQ	LIR	GFCE	RDE	UR	D2G
Mean	4.34	2.65	78.14	4.50	-0.52	89.01	11.20	13.28	0.73	6.62	49.18
Median	5.05	2.33	58.72	3.98	-0.52	88.20	8.11	11.96	0.65	4.31	49.43
Standard Deviation	3.56	1.53	45.30	3.08	0.51	12.65	10.74	3.83	0.55	7.17	14.04
Sample Variance	12.71	2.33	2051.72	9.48	0.26	159.95	115.26	14.65	0.31	51.34	197.25
Kurtosis	2.51	4.64	-0.37	8.39	-0.56	0.26	5.82	-1.05	1.11	4.22	1.00
Skewness	-1.08	1.45	0.91	1.93	-0.19	0.18	2.56	0.25	1.17	2.22	0.72
Range	23.75	10.52	181.75	24.25	2.35	69.71	52.32	15.16	2.35	33.76	76.26
Minimum	-9.52	-0.86	22.11	-1.14	-1.78	56.33	3.06	5.47	0.08	0.25	22.45
Maximum	14.23	9.66	203.85	23.12	0.57	126.04	55.38	20.62	2.43	34.01	98.71

Interpretation:

Developing countries show moderate GDP growth (4.34%) and FDI inflows (2.65%), but volatile inflation (high kurtosis of 8.39). Trade openness is substantial (78.14%), though skewed. Institutional quality (IQ: 89.01) is stable. High lending rates (11.20%) and debt-to-GDP (49.18%) indicate financial constraints. Unemployment (UR: 6.62%) varies widely, showing job market instability. The data suggests economic growth potential but financial and labour market volatility requiring policy interventions.

Table 4: Descriptive Statistics of a Least Developed Country (LDC)

	GDPG	FDI	TRADE	INF	PSI	IQ	LIR	GFCE	RDE	UR	D2G
Mean	5.86	4.40	51.95	9.06	-0.72	42.81	18.51	12.34	0.27	5.10	48.95
Median	6.15	2.83	46.72	7.67	-0.71	37.21	16.00	11.71	0.27	3.45	43.00
Standard Deviation	3.48	6.12	20.52	6.43	0.69	17.02	11.61	4.80	0.21	3.83	22.81
Sample Variance	12.13	37.49	421.01	41.29	0.48	289.82	134.71	23.04	0.04	14.68	520.42
Kurtosis	5.68	12.22	2.78	7.74	-0.81	-0.41	4.75	-0.21	-0.32	-0.21	0.79
Skewness	-1.50	3.32	1.58	2.36	-0.07	0.71	2.25	0.55	0.69	1.05	0.90
Range	25.59	39.17	114.69	44.75	2.86	76.02	53.00	21.05	0.75	15.49	119.37
Minimum	-12.02	-0.22	20.59	-0.39	-2.20	13.53	7.00	5.04	0.01	0.41	10.73
Maximum	13.57	38.94	135.28	44.36	0.66	89.55	60.00	26.08	0.76	15.90	130.10

Interpretation:

Least Developed Countries (LDCs) exhibit higher GDP growth (5.86%) than developing nations but face significant inflation volatility (Mean: 9.06%, high kurtosis: 7.74). Foreign Direct Investment (FDI: 4.40%) is highly skewed, indicating uneven distribution. Trade openness (51.95%) is lower, suggesting limited global integration. Institutional quality (42.81) remains weak. Debt-to-GDP ratio (48.95%) is high, posing fiscal risks. Unemployment (5.10%) is variable, reflecting economic instability. Policy interventions are needed to stabilize inflation and boost financial resilience.

Table 5: Regression Results for Developed, Developing, and Least Developed Countries

	P - Value		
Variable	Developed Countries	Developing Countries	Least developed countries
FDI	0.0688	0.0010	0.6277
TRADE	0.2975	0.9556	0.0352
INF	0.0003	0.9523	0.0453
PSI	0.2585	0.1837	0.0424
IQ	0.0457	0.0271	0.0003
LIR	0.1403	0.5141	0.0000
GFCE	0.0101	0.0006	0.8908
RDE	0.0430	0.0000	0.4718
UR	0.5771	0.1309	0.9546
D2G	0.4172	0.0012	0.7705
Adjusted R^2	0.9764	0.3194	0.1988
F-Statistic	3.0450	9.8689	5.6888
Observations (N)	190	190	190

Interpretation:

The regression analysis reveals strong explanatory power in developed countries (Adjusted R^2: 0.9764), whereas developing (0.3194) and least developed (0.1988). FDI significantly impacts developing economies ($p = 0.0010$) but not least developed ones ($p = 0.6277$). Inflation (INF) and trade (TRADE) are significant in least developed countries ($p = 0.0453$, $p = 0.0352$), suggesting economic volatility. Institutional quality (IQ) is highly significant across all groups ($p < 0.05$), underscoring its importance. Public spending (GFCE) and research & development (RDE) drive growth in developing nations ($p = 0.0006$, 0.0000), indicating policy intervention needs.

Discussion:

The study highlights important economic variables affecting FDI, trade, inflation, governance, debt to GDP ratios among several countries. While developing countries see modest increase with volatility, developed nations exhibit stability and great investment confidence. Least developed countries fight with low investment, poor government, and inflation. The results show that while trade and inflation have more of an impact in developing nations, government expenditure and quality of governance clearly affect economic growth. These realizations enable governments to improve policies, direct investors in risk evaluation, and assist academics in tracking economic developments. Knowing these elements helps one to make better decisions, promote global sustainable development and financial stability.

Conclusion:

This paper studied economic data from developed, developing, and least-developed countries in order to understand their consequences on investment, trade, inflation, and governance. Primary findings reveal that governance quality (IQ) and government expenditure (GFCE) greatly affect economic stability. Since they suffer more inflation and less favourable investment conditions, developing and least developed nations require targeted policy changes. By highlighting these variations, this study helps legislators, investors, and researchers toward sustainable development strategies to close the economic difference in decision-making. This study finally helps to solve issues with economic instability by stressing key components motivating world development and investment confidence.

Scope For Further Research:

Future research can explore the impact of political stability, technological advancements, and environmental factors on economic growth. Additionally, sector-specific analyses of trade and investment can provide deeper insights. This study was limited by data constraints and the exclusion of qualitative factors like policy effectiveness. Researchers can also examine the role of digital economies and financial inclusion in least-developed countries. A longitudinal study with more comprehensive datasets could enhance the understanding of economic dynamics across different regions.

Reference:

- Hayat, A. (2019). Foreign direct investments, institutional quality, and economic growth. The Journal of International Trade & Economic Development, 28(5), 561–579. .
- Linh, D. T. T., & Huy, N. Q. (2021). Relationship between foreign direct investment and economic growth: An applied research in low-income, lower-middle-income, upper-middle-income, and high-income countries. International Journal of Sciences: Basic and Applied Research (IJSBAR), 60(1), 200–212.
- Dr. Salma Begum & Vijayanandhan (2023). Impact of Inflation on the Exchange Rate and External Debt of India. 18. 111-115. 10.5281/zenodo.10049652#33
- Pujari, S., Reddy, P., & Mariappan, M. G. (2023). Did the economic reforms change the macroeconomic drivers of the Indian economy in the post-reform era? An ARDL bounds test approach. Theoretical and Practical Research in Economic Fields, 14.
- Dr. Rashmi Akshay Yadav & Karthik. (2023). Impact and influence of foreign investment in India. International Journal of Creative Research Thoughts, 11(6), b900-b910.

- Dr. Geeti Sharma, & F P, A. (2023). Impact of foreign direct investment on BRICS countries' economic growth. International Journal for Research in Applied Science and Engineering Technology, 11, 2272-2281. https://doi.org/10.22214/ijraset.2023.49972
- Gopal, B. (2023). The effect of foreign direct investment on economic growth: A comparative study. Educational Administration: Theory and Practice, 29(1), 663–674
- Dr. BRR & Hedwin, S. R., (2024). An empirical study on the FDI in service sector and GDP of India. IJRAR - International Journal of Research and Analytical Reviews (IJRAR), 11(2), 513-543. IJRAR. https://www.ijrar.org
- Kim, M. H., Han, Y., & Vargas López, E. Y. (2024). The nexus among foreign direct investment, economic growth, and country risk: An aggregated and panel ARDL analysis. The International Trade Journal, 0(0).
- Lamsaddar, A., & Ouia, A. (2024). Foreign direct investment and economic growth: Literature review. International Journal of Accounting, Finance, Auditing, Management and Economics, 5(6), 450–465.