

Analyzing the Effect of Financial Development and Misery Index on Human Development and Economic Growth: A Panel Data Analysis

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ABSTRACT

Economic growth, human development, and the misery index form a connected harmony. As economic growth generates the wealth required for progress, the misery index highlights the everyday distress of inflation and unemployment, and human development reflects whether this wealth actually translates into a better quality of life. The misery index, calculated as the sum of a nation's inflation and unemployment rates, is a barometer of macroeconomic distress. A high misery index seriously stunts human development and economic growth by eroding purchasing power, plummeting investments, and shrinking household access to essential healthcare and education. Considering the significance of the misery index, we have examined its role in affecting human development and economic growth in developing countries. For this, we have utilized data from 1996 to 2023 from some developing countries. We have used the human development index and economic growth as dependent variables. However, financial development, foreign direct investment, misery index, and population growth were used as independent variables. OLS results found that financial development and foreign direct investment have promoted human development and economic growth in developing countries. On the other hand, the misery index affected human development and economic growth negatively. In addition, result shows that population growth has negatively affected both human development and economic growth in developing economies. It is suggested that more financial opportunities should be provided for more human development and economic growth in these countries. There should be a more stable environment for attracting more foreign direct investment. This will increase economic growth and human development. Finally, efforts should be made to reduce unemployment and inflation by providing more employment chances to the people of the economies.

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INTRODUCTION

Financial development has been widely discussed in much research work. A significant economic system handles risk expansion and efficient capital distribution. An upper stage of financial development may possibly be a reason for high savings and, eventually, in much of the earnings. It can be considered in diverse ways, for instance, by counting quite a few variables, such as the extent, depth, right to use, and correctness of the financial system. It be able to be explained by looking into the underlying events of banks and diverse marketplaces. There are numerous problems concerning growth and financial development associations that have been identified in the text (Hye & Dolgoplova, 2011); however, the dimension of financial development remains unsettled. Financial development and economic growth have been extensively investigated subjects in the current time. A lot of research work has been conducted to find out the ways to achieve development. For, misery index is utilized to gauge the monetary comfort, showing the state of an economy. The ever-increasing index indicates declining monetary prosperity, which affects the standard of living of people in economies. The misery index is an amalgamation of unweight addition of unemployment and the inflation rate, which indicates the macroeconomic situation of the financial system of nations. It is an initial attempt to build a particular numerical instrument to measure the level of the financial problem of the residents of economies. Arthur Okun coined the misery index, and it has been explained in detail by other people, making the assumption that high rates of the misery index indicate significant financial and communal dreadful complexities. The misery index indicates the interests of the nation. An increased misery index demonstrates the ordinariness of worsening financial and community welfare of a nation. Economic development is explained in studies; despite the fact that a number of variables, together with the misery index, have not explained political insecurity, and it is the most important way of main obstacle to economic development for people (Asteriou & Siriopoulos, 2000).

Foreign direct investment is an investment made by an overseas person to add to calculating possession in domestic industry. More than the preceding a small number of decades, especially for numerous underdeveloped economies, foreign direct investment has seemed a very important source of external wealth. The placement of foreign direct investment can increase growth, predominantly in underdeveloped economies. Economic growth can also be increased by institutional quality. Better quality institutions might enhance growth by attracting novel foreign direct investment and by improving the effective implementation and accomplishment rate of FDI-led schemes. The share of foreign direct investment in total capital flows has enhanced evidently more than the past two decades. The share of foreign direct investment inflows to developing nations was observed to be 72% of worldwide foreign direct investment in 2020 (UNCTAD, 2020).

Khan (2008) analysed the growth and financial development association by using data from 1961 to 2005. ARDL findings indicated the positive impact of the financial sector and investment on economic growth in Pakistan. Jalil and Feridun (2011) used data from 1975 to 2008 and checked the correlation between the financial sector development and economic growth of Pakistan. ARDL results showed that financial development tended to increase the economic growth. Sehrawat (2017) used data from 1982 to 2014 to check the effect of financial development on growth. Findings indicated that trade liberalization and financial development led to enhanced growth in India. However, Khan and Ju (2019) examined the determinants of human development in Pakistan. The regression result showed that growth has tended to increase and promote human development. Working on income disparity, Castells-Quintana et al. (2018) focused on the influence of inequality on human development. Results showed that economic development and human development were negatively associated in the long run. It was also found that education affected human development negatively. Recently, Iqbal et al. (2019) emphasized the effect of information and communication technology on the human development index in Asian economies. The Driscoll-Kraay standard error estimations indicated that usage of mobile phones promoted human development. By using data from 1981 to 2014, Ademola and Badiru (2016) checked the influence of unemployment and inflation on economic performance in Nigeria. The cointegration technique showed that both enhanced growth.

Bokpin (2017) investigated how foreign direct investment affected growth and CO₂ emissions in Africa. It was found that FDI has caused environmental degradation. Sekwati and Dagume (2023) focused on the role of unemployment and inflation on economic growth in South Africa on the basis of data from 1994 to 2018, using quarterly data. The vector error correction model showed that inflation and unemployment tended to decrease growth. Uche et al. (2025) used data from 2010 to 2021 and emphasized the effect of geopolitical risks and economic policy uncertainties (EPU) on poverty and income distributions in 17 emerging economies from 2010 to 2021. Results showed the positive effect of GPR and EPU affected human misery. While GPR also affected income disparities, and EPU influenced poverty more profoundly. Manzoor et al. (2025) highlighted the role of human capital formation, interest rate, exports, and capital formation on growth. ARDL results showed the positive relationship between human capital and GDP in Pakistan. Khan (2025) investigated the role of economic discomfort in SD for 37 SSA economies using 20 years of data. Findings indicated that inflation and unemployment negatively affected sustainable development. Moreover, financial development, foreign direct investment, innovation, population growth, and institutional quality promoted sustainable development. Wang et al. (2019) found the influence of the misery index on economic growth. ARDL findings indicated that financial development and interest rate increased economic growth. However, the misery index tended to decrease growth. Haseeb et al. (2020) analysed the influence of economic development and energy consumption on growth in Saudi Arabia on the basis of data from 1971 and 2015. ARDL results showed that economic development decreased energy consumption. However, globalization and financial development increased energy consumption. Damasa (2025) investigated the impact of financial sector development on communal wellbeing outcomes in East Africa and used data from 1990 to 2023. Findings highlighted that financial sector development affected social wellbeing positively.

In this study, we have tried to find out the influence of financial development, foreign direct investment, misery index, and population growth on economic growth and human development in developing countries.

Significance of the Study

Many factors like industrialization, financial inclusion, income disparity, unemployment, and inflation seem to be affecting economic growth. However, our work considers factors like financial development, foreign direct investment, misery index, and population growth influencing human development and economic growth in emerging economies.

Research Hypothesis

The major hypotheses are given as:

H1: Financial development is positively linked with human development and economic growth.

H2: The higher the foreign direct investment, the higher human development and economic growth.

H3: A negative link exists between the misery index and human development and growth.

H4: There exists a negative link between population growth and human development and economic growth.

METHODOLOGY

This section reveals factors affecting human development and economic growth in developing economies. Specifically, we have checked the impact of financial development, foreign direct investment, misery index, and population growth on human development and economic growth. For this, GDP per capita and human development were used as dependent variables. Data were used from 1995 to 2023 from the World Development Indicators. The OLS regression technique has been used in this analysis.

The econometric model is explained as:

$$\text{HDI} = \beta_0 + \beta_1 \text{FINDEV}_{it} + \beta_2 \text{FORDINV}_{it} + \beta_3 \text{MISRYIND}_{it} + \beta_4 \text{POPGRW}_{it} + \text{uit} \quad (1)$$

$$\text{LGDP} = \beta_0 + \beta_1 \text{FINDEV}_{it} + \beta_2 \text{FORDINV}_{it} + \beta_3 \text{MISRYIND}_{it} + \beta_4 \text{POPGRW}_{it} + \text{uit} \quad (2)$$

LGDP = Log gdp per capita constant \$ US

HDI = Human development index

FINDEV = Financial development (bank deposit ratio % of GDP)

FORDINV = Foreign direct investment (% of GDP)

MISRYIND = Misery Index (Unemployment rate + Consumer price index)

POPGRW = Population Growth rate

it = (time trend)

uit = (error term)

RESULTS AND DISCUSSION

In Table 1, data show that the log of economic growth per capita is 0.633 percent in developing countries. However, the human development index is 3.3666 percent. Financial development (bank deposit ratio) is 63.9178 percent. Its range varies from 19.618 to 643.5674 in these economies. Foreign direct investment is 1.7544 percent. However, the misery index is 107.3344 percent in developing economies. Finally, on average, population growth is 1.4886 percent. All values of standard deviation are less than the mean value, which indicates the stability of the data.

Table 1: Summary Statistics

Factors	Observations	Mean	Standard deviation	Minimum	Maximum
LGDP	196	0.633	0.0978	0.433	0.811
HDINDEX	196	3.3666	0.3406	2.742	4.058
FINDEV	196	63.9178	52.9471	19.618	643.5674
FORDINV	196	1.7544	1.3834	-2.7574	6.4348
MISRYIND	196	107.3344	47.9386	25.7947	348.8291
POPGRW	196	1.4886	0.6242	-0.4586	2.9107

Table 2: OLS Results: Dependent variable is Human Development Index (HDI)

Variables	Coefficients, Standard Errors and t-values
FINDEV	0.0013* 0.0001 (10.51)
FORDINV	0.0136* 0.0038 (3.63)

MISRYIND	-0.0005*
	0.0001
	(-5.23)
POPGRW	-0.0206**
	0.0080
	(-2.57)
C	0.5045
	.0222
	(22.72)
F Statistics	90.39
Probability	0.0000
R-Squared	0.65
Adjuted R-squared	0.65

t-values are in parentheses; ** p<0.05, * p<0.1

Table 3: OLS Results: dependent variable is Economic Growth (LGDPPC)

Variables	Coefficients, Standard Errors and t-values
FINDEV	0.0027*
	0.0003
	(7.99)
FORDINV	0.1104 *
	0.0126
	(8.76)
MISRYIND	-0.0009* *
	0.0004
	(-2.34)
POPGRW	-0.4014
	0.3001
	(-1.34)
C	2.9633
	.0813
	(36.45)
F Statistics	61.35
Probability	0.0000
R-Squared	0.56
Adjuted R-squared	0.56

Financial development positively affects human development and economic growth in developing economies. The result in Table 2 points out that a one percent increased financial development results in increased human

development by 0.0013 percent. Table 3 indicates that a one percent increase in financial development has resulted in additional growth by 0.0027 percent. The reason may be that a higher bank deposit ratio to the private sector enhances chances for more investment, production, and income. All this resultantly increases human development and growth. The result is favoured by Damasa (2025).

Foreign direct investment also affects human development and economic growth in nations of the world. Findings in Table 3 indicate that a one percent increase in foreign direct investment shows increased human development by 0.0136 percent in Table 2 and increases economic growth by 0.1104 percent in developing countries, as shown in Table 3. The reason may be that more investment from abroad enhances chances for more jobs, employment, production, growth, and human development.

The misery index may have negative effects on human development and growth in developing economies. It was found that a one percent increase in the misery index has resulted in decreased human development by 0.0005 percent revealed in Table 2, and decreased economic growth by 0.0009 percent in developing economies (shown in Table 3). The reason may be that the misery index shows more unemployment and inflation, resulting in less purchasing power, income, human development, and economic growth in developing countries. The results are supported by Wang et al. (2019).

Population growth has also negative effects on human development and economic growth in developing countries. It is found that one unit increased population growth has caused less human development by 0.0206 percent in developing countries (shown in Table 2). High population growth results in less economic growth and development.

CONCLUSIONS

Our study has investigated the influence of financial development and misery index on growth and human development in developing countries. For this, we have taken data from 1996 to 2023 from 7 developing nations. The dependent variables were the human development index and economic growth. However, financial development, foreign direct investment, misery index, and population growth were taken as explanatory factors. OLS regression method was considered for this study. Our study indicates that financial development and foreign direct investment have promoted human development and economic growth in these economies. However, the misery index affects human development in developing economies negatively. In addition, result shows that population growth has negatively affected both human development and economic growth in developing countries. Our study recommends that there is a need for more financial development to have more human development and economic growth in these countries. There should be a more stable environment for attracting more foreign direct investment. This will increase economic growth and human development. Measures should be taken to reduce unemployment and inflation. And efforts should be made to provide more employment opportunities to the people of the economies.

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