



APPLICATION OF THE SOLOW MODEL TO THE ALBANIAN ECONOMY: A TIME-SERIES ANALYSIS OF THE INFLUENCE OF FOREIGN DIRECT INVESTMENT ON ECONOMIC DEVELOPMENT (1991-2021)

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Abstract

This study explores the empirical correlation between Foreign Direct Investment (FDI) and Economic Development, as measured by real Gross Domestic Product (GDP), in Albania spanning a period of 30 years (1991-2021). The variables under consideration include real GDP, foreign investments, gross capital formation, and the labor force. The research employs the Solow model to investigate the relationship between these independent and dependent variables. The analysis employs the logarithmic function to examine whether GDP growth is associated with foreign investments, gross capital formation, or the labor force. The data utilized for this study are sourced from the Bank of Albania and INSTAT. Our findings reveal a statistically significant connection between gross capital formation, the labor force, FDI, and real GDP. This research not only contributes to understanding the relationship between these

variables but also provides a methodological framework for evaluating the efficacy of various policy interventions aimed at stimulating economic development. Policymakers can utilize the model to assess the potential impacts of taxation, education, technological innovation, and other factors influencing the components of the model.

Keywords: Time Series Analysis, FDI, Economic Development, Gross capital formation, Labor force

INTRODUCTION

The world is replete with developmental potential, spanning from the most underdeveloped countries to the wealthiest. While central banks manage the money supply and politicians control fiscal policy, the independent growth of economies often necessitates external support.

Net capital investments and loans are pivotal catalysts for economic growth in emerging nations. Foreign Direct Investment (FDI) encompasses both direct and indirect net capital investments, providing essential funds for economic advancement. Such investments contribute to the economic growth of both host and originating countries (Korsita, Cania, Lazaj, & Prendi, 2023).

Host countries benefit from FDI by financing planned projects, fostering technological advancements, and creating new job opportunities. Simultaneously, investing companies profit from market expansion, thereby increasing their global market share.

The World Bank reports a consistent upward trend in global foreign direct investment from 1970 to 2020, fueled by the increasingly interconnected national economies, global competitive pressures, economic liberalization, and the opening of new investment avenues. However, FDI remains susceptible to economic and other shocks, as noted in previous studies on the negative effects of financial crises (Dornean, Işan, and Oanea 2012; Dornean and Oanea 2015; Poulsen and Hufbauer 2011; Stoddard and Noy 2015).

The paper commences with a theoretical exploration of FDI, followed by an empirical analysis of its impact on economic development in Albania. Central to the theoretical treatment is the Solow model of economic development, which, despite its extensive use in economic sciences, has seen limited application in discussions concerning small developing countries. Motivated by this gap, this study conducts an empirical investigation into the effects of FDI in Albania.

Spanning 31 years from 1991 to 2021, this study anticipates that the conclusions drawn align with economic theory. To achieve this, the study leverages theoretical models of FDI in

economic development and conducts econometric analysis using secondary data from sources such as the Bank of Albania and INSTAT.

Research Questions

- ✓ What is the impact of FDI on economic development?
- ✓ What is the influence of the labor force on economic development?
- ✓ How does domestic investment affect economic development?
- ✓ What are the elasticity coefficients for each variable?

Research Objectives

This study adopts rigorous quantitative analysis, with *the primary objective* of chronologically reviewing the theoretical developments in models explaining FDI and their economic impacts. Additionally, the study aims to examine applied models empirically to identify research gaps. The secondary objective is to explore the relationship between the Solow model and FDI, focusing on the role FDI plays in promoting economic development.

LITERATURE REVIEW

This section explores the fundamental theoretical components found in existing literature on Foreign Direct Investment (FDI). It initiates with various definitions of FDI from diverse institutions and writers, subsequently exploring papers that scrutinize the correlation between FDI and economic development.

In the current era, internal capital alone is insufficient to support rapid economic development and international competition. History underscores the necessity for foreign financing to ensure sustained economic progress. Foreign Direct Investment becomes imperative for countries, facilitating funding for new infrastructure and job creation. Simultaneously, multinational corporations benefit from FDI by expanding their presence in international markets, rendering it a crucial avenue for swift and competitive economic development. (Prendi & Lazaj, *An Application of Solow's Growth Model: Case of Balkan Country*, 2023).

The Organization for Economic Co-operation and Development (OECD, n.d.) defines FDI as a cross-border investment where a resident of one economy holds a lasting interest and significant influence in a resident of another economy. According to the OECD, FDI is crucial for establishing stable, long-term links between economies, fostering technology transfer, promoting international trade, and acting as a catalyst for economic development.

EUROSTAT defines FDI as a form of international investment seeking long-term interest from an investor in one country in an enterprise located in another. A direct investment enterprise is one where a direct investor owns 10% or more of ordinary shares or voting rights. Furthermore, foreign investment is characterized as the transfer of assets from the nation of origin to the host country for the enhancement of the host country's welfare under the owner's control ((EUROSTAT, 2018); M, 2010; Law, 2020).

Defining FDI proves challenging due to variations in foreign investors' features and their operation within the legislative and regulatory frameworks of their respective countries. FDI is more complex than portfolio investment, often involving the transfer of essential assets like technological know-how, managerial, and organizational skills. Consequently, the definition of FDI is intertwined with the definition of multinational corporations (Seizer, 2006).

Solow's growth analysis within the neoclassical paradigm, as presented in 1956 and 1957, is integral to understanding economic development. The Cobb-Douglas function, incorporated into Solow's altered model, delineates the relationship between output and inputs, aiding in efficient production and forecasting technological change (Korsita, Cania, Lazaj, & Prendi, 2023).

Numerous studies using the Solow model have contributed to the literature on FDI. According to Karl Whelan (2014), the model posits that an economy's output (GDP) is a product of capital and labor, with economic growth dependent on technological progress and capital accumulation. (Lleshaj, Llesh; Malaj, Arben, 2016) found a statistically significant relation between GDP, FDI, domestic investment, and average salary, indicating a lesser influence of FDI on GDP compared to local capital investments. (Kotrajaras, 2010) suggests that the impact of FDI on economic growth depends on the host country's economic conditions, with positive links observed in high and middle-income nations. (Ledyeva & Linden, 2007) concluded that FDI is not a significant factor in explaining regional economic growth in Russia.

Lastly, 'Foreign Direct Investment and Economic Growth: Evidence from the Western Balkan Countries' (Josifidis, Losonc, Supi, Economic Annals, 2018) investigates the relationship between FDI and economic growth in the Western Balkan countries, examining the routes through which FDI contributes to economic development and its long-term consequences on GDP growth.

METHODOLOGY

The Solow Growth Model, a neoclassical economic model describing the long-term evolution of an economy's output (real GDP) and capital per worker, was independently developed by economists Robert Solow and Trevor Swan in the 1950s (Robert, 1956), (Swan,

1956). The production function illustrates the relationship between inputs (capital and labor) and output (real GDP), commonly assumed to have constant returns to scale and decreasing marginal returns to each input.

The equation

$$Y(t) = A(t)K(t)^\alpha L(t)^{1-\alpha} \quad (3.1)$$

Where:

$$0 < \alpha < 1$$

Y -is the output (real GDP),

K -is the capital (domestic and FDI),

L -is the labor input, and

A -is productivity (technology).

t -represents time

The Cobb-Douglas Production function, the most widely used neoclassical production function, is named as such (Team, 2023). The fundamental Solow Growth Model, in its original construction, does not explicitly incorporate equations for Foreign Direct Investment (FDI). However, we will extend and adapt the Solow Model to accommodate this aspect, potentially involving the inclusion of equations or variables such as FDI (Prendi & Lazaj, An Application of Solow's Growth Model: Case of Balkan Country, 2023).

The data

The data for this study are drawn from reputable sources, specifically the Bank of Albania and INSTAT, and cover a comprehensive period of 30 years from 1991 to 2021. The primary variables examined include real Gross Domestic Product (GDP), foreign investments, gross capital formation, and the labor force. These variables serve as critical indicators for assessing economic development in Albania. Real GDP is used as the dependent variable, representing the economic development, while foreign investments, gross capital formation, and the labor force are treated as independent variables influencing GDP growth.

The economic model

The primary equation for estimation will be a log-log Cobb-Douglas production function. Domestic capital and foreign capital (FDI) will be combined as the capital factor. When expressed in logarithmic form, this yields the Solow econometric model, outlined as follows:

$$\ln Y(t) = \alpha_0 + \alpha_1 \ln L(t) + \alpha_2 \ln K(t) + \alpha_3 \ln IHD(t) \quad (3.2)$$

According to Prendi & Lazaj (2023), taking the natural logarithm of both sides of the equation allows for the estimation of parameters α_0 , α_1 , α_2 , and α_3 through Ordinary Least Squares, given data on Y , L , K , and IHD . These symbols denote unknown characteristics defining GDP's dependence on capital inputs, human capital, and FDI. Other parameters measure the change in the dependent variable's value in response to a unit change in an explanatory variable, holding all other variables constant. The signs of α_1 , α_2 , and α_3 , could be positive or negative. This model will be used to assess whether FDI has a positive impact on economic development.

The assumptions of the model

The model will be tested for appropriateness through various assessments:

- Normality Test
- Homoscedasticity Test
- Linearity Test
- Independence of Residuals
- Multicollinearity Test
- Outlier Detection

The parameters α_0 , α_1 , α_2 , and α_3 will be estimated using the least squares method in the multiple regression model. Estimates in the context of the econometric model adhere to the principle that, to draw an acceptable line through the data values, the sum of the squares of the vertical distances from each point to the line should be as small as possible. This principle ensures a line that best fits the center of the data. The intercept and slope of this model are a_0 , a_1 , a_2 , and a_3 , representing the least squares estimate of α_0 , α_1 , α_2 , and α_3 (Hill, 2011).

$$\ln \hat{Y} = a_0 + a_1 \ln L + a_2 \ln K + a_3 \ln IHD$$

The vertical distances are given by:

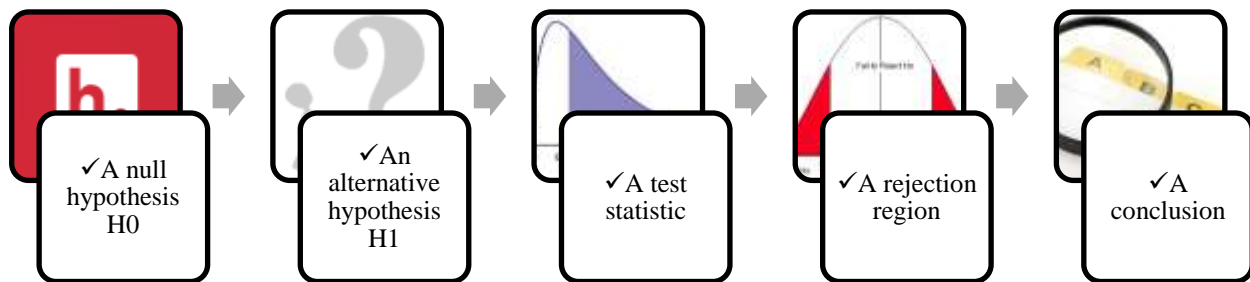
$$\hat{u}_i = \ln Y_i - \ln \hat{Y}_i \quad (3.3)$$

Using the least squares principle, we determine the values of (a_1 , a_2 , a_3) that minimize the sum of squared deviations between observed and expected values.

Hypothesis testing

Economic decisions often necessitate evaluating whether a parameter assumes a particular value. Hypothesis testing involves comparing data from a sample to assumptions made about a population (Hill, 2011). To assess the statistical significance of the model, we will employ the following components of hypothesis testing:

Figure 1 Components of Hypothesis Tests



Source: R. Carter Hill et al, 2011

Fisher's test, commonly referred to as the F-test, was utilized to assess the overall significance of the model. This test helps determine whether the model is effective in explaining economic development, with a higher (estimated) F-test score indicating a more robust model. The t-test was employed to evaluate the significance of individual variables. This test assesses whether the factors are adequate for explaining economic development (Prendi & Lazaj, 2023).

Description of variables according to World Bank (Bank, n.d.).

1. The labor force participation rate represents the proportion of the population aged 15-64 that is economically active.
2. Real GDP, or Gross Domestic Product at constant prices, serves as a measure of the total economic output of a country adjusted for changes in price or inflation.
3. Capital investments include outlays on additions to the fixed assets of the economy along with net changes in the level of inventories.
4. Foreign direct investment encompasses net inflows of investment aimed at acquiring a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. This is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.

Table 1 Variables Index, Transformation, and Source

Variable	Index	Transformation	Source
Real GDP	Y	logy	Bank of Albania
Capital investments	X1	logx1	INSTAT
Foreign direct investment	X2	logx2	Bank of Albania
The labor force participation rate	X3	logx3	INSTAT

ANALYSIS AND FINDINGS

Before conducting linear regression, it is essential to perform several diagnostic checks to ensure that the assumptions behind linear regression are satisfied, guaranteeing trustworthy and meaningful results (Merko, Prendi, & Mema, 2022), (Prendi, Llambi; Lika, Daniela; Velaj, Entela;, 2015).

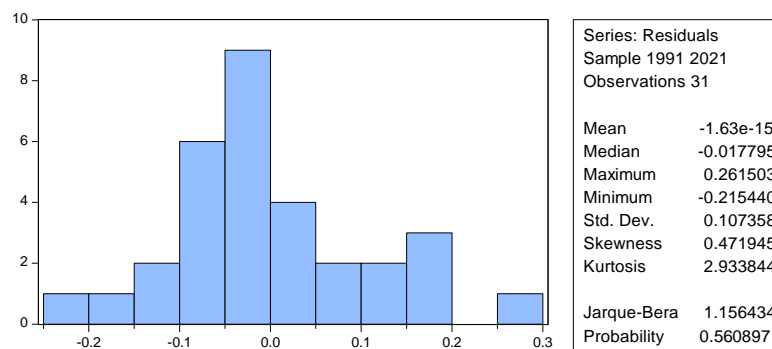
Normality Test

One critical diagnostic step in linear regression analysis is the Normality Test. This test assesses the normality of residuals, crucial for reliable statistical inference (Michael & Patrick, 1970). The Shapiro-Wilk test, a commonly used normality test, is employed for this purpose. To evaluate whether the residuals of the linear regression model follow a normal distribution, null and alternative hypotheses are formulated, with the test statistic denoted as '**JB**.'

- *Null Hypothesis (H0)*: Residuals exhibit a symmetric and bell-shaped distribution (normal distribution).
- *Alternative Hypothesis (H1)*: The residuals have skewness and kurtosis inconsistent with a normal distribution.

As depicted in Figure 2, the p-value is not minimal, indicating insufficient evidence to reject the hypothesis that the residuals have skewness and kurtosis compatible with a normal distribution.

Figure 2 Histogram, Normality Test



A low p-value, typically below 0.05, would suggest that the residuals may not follow a normal distribution. However, our p-value is equal to 0.560897, indicating that we fail to reject the Null hypothesis. This suggests that there is no evidence against the assumption that the residuals have the skewness and kurtosis of a normal distribution.

Homoscedasticity Test

We assume that the variance of the residuals is constant across all levels of the independent variables, meaning that the spread of the residuals remains constant across the range of predictor values. Maintaining a homoscedastic relationship is crucial for the reliability and validity of our model (Breusch & Pagan, 1979). The Breusch-Pagan test, a statistical test in regression analysis, is utilized to detect heteroscedasticity, with the test statistic denoted as 'BP'.

- *Null Hypothesis (H0)*: The variance of the residuals is constant (homoscedasticity).
- *Alternative Hypothesis (H1)*: The variance of the residuals is not constant (heteroscedasticity).

In the case of rejecting the Null Hypothesis, a small p-value indicates evidence against the assumption of constant variance in the residuals. On the other hand, failure to reject the Null Hypothesis, signaled by a not-small p-value, suggests insufficient evidence to discard the assumption of constant variance in the residuals.

Table 2 Heteroscedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.022121	Prob. F(3,27)	0.1345
Obs*R-squared	5.687268	Prob. Chi-Square(3)	0.1279
Scaled explained SS	4.171568	Prob. Chi-Square(3)	0.2435

In our data, homoscedasticity is evident, as indicated by the p-value in Table 2.

Linearity Test

Linearity tests are commonly used in economics to validate a linear regression model. The fundamental assumption of linear regression is that the relationship between variables is linear, implying that a change in one variable leads to a constant change in the other. To assess linearity, we will utilize statistical tests such as the RESET (Regression Specification Error Test) or Ramsey's Regression Equation Specification Error Test. This examination aims to determine the adequacy of the linear model or if more sophisticated functional forms are necessary (James & Mark, 2018). The test statistic for this purpose is denoted as 'RS'.

Table 3 Ramsey RESET Test

	Value	df	Probability
t-statistic	0.243663	26	0.8094
F-statistic	0.059371	(1, 26)	0.8094
Likelihood ratio	0.070708	1	0.7903

Analyzing the results of Ramsey's RESET test, a high p-value (typically above 0.05) provides no evidence of misspecification, suggesting the appropriateness of the linear model. In our data, the linearity between variables is affirmed, as reflected in Table 4.2, where the p-value indicates the presence of homoscedasticity.

Independence of Residuals

This assumption implies that the residuals, representing the differences between observed and predicted values, should not display any discernible pattern or correlation. The Lagrange Multiplier test is a diagnostic tool employed to identify any violation of this assumption, with the test statistic denoted as '**LM**.'

- *Null Hypothesis (H0)*: The residuals are independently distributed (no autocorrelation).
- *Alternative Hypothesis (H1)*: The residuals exhibit autocorrelation.

Checking for residual independence involves assessing whether the residuals show any trends or relationships over time.

Table 4 Breusch-Godfrey Serial Correlation LM Test

F-statistic	2.558170	Prob. F(2,25)	0.0984
Obs*R-squared	5.271618	Prob. Chi-Square(2)	0.0717

Autocorrelation or serial correlation in residuals can undermine the independence assumption, which is crucial for the validity of regression analysis. Evaluate the p-value associated with the LM statistic. Since the p-value is above the chosen significance level (0.05), we do not reject the null hypothesis of independence of residuals.

Multicollinearity Test

Examine the regression model for multicollinearity, a condition that arises when independent variables are highly interrelated. High multicollinearity can result in unstable coefficient estimates and challenges in assessing predictor contributions.

In the multicollinearity test results we will focus on the Variance Inflation Factor (VIF) values for each independent variable. A VIF larger than 10 or 5 (thresholds may vary) is often considered an indicator of multicollinearity. The "Variance Inflation Factor (VIF)" column should appear in the output. If any VIF values are high, it suggests that the associated independent variables are likely highly correlated with other variables in the model. The test statistic for this assessment is denoted as '**VIF**'.

Table 5 Variance Inflation Factors

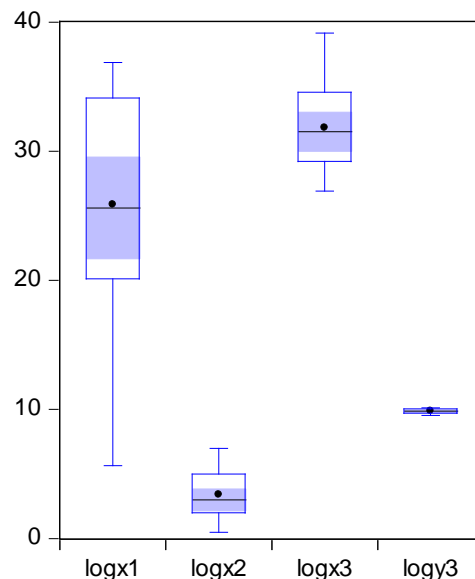
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LOGX1	7.05E-06	12.56526	1.133858
LOGX2	0.000851	31.47505	7.438035
LOGX3	0.000315	780.7886	7.794895
C	0.249232	603.3061	NA

When two or more independent variables in a regression model are highly correlated, it becomes challenging to isolate the unique effects of each variable on the dependent variable. Examining Table 5, we observe that only one variable has a VIF coefficient of less than 5. In our case, among the three variables with a VIF of less than 5, this suggests that this specific variable is not highly correlated with the other variables in the model and does not contribute significantly to the variance of the coefficient of variation.

Outlier Detection

Outliers can disproportionately impact the regression equation, and their presence may warrant further investigation or data transformation.

Figure 3 Box-Plot for outlier detections



Outliers are data points that fall outside the whiskers, and individual points in the plot represent these outliers. In our case, there is no data indicating the presence of outliers.

After conducting relevant diagnostic tests, we can analyze the results of the regression analysis to ensure that our regression model aligns with the necessary assumptions.

The statistical results of the model

In log-log regression models, both the dependent and independent variables are logged. Interpreting the coefficients in a log-log model involves percentage changes. The typical form of the econometric model is:

$$\ln GDP = \beta_0 + \beta_L \ln L + \beta_{IHD} \ln IHD + \beta_K \ln K + u \quad (4.1)$$

Let's begin by examining the overall fit of the model, evaluating metrics like R-squared. A higher R-squared value suggests a better fit of the model to the data. In Table 4.5, the R-squared value is equal to 0.657822. This result of 0.657822, or 65.78%, indicates that the independent variables in the regression model explain approximately 65.78% of the variability in real GDP. This R-squared value suggests that our model fits the data reasonably well, implying that the included independent variables, such as FDI, labor force participation, and domestic capital investment, explain a significant portion of the observed variation in the dependent variable.

Next, let's assess the statistical significance of the model to understand the impact of production factors on economic development. The F-test is commonly used for this purpose, with the following hypotheses:

- Null Hypothesis (H_0): $\beta_L = \beta_{IHD} = \beta_K = 0$
- Alternative Hypothesis (H_1): At least one of the coefficients is different from zero, $\beta_i \neq 0$

With a significance threshold of 0.05, the model is statistically significant ($F = 17.30214$, and $p\text{-value} < 0.05$). A small p-value implies there is enough evidence to reject the null hypothesis, suggesting that at least one independent variable in the model significantly relates to the dependent variable, thus influencing economic development according to the Solow model.

Following the model's validation, we will investigate the relationships between X1, X2, and X3 and Y to determine if the independent variables influence economic development. The t-test is used for this purpose, with the following hypotheses:

- *Null Hypothesis (H_0):* Xi is not important
- *Alternative Hypothesis (H_1):* Xi is important

The t-test examines the statistical significance of specific coefficients linked with the model's independent variables. Each t-test assesses if the estimated coefficient for a particular independent variable is significantly different from zero. To reject the null hypothesis, the p-

value associated with each t-statistic is compared to a predetermined significance level (often 0.05). A low p-value (less than 0.05) indicates there is sufficient evidence to reject the null hypothesis, suggesting that the connected independent variable predicts the dependent variable with statistical significance.

Table 6 Least Squares

Dependent Variable: LOGY					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
LOGX1	0.017671	0.002655	2.889409	0.01	
LOGX2	0.057574	0.029170	1.973770	0.05	
LOGX3	-0.064704	0.017755	-3.644197	0.00	
C	11.55557	0.499231	23.14672	0.00	
R-squared	0.657822	Mean dependent var	9.891498		
Adjusted R-squared	0.619803	S.D. dependent var	0.183531		
F-statistic	17.30214	Durbin-Watson stat	0.896333		
Prob(F-statistic)	0.000002				

The findings indicate that domestic capital investment is statistically significant, implying that a 1% increase in this variable leads to a 0.7% increase in GDP.

Similarly, the labor force variable is also statistically significant, suggesting that a higher labor force positively influences the GDP level. However, it is noteworthy that the relationship between labor force participation and real GDP is negative. This unexpected result may be attributed to the fact that a higher labor force participation rate is typically associated with a healthier and more productive economy.

Contrary to expectations, FDI appears to have a statistically insignificant impact on the economic development of Albania during the period 1991-2021. According to the model, a 1% increase in FDI is associated with a 0.057% positive influence on GDP growth. It's important to note that between 1991 and 2005, there was limited FDI investment in new enterprises. However, after 2005, FDI inflows into new businesses increased, especially as a result of privatization (Lleshaj & Malaj, 2016). Despite its insignificant impact on GDP growth, FDI has had a considerable effect on employment, particularly in the food industry, contributing to "endogenous" employment and economic development. The labor market in Albania, recognized as one of the more informal markets by the IMF and World Bank (2013), suggests a potential high margin of error in official statistics for the labor variable.

The Solow model in Albania reveals a statistically significant positive link between the dependent variable $\log(y)$ and independent variables $\log(x_1)$ and $\log(x_2)$, but a negative effect with $\log(L)$ for the period 1991-2021. This model provides insights into the responsiveness or elasticity of GDP with respect to the mentioned independent variables.

$$\text{Log}y = 11.5 - 0.06\text{Ln}L + 0.02\text{Ln}K + 0.06\text{Ln}FDI$$

According to the Fisher test, the model is statistically significant at a level of 5%, and the adjusted coefficient of determination is 61.98%.

CONCLUSIONS

The econometric analysis conducted in our paper has revealed a statistically significant relationship between GDP and Foreign Direct Investment (FDI), domestic investment, and the labor force participation rate. This implies that, under ceteris paribus conditions, a 1% increase in FDI is associated with a 0.06% growth in GDP, a 1% increase in domestic capital investment results in a 0.02% growth in GDP, and a 1% increase in the labor force participation rate leads to a 0.06% decrease in GDP.

The impact of Foreign Direct Investment (FDI) on Albania's Gross Domestic Product (GDP) has been substantial. Beyond the numerical findings, our rigorous testing has confirmed the theoretical hypothesis, demonstrating a causal relationship between FDI and real GDP, holding other factors constant. Domestic capital investment, often referred to as capital investment, plays a significant role in contributing to Albania's real GDP. Investments in tangible assets like machinery, equipment, and technology have the potential to enhance productivity across various industries. Businesses that optimize their manufacturing processes can produce more goods and services with the same input, thereby contributing to an overall increase in real GDP. Capital investments encompass both the expansion or enhancement of existing facilities and the development of new ones, leading to an augmented productive capacity and contributing to overall real GDP growth.

Furthermore, the Albanian government's investments in infrastructure projects, including roads, bridges, and utilities, have played a crucial role in fostering economic development. Improved infrastructure has spurred increased economic activity, ultimately contributing to real GDP growth.

Surprisingly, our analysis identified a negative correlation between real GDP and the labor force participation rate. This unexpected relationship may be influenced by various factors and economic conditions. Firstly, the influx of younger individuals into the labor force may bring new skills and energy, potentially leading to increased efficiency and higher real GDP per capita. Secondly, individuals previously marginally engaged in the labor force finding better-

fitting positions or addressing structural unemployment can boost overall productivity, contributing to greater real GDP. Thirdly, technological advancements and increased automation may reduce the demand for certain types of labor, leading to a decline in labor-force participation that is associated with improved efficiency and productivity, resulting in higher real GDP. Lastly, emigration can alter a country's demographic structure, with the departure of a large number of young, working-age individuals impacting the size and composition of the labor force, thereby influencing productivity and real GDP.

WAY FORWARD

While this study provides valuable insights into the relationship between FDI, domestic investment, labor force participation, and GDP in Albania, there remains significant scope for further research. Future studies could explore the sector-specific impacts of FDI and domestic investments, examining how different industries contribute to overall economic growth. Additionally, investigating the role of government policies, such as taxation and education reforms, in enhancing the positive effects of these investments could provide deeper insights into optimizing economic strategies. Another promising avenue for research is the analysis of technological advancements and their effects on labor force dynamics and productivity. Longitudinal studies that track changes over extended periods, incorporating more recent data, could also help in understanding the evolving economic landscape. Finally, comparative studies involving similar economies in the region could offer valuable lessons and best practices that Albania could adopt to further stimulate its economic development.

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