The Impact of Foreign Direct Investment on Angola's Economic Growth (2014-2023)

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SUMMARY

Foreign Direct Investment (FDI) is often considered an engine of economic growth in developing countries, due to its capacity to transfer technology, generate employment, and boost productive sectors. Therefore, this study aims to analyze the impact of Foreign Direct Investment (FDI) on the growth of the Angolan economy from 2014 to 2023. To test the hypothesis, a Linear Regression model was used, considering a Multiple econometric model based on Vector autoregressive, which expresses the relationship between FDI, exchange rate, trade balance, and Angola's GDP from 2014 to 2023. The results indicate that FDI did not have a positive and significant impact on GDP growth.

The FDI coefficient showed a negative value (-0.23), meaning that an increase in FDI did not directly translate into economic growth during the analyzed period. However, it is concluded that Angola's economic environment was unfavorable during the period, which contributed little to attracting FDI. This conclusion is consistent with the assumptions presented. Therefore, the increase in Foreign Direct Investment (FDI) in Angola between 2014 and 2023 did not have a significant impact on the country's economic growth.

Despite the influx of FDI, internal and external factors neutralized its positive impacts on the Angolan economy during the period 2014-2023. Global events, such as health and economic crises, can influence investment decisions. For this to translate into effective benefits, it is necessary to redirect investment towards strategic non-oil sectors, strengthen local absorption capacities, and ensure greater macroeconomic and institutional stability. Therefore, future research should consider these impacts to better understand how foreign investment reacts to these challenges.

Keywords: Foreign Direct Investment; Economic Growth; Angolan Economy.

INTRODUCTION

Global flows of Foreign Direct Investment (FDI) are one of the most significant phenomena of contemporary economic globalization, playing a decisive role in market integration and the dynamism of national economies. According to Bilas (2019), FDI constitutes an important catalyst for economic growth, supported by a solid theoretical foundation in the field of international economics.

The Organisation for Economic Co-operation and Development (OECD, 2020) reinforces this perspective by highlighting that FDI promotes the transfer of technology and knowledge, drives sustainable progress, and contributes to the creation of skilled jobs, especially in developing countries.

In the Angolan context, Foreign Direct Investment has played a crucial role in the reconstruction and modernization of infrastructure, especially in the post-conflict period, being considered one of the pillars for long-term economic recovery and expansion (African Development Bank, 2012). However, between 2014 and 2023, the effective contribution of FDI to economic growth proved ambiguous, given its excessive concentration in the oil sector and the dependence of the national economy on fluctuations in international crude oil prices (World Bank, 2023).

This reality has sparked debate about the real capacity of FDI to promote economic diversification and reduce Angola's structural vulnerabilities.

It is also important to note that FDI is not universally beneficial. Haskel, Pereira and Slaughter (2002) warn that, under certain circumstances, foreign investment can generate adverse effects, such as the bankruptcy of less competitive local companies and the loss of economic sovereignty. On the other hand, in economies with scarce financial resources, such as many African nations, FDI represents an important alternative to fill financing gaps and stimulate development (Rodrik, 2011).

In this context, Angola presents a unique opportunity for analysis: how to transform FDI into an effective instrument for economic diversification, sustainable growth, and social inclusion? Despite several political and institutional reforms implemented by the Angolan government between 2014 and 2023 – notably the improvement of the business environment and tax incentives (AIPEX, 2022) – the economy remains vulnerable to external volatility, raising questions about the extent to which FDI has actually contributed to economic growth and the strengthening of national productive bases.

Problematic

Despite the considerable volume of foreign investment received by Angola in recent decades, uncertainty persists regarding its effectiveness in stimulating sustainable and diversified economic growth. The economy's dependence on the oil sector and exchange rate volatility raise doubts about the real capacity of FDI to generate multiplier effects on the national economy. Given this, the need arises to answer the question:

What has been the impact of Foreign Direct Investment on Angola's economic growth in the period from 2014 to 2023, considering variables such as the exchange rate and the trade balance?

Research hypotheses

To answer the question posed in advance, we propose two hypotheses, namely:

H_0: Foreign Direct Investment, the exchange rate, and the trade balance do not have a statistically significant impact on Angola's economic growth in the period from 2014 to 2023.

H_1: Foreign Direct Investment, the exchange rate, and the trade balance have a statistically significant impact on Angola's economic growth in the period from 2014 to 2023.

Objectives

General objectives

To empirically analyze the impact of Foreign Direct Investment, the exchange rate, and the trade balance on Angola's economic growth from 2014 to 2023.

Specific objectives

1. To examine the relationship between Foreign Direct Investment (FDI) and Angola's economic growth, identifying its relative weight in GDP variation during the analyzed period. To examine the effect of the exchange rate and the trade balance on Angolan economic growth.

2. To estimate, using an econometric model, the joint significance of the variables FDI, exchange rate and trade balance as determinants of Angola's economic growth between 2014 and 2023.

This study contributes to the academic and political debate on the role of foreign investment in the economic development of resource-dependent countries, such as Angola. In addition to offering updated empirical evidence, the article aims to support the formulation of public policies focused on attracting productive FDI and promoting sustainable and inclusive economic growth.

Characterization of the Angolan economy between 2014 and 2023

Angola, located on the southwest coast of Africa, has an economy heavily based on the exploitation of natural resources, especially oil and diamonds. This abundance, while a fundamental source of revenue for the State, has also made the country excessively dependent on the oil sector, leaving it vulnerable to fluctuations in the international market and external shocks (African Development Bank, 2022).

Between 2014 and 2020, the Angolan economy faced a prolonged period of recession, a direct result of the fall in international oil prices and the reduction in domestic production. The National Bank of Angola (2021) highlights that the real Gross Domestic Product (GDP) registered negative growth rates during this period, reflecting not only the fragility of the oil sector but also the weak dynamics of non-oil sectors.

The oil sector has been the main "backbone" of the economy, representing more than 90% of goods exports and about 60% of state tax revenues (OPEC, 2022). Thus, periods of low oil prices triggered serious economic and social crises, which were reflected in increased poverty, unemployment, and social inequality. In 2018, about 32% of the Angolan population lived below the poverty line (INE, 2019).

Inflation was another significant challenge: it peaked at 41.1% in 2016, eroding families' purchasing power and exacerbating social exclusion (National Bank of Angola, 2017).

To address this situation, the Angolan government initiated a program of structural reforms, supported by the International Monetary Fund (IMF). In 2018, the IMF approved a $3.7 billion package aimed at macroeconomic stabilization, improved governance, and economic diversification. Among the measures implemented were the reduction of subsidies, the reform of the foreign exchange market, and the privatization of state-owned enterprises (IMF, 2019).

The COVID-19 pandemic further exacerbated the economic recession. In 2020, Angola's GDP contracted by 5.4%, reflecting the negative impact on oil, trade, and the national productive sector (INE, 2021). The oil sector suffered a significant drop in revenue, limiting the government's ability to finance essential public services (ANPG, 2021).

The effects of the pandemic also impacted the labor market, with business closures and increased layoffs, raising unemployment and informality (ILO, 2021). The reduction in tax revenues, especially from oil, worsened the situation of public finances (Ministry of Finance of Angola, 2021).

Externally, FDI fell by approximately 35% globally in 2020, reflecting the contraction of international capital flows, economic uncertainty, and mobility restrictions (UNCTAD, 2020). Angola was no exception to this trend.

Another structural challenge was persistent inflation. In 2021, the annual rate reached 27%, driven by the devaluation of the kwanza and the increase in prices of essential goods (World Bank, 2022). At the same time, public debt grew significantly, with about 80% of the total denominated in foreign currency, increasing the country's vulnerability to exchange rate fluctuations (Angola, 2022).

The labor market remained fragile, with high rates of youth and urban unemployment, and a strong prevalence of informal jobs, highlighting the lack of progress in terms of inclusive growth (UNDP, 2020).

Despite the difficulties, in 2021 the Angolan economy began to show signs of recovery. According to the INE (2022), GDP grew by 0.7%, ending five consecutive years of recession. This growth was driven by rising oil prices and ongoing macroeconomic reforms.

In 2022, the recovery accelerated, with an estimated growth of 3.0%, reflecting not only the increase in oil production but also the expansion of non-oil sectors such as agriculture and construction (IMF, 2023). Nevertheless, structural challenges remained:

a) Dependence on oil: the economy remains excessively dependent on crude oil, which represents more than 60% of GDP and 95% of exports (OPEC, 2022); b) Regional inequalities: marked disparities persist between

urban centers, such as Luanda, and rural areas, with limited access to basic services (UNDP, 2020); c) Lack of diversification: despite government efforts, the non-oil sector still represents a small share of the economy (African Development Bank, 2022).

Key Factors in Attracting Foreign Direct Investment (Fdi) to Angola

Foreign Direct Investment (FDI) has played a significant role in Angola's economic development, driven by a number of factors that increase the country's attractiveness. According to Faria (2017), Angola stands out as a promising destination for foreign investors, combining natural, geostrategic and institutional advantages.

Angola possesses vast reserves of oil, natural gas, and diamonds, which constitute one of its greatest attractions for international investors. These resources not only sustain the national economy but also arouse the interest of multinational companies in the exploration and processing of these riches (African Development Bank [AfDB], 2021).

With a young and growing population, Angola presents a consumer market with great potential for expansion. This scenario creates opportunities in sectors such as commerce, telecommunications, and infrastructure, attracting investors interested in emerging markets with long-term growth prospects (World Bank, 2022).

Angola's coastal location in the South Atlantic gives it a strategic position in accessing international markets, especially Europe and the Americas. This logistical advantage strengthens trade and the export of goods, making the country more competitive in attracting FDI (United Nations Industrial Development Organization [UNIDO], 2020).

The Angolan government has implemented legal and institutional reforms with the aim of improving the business environment. The new Private Investment Law introduced tax incentives, greater legal protection and more transparent rules, increasing the confidence of foreign investors (Angola Private Investment and Export Promotion Agency [AIPEX], 2021).

Angola participates in organizations such as the Southern African Development Community (SADC) and the African Union (AU), which promote regional economic integration. These alliances broaden access to new markets and increase Angola's attractiveness as a gateway for investment on the continent (Southern African Development Community [SADC], 2020). The government has sought to reduce dependence on oil by encouraging investment in areas such as agriculture, manufacturing, tourism, and renewable energy. These initiatives are seen as strategic for diversifying the economy and attracting new FDI flows (BA, 2021).

Table I presents the evolution of Foreign Direct Investment (FDI) in Angola by sector of activity, from 2018 to 2022. This period was marked by strong economic volatility, reflecting not only the dependence on the oil sector, but also the effects of the COVID-19 pandemic and the political reforms implemented by the Angolan State to attract new investors (National Bank of Angola [BNA], 2022). As can be seen, the industrial sector was the main destination of FDI, reaching 4,553,178,433 billion kwanzas in 2022, which confirms its strategic relevance for the diversification of the economy (Angola's Private Investment and Export Promotion Agency [AIPEX], 2023). The service sector registered fluctuations, especially in 2021, when it reached 230,009,760.7 billion kwanzas. Agriculture, despite showing a decline in 2019 and 2021, revealed signs of recovery in 2022, with an investment of 163,520,931.1 billion kwanzas, demonstrating a gradual interest in sectors alternative to oil.

TableIForeign Direct Investment by sector of activity (values in billions of kwanzas)

Sector	2018	2019	2020	2021	2022
Industry	283861251.9	750816745.9	471925295.2	1312753037	4553178433
Business	59153835.59	47242940.75	8131119.46	4564625.86	401949.34
Agriculture	116069298,8	29721372,28	55660554.26	13718277.48	163520931,1

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Payment	31932653.85	1162681473	40198549,45	230009760.7	15226815.5
Fishing	67124221	7,000,000	57383167	3832814.85	17659624
Hot. & tur.	4298051.62	12500000	14048818	340000	45404494.06
Health	10000000	0	0	0	661135085
Education	10000000	19347500	0	0	0
Construction	0	5711202.8	150000	198000	11246000
Telecom.	0	0	31260215.54	281000000	0
Financial	0	0	42616633.63	5,000,000	5,000,000
Non-Financial	0	0	0	0	0
miner	0	0	208900000	34011726.68	4,700,000
Energy	0	0	0	0	46000000
TOTAL	582439312.8	2055021234	930274352.6	193042824	5609473332

Source: AIPIEX

Globally, there was a significant increase in FDI pre-pandemic (2018-2019), with growth of 1,472,581,921.2 billion kwanzas. However, in 2021 FDI fell drastically to 193,042,824 billion kwanzas, reflecting the global economic impacts of the pandemic and the contraction of international capital flows (UNCTAD, 2021).

On the other hand, social sectors such as health and education received sporadic investments, without significant continuity. For example, health saw inflows in 2018 and 2022, but none in the intervening years, demonstrating the weakness in attracting foreign capital to services essential for social inclusion. As Cuesta (2020) emphasizes, the sustainability of development in Africa depends on channeling FDI into areas that promote social well-being and not just economic return.

TableII- FDI by Province during the period 2018 – 2022 (Billions of kwanzas)

Provinces	2018	2019	2020	2021	2022
Luanda	269,975,570.55	1,280,106,952.88	337 932 987.30	543 429 058,01	602 211 295.32
Bengo	57,691,913.29	550,000.00	42 088 216,00	49,228,530.00	802 685 085,00
Benguela	20 905 171,00	526 218 864.70	24,188,495.27	1,500,000.00	162,783,819.00
Huambo	12,884,567.43	0.00	0.00	444,916.00	30,000.00
Huíla	6,914,720.00	38,867,128.34	200,015,000.00	2,775,917.58	4,637,097.00
Cunene	6,300,587.00	0.00	1,000,000.00	7,860,000.00	0.00
Cabinda	0.00	14,604,038.00	0.00	7,050,000.00	349 601 877.06
Lunda Norte	0.00	0.00	8,979,615.00	0.00	1,700,000.00
Lunda Sul	2,798,051.62	18,218,795.00	1,494,250.00	4,031,522.00	9,153,791.00

Cuanza Norte	0.00	354,000.00	20 065 189,00	3,570,809.10	2,403,678.59
Cuanza Sul	0.00	1,500,000.00	27,850,000.00	2,949,806.33	3,631,919.00
Malange	111,934,127.88	30,050,000.00	15 160 600.00	0.00	2,888,243.46
When Cubango	0.00	0.00	226,500,000.00	340,000.00	0.00
Moxico	0.00	0.00	0.00	5,840,000.00	0.00
Zaire	1,850,000.00	86 125 455.30	0.00	366,713.00	3,537,980,000.00
Uíge	0.00	0.00	0.00	16,000,000.00	0.00
Namibe	49,645,321.00	3,428,860.10	0.00	0.00	46,000,000.00
Bie	0.00	0.00	0.00	0.00	0.00
Multilocalized	41,539,283.00	54 997 140.00	25,000,000.00	1,285,040,970.00	83,766,526.44
Total	582439312.8	2055021234	930274352.6	1930428242	5609473332

Source: AIPIEX.

Table II illustrates the distribution of FDI by province, revealing a strong concentration in Luanda, which absorbed the largest volume of investments throughout the period. In 2022, the province registered 602,211,295.32 billion kwanzas, confirming the trend of FDI centralization in the country's economic and political center.

However, investments in provinces such as Bengo (802,685,085 billion in 2022), Benguela (162,783,819 billion in 2022) and Zaire, which recorded a significant value in 2022 (3,537,980,000 billion), also stand out. These results suggest a gradual effort to decentralize investments territorially, although still very timid.

Inland provinces, such as Huambo, Huíla, Cunene, and Uíge, showed low or almost non-existent values. This pattern reinforces the thesis that, despite reforms, FDI in Angola continues to reproduce regional asymmetries, favoring areas with greater infrastructure and proximity to Luanda (Silva, 2021).

The combined analysis of the two tables reveals that, although Angola has made progress in attracting FDI, particularly in the industry and services sectors, the country still faces two major structural challenges:

- The strong geographical concentration of FDI in Luanda, to the detriment of inland provinces;
- The weak channeling of investments to social sectors, such as health, education, and agriculture, which are fundamental for social inclusion and sustainable development.

In this sense, as Kaplinsky (2019) points out, the true impact of FDI in developing countries should not be measured solely by its financial volume, but also by its capacity to generate economic diversification, skilled employment, and a reduction in regional inequalities.

Angola's Main Partners in Foreign Direct Investment (Fdi)

Foreign Direct Investment (FDI) in Angola has been strongly driven by strategic partnerships with countries that have significant interests in sectors such as oil, mining, construction, infrastructure, and financial services. According to the Foreign Trade Report of the National Institute of Statistics (INE, 2022), the country

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maintains privileged relations with economies that, in addition to capital, bring with them technology, knowledge, and new opportunities for economic cooperation.

China occupies a prominent position as one of Angola's largest FDI partners. The Asian giant has invested robustly in sectors such as oil, energy, mining, agriculture and, above all, infrastructure projects. The China National Petroleum Corporation (CNPC), in particular, has consolidated its presence in the Angolan oil sector. According to Corkin (2013), the Sino-Angolan relationship has been strategic, guaranteeing China access to energy resources while Angola benefits from financing and large-scale public works.

PortugalPortugal remains a historical and relevant partner, with investments in areas such as banking, energy, trade, services, and construction. The presence of Portuguese banks in Angola, as well as companies in the infrastructure sector, illustrates the strength of this cooperation. Ferreira (2021) observes that the historical and cultural ties between the two countries contribute to maintaining stable investment flows.

France, through TotalEnergies, remains one of the main foreign investors, with a strong presence in the oil and energy sector. The French company has been responsible for large-scale offshore exploration projects, positioning Angola as one of the central bases of its operations in Africa (TotalEnergies, 2022).

The United Kingdom also stands out through companies such as BP and Glencore, which invest primarily in the energy and mining sectors. Similarly, the United Arab Emirates has strengthened its presence in Angola, particularly in infrastructure, mining, and energy projects, as part of a strategy to diversify its investment destinations (World Bank, 2022).

Brazil is another important partner, with investments encompassing civil construction, agriculture, energy, and the exploration of natural resources. This cooperation has benefited from cultural and linguistic affinities. Spain, through companies like Repsol, focuses primarily on the energy sector and tourism projects, while India has invested mainly in the oil and pharmaceutical sectors (UNCTAD, 2021).

Russia, in turn, maintains strategic partnerships in the oil and nuclear energy sectors, reinforcing the geopolitical weight of its relationship with Angola. South Africa stands out as a relevant regional partner, especially in diamond mining and the banking sector (Cilliers & Okeke, 2020).

In general, these partners have contributed significantly to boosting the Angolan economy. However, the challenge remains of channeling FDI beyond the oil sector, in order to foster productive diversification, industrialization and social inclusion, reducing structural dependence on oil (Kaplinsky, 2019).

METHODOLOGY AND DATA PROCESSING

Type and Approach of the Research

This study adopts a quantitative approach, of an explanatory and correlational nature, with the objective of identifying and measuring the impact of Foreign Direct Investment (FDI), the exchange rate (TR) and the trade balance (TB) on Angola's economic growth in the period from 2014 to 2023.

Quantitative research was chosen because it allows for the objective treatment of numerical data and the application of statistical and econometric techniques capable of verifying causal relationships between macroeconomic variables.

Econometric Model

To estimate the influence of independent variables on economic growth, a multiple linear regression model is used, defined as follows:

$$\boldsymbol{PIB_t = \beta_0 + \beta_1 IDE_t + \beta_2 TC_t + \beta_3 IBC_t + \varepsilon_t}$$

where:

- **GDP**– represents economic growth in year t (dependent variable);
- **IDE_t**– Annual volume of Foreign Direct Investment (main explanatory variable);
- **TC_t**– average annual exchange rate (control explanatory variable);
- **BC_t**– trade balance (exports minus imports);
- **β_0**– intercept of the model;
- **β_1, β_2 and β_3**– regression coefficients to be estimated;
- **ε_t**– random error term.

Therefore, the expected relationship is that $\beta_1 > 0$, indicating a positive impact of FDI on GDP, while β_2 may assume a negative sign (in the case of exchange rate appreciation unfavorable to exports) and β_3 tends to be positive, reflecting the beneficial effect of a trade surplus.

TableIII Summary of model variables, 2014–2023.

Years	IDE	TC	GDP	BC
2014	0.1	102.8	4.7	18.61
2015	-2.2	134.6	0.8	9.49
2016	-0.34	165.06	-1.7	12.67
2017	-10.04	165.09	-0.1	14.4
2018	-8.13	649.6	-0.6	21.87
2019	-5.78	491.6	-0.2	22.68
2020	-3.85	649.8	-4	19.22
2021	-6.55	554.9	2.1	27.39
2022	-6.32	506.7	4.2	23.6
2023	-2.5	825.5	1	24.3

Source:https://pt.countryeconomy.com/governo/juro/angola

Data Processing And Analysis Procedures

The data will be processed and analyzed using the statistical software, EViews, which will facilitate:

- Calculate descriptive statistics (means, standard deviations, correlations);
- to estimate the multiple linear regression model;
- and apply statistical significance tests, such as:
- Student's t-test, to verify the individual significance of the coefficients;
- F-test, for the overall significance of the model;
- Durbin-Watson test, to detect autocorrelation of residuals;
- and VIF (Variance Inflation Factor), to assess multicollinearity between variables.

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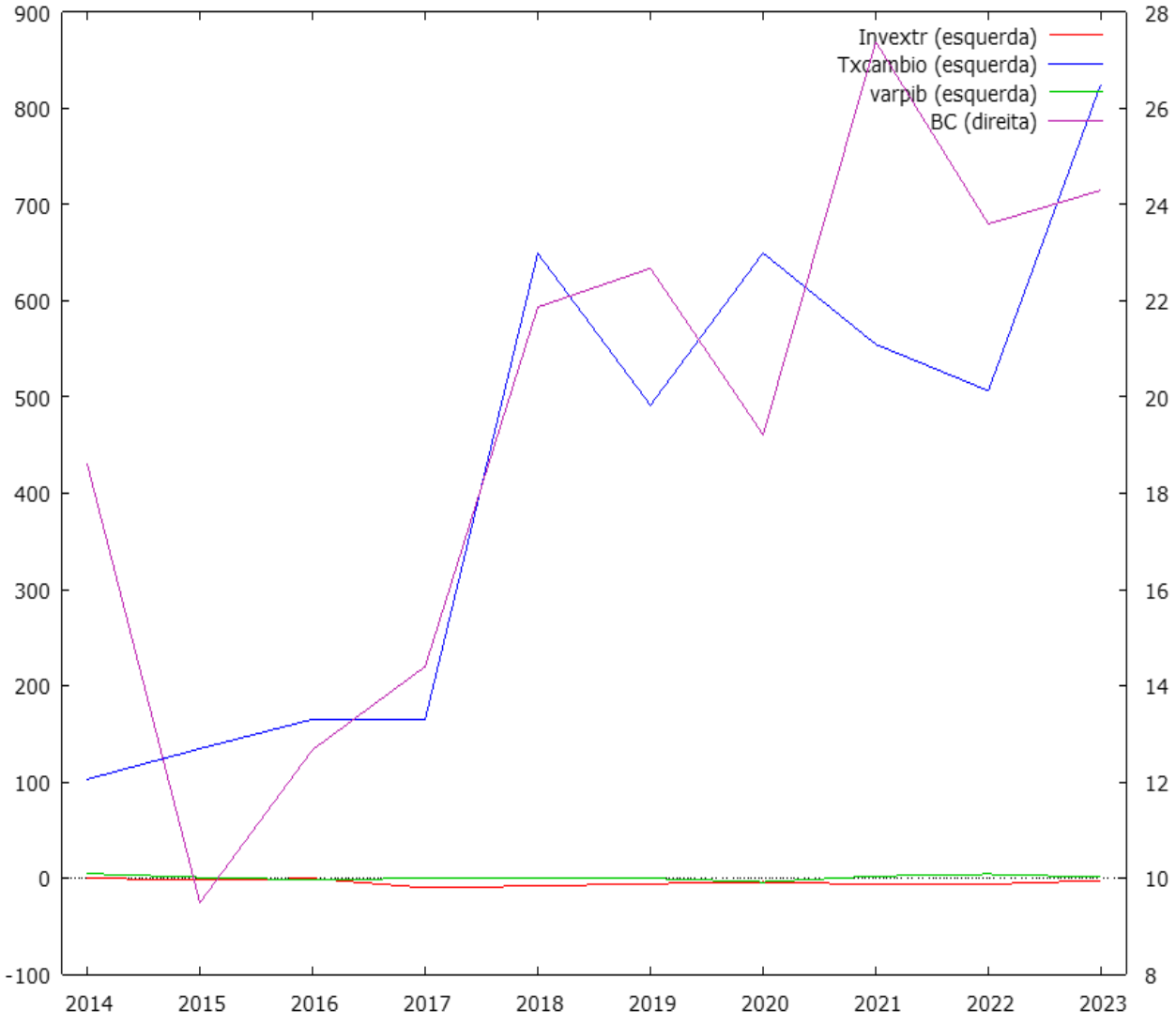
Additionally, the adequacy of the model will be evaluated using the coefficient of determination (R^2) and the normality adjustment of the residuals, ensuring the robustness of the estimates.

Empirical Analysis: Parameter Estimation By Ordinary Least Squares

This section presents the modeling of the GDP growth rate, Foreign Direct Investment (FDI), exchange rate, and trade balance series between 2014 and 2023. After data collection and processing, a series of ten (10) observations was constructed. For this purpose, the exchange rate, FDI, and trade balance (TXCt, IDEt, and BCt) were considered as exogenous variables, and the GDP growth rate () as an endogenous variable, i.e., a function of the exchange rate, Foreign Direct Investment, and trade balance (.$TxCrPIB_t TxCrPIB_t =$

$f(TXCt, IDEt\ e\ BCt)$)

Figure1- Evolutionary behavior of GDP growth rate, exchange rate, and the Trade Balance and Foreign Direct Investment in the period 2014-2023.



Source: Own elaboration based on Gretl.

It is noticeable from the figure that there is a generally increasing trend between the exchange rate (depreciation) and the trade balance, although not to the same extent. However, it appears that as Angola recorded unit variations in the USD/AOA exchange rate, both appreciating and depreciating, there was a corresponding increase in the export rates of goods and services, particularly oil.

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As a consequence, given the manipulation of the Central Bank's (BNA) actions via monetary policy to control inflation and maintain a stable exchange rate, the product experienced unsatisfactory growth rates, fundamentally in the last five years of the period under analysis.

TableIV- Descriptive statistics, using observations from 2014-2023.

Variable	Average	Median	DP	Min	Max
Varpib	0.620	0.350	2.61	-4.00	4.70
Txcambio	425	499	261	103	826
Invextr	-4.56	-4.82	3.35	-10.0	0.100
BC	19.4	20.5	5.69	9.49	27.4

Source: Own elaboration based on Gretl

Table V shows the mean, median, minimum, and maximum values of the variables studied, as well as the standard deviation around the mean.

Visual inspection reveals that the minimum and maximum values for the GDP growth rate during the period 2014-2023 were approximately -4 and 4.70 percentage points per billion Kwanzas, respectively. Consequently, the indicator dividing the GDP value into two equal parts was 0.35 percentage points, and the average value observed was 0.62 percent per billion Kwanzas, with a deviation around the average of 2.61 percent per billion Kwanzas.

Regarding the exchange rate, 103 USD/AOA and 826 USD/AOA correspond to the minimum and maximum values observed during the period under analysis, while the median is 499 USD/AOA and 425 USD/AOA corresponds to the average value of this variable with a deviation around the average of 261 USD/AOA monetary units.

Foreign Direct Investment, its minimum and maximum values observed in the aforementioned period were 10.0 and 0.1 percent, respectively, with the value divided into two equal parts being -4.82 percent, having an average value of 4.56 and a deviation around the average of 3.35 percent.

The trade balance recorded a minimum and maximum value of 9.49 and 27.4 percent of one billion Kwanzas, respectively. On average, the value of the net export balance was 19.4 percentage points of one billion Kwanzas. The value that divides the volume of the balance of transactions in goods and services into two equal parts was 20.5 percent, and the deviation around the average was 5.59 percentage points of one billion Kwanzas.

TableV- Model 1: Least Squares (OLS), using observations from 2015-2023 (T = 9) Dependent variable: TxCrPIB.

	Coefficient	Standard Error	t-ratio	p-value
Const	-9.53518	1.56175	-6.105	0.0036
varpib_1	0.865553	0.166949	5,185	0.0066
Invextr	-0.232056	0.131971	-1,758	0.1535
Txc	-0.0151817	0.00280828	-5,406	0.0057
BC	0.769299	0.125930	6,109	0.0036

$R^2 = 0{,}84 \;\; F\,(1{,}4) = 26{,}879 \;\; Valor\; P\,(F) = 0{,}0177 DW = 2{,}09$

Source: Own elaboration based on Gretl

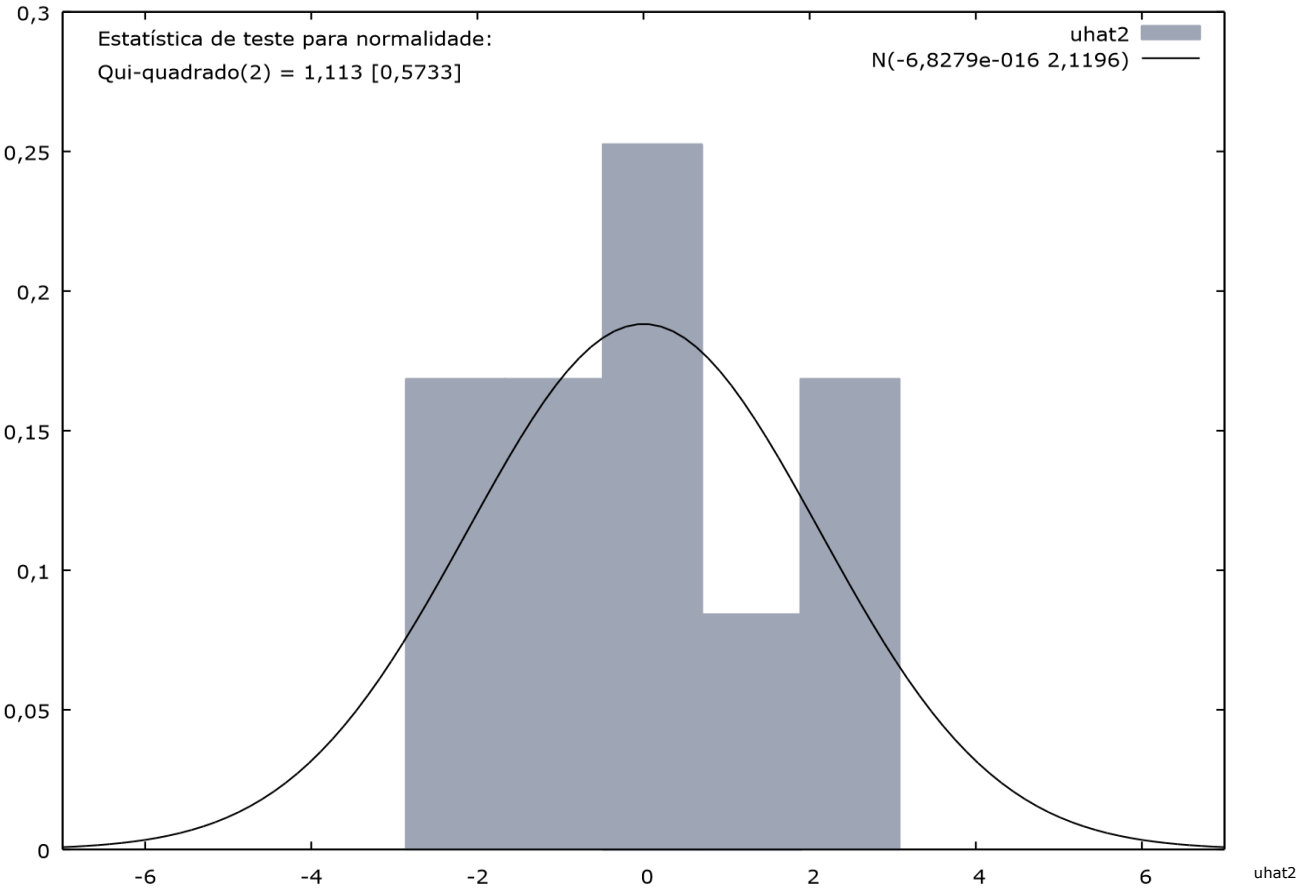
$$\boldsymbol{TxCrPIB} = -\mathbf{9,5} + \mathbf{0,86varpib_1} - \mathbf{0,23}\boldsymbol{nvextr} - \mathbf{0,015}\boldsymbol{Txc} + \mathbf{0.76\ BC\ (2)}$$

Equation 2 shows how Foreign Direct Investment, the Trade Balance, and the exchange rate explained the GDP growth rate in Angola during the years 2014-2023. The data indicate that the model captures that 84 percent of the variations in the GDP growth rate were explained by variations in the volume of Foreign Direct Investment, the Trade Balance, the Exchange Rate, and the logarithm of the GDP growth rate. In isolation, only the Foreign Direct Investment estimator shows statistical significance at an admitted risk of 15%. The F-test with 1 degree of freedom in the numerator and 4 in the denominator explains the rejection of the null hypothesis and that there is simultaneous significance in the estimators at the 5% level.

The value of Foreign Direct Investment (FDI) was approximately -0.23 percent, suggesting that when it increased by 1 percent (ceteris paribus), the GDP growth rate decreased by approximately 0.23 percent on average, converging with the sign then expected in the theoretical model of equation 2.

Based on Equation 2, we see that the exchange rate observed during the period was -0.015 percentage points. In other words, during the 10 years observed in the Angolan economy, keeping constant the value of Foreign Direct Investment, the Trade Balance, and the logarithmic change in GDP, a positive change (for each depreciation) of 1 percentage point in the exchange rate led, on average, to a decrease of approximately -0.015 percent in the product growth rate.

The trade balance surplus was approximately 0.76 percentage points, which implies that, keeping everything else constant, GDP grows by up to 0.79 percent as a result of the trade balance. Figure2Jack's Test for Normality of Residuals



Source: Own elaboration based on Gretl

Figure 2, representing the Jasck Bera test, shows that the model errors were tested using the normality test of the residuals with a Q-square test statistic (2) = 1.113 and a p-value = 0.5733, admitting the nonrejection of the null, thus proving the normality of the residuals, that is, the model residuals are independent and follow a normal distribution.

TableVIWhite's test for heteroscedasticity

	efficient	standard error	t-ratio	p-value
const	1.05161	10.8315	0.09709	0.9288
Txcambio	0.0145262	0.0361730	0.4016	0.7149
Invextr	-1.10425	2.26818	-0.4868	0.6597
BC	0.117559	1.38331	0.08498	0.9376
sq_Txcambio	-1.43499e-05	3,29729e-05	-0.4352	0.6928
sq_Invextr	-0.144025	0.207632	-0.6937	0.5378
sq_BC	-0.00965635	0.0352106	-0.2742	0.8017
Unadjusted R-squared = 0.646543; Test statistic: TR^2 = 6.465434				
with p-value = p(Chi-square(6) > 6.465434) = 0.373118				

Source: Own elaboration based on Gretl

Least Squares (OLS), using observations from 2014-2023 (T = 10)

Dependent variable: uhat^2.

White's test for the existence or absence of heteroscedasticity yielded a Chi-square statistic of 6.465434, with 2 degrees of freedom and a p-value of 0.373118, leading to the non-rejection of the nullity of the existence of homoscedasticity, admitting the residuals of the estimated model as homoscedastic or variance-stationary.

5% critical value (two-sided) = 0.6319 for n = 10

TableVIICorrelation coefficients, using all observations from 2014 to 2023.

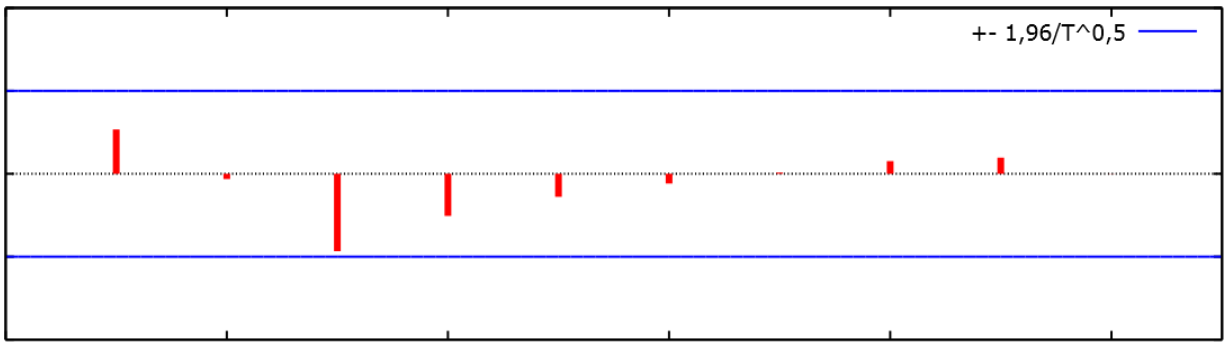
Varpib	Txcambio	Invextr	BC	
1.0000	-0.2134	0.0915	0.2849	varpib
	1.0000	-0.2744	0.7676	Txcambio
		1.0000	-0.3157	Invextr
			1.0000	BC

Source: Own elaboration based on Gretl

Table VIII shows a strong relationship between the exchange rate and the trade balance, on the order of 0.76, which implies the existence of a direct relationship between the variables as exports increase and the exchange rate appreciates, allowing for greater openness in foreign relations.

The simple autocorrelation function of the model residuals, in Figure III, does not show a "statistically significant" correlation, indicating that the estimated model captured the essence of the dependence. The DurbinWatson test yielded a DW statistic of 2.09 with a p-value of 0.0177. Therefore, the hypothesis is rejected, and the error terms in the estimated model indicate an absence of positive autocorrelation.

Figure3–Simple autocorrelation function of the residuals from the estimated model.



Source: Own ACF Residual elaboration based on 1Gretl

0,5

The 0results indicate

-0,5

that FDI did not

have a -1 0 2 4 6 8 10 positive and significant desfasamento impact on GDP growth. The FDI coefficient showed a negative value (-0.23), which means that an increase in FDI did not directly translate into economic growth in the period analyzed.

DISCUSSION OF RESULTS

The results obtained in this study reveal that, in the period from 2014 to 2023, Foreign Direct Investment (FDI) did not present a positive and statistically significant contribution to Angola's economic growth. On the contrary, the estimated FDI coefficient on Gross Domestic Product (GDP) showed a negative sign (≈ −0.23), indicating that, in that time interval, the inflow of foreign capital did not translate into an acceleration of economic activity. In contrast, the trade balance demonstrated a significant positive effect (≈ 0.76), while the exchange rate exerted a negative influence (≈ −0.015), suggesting that exchange rate instability and currency depreciation tended to limit growth. The econometric model explains a considerable proportion of the GDP variation (adjusted $R^2 \approx 0.84$) and passed basic normality and heteroscedasticity tests, which confers initial robustness to the results.

These results converge with other studies that point to the weak capacity of FDI to promote economic growth in Angola. Works by Kunietama (2014) and Gonçalves (2012) had already shown that the almost exclusive dependence of FDI on the oil sector and the lack of diversification limit long-term benefits. Similarly, Haskel, Pereira, and Slaughter (2002) demonstrate that the effects of FDI depend on the absorption capacity of the host economy and the existence of productive linkages. When these conditions are weak, as is the case in Angola, productivity and growth gains tend to be minimal or even negative. Likewise, Rodrik (2011) and Feenstra and Hanson (2003) emphasize that the impact of FDI is strongly conditioned by institutional and structural factors, namely the quality of institutions, the level of human capital, and productive integration policies.

On the other hand, these results diverge from the international literature which, on average, presents FDI as an engine of economic growth. Reports from the OECD (2020), UNCTAD (2020) and the African Development Bank argue that FDI is a privileged instrument for technology transfer, innovation and the creation of skilled jobs. Case studies in emerging economies in Asia and Latin America (Bilas, 2019) corroborate this view by showing that, when there are policies to encourage local integration and solid institutional capacity, FDI contributes robustly to economic development. This divergence between international evidence and the results

obtained in Angola suggests that the impact of FDI is strongly dependent on the context, especially the economic structure and governance policies adopted.

In the Angolan case, the explanation for the negative result found lies mainly in the concentration of FDI in the oil sector, characterized by weak linkages with the local economy and high repatriation of profits by multinationals (Haskel et al., 2002; Gonçalves, 2012). Furthermore, the absence of consistent productive diversification policies reduced the potential for FDI absorption in non-oil sectors, such as agriculture, manufacturing, and services. Macroeconomic instability, expressed in exchange rate volatility and high levels of inflation, also undermined the business environment and limited the multiplier effects of foreign investment. In addition, external shocks, such as the fall in oil prices in 2014–2016 and the COVID-19 pandemic in 2020, strongly impacted FDI flows, restricting their capacity to contribute to growth (UNCTAD, 2020; World Bank, 2023).

In terms of implications, the results point to the need for Angola to adopt more selective FDI attraction policies, prioritizing investments that stimulate economic diversification and generate local value chains. The creation of mechanisms requiring local content, combined with incentives for technology transfer, could transform FDI into a more effective engine of growth. Simultaneously, it is fundamental to strengthen the absorption capacity of the national economy, invest in human capital, scientific research, and industrial policies that favor the integration of foreign investment with local small and medium-sized enterprises.

Thus, this investigation reinforces the idea that FDI, by itself, is not a guarantee of economic growth. In Angola, during the period analyzed, its contribution was negligible or even negative, in line with studies that highlight the vulnerability of economies excessively dependent on a single natural resource sector.

On the other hand, the divergence from international literature shows that, when properly framed, FDI can be an engine of growth. The challenge for Angola, therefore, consists of redirecting FDI towards strategic non-oil sectors and creating institutional and macroeconomic conditions that allow this capital to be transformed into sustainable and inclusive development.

CONCLUSIONS

This study analyzed the impact of Foreign Direct Investment (FDI) on Angola's economic growth from 2014 to 2023. The empirical analysis revealed that FDI, contrary to what is often argued in the international literature, did not exert a positive and significant influence on Angola's Gross Domestic Product (GDP), even showing a negative effect. This result demonstrates that, in the Angolan context, FDI flows have not contributed decisively to economic growth.

The main explanation lies in the high concentration of FDI in the oil sector, characterized by weak integration with the national productive fabric and high repatriation of profits. Structural factors such as macroeconomic instability, currency depreciation, persistent inflation, and weak institutional capacity also contribute, limiting the absorption of potential benefits. Exogenous events, such as the fall in oil prices and the COVID-19 pandemic, exacerbated this situation, making the economy even more vulnerable.

These results are consistent with previous studies on Angola, which also identified the limited contribution of FDI when not accompanied by policies to diversify and strengthen local productive capacities. At the same time, they diverge from international evidence that points to FDI as an engine of growth in emerging economies with greater institutional stability and clear strategies for technological integration.

The public policy implications are clear: Angola needs to redirect FDI attraction towards strategic non-oil sectors, such as agriculture, manufacturing, infrastructure, and tourism, in order to reduce dependence on oil and promote more inclusive and sustainable growth. It is equally crucial to invest in human capital, science and innovation, create mechanisms to enforce local content requirements, and ensure greater macroeconomic stability, guaranteeing that FDI flows effectively translate into social and economic benefits.

It can be concluded, therefore, that FDI, although relevant, is not an automatic engine of growth. Its impact depends heavily on the institutional, structural, and political conditions of the recipient country. In the case of

Angola, the experience from 2014 to 2023 demonstrates that, without consistent diversification reforms and without policies for technological absorption, foreign investments will tend to reinforce dependencies and vulnerabilities instead of promoting sustainable development.

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