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THE EFFECT OF NATURAL RESOURCES AND FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH

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ABSTRACT: The proposed research aims to examine The Impact of Natural Resources and Foreign Direct Investment on Economic Growth in Algeria during the period 1970-2021 and compare it with the Saudi economy, which is considered the closest economy in terms of natural resources. Analyse the factors influencing economic diversification and innovation. The research seeks to understand the impact of natural resources, including oil and gas, on the Algerian economy and study the factors influencing sustainable development and economic diversification. This research employs the Autoregressive Distributed Lag (ARDL) approach. The findings suggest that, in total, there is The Impact of Natural Resources and Foreign Direct Investment on Economic Growth in Algeria during the period 1970-2021. The positive correlation between resources and economic growth highlights resource extraction's role in Algeria's economic development. It underscores the need for diversification to reduce dependence on commodity markets. The research focuses solely on economic factors, neglecting social and political dynamics. Limited data availability may constrain the depth of analysis, potentially overlooking nuances in the relationship between natural resources, FDI, and economic growth. The findings offer insights for Algerian policymakers to develop strategies for sustainable economic growth, emphasising the need for diversification beyond natural resources. Recommendations may inform policy decisions aimed at fostering innovation, reducing dependency on volatile resource sectors, and promoting environmental sustainability.

KEYWORDS: Natural Resources, Foreign Direct Investment, Economic Growth, ARDL Model, Algeria Economy

Introduction

Many resource-rich countries in the world rely heavily on oil and natural gas exports for their economy, and Algeria and Saudi Arabia are among them. While these natural resources serve as significant income and economic growth sources, they can hinder economic diversification and innovation in Algeria (Al-Mawali, 2015). Therefore, shedding light on the relationship between natural resources and economic growth in Algeria can be a subject of research. The research can revolve around analysing the impact of natural resources, especially oil and gas, on economic growth in Algeria. It can also study the effect of these resources on sustainable development and economic diversification, as well as the challenges facing the country in this regard. The research can also focus on the economic diversification strategies pursued by Algeria and how to enhance these strategies to reduce reliance on natural resources and achieve sustainable economic growth. It can analyse the economic and political factors influencing economic diversification strategies in the country. Furthermore, the study can examine the impact of regional conflicts and geopolitical tensions on Algeria's economy and how to deal with these challenges and geopolitical shifts to enhance sustainable development and economic growth.

Therefore, studying the relationship between natural resources and economic growth in Algeria is an important and intriguing topic. It helps understand the country's economic challenges and analyse the factors influencing its sustainable development. The results of this study serve as an essential input for decision-making and strategic planning to enhance sustainable development and economic growth in Algeria. The proposed research revolves around studying the relationship between natural resources and economic growth in Algeria and analysing its economic diversification and innovation challenges. The research aims to understand the impact of natural resources, including oil and gas, on the Algerian economy and study the factors influencing sustainable development and economic diversification. Additionally, it focuses on studying the economic diversification strategies pursued by Algeria and analysing the factors influencing them. The significance of this research lies in improving understanding of the role of natural resources in economic growth in Algeria and identifying practical ways to achieve economic diversification and sustainable development, there by helping achieve economic and social stability in the region.

Formulating the research problem, we can state it as follows: "What is the nature of the relationship between natural resources, foreign direct investment and economic growth in Algeria? Do economic and political factors affect this relationship? What measures and policies can enhance Algeria's sustainable development and economic diversification?" Identifying the research objectives, we can state them as follows: First, Analyze the relationship between revenues generated from oil and gas and economic growth in Algeria and determine the extent to which the Algerian economy relies on these resources. Second: Studying the impact of utilising other natural resources, such as minerals, agriculture, and fisheries, on economic growth in Algeria and identifying investment opportunities available in these sectors. Third: Analyzing the effect of oil prices on economic growth in Algeria and determining how much oil price volatility affects the Algerian economy. Fourth: Studying other factors that can affect economic growth in Algeria, such as government policies, environmental challenges, and demographic changes, and determining how these factors can help diversify the Algerian economy. They were finally Analyzing the challenges facing Algeria in the sustainable utilisation of natural resources, studying the policies and measures that can be adopted to achieve this goal, and ensuring that economic growth does not lead to the depletion of natural resources and environmental pollution.

The impact of natural resources and foreign direct investment on economic growth is essential for ensuring macroeconomic stability. The correlation between the abundance of natural resources and the allure of foreign direct investment is typically linked to favourable economic expansion. Nevertheless, inefficient utilisation of natural resources can result in detrimental impacts on the economy. For instance, the process of extracting shale oil and gas can result in environmental contamination, which then deters foreign direct investment and generates instability in financial markets, so complicating the process of planning and executing investments. Prudent management of natural resources is crucial due to the potential for their misapplication to result in environmental contamination, hence impeding economic productivity. Policymakers are currently striving to find an equilibrium between regulating the utilisation of natural resources, enticing foreign direct investment, and

sustaining sustainable economic growth by enacting efficient monetary and financial economic policies. The relationship between natural resources, foreign direct investment, and economic growth has been a subject of extensive discussion in recent years. This is mostly due to the global trend of optimising the utilisation of natural resources and attracting foreign direct investments, which has been observed in numerous countries. The previous research employed various approaches and encompassed numerous regions and countries.

This article aims to examine the impact of natural resource use and the attraction of foreign direct investment on economic growth in Algeria. It will also compare these effects with those observed in Saudi Arabia, using annual data spanning from 1970 to 2021. Furthermore, the study examines whether the economic consequences of utilising natural resources and attracting foreign direct investment are contingent upon the presence of natural resources and a conducive investment climate. Moreover, the research investigates the impact of natural resource utilisation and the attraction of foreign direct investment on economic growth. The ARDL regression model is utilised in econometric analysis. Analysing the consequences of utilising natural resources and attracting foreign direct investment in the economic expansion of Algeria holds significant importance for various reasons. The Algerian economy encompasses valuable natural resources, with oil and gas being the most prominent among them. In recent years, Algeria has made significant enhancements to its legal laws concerning foreign direct investment, resulting in a substantial increase in international direct investment. Furthermore, it is vital to comprehend the possible impacts of maximising the utilisation of natural resources and attracting foreign direct investment in fostering sustained economic growth within the Algerian economy. Policymakers and organisations can formulate plans and make informed judgments by uncovering these patterns.

This research seeks to enhance the existing literature concerning the correlation between natural resources and economic growth. The study comprises five segments: Introduction, Literature Review, Empirical Methodology, Discussion, which forms the core of the investigation, and the Conclusion, emphasising Implications, Limitations, and Future Research Prospects.

An overview of the literature

The findings of Hayat and Tahir (2021) indicate that when the host country's natural resources export falls below a statistically significant estimated threshold, foreign direct investment (FDI) has a substantial and favourable effect on the economic growth of the host country. Nevertheless, the economic growth resulting from foreign direct investment (FDI) is diminished if the country's export of natural resources exceeds the predicted threshold.

The findings of Muhammad et al. (2021) suggest that foreign direct investment (FDI) contributes to environmental degradation in BRICS and emerging nations, whereas in developed countries, FDI aids in reducing environmental degradation. The empirical findings demonstrate that the utilisation of fuel resources and renewable energy contributes to the mitigation of environmental degradation in BRICS, developing, and developed countries worldwide. Conversely, the extraction and utilisation of ore and metal resources lead to an exacerbation of environmental deterioration in developed countries. The primary drivers of environmental deterioration in BRICS, developing, and developed countries worldwide are the combined effects of abundant natural resources (such as coal, oil, natural gas, and mineral rents) and economic expansion.

The empirical results of Roy's (2024) study indicate that Foreign Direct Investment (FDI), Real Estate (RE), and Gross Domestic Product (GDP) have a considerable and negative effect on Environmental Footprint (EF) over a prolonged period. Conversely, Non-Renewable Energy (NRE) and Technological Advancement (TA) show a significant and beneficial impact. The Granger causality test reveals the presence of feedback transmission between NR and EF, as well as between TA and EF. Gross Domestic Product (GDP) has a unidirectional causal effect on Foreign Direct Investment (FDI) and Natural Resources (NR). Technical Assistance (TA) also has a unidirectional causal effect on FDI and Real Estate (RE).

According to Wang et al. (2023), the economies of EU countries experience enhancement when they transition to both renewable and nonrenewable energy sources. The impact of natural resources on economic development varies depending on the country and can either be advantageous or detri-

mental. Carbon dioxide emissions increase in tandem with economic growth and are primarily derived from nonrenewable energy sources. However, the utilisation of renewable energy leads to a reduction in carbon dioxide emissions. In addition, each panel takes into account the amount of carbon dioxide (CO_2) released through the combustion of natural resources. Such places can benefit from the implementation of policies that support sustainable energy generation to reduce carbon dioxide emissions and enhance learning settings to foster economic growth.

The empirical findings of Shinwari et al. (2023) have shown a positive influence of foreign direct investment (FDI) on gross domestic product (GDP), providing evidence in support of the FDI-lead-growth theory. These findings indicate that foreign investments have played a significant role in both long-term and short-term economic growth. However, the impact of foreign direct investment (FDI) on economic growth differs depending on the size of the natural resource sector. Simultaneously, the Granger causality testing provided evidence of a bidirectional causal relationship between GDP growth, natural resources, and FDI in both the long and short term.

The research conducted by Muhammad and Khan (2023) revealed that the institutional quality of OECD nations has an impact on the outbound foreign direct investment (FDI) of G7 countries towards OECD countries. Nevertheless, the investments made by G7 countries in OECD countries are influenced by the level of institutional quality and the availability of natural resources. Hence, it is imperative for OECD nations to enhance their institutional quality and natural resources while also implementing specific policies targeting institutions and natural resources in order to attract a greater influx of foreign direct investment from G7 countries.

This dissertation seeks to augment the existing research on the correlation between the efficient utilisation of natural resources, the attraction of foreign direct investment, and economic growth in Algeria. It aims to examine the influence of the optimal utilisation of natural resources on the aforementioned relationship. The outcomes will yield useful perspectives on how economic policy influences the correlation between the most efficient utilisation of natural resources, the attraction of foreign direct investment, and economic growth. This is especially crucial considering the current emphasis on development and diversification strategies in the Algerian economy.

Research methods

Sample Selection

This study aimed to investigate the correlation between natural resources and economic growth in Algeria from 1970 to 2021. The decision to start data collection in 1970 was motivated by the availability of data on natural resources and economic growth in the database. Therefore, the sample comprised 52 observations, reflecting the period under scrutiny.

Data Sources

The study utilised secondary data from the World Development Indicator (WDI) database published by the World Bank in 2022. The variables employed in this research include natural resources, the first variable, measured as Total natural resources rents (% of GDP). The second variable is economic growth, quantified as the annual percentage change in gross domestic product (GDP), encompassing this measure's advantages and drawbacks. Furthermore, Table 1 provides details on control variables such as FDI.

Table 1.   Study variables

Variable	Description	Source of Data
Growth GDP	Gross Domestic Product growth rate (annual %)	
Foreign Direct Investment	FDI flows as a percentage of GDP	World Bank
Natural Resources	Total natural resources rents (% of GDP)	

Source: authors' work based on World Bank (2022).

Study Period

This study relied on an annual data series spanning the considered period from 1970 to 2021.

Tools used in the study

The long-run linkages between natural resources and economic growth are examined in this work using a vector error correction model (VECM) and the ARDL bounds testing technique for co-integration.

Empirical Findings

Data Analysis

The upcoming analysis will employ a three-stage process. Conducting the ADF and PP unit root tests will be the initial step to investigate the integration ordering of the variables. Subsequently, the ARDL technique for co-integration will be employed to explore the long-run equilibrium relationships between the variables.

Integration analysis

ADF and PP unit root tests were used to identify the integration order of the variables in our investigation, shown in Table 2. The results show that the variable LNFDI is stationary (I(0)) in the PP test and integrated with order one (I(1)) in the ADF test. LNGDPG integrates at the first order (I(1)), whereas LNNRR shows the integration of several orders (I(1)). According to the ADF and PP tests, no integration series exists at I(2). As a result, it is decided that the ARDL bounds testing approach is appropriate for model estimation.

Table 2. Results of unit root tests

		LNNRR	LNFDI	LNGDPG
At level	ADF test	-	-3.8366***	-8.9767***
	PP test	-	-	-8.6397***
At first difference	ADF test	-5.6002***	-6.8241**	-
	PP test	-5.6410***	-	-
Integration Order		I(1)	I(1) and I(0)	I(0)

Note: At significance levels of 1%, 5%, and 10%, respectively, the symbols **, and *** signify the null hypothesis being rejected.
The augmented Dickey-Fuller test is referred to as ADF.
PP: Phillips-Perron test.
Source: software produced by EViews 10.

Co-integration analysis

The primary goal of this essay is to analysetheshort- and long-term relationships between foreign direct investment, economic expansion, and natural resource availability in the Algerian economy. As a result, we employ the ARDL model, a novel method of co-integration improved by Pesaran et al. (2001). Due to its benefits over the Johansen co-integration methodology developed by Johansen and Juselius (1990), this method is commonlyused in modelling. First off, according to Ghatak and Siddiki (2001), it outperforms the Johansen technique and may be employed for sample sizes. Second, unlike Johansen's method, which only permits order one integration of all variables, the ARDL approach handles variables I(0), stationary I(1), or mutually co-integrated within the same regression. Thirdly, the ARDL approach assuages concerns about long-term estimates by providing t statistics.

$$\Delta LNNRR_t = \alpha_{30} + \sum_{i=1}^{k=3} \alpha_{3i} \Delta LNNRR_{t-1} + \sum_{i=0}^{l=1} \beta_{1i} LNGDPG_{t-1} + \sum_{i=1}^{m=1} \gamma_{1i} \Delta LNFDI_{t-i}$$

$$+ \varphi_{31} LNDCPS_{t-1} + \varphi_{32} LNGDPG_{t-1} + \varphi_{33} LNFDI_{t-1} + \varepsilon_{3t}$$

(1)

where:
Δ – is the first difference: α_{j0}, α_j, β_j, Υ_j, φ_{jj} (j = 1,…3) are parameters estimated; k_j, l_j, m_j (j= 1,…3) the Optimal Lag Length to use, and ε_{jt} (j = 1,…3) error terms.

Co-integration Bounds Tests

The bound test results for the model are shown in Table 3. At the 10% significance level, the estimated F-statistic for Model (2.7849) was higher than the equivalent upper bound critical value. As a result, we found substantial long-run evidence of co-integration connections of all variables in the model, rejecting the null hypothesis that there was no co-integration.

Table 3. ARDL bounds tests: F-statistic for co-integration tests

		] I(0) : I(1)]	Conclusion
Limit lower- upper (10%)		2.63: 3.35	
Limit lower- upper (5%)		3.1: 3.87	Co-integration
Limit lower- upper (1%)		4.13: 5	
DV (LNFDI)	F; statistics	2.7849*	
DV (LNGDPG)	F; statistics	6.9470	
DV (LNNRR)	F; statistics	0.7457	
K		2	

The following symbols should be noted: * indicates statistical significance at the 1% level. The variables our models consider are represented by the letter "K." The Dependent Variable is referred to as DV.

Diagnostic Test of Parameter

To ensure the model's quality and legal compliance in the analysis, we employed the LM test for stability heteroscedasticity tests such as ARCH, RESET, and normality. The parameter diagnostic test results, detailed in Table 4, confirmed the absence of instability issues in the model.

Table 4. Tests of Diagnostic

Diagnostic	LM	ARCH	RESET	Normality
FLNGDPG (LNFDI, LNNRR)	0.002	0.025	0.085	0.001

Notably, acronyms for related tests include Ramsey's test for functional misspecification, the autoregressive conditional heteroscedasticity test, the Breusch-Godfrey Lagrange multiplier test for residual serial correlation, and the Jarque-Bera normalcy test. The abbreviations for comparable tests include the LM, ARCH, RESET, and normality tests.

The Estimated ARDL Model: Structural Stability Test

We confirm the stability of the model's estimated coefficients through CUSUM and CUSUMQ stability tests, following the methodology outlined by Brown et al. (1975). Notably, when examining the LNGDPG dependent variable, there was a discernible lack of stability in boththe long and short terms, and we observed short-run significance at the 5% level; refer to Figure 1.
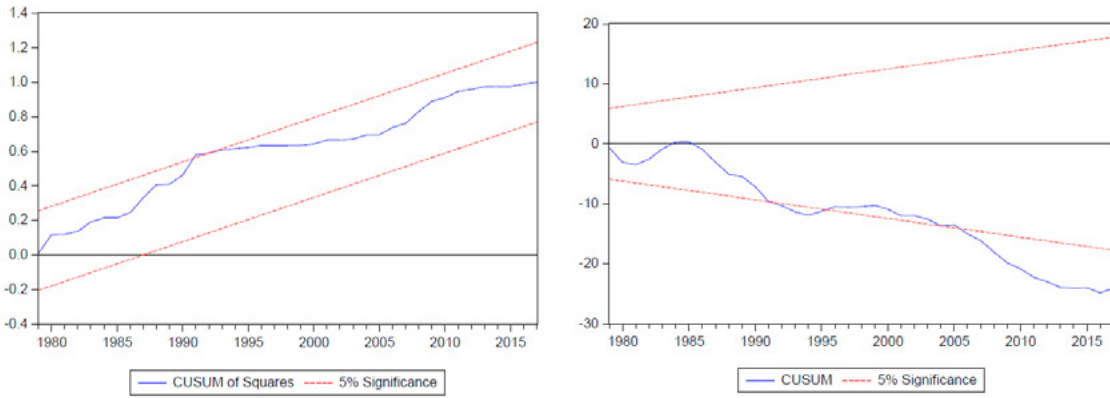
Figure 1. Visual representation of the CUSUM and CUSUM of Squares Tests

Discussion

The estimation findings: long-run

After confirming co-integration through the bounds testing method, we employ the ARDL model to estimate both long- and short-run coefficients. The empirical results of the long-run estimations are presented in Table 5, and the long-run coefficients are computed using the ARDL model technique for robustness. Between the three estimating methods, we see consistency. According to Equation (1), natural resources have a 5% impact on the long-term growth of the Algerian economy, whereas FDI has a 10% impact. These factors arebothfavourableandstronglyrelated to economic growth.

Table 5. Long-run estimation

		coeff	P-value
Dependent variable:	LNGDPG		
Independent variables	LNFDI	0.04*	0.005
	LNNRR	0.01**	0.02
	Constant	1.99***	0.000

The symbols *** significance, at a level of 1%.
The symbols ** indicate significance at a level of 5%.
The symbol * indicates significance at a level of 10%.

The results of this regression analysis have significant implications for the link between the dependent variable (LNGDPG, likely indicating log-transformed GDP growth) and the independent variables (LNFDI and LNNRR, together with a constant term) in the long term. Firstly, let us discuss Foreign Direct Investment (FDI): The coefficient for LNFDI indicates that over a prolonged period, a one-unit rise in the logarithmically transformed foreign direct investment results in a 0.04 times increase in the logarithmically transformed gross domestic product growth, while keeping other components unchanged, this result is consistent with Louail (2019), Mahfoudi and Louail (2023), Kayıkçı and Bildirici (2015) study. Consequently, Foreign Direct Investment (FDI) has a beneficial and statistically substantial effect on the sustained expansion of Gross Domestic Product (GDP). Over time, more excellent foreign direct investment (FDI) levels can promote economic activity using multiple routes, including heightened capital accumulation, technology dissemination, and employment generation, which I agree with Muhammad et al. (2021). Let us compare the Algerian economy with the Saudi economy. Countries that receive a more significant amount of foreign direct investment (FDI) generally observe higher economic growth rates in the long run, underscoring the significance of policies that encourage a conducive environment for investment. These results were confirmed by Belloumi and Alshehry (2018) and Apergis and Ben Ali (2020). Secondly, regarding Natural Resource

Rents, the coefficient for LNNRR suggests that over time, a logarithmic increase of one unit in natural resource rents results in a 0.01** increase in LNGDPG. These findings indicate that natural resource rents, which refer to the income earned from the extraction or utilisation of natural resources, also exert a positive and statistically significant influence on long-term GDP growth. These results were confirmed by Hayat and Tahir (2021), Roy (2024), and Wang et al. (2023). Nevertheless, the extent of this influence is comparatively lesser than that of Foreign Direct Investment (FDI), suggesting that although natural resources contribute to economic growth, their significance may be diminished or influenced by other factors such as resource management regulations or market volatility contrary to what was concluded by Muhammad and Khan (2023).

Regarding policy implications: Effective policies targeting the attraction of foreign direct investment and the efficient management of natural resources can significantly promote sustainable economic growth in the long run; the Algerian economy can benefit from the Saudi economy's experience. Governments should prioritise establishing a favorable investment climate, guaranteeing political stability, upholding property rights, and minimizing regulatory obstacles to market participation Amer et al. (2022).

In addition, employing tactics for the sustainable administration of natural resources, such as allocating funds towards renewable energy sources and enforcing environmental regulations, can aid in reducing the hazards linked to reliance on resources and fostering all-encompassing development; this is what the Kingdom of Saudi Arabia did, and the Algerian economy can benefit from the Saudi experience Belloumi and Alshehry (2018).

Regarding limits and further research, it is essential to acknowledge that although the findings offer valuable perspectives on the enduring connection between foreign direct investment (FDI), natural resource rents, and GDP growth, certain constraints should be considered to enhance our understanding of the factors influencing long-term economic growth, it would be beneficial to conduct further research on additional variables, such as human capital development, trade openness, and institutional quality Saqib et al. (2022).

To summarise, the findings indicate that foreign direct investment and natural resource rents substantially and favorably impact gross domestic product (GDP) growth. This effect underscores the significance of implementing effective economic policies and strategies for managing resources to promote sustainable economic development; this is consistent with Shinwari et al. (2023), Muhammad and Khan (2023), and Louail and Zouita (2021).

The estimation findings: short-run

The short-run estimates are shown in Table 6, where many long-run estimations' results hold in the short run. Particularly in the short run, the results show a notable negative impact of the FDI flow from the previous year on the short-term expansion of the Algerian economy at the 5% significance level.

The established long-run equilibrium correlations between the variables are supported because the ECT coefficients are negative and statistically significant. Notably, the ECT coefficient is -1.17 when GDPG is the dependent variable in the Algerian economy, suggesting convergence rates of 117%.

Table 6. Short-term estimation

		coeff	P-value
Dependent variable:	LNGDPG		
Independent variables	ΔLNGDPGt-1	-0.038	0.76
	ΔLNFDI	0.007	0.68
	ΔLNFDIt-1	-0.048**	0.024
	ECTt-1	-1.17***	0.000

A level of statistical significance at the 5% level is shown by **, whereas a level at the 1% level is indicated by ***.

The regression analysis provides valuable insights into the short-term dynamics of the relationship between the dependent variable (LNGDPG, likely indicating log-transformed GDP growth) and the independent variables (ΔLNGDPGt-1, ΔLNFDI, ΔLNFDIt-1, and ECTt-1), along with their coefficients and p-values.

In the short-term dynamics, the coefficient of -0.038 for ΔLNGDPGt-1, which indicates the lagged change in LNGDPG, is harmful. However, it is not statistically significant at conventional levels, with a p-value of 0.76. This result implies that recent fluctuations in GDP growth have little impact on present GDP growth in the short term. The variable ΔLNFDI, which represents the change in log-transformed foreign direct investment, has a coefficient of 0.007. However, this coefficient is not statistically significant, as indicated by a p-value of 0.68. This result suggests that temporary variations in foreign direct investment (FDI) do not substantially influence short-term economic growth as measured by gross domestic product (GDP). The lagged change in log-transformed FDI, denoted as ΔLNFDIt-1, exhibits a statistically significant negative coefficient of -0.048** (p-value = 0.024). This result implies that previous fluctuations in foreign direct investment (FDI) hurt the current economic growth rate, particularly in the immediate term. This result suggests a potential correction mechanism or a reversal effect, as in a study by Louail and Zouita (2021). The lagged error correction term, ECTt-1, exhibits a remarkably significant coefficient of -1.17*** (p-value = 0.000). This value refers to the rate at which the economy adjusts to reach a stable balance between GDP growth and its underlying factors. A negative coefficient indicates that the system adjusts for temporary deviations from equilibrium, indicating a durable association in the future. This result is what Belloumi and Alshehry (2018) proved in the case of the Kingdom of Saudi Arabia since its economy is similar to the Algerian economy.

The negligible coefficients for ΔLNGDPGt-1 and ΔLNFDI indicate that immediate changes in GDP growth and foreign direct investment do not substantially affect current GDP growth. These results suggest the existence of delays or other factors that influence short-term dynamics. A substantial negative coefficient for ΔLNFDIt-1 implies that previous variations in foreign direct investment (FDI) levels hurt the current growth of gross domestic product (GDP) in the immediate term. This result may indicate the existence of adjustment mechanisms or temporary oscillations in investment trends. These results were proved by Shinwari et al. (2023).

The coefficient for ECTt-1 is highly significant, indicating a robust inclination of the system to rectify short-term deviations from the long-term equilibrium relationship between GDP growth and its drivers. This result suggests that the system is stable and self-adjustable over time Ben-Salha and Zmami (2021).

Policymakers should prioritise implementing measures that encourage consistent and sustainable foreign direct investment (FDI) inflows, as temporary changes in FDI levels can affect short-term gross domestic product (GDP) growth. Furthermore, implementing measures that target the reduction of expenses associated with adapting to changes and improving the rate at which the economy adjusts towards a long-term balance could effectively lessen temporary volatility and foster economic stability Munawwar and Ghedira, (2014).

Further studies on additional factors that could impact short-term GDP growth patterns would be beneficial to enhance our understanding of short-term economic dynamics. These factors may include macroeconomic shocks, monetary policy interventions, and foreign economic conditions.

The short-term analysis focuses on the adjustment processes and immediate changes in the relationship between GDP growth and its determinants. It emphasises the significance of consistent investment patterns and policy measures that encourage economic stability and resilience in response to short-term fluctuations.

Conclusions and policy recommendations

The natural resources and economic growth nexus is a topic that has garnered significant attention and study in economics and sustainable development. Natural resources, including oil, gas, minerals, water, agricultural lands, forests, and wildlife, are sources of wealth and productivity in countries. They drive growth by creating job opportunities, attracting investments, and generating government revenue. However, it is essential to note that their unsustainable exploitation can have con-

sequences such as pollution, loss of biodiversity, and climate change. These issues come with costs as well. To achieve development, adopting an approach that ensures efficient use of natural resources while prioritising social and environmental responsibility is imperative, and this involves implementing strategies such as innovation and sustainable practices.

Significant consequences are shown by analysing the impact of natural resources and foreign direct investment (FDI) on Algeria's economic growth from 1970 to 2021. The positive correlation between resources and economic growth highlights resource extraction's role in Algeria's economic development. It underscores the need for diversification to reduce dependence on commodity markets. Moreover, this finding reinforces the importance of adopting resource management practices through extraction techniques, conservation efforts, and environmental protection policies.

On the other hand, there is a relationship between economic growth and foreign direct investment (FDI), significantly driving Algeria's development and emphasising the advantages of attracting investments from abroad. The findings prompt policymakers to focus on creating an attractive investment climate, improving business regulations, and facilitating technology transfer to encourage FDI inflows. Enhancing infrastructure and human capital: If natural resources and FDI impact economic growth positively, it highlights the importance of investing in infrastructure development and human capital. Algeria may consider allocating resources to build transportation networks, power supply systems, and communication infrastructure while also improving education and skills training programs to enhance the productivity and competitiveness of its workforce.

Diversification of the economy: Regardless of the findings, it is crucial to emphasise the need for economic diversification in Algeria. Diversification becomes imperative to reduce vulnerability to commodity price fluctuations if natural resources have a limited impact on economic growth. Measures encouraging the growth of non-resource sectors, including manufacturing, services, and technology, can contribute to sustainable and balanced growth. Policy reforms: The findings may highlight the importance of policy reforms in Algeria. Based on the results, policymakers can consider implementing measures to strengthen institutions, improve governance, enhance the business environment, and promote stability.

Additionally, specific policies may be required to encourage innovation, entrepreneurship, and the adoption of advanced technologies to drive economic growth beyond natural resources. Long-term planning: Regardless of the findings, the study emphasises the significance of long-term planning for sustainable economic growth in Algeria. It calls for formulating comprehensive development strategies that balance resource utilisation, environmental protection, and socio-economic objectives. Strategic planning of this nature can assist Algeria in navigating uncertainties and leveraging opportunities for fostering inclusive and resilient growth. It is crucial to emphasize that these implications are speculative and contingent upon the actual outcomes of the analysis. Over the defined period, Algeria's dynamics of the natural resources, FDI, and economic growth nexus may show alterations, needing specific modifications to the consequences.

The contribution of the authors

Conception, B.L. and S.R.; literature review, M.R. and S.R.; acquisition of data, B.L. and S.R.; analysis and interpretation of data, B.L. and M.R.

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