



The Algerian economy between oil dependence and the inevitability of economic diversification

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Submitted:06/08/2022

Accepted:08/09/2022

Published:04/12/2022

Abstract:

The development path in Algeria shows that it was unable to establish a sustainable development path at all levels, which was mainly related to the lack of pace of structural transformation and the failure to build a diversified economic structure. Economic diversification represents a way out for the Algerian economy to modify its current development path, as it increases the spread of positive effects. Such as increasing productivity, efficiency and technological development among economic activities and sectors, while ensuring the need for a clear role from the state to direct this diversification towards creating the most dynamic and highly productive economic activities.

Key words: economic diversification, oil dependency, structural imbalances, renewable energies.

JEL Classification Codes: L500, L780, L160, Q200.

Introduction :

Algeria faces deep development challenges and severe structural imbalances in its economic system, which has resulted in a slow structural transformation from a primary economy to an industrial economy. The trend of economic fluctuations that has become a feature of the contemporary economy as a result of the deepening phenomenon of globalization. This is mainly due to the weak diversity of the Algerian economy in general, as well as the weak productivity and the modest level of human capital. And the lack of a modern development trend based on technology and knowledge in production and investment.

This research paper attempts to capture the following problem: **How can the Algerian economy adopt economic diversification as a strategic alternative to correct its structural imbalances and overcome the dilemma of oil dependency that it still suffers from?**

A number of sub-questions fall under this problem:

- What is the degree of dependence of the Algerian economy on the hydrocarbon sector?
- What are the main structural imbalances that the national economy suffers from as a result of its dependence on non-renewable energy sources?
- If economic diversification is the alternative path to get rid of this dependency, what are its most important tools to achieve this goal?

The research hypotheses start from an attempt to answer the research problem and its questions, and on this basis the general hypothesis is that the goal of economic diversification in Algeria is achieved by making structural changes that mainly increase the developmental role played by the state at the level of driving the locomotive of the economy. The partial hypotheses are as follows:

- The weak contribution of the manufacturing industry to the gross national product represents the most prominent structural imbalances that the Algerian economy still suffers from due to its dependence on petroleum products.
- Diversification of the export basket is the basis of efforts to implement the economic diversification strategy.

- Investment in the renewable and clean energies sector has become today one of the most important mechanisms for achieving economic diversification in particular and sustainable economic growth in general.

This research contains three axes, the first axis deals with a reading of the strategic importance of the hydrocarbons sector on the Algerian economy, and the latter was affected by the fluctuations occurring at the level of the oil market, while the second axis deals with the assessment of the multiple structural imbalances produced by the previous development pattern in Algeria, mainly resulting from dependence. As for the third axis, it attempts to diagnose the reality of economic diversification in Algeria and ways to make the strategy successful by adopting a set of mechanisms aimed at achieving sustainable economic growth in the long term.

The importance of the research is that it highlights the role of economic diversification as a strategic entry through which the Algerian economy can get rid of the oil dependency that it still suffers from despite repeated attempts during the previous decades to achieve this. The path of economic diversification emerges as an alternative to encouraging exports outside hydrocarbons, as this alternative provides opportunities and possibilities in terms of diversifying the production base, especially as it is the most effective way to implement the strategy of economic diversification. In order to achieve diversification of production structures and, in the end, to secure sustainable economic growth.

The objectives of the research are that, first: it focuses on analyzing the structural development challenges that the Algerian economy suffers from, and secondly: proposing mechanisms that would encourage the path of economic diversification based on the diversification of economic activities and the production base, in line with the profound transformations of the global production pattern.

As for the research method, the descriptive analytical method was adopted in the various research axes and its purpose was to analyze the various structural imbalances that distort the Algerian economy and resulting from the oil dependency that it still

suffers from. Which mainly concerns some economic indicators related to the Algerian economy.

First: A reading of oil price fluctuations and their impact on the Algerian economy

1. The strategic importance of the hydrocarbon sector in the Algerian economy:

The hydrocarbons sector occupies great importance in the Algerian economic system, given that oil and gas achieve important financial resources for the public treasury from hard currency, and the hydrocarbons sector is the main reliable source of economic and financial activity, as it constitutes about 40% of the public budget that is financed by petroleum taxation. This sector alone contributes more than 97% of Algerian exports. Algeria is the first producer and exporter of oil, especially natural gas in the Mediterranean basin, and it is the third supplier to the European Union after Russia and Norway (2007, p. 87).

Modern life is increasingly linked to the use of energy in general and to oil in particular. Therefore, changes in oil prices affect directly and even indirectly the levels of development, and energy prices affect the costs of economic activities to a degree that leads to a change in the level of competition of these activities with their counterparts in other countries. Oil is an important strategic material for the economy of any country in the world, whether it is a producer or a consumer. The combination of non-economic factors (including political, economic and social) should be intertwined with economic factors that make oil pricing difficult for consensus. That is why the price of a barrel of crude oil is affected by two factors: climatic fluctuations, where demand usually increases in the winter compared to other seasons, as well as when conflicts and wars occur near oil sources, such as the first and second Gulf Wars and the Arab-Israeli wars (Muhammad Abul-Ela, 2008, p. 312). This is theoretically, but in practice, the pricing of oil is carried out according to the following procedures:

- a. The Brent blend in the North Sea is chosen as crude to measure the oil product of Europe and Africa, Texas Petroleum as crude to measure the product of North

and South America, and the "Dubai" crude to measure the products of the Asian continent.

- b. The three measurement materials are priced in the international stock exchanges, New York, London and Singapore, according to supply and demand.
- c. The rest of the petroleum crudes in the world are priced according to their geographical location and the extent of their differences from the approved standard specifications.

There are those who believe, like the expert **R. Alexis**, that a distinction should be made between purely economic factors (such as supply, demand, investments in the oil field, research and development, discoveries and exploration) and geopolitical factors, which remain central and decisive factors in the oil trade and its price fluctuations in global markets. In the nineties of the last century, geopolitical factors became of great importance in the oil trade and more influential than economic factors (Boudjamil, 2012, p. 13).

Despite this and that, the fluctuations of oil prices (rise and fall) remain highly intertwined and complex factors, given the combination of economic factors (supply - demand) as well as security (disputes, tensions and even peace and armistice agreements) and even climatic factors (weather and seasons) as well as financial and investment factors (Research and development activities, oil investments, speculation, currency volatility) as well as technological factors (the development of energy alternatives: solar, wind energy, shale gas) are all intertwined factors to create oil crises that have become difficult to predict.

According to Algerian Energy Minister **Mohamed Arkab**, Algeria's oil production has exceeded 942 thousand barrels per day since October of the year 2021, and Algeria was until recently - and in view of the increasing oil discoveries - seeking to increase production, before the price crisis resolved in mid-2014. The following is a table that shows Algeria production capacity:

Table No. (01): The evolution of Algeria's oil production from 2016-2021 Unit: thousand barrels per day

Years	2016	2017	2018	2019	2020	2021
Oil production	1.020.0	933.3	970.0	954.2	888.0	942.0

Source: OPEC data, website: https://www.opec.org/opec_web/en/data_graphs/335.htm

2. The challenges of the Algerian economy posed by oil dependence:

The Algerian economy has been affected by the fluctuations in oil prices, due to the centrality of this article - as mentioned above - in moving the wheels of the economy, and even in achieving social peace and security and political stability. For example, oil prices collapsed sharply and suddenly since mid-2014, as after the escalating boom in prices since the beginning of the third millennium and which lasted for more than a decade, the price of a barrel of oil fell from 110 dollars in June 2014 to less than 50 dollars by October of the same year, oil prices fell at a rate of more than 60% (Marghet). Before prices started to rise again in 2021 and the price of a barrel reached record levels, which made revenues from oil exports only exceed 30 billion dollars.

In light of the economic situation in Algeria, oil should be seen as a depleted wealth, and the establishment of an effective economic system, taking into account the diversity of resources in Algeria, as well as alternative and renewable energies.

According to the American economist **Edward Neil**, the hydrocarbons owned by Algeria do not mean development, but rather remain wealth only, and this is confirmed by his compatriot, "**Robert Mandel**", Nobel Prize winner for economics, who believes that the Algerian economy is still closed despite the possibilities and privileges which he possesses (2005, p. 04).

The calculation of the expected duration of the oil life varies according to the estimators, the variations in annual consumption levels, and the new discoveries made annually. For example, in 1974, the proven reserves were estimated at about 7.64 billion barrels and the production capacity was approximately 880,000 barrels per day, which means that the expected life of the oil she was about 25 years old. According to the latest estimates in 2015 (Oil and gaz journal, 2015, p. 07), Algeria's proven reserves are

approximately 12.20 billion barrels of oil, a modest reserve compared to other OPEC member countries. Other sources - such as the International Energy Agency and the World Bank - say that the oil reserves in Algeria are between 16 to 17 billion barrels, while gas reserves are estimated at about 4359 billion cubic meters annually, and according to some experts, Algeria will no longer be able to export oil after its depletion within the limits of In 2030, more than that, Algeria will become an importing country, as Algeria will need approximately 100,000 tons per year of energy (petroleum gas) (Chitour, 2012, pp. 49-50). The language of these numbers pushes towards more concern, but at the same time, towards thinking about the future of decision-making, by finding the necessary alternatives towards a culture of resource sustainability.

Second: Imbalances of the development path in Algeria: the need to modify the path

The development challenges that Algeria is facing require treatments that take into account the structural characteristics of the Algerian economy. The most prominent of these challenges are the insufficiency of economic diversification and the high concentration of exports. This may threaten the sustainability of its future development in the event of structural transformations in the global energy sector. Especially that reality warns of a real shock in the energy market due to a shift from the production and consumption of non-renewable energies to renewable sources of energy.

This reality put Algeria on a development path that is unable to meet the basic development challenges, especially the creation of rewarding jobs for the educated youth and the abundant flow to the labor market, as well as the modest production and export, which made it difficult to finance the balance of payments and the financing of the state's general budget.

1. Overview:

The Algerian economy still suffers from development problems and multiple structural constraints, linked to economic, institutional and social factors, which in turn require deep, long-term, strategic treatments that are applied in successive and gradual

stages that go beyond the current stereotypical treatments that reality vouches for ineffectiveness.

There is no doubt that the main part of these problems is related to the development model that Algeria has followed over the past decades. After its independence and until the mid-eighties, Algeria adopted development strategies whose main component was to go inward and try to replace imports and develop a local industrial sector, especially in some final and intermediate consumer industries, such as the food and textile industries, and the electronic and petrochemical equipment industry, without giving the rest of the production and service sectors due importance and consistent with the inherent comparative advantages in the Algerian economy. The existing blockage in the development process based on import substitution and the consequent pressure on the balance of payments led to the adoption of structural adjustment policies, the rescheduling of external debts and an attempt to move towards a liberal development model based on integration into the global economy and market economy with the aim of reviving economic growth by encouraging the private sector and the state's withdrawal from direct intervention in economic life and the trend towards export development and the barrenness of foreign investments, and various preliminary assessments indicate that Algeria has not achieved the desired goals of this developmental transformation.

This development performance led to the emergence of economic and social phenomena that burdened the development path, including weak productivity and lack of growth to the required extent, and clear imbalances in the labor market that resulted in structural unemployment, which came as a result of the inability of that path to achieve the required and sufficient growth in the size and quality of the various productive activities that were carried out set up. It was natural for this shortcoming in production capacities to be reflected in the foreign trade sector, where the insufficiency of exports and the weakness of their diversity appeared, so that the structure of Algerian exports of manufactured goods at the present time has not witnessed a tangible change, and the

proportion of manufactured exports still represents a weak percentage of the total Algerian exports.

The reasons for the weakness of these policies are due to their implementation without taking into account the prerequisites for them and without taking into account the efficiency of the level of government intervention. These policies neglected important aspects such as strengthening the role of the financial sector, improving the quality of education, competitiveness, good governance and strengthening the role of the private sector, all of which exacerbated the structural imbalances in the Algerian economy.

Although Algeria has adopted economic liberalization policies since the eighties of the last century, which calls for changing the state's economic role and opening up to the outside, this was also called Washington's consensus, in an attempt to control the development path; these policies did not achieve the desired positive impact, especially on the productive sectors.

The economic diversification strategy provides the possibility to redirect the Algerian economy towards the right path, in a manner that ensures the efficient distribution of resources and the required transformation that gives the economy sufficient flexibility to absorb internal and global shocks, and makes economic growth sustainable by reducing dependence on one sector or limited sectors, and directing the economy towards activities More products and wider markets, including diversifying production structures and distributing investments to many sectors with great added value and job opportunities.

2. Reality Problems:

The Algerian economy faces multiple challenges due to the negatives of the developmental pattern that it followed previously, as this pattern resulted in problems that are still continuing in the structure of the Algerian economy, which was the reason for the unsustainability of economic growth to internal and global economic shocks. The following table highlights the most important of these problems:

Table No. (02): Percentage of contribution of economic sectors to Gross domestic product (GDP) (2016-2020) (%)

Years	2016	2017	2018	2019	2020
manufacturing industry	5.5	5.7	4.3	4.5	4.9
extractive industry	17.3	19.7	22.0	19.5	20.1
Agriculture	12.20	12.3	11.8	12.0	12.9
Services outside the public administration	27.60	26.2	26.3	27.5	28.1
public administration services	17.50	16.5	15.0	15.4	15.8
Other sectors	19.9	19.6	20.6	21.1	

Source: Unified Arab Economic

Report: <https://www.amf.org.ae/en/publications/reports/joint-arab-economic-reports>

The highlights of the table data are as follows:

- a. There is a clear decline in the contribution of the manufacturing industry, which does not exceed 5.5% of the GDP during the period 2010-2020, which is a small percentage if compared to the rates in developed countries, and this is mainly due to the dominance of extractive industries and activities on the industrial structure. But the question arises about the quality of industrial products that have witnessed a tangible development, which may reflect Algeria's efforts to diversify its industrial sector. Therefore, it is necessary to know the size and rate of development of the manufacturing industry as it is an important sector for diversifying sources of income, diversifying exports and creating job opportunities.
- b. Data on sectoral performance shows the weak contribution of the agricultural sector to the GDP during the period 2010-2020 and therefore to the total value added, despite the fact that this sector witnessed a significant development as its contribution doubled compared to the period of the eighties of the last century, which was about 5%. This has contributed to the intensification of agricultural development efforts through the implementation of the "National Plan for Agricultural and Rural Development", launched in 2000, which enabled it to develop the industrial sector, especially in the grain and vegetable sectors.

- c. For his part, it is noted from the distribution of GDP according to a group of sectors that services outside public administrations rank first in terms of GDP formation, which is the clear feature of modern economies represented in the high relative importance of the tradable productive services sector with high added value in the structure Gross domestic product. This is due to the fact that this type of services is growing at a faster and more flexible rate, in addition to the growth of transportation and distribution services, which increases the national income.

Third: Algeria and economic diversification: a bet for the future

In light of what the previous axis concluded about the Algerian economy facing multiple challenges and structural problems caused by the developmental pattern in general during the previous decades, this axis shows the mechanisms for implementing the strategy of economic diversification in Algeria.

The definition of economic diversification can be summarized in that it is a development process that stems from a structural transformation of the economy that results in raising, affecting, and sustaining growth, through the expansion of production and export capabilities in the commodity and service sectors.

Based on this definition, it is possible to identify several areas that focus on Algeria's level of diversification of its economy. Most of them revolve around three basic components: diversification of the commodity and service production base, diversification of exports, and the energy sector.

1. Areas of economic diversification:

1.1. Diversification of the base and production activities:

The process of diversifying the production base includes distributing local production over several different sectors and the associated redistribution of resources. The distribution of resources may be accomplished through the adoption of horizontal or vertical diversification, at the level of the various sectors and economic activities of the state. Determining the percentage of development and distribution of the productive fabric among the main productive sectors and the evolution of the shares of the most

important products in the gross domestic product is one of the most important indicators to show the extent of diversification of the economy and its sectors.

Achieving this can only be achieved by moving from a primary economy dominated by primary sectors to a modern industrial economy (manufacturing industries and production services) that will eventually lead to diversification of the economy, and sectoral policies work to direct private and public investment towards a set of targeted activities with high added value from By controlling the largest amount of the value-added chain through its manufacture and transformation into intermediate and final products. And the transition in the knowledge and technology ladder from a system based on the exploitation of natural resources to the production of goods with high and medium technology.

The basic rule in supporting diversification is to choose a number of productive sectors as a fulcrum (the starting point) and work to deepen horizontal and vertical diversification by adopting an incentive system to encourage investors to direct their decisions towards choosing these sectors.

1.2. Diversification of the export basket:

From the side of export diversification, diversification of exports usually achieves two main goals, the first is related to diversifying and increasing exports of the largest number of goods and services, and the second goal is related to the distribution of products to the largest number of foreign markets. The analysis of Algerian export destinations shows a concentration on some regions and countries. Europe remains the most important of these destinations, as it attracts 46% of the total Algerian exports, especially Italy, which accounts for about 10%. In general, the geographical diversification of Algerian exports across the world during the past years is characterized by low diversification.

Moreover, Algerian exports are concentrated around a limited number of products, as analysis of the development of the commodity structure confirms that the largest share remains for the fuel and minerals group, especially oil and gas, which still dominates more than 90% of total exports.

Table No. (03): Commodity Concentration and Diversity Index of Algerian Exports

2015			2019		
Number of exported goods	Concentration index (%)	Diversity index(%)	Number of exported goods	Concentration index (%)	Diversity index(%)
91	0.49	0.78	116	0.47	0.82

Source: Unified Arab Economic Report.

<https://www.amf.org.ae/en/publications/reports/joint-arab-economic-reports>

Through the table, it is noted that the value of the diversity index increased in Algeria, whose exports depend on a major product of oil and natural gas. The diversity index achieved a high rate of 0.82, which means that the levels of diversification of its exports decreased. As for the concentration index, the index value reached 0.47, which indicates Algeria's dependence on oil and gas exports as a major commodity.

Table No. (04): Percentage of exports of transformed industrial goods to total exports

Years	2016	2017	2018	2019	2020
Ratio of exports of manufactured industrial goods to total exports	4.6	4.3	4.2	4.3	4.8

Source: The Unified Arab Economic Report,

<https://www.amf.org.ae/en/publications/reports/joint-arab-economic-reports>

1.3. Diversification of the energy sector:

Policies in the energy sector should focus on the necessary components to diversify and support the energy sector. Developing financing and support for renewable energies is very important, as well as developing the infrastructure required for renewable energy projects, and this can only be done by increasing investments in the renewable energy sector and the green economy and directing incentives to these sectors such as power plants from wind energy, solar energy, etc, or the use of diversification policies or alternatives that can reduce the demand for oil and gas derivatives, especially alternatives to clean solar and wind energy.

An important factor that also pushes towards diversification of the energy sector is the transformation of the Algerian economy towards more industrialization, which put pressure on its energy resources and made them scarcer and more expensive. In addition,

the relatively low energy prices due to subsidies result in depletion, waste, misuse, and lack of distributional and technical efficiency. The largest proportion of energy subsidies is directed to segments that are not the target of the subsidy. Accordingly, diversification of energy sources has positive implications for economic activities in the Algerian economy.

2. Mechanisms for achieving economic diversification:

Algeria's adoption of a policy of economic diversification to enhance the diversification of its economy requires a strategy that revolves around the ability to continuously move from producing less valuable and less developed goods and services to more complex and higher value-added goods and services based on the following mechanisms:

2.1. Direct Mechanisms: Pathways to Economic Diversification:

Achieving the desired economic diversification can only pass through the implementation of a number of tracks that are directly related to the structure of the national economy, the most prominent of which are:

- a. Strengthening institutions and developing governance:** The success of the process of economic diversification requires strengthening the role of the state in building and improving its institutional capabilities and creating an effective institutional role to create a general environment that supports the role of the private sector and a disciplined regulation of markets that encourages competition.
- b. By identifying sectors and activities with potential and untapped comparative advantages:** by focusing on goods that are compatible with technical capabilities and with the availability of human and material inputs and serve as a compass for industrial policy.
- c. Attracting foreign direct investment and encouraging the spread of business incubators:** This is done by developing a set of incentives to attract foreign direct investment to transfer and localize technology, in addition to business incubator programs to develop local companies.

- d. **Develop industrial zones, free trade zones and export processing zones:** These specialized zones serve as a quick solution to overcoming investment obstacles and attracting foreign direct investment because of their importance in providing infrastructure, reducing costs and encouraging exports.
- e. **Diversification of the energy sector:** Diversification of the energy sector is linked to economic sustainability by reducing environmental pollution rates. It should be noted that the diversification of the energy sector directly affects the diversification of the production base and introduces new activities in the production chains, such as solar energy. The diversification of the energy sector also diversifies exports as new goods and sectors are entered. In a related context, diversifying the energy sector and strengthening the economy's ability to absorb shocks and price fluctuations.

2.2. Indirect mechanisms: strengthening the trend towards renewable and clean energies:

The economic diversification strategy adopted by Algeria cannot achieve the desired goals without the presence of other mechanisms and paths mainly related to the field of renewable and clean energies, which has become today one of the most important features of contemporary economies.

The current situation of the energy sector in Algeria is pushing towards the inevitability of using alternative energies and diversifying the energy sector. In addition, the relatively low energy prices due to subsidies result in depletion, waste and misuse. The largest percentage of energy subsidies is directed to segments that are not the target of the subsidy, in addition to delaying the use of modern energy-saving, environmentally friendly alternatives. This is achieved by:

- a. **Reducing the sources of support for fossil energy that pollute the environment:** Liberalizing energy prices and diversifying its sources leads to obtaining large funds that are spent on energy subsidies in favor of directing them to productive and development sectors that accelerate growth and the structural transformation of the Algerian economy.

- b. Including the renewable energy sector among the most important investment sectors in development plans:** The goal of diversifying energy sources should be one of the most important strategic directions pursued by Algeria to face risks. Reducing dependence on fossil resources, whose use is accompanied by many serious environmental problems. As they are unsustainable resources, it is necessary to go towards renewable and clean energies such as solar energy and others in economic diversification and investment programs in the field of energy.
- c. Addressing the challenges of energy diversification and stimulating the renewable energy sector:** Despite Algeria's efforts to diversify the energy sector, traditional sources of energy still play a major role. Energy diversification efforts and focusing on renewable energies still suffer from many financial, technical and technical challenges. Especially with regard to research and development, in addition to the limited participation of the private sector in environmental projects, especially investments in the field of solar energy and other energy projects that support sustainable development and that contribute to the diversification of energy sources in Algeria. The renewable and clean energies sector requires huge initial investments in addition to the challenges of societal awareness and the absence of a media and educational role.

It should be noted, that Algeria has become interested in renewable energies through the establishment of various partnerships with several countries, and the idea of renewable energies in Algeria has received attention since 1980, and the goal of renewable energies in Algeria is to provide energy services to isolated areas and far from energy distribution networks, along with its attempt to build a strategy of diversifying the economy in diversifying the economy, and trying to find solutions within the framework of Algeria's strategy for the post-oil economy. In the period from 2016 to 2020, 4 other stations with a capacity of 300 MW each were completed, and there is a program that extends to 2030 with a capacity of 600 MW annually, which made it set the National Renewable Energy Program (2011-2030).

Table No. (05): The expected percentages of renewable energy in the total energy mix

Country	Percentage of hoped renewable energy (solar, wind and water) (%)	Year	Current reality (%)
Morocco	42	2030	3.5
Egypt	20	2030	3.5
Jordan	10	2030	3.5
Tunisia	30	2030	3.5
Algeria	40	2030	3.5
Saudi Arabia	44	2030	3.5

Source: Energy Department at the Secretariat of the Ministerial Council for Electricity in the Arab League-2015, <https://www.rcreee.org/news/arab-ministerial-council-electricity-assigns-las-energy-department-and-rcreee-undertake-series>

Conclusion:

Algeria's adoption of a model aimed at economic diversification is the only way to address the dominance of natural resources and the fears of their depletion. And to address the risks of external crises associated with price fluctuations in global markets. The model is also a tool to push the structural transformation in various sectors and economic activities to achieve an increase in growth and improve the general balances of the Algerian economy. An in-depth analysis of the reality of the Algerian economy and the pace of its development during the past decades dictates the necessity of an active role for the state in the economy in order to be able to bring about the required transformation in economic structures. Securing sustainable economic growth, including developing a sustainable national economic policy and managing the pace of structural change.

Within the framework of presenting this work on diversifying the Algerian economy, the validity of the general hypothesis related to the role of the state as an important actor in implementing the strategy of economic diversification in Algeria has emerged. Economic diversification policies take permanence and continuity. As for the

hypothesis that the weak share of manufacturing industries is one of the most important imbalances that the national economy suffers from, it has been proven correct given that this imbalance in the economic structure contributed to the continued oil dependency on the Algerian economy despite the efforts and multiple attempts in the past to get rid of this dependency. During the research, the hypothesis that diversification of exports is the most important path to achieving economic diversification was proven wrong. On the contrary, the research showed that the economic diversification strategy is built as a first stage by implementing diversification in production structures and activities in order to move to the next stage associated with diversifying the export basket. The last hypothesis is correct because the mechanism of economic diversification is not effective and effective except by adopting a policy of encouraging renewable energies as a long-term investment that contributes effectively to the extent of the success of the economic diversification strategy in Algeria.

Finally, decision makers must be urged to consider the following suggestions and recommendations:

- There are several different areas in which the analysis of Algeria's level of diversification of its economy focuses on diversifying exports and financial revenues, diversifying the commodity and service production base, and finally diversifying energy sources.
- The need to pay attention to diversifying the energy sector to achieve sustainable economic growth, so that it becomes clear that it is difficult to continue at the present time and the negative repercussions that can be caused by the current patterns of energy consumption and the need to move towards more sustainable patterns by taking the necessary policies and measures.
- Increasing awareness about the importance of diversifying and rationalizing energy and encouraging the national and foreign private sector to invest in industries that use a variety of energy sources or renewable energies due to the efficiency that this achieves in the use of resources.

- Adopting modern industrial policies that direct incentives to support the renewable energy sector and reduce subsidies on the fossil energy sector that pollutes the environment.
- The necessity of an effective development role for the state and its institutions, especially by designing an incentive system and approving policies that redirect commodity and service openness towards economic sectors and activities with high added value and high knowledge content in order to achieve diversification of production structures and the sustainability of economic growth.
- Encouraging the private sector to invest in renewable energies and sustainable infrastructure such as waste treatment.

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