DOİ: https://doi.org/10.71447/3005-2696-2026-01-08

MACROECONOMIC EFFECTS OF FINANCING STRATEGIC PROJECTS IN THE OIL AND GAS SECTOR: AN ANALYSIS IN THE CONTEXT OF GDP, EXPORTS, AND INVESTMENT FLOWS

Aykhan Novruzlu
PhD Candidate , Azerbaijan State University of Economics (UNEC)
E-mail: aykhannovruz@gmail.com
ORCİD: 0009-0007-8230-2625

Abstract
This article examines the macroeconomic effects of financing strategic projects in the oil and gas sector of Azerbaijan, with particular attention to GDP formation, export revenues, and investment flows. The oil and gas sector has historically played a central role in the country's economic development by supporting production, strengthening foreign trade capacity, attracting foreign capital, and contributing to fiscal stability. The article applies a descriptive and statistical approach to analyze how strategic project financing influences key macroeconomic indicators. Special attention is given to the role of large-scale energy projects in expanding production capacity, increasing export potential, and encouraging investment inflows through international cooperation and long-term infrastructure development. The study also considers the risks connected with high dependence on the oil and gas sector, including exposure to global energy price fluctuations and export concentration. The findings suggest that while strategic financing in the oil and gas sector remains essential for Azerbaijan's macroeconomic stability, it should be supported by economic diversification, technological modernization, and long-term sustainable development priorities.

Keywords: oil and gas sector, strategic projects, project financing, GDP, exports, investment flows, macroeconomic effects, Azerbaijan economy

INTRODUCTION

In the modern global economy, energy resources play a significant role in shaping countries' economic development, financial stability, and international competitiveness. Particularly in countries with abundant hydrocarbon reserves, the oil and gas sector serves as one of the key drivers of economic growth. In this regard, Azerbaijan has achieved significant economic gains over recent decades through the efficient utilization of its energy resources and has strengthened its strategic position in regional and international energy markets.

The development of the oil and gas sector is closely associated not only with the extraction of existing reserves but also with the implementation of strategic projects that ensure the development, processing, and delivery of these resources to global markets. The implementation of such projects requires substantial financial resources, and their effective financing directly affects the country's macroeconomic indicators. Investments directed toward strategic projects create conditions for expanding production capacity, increasing export opportunities, attracting foreign capital, and stimulating economic activity.

Large-scale oil and gas projects, which constitute an important component of Azerbaijan's energy strategy, have played a significant role in the country's GDP growth, the formation of state budget revenues, and the strengthening of the foreign trade balance. At the same time, changes in global energy markets, energy transition policies, and the transformation processes observed in the global economy necessitate the adoption of new approaches to financing the oil and gas sector. Under such conditions, a comprehensive assessment of the economic outcomes of strategic project financing is relevant from both theoretical and practical perspectives.

This article examines the macroeconomic effects of financing strategic projects implemented in Azerbaijan's oil and gas sector and analyzes their impact on GDP formation, export indicators, and investment flows. The aim of the study is to identify the existing relationships between strategic project financing and the country's macroeconomic development indicators and to assess the economic trends emerging in this area.

The novelty of this study lies in its integrated assessment of the macroeconomic effects of financing strategic projects in Azerbaijan's oil and gas sector through the interconnected dimensions of GDP, exports, and investment flows. Unlike a sector-specific assessment focused solely on production outcomes, the study considers strategic project financing as a broader macroeconomic mechanism influencing production capacity, export potential, foreign capital inflows, and economic stability. In addition, the study highlights the importance of linking the financial and investment opportunities generated by the oil and gas sector with economic diversification, technological modernization, and long-term sustainable development priorities.

Theoretical and Methodological Framework

The oil and gas sector is one of the key strategic sectors playing an important role in the formation and development of Azerbaijan's economy. This sector is not limited to the extraction and export of energy resources; it also directly affects GDP formation, government revenues, the foreign trade balance, investment flows, and overall macroeconomic stability. Within Azerbaijan's long-term economic development model, oil and gas projects are of particular importance in terms of attracting capital investment, increasing production capacity, expanding export infrastructure, and strengthening international economic cooperation.

The financing of strategic oil and gas projects affects the national economy through several channels. First, these projects create conditions for expanding extraction and processing activities, developing new infrastructure, and advancing related service sectors. Second, revenues generated from oil and gas exports increase foreign currency inflows and contribute to the stability of the balance of payments. Third, large-scale energy projects facilitate the attraction of foreign investment, technology transfer, and the establishment of long-term cooperation mechanisms with international companies. From this perspective, financing strategic projects in the oil and gas sector is not merely a sector-specific development factor but also an important source of overall economic growth.

Azerbaijan's energy resources and the strategic projects implemented on the basis of these resources have played an important role in strengthening the country's international economic position. Large-scale projects financed in the oil and gas sector have expanded export opportunities, increased cooperation with foreign partners, and created conditions for long-term investment inflows into the country. These projects are also important for modernizing energy infrastructure, ensuring regional energy security, and expanding access to international markets.

At the same time, high dependence on the oil and gas sector creates certain macroeconomic risks. Changes in global energy prices, declines in production volumes, supply and demand conditions in international markets, and energy transition processes may affect the country's export revenues and budget receipts. Therefore, the financing of strategic projects should not be aimed solely at generating short-term revenues but should also be aligned with the objectives of ensuring long-term economic resilience, technological modernization, and economic diversification.

The primary objective of this article is to analyze the macroeconomic effects of financing strategic projects in Azerbaijan's oil and gas sector in the context of GDP, exports, and investment flows. To this end, the article examines the impact of oil and gas projects on economic growth, foreign trade indicators, and the investment environment. The study employs descriptive-statistical and comparative analysis methods. The role of the oil and gas sector in macroeconomic indicators is assessed based on official statistical data and reports from international organizations.

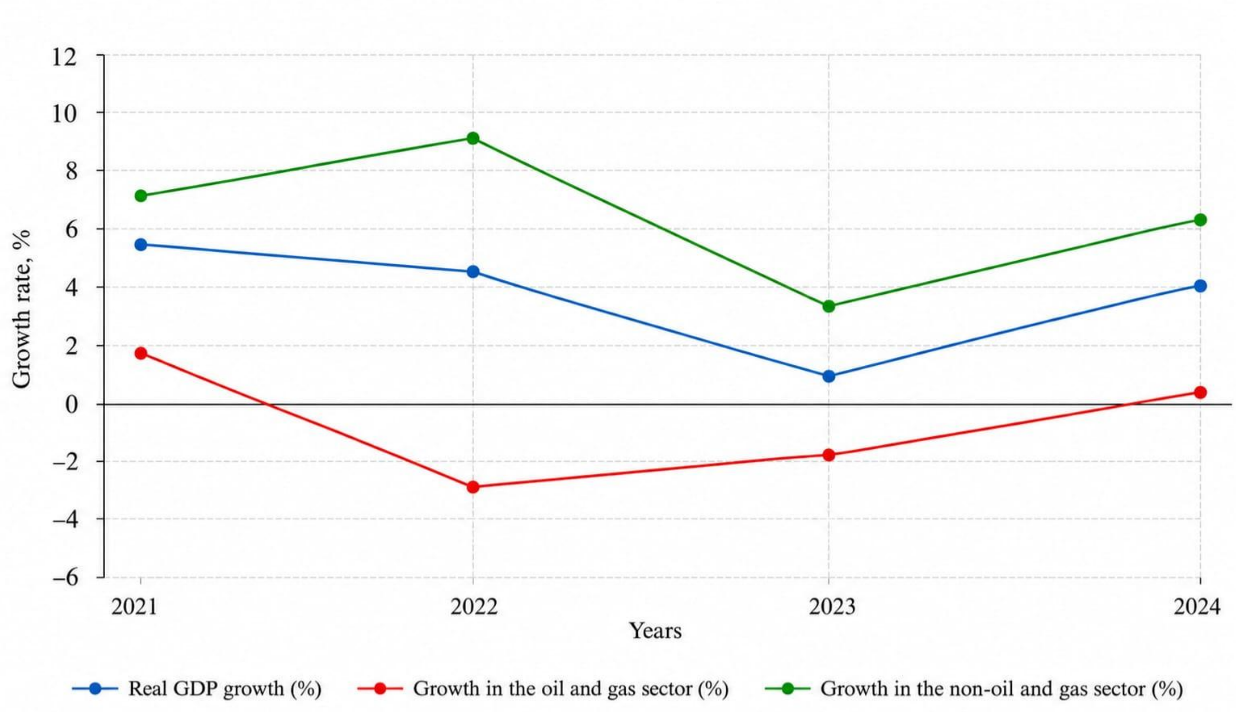
The relevance of the article stems from the continued importance of financing strategic projects in the oil and gas sector to Azerbaijan's economic development. At the same time, changes in global energy markets, the transition toward green energy, and the need for economic diversification make it necessary to reassess the macroeconomic effects of these projects. Accordingly, examining the impact of strategic projects financed in the oil and gas sector on GDP, exports, and investment flows is of both theoretical and practical significance.

Analysis and Results: Impact on GDP and Economic Growth

The financing of strategic projects in the oil and gas sector has both direct and indirect effects on the country's GDP. The direct effect is associated with the expansion of extraction, processing activities, and energy infrastructure. Such projects create new production opportunities, strengthen the development of existing fields, and facilitate the expansion of pipelines and export infrastructure. The indirect effect is generated through the development of service sectors, construction, logistics activities, financial services, and employment. Therefore, financing oil and gas projects represents an important factor in generating added value not only within the sector itself but also across other areas of the economy.

The oil and gas sector has long been one of the main pillars of macroeconomic stability in Azerbaijan's economy. Large-scale energy projects have contributed to the formation of government revenues, the accumulation of foreign currency reserves, the attraction of investment flows, and the development of economic infrastructure. From this perspective, financing strategic projects not only helps maintain the share of the oil and gas sector in the structure of GDP but also influences the country's overall economic growth trajectory.

Figure 1.
Real GDP Growth in Azerbaijan and Growth Dynamics by Sector, 2021–2024



Source: Compiled by the author based on data from the State Statistical Committee of the Republic of Azerbaijan for 2021–2024.

As shown in Figure 1, growth dynamics in the Azerbaijani economy during 2021–2024 were higher in the non-oil and gas sector. In particular, while the non-oil and gas sector grew by 9.1% in 2022, the oil and gas sector recorded a 2.7% decline. Overall economic growth slowed to 1.1% in 2023, while real GDP growth reached 4.1% again in 2024. This dynamic indicates that although the non-oil and gas sector demonstrated faster growth, the oil and gas sector continues to maintain an important position in the overall structure of the economy.

Statistical indicators for 2024 show that growth continued in the Azerbaijani economy. According to the data of the State Statistical Committee, GDP amounting to AZN 126.3 billion was produced in the country in 2024, and real GDP increased by 4.1% compared with the previous year. During the same period, value added in the oil and gas sector increased by 0.3%, while value added in the non-oil and gas sector increased by 6.2% (State Statistical Committee of the Republic of Azerbaijan, 2025).

Table 1.

Azerbaijan's GDP and Sectoral Growth Indicators, 2024

Indicator	2024 Indicator
GDP volume	AZN 126.3 billion
Real GDP growth	4.1%
Growth in value added in the oil and gas sector	0.3%
Growth in value added in the non-oil and gas sector	6.2%

Source: Compiled by the author based on GDP data from the State Statistical Committee of the Republic of Azerbaijan for 2024.

As shown in Table 1, growth in the non-oil and gas sector was higher than in the oil and gas sector in 2024. This indicates that the economic diversification process has yielded certain results. However, the lower growth rate of the oil and gas sector does not imply a decline in its macroeconomic importance. On the contrary, the sector continues to occupy an important position in the structure of GDP, government revenues, and external economic relations.

According to the International Monetary Fund, in 2024, oil and gas resources accounted for 32.2% of Azerbaijan's nominal GDP and 52% of consolidated government revenues (International Monetary Fund, 2025). These figures demonstrate the importance of the oil and gas sector not only as a production sector but also as one of the key sources of fiscal stability and public finance. Thus, financing strategic projects in the sector represents one of the key mechanisms affecting GDP formation, budget revenues, and overall economic stability.

Table 2.

Macroeconomic Weight of the Oil and Gas Sector, 2024

Indicator	Share
Share of oil and gas resources in nominal GDP	32.2%
Share of oil and gas resources in consolidated government revenues	52.0%

Source: Compiled by the author based on data from the International Monetary Fund (2025).

As shown in Table 2, the oil and gas sector continues to have a significant weight in the country's economic and fiscal system. Therefore, financing strategic projects in the sector should be viewed not merely as a sectoral investment decision but as an important element of macroeconomic policy. Financing large-scale oil and gas projects helps preserve production capacity, supports export potential, and contributes to the stability of government revenues.

At the same time, the higher growth of the non-oil and gas sector in 2024 indicates that the financing of oil and gas projects should proceed in parallel with the development of other sectors of the economy. When revenues and investment opportunities generated by the oil and gas sector are directed toward the development of non-oil sectors, infrastructure modernization, and technological upgrading, this process can generate broader macroeconomic effects. Such an approach does not limit the contribution of the oil and gas sector to economic growth to extraction and exports alone but also highlights its role as a financial and institutional foundation for economic diversification.

The mechanism through which oil and gas projects affect GDP can be explained through three main channels. First, project financing directly generates added value by increasing production and processing capacity. Second, it stimulates additional economic activity in energy infrastructure, transportation, construction, and service sectors. Third, it supports macroeconomic stability through government budget revenues and foreign currency inflows. From this perspective, financing strategic projects has production, financial, and institutional impact channels within Azerbaijan's economic growth model.

Nevertheless, the high share of the oil and gas sector in GDP and government revenues also creates certain risks. Changes in global energy prices, declines in production volumes, and international trends associated with the energy transition may affect the country's macroeconomic indicators. Therefore, in the long term, financing strategic projects should be linked not only to increasing oil and gas production but also to strengthening economic resilience, developing the non-oil sector, and allocating investment resources more efficiently.

Thus, financing strategic projects in the oil and gas sector has a significant impact on Azerbaijan's GDP and economic growth indicators. Statistical data show that although the non-oil and gas sector has experienced faster growth, the oil and gas sector still plays a major role in the country's nominal GDP and government revenues. Consequently, strategic projects implemented in this sector remain highly important for maintaining macroeconomic stability and expanding future development opportunities.

Analysis and Results: Exports and Investment Flows

The financing of strategic projects in the oil and gas sector directly affects Azerbaijan's export potential and investment flows. Since this sector generates a major share of the country's foreign trade revenues, capital investments directed toward oil and gas projects strengthen not only production processes but also foreign currency inflows, the balance of payments, and external economic stability. The high share of energy products in exports demonstrates the significant importance of strategic project financing for the country's macroeconomic resilience.

In 2024, energy products accounted for approximately 87% of Azerbaijan's total exports. This indicator demonstrates that oil, gas, and related energy products continue to maintain a dominant position in the country's export structure (U.S. International Trade Administration, 2026). At the same time, exports of non-oil and gas products amounted to USD 3,356.5 million in 2024, indicating that diversification of the export structure remains limited (State Statistical Committee of the Republic of Azerbaijan, 2025).

Another important impact channel of oil and gas projects is related to investment flows. This sector has long played a major role in attracting foreign investment to Azerbaijan. In 2024, foreign direct investment inflows into Azerbaijan amounted to approximately USD 7 billion (Lloyds Bank Trade, n.d.). Large-scale energy projects are particularly important in terms of the participation of international companies, technology transfer, and the modernization of energy infrastructure. The decision by BP and its partners to invest USD 2.9 billion to expand production at the Shah Deniz field represents an important example in this regard (Reuters, 2025).

Table 3.

Macroeconomic Impact Channels of the Oil and Gas Sector through Export and Investment Indicators

Indicator	Statistical Indicator	Macroeconomic Interpretation
Share of energy products in total exports	87%	Indicates that energy products account for the largest share of exports and that the majority of foreign currency inflows are generated by this sector.
Exports of non-oil and gas products	USD 3,356.5 million	Indicates that although progress has been made toward export diversification, non-oil exports still account for a limited share of the overall export structure.
Foreign direct investment inflows into Azerbaijan	USD 7 billion	Indicates the important role of energy and strategic projects in attracting foreign capital into the national economy.
Investment in the expansion of the Shah Deniz project	USD 2.9 billion	Indicates that strategic energy projects increase production capacity, export opportunities, and long-term energy cooperation.
2024 gas production at the Shah Deniz field	28 billion cubic meters	Indicates that gas production plays an important role in the country's export potential and energy security.
2024 condensate production at the Shah Deniz field	35 million barrels	Indicates that oil and gas projects generate economic value not only through gas but also through additional energy products.

Source: Compiled by the author based on data from the U.S. International Trade Administration (2026), the State Statistical Committee of the Republic of Azerbaijan (2025), Lloyds Bank Trade (n.d.), and Reuters (2025).

As shown in Table 3, financing strategic projects in the oil and gas sector directly affects export revenues, foreign investment flows, and the preservation of production capacity. The fact that energy products account for 87% of exports indicates that the country's foreign trade stability largely depends on the performance of this sector. On the other hand, although the volume of non-oil and gas exports indicates some progress toward export diversification, the oil and gas sector remains the country's primary export base. From an investment perspective, large-scale oil and gas projects strengthen Azerbaijan's international economic relations. These projects facilitate not only the inflow of financial resources but also technology transfer, the development of management expertise, and the modernization of energy infrastructure. Projects such as Shah Deniz are particularly important for maintaining long-term production and export opportunities.

Thus, financing oil and gas projects supports Azerbaijan's macroeconomic stability through export and investment flows. At the same time, dependence on energy products as the primary source of exports creates certain risks for the economy. Therefore, the financial and investment opportunities generated by strategic projects should be directed toward the development of the non-oil sector, export diversification, and the strengthening of long-term economic resilience.

CONCLUSİON AND RECOMMENDATİONS

Financing strategic projects in the oil and gas sector is one of the key factors contributing to Azerbaijan's macroeconomic development. The analysis demonstrates that these projects are not limited to increasing energy production; they also affect GDP formation, export revenue growth, the attraction of foreign investment flows, and the stability of public finances. In particular, the high share of energy products in the export structure demonstrates that the oil and gas sector continues to maintain its strategic importance for the country's foreign trade balance and foreign currency inflows.

The findings of the study indicate that although the non-oil and gas sector recorded higher growth in 2024, the oil and gas sector remains one of the main structural pillars of Azerbaijan's economy. The sector's significant share in nominal GDP and government revenues provides grounds for considering the financing of strategic projects not merely as a sectoral investment decision but also as an important element of macroeconomic policy. Financing oil and gas projects creates conditions for preserving production capacity, expanding export opportunities, and modernizing energy infrastructure.

The role of the oil and gas sector is also particularly significant in terms of exports and investment flows. The dominant position of energy products in exports demonstrates that a substantial share of the country's external economic revenues depends on this sector. At the same time, large-scale energy projects have a significant impact in terms of attracting foreign capital, strengthening international partnerships, facilitating technology transfer, and developing long-term infrastructure. Strategic projects such as Shah Deniz serve as a tangible example of this process and strengthen Azerbaijan's position in regional energy security.

At the same time, high dependence on the oil and gas sector creates certain risks. Fluctuations in global energy prices, the global energy transition, the limited diversification of the export structure, and changes in production dynamics may affect the country's macroeconomic stability. Therefore, in the long term, the financing of strategic oil and gas projects should be aligned with economic diversification, the development of the non-oil sector, technological modernization, and the establishment of a sustainable economic model.

Overall, the main conclusion of the article is that financing strategic projects in the oil and gas sector has a significant positive impact on Azerbaijan's GDP, export, and investment indicators. However, for this impact to remain sustainable in the long term, oil and gas revenues should be used efficiently, investment opportunities should be directed toward the development of non-oil sectors, and projects financed in the energy sector should be aligned with economic diversification policies. Such an approach can preserve the existing macroeconomic role of the oil and gas sector while contributing to more sustainable and diversified economic development in Azerbaijan.

REFERENCES

1. State Statistical Committee of the Republic of Azerbaijan. (2025, January 16). *Production of gross domestic product in 2024*. The State Statistical Committee of the Republic of Azerbaijan.
2. State Statistical Committee of the Republic of Azerbaijan. (2026, February 12). *Foreign trade relations*. The State Statistical Committee of the Republic of Azerbaijan.
3. BP. (2025, June 3). *Go-ahead for next phase of development of giant Shah Deniz gas field*. BP Azerbaijan.
4. International Monetary Fund. (2025). *Republic of Azerbaijan: 2025 Article IV consultation—Press release; staff report; and statement by the Executive Director for the Republic of Azerbaijan* (IMF Country Report No. 25/98). International Monetary Fund.
5. Lloyds Bank Trade. (n.d.). *Foreign direct investment (FDI) in Azerbaijan*. Lloyds Bank.
6. Reuters. (2025, June 3). *BP boosts investment in Azerbaijan Caspian Sea projects*. Reuters.
7. U.S. International Trade Administration. (2026, January 12). *Azerbaijan—Energy*. U.S. Department of Commerce.
8. U.S. International Trade Administration. (2026, January 12). *Azerbaijan—Market overview*. U.S. Department of Commerce.