FEATURES OF SOCİO-ECONOMİC REFORMS İN AZERBAİJAN İN 2022–2026, STATİSTİCAL İNDİCATORS AND PROBLEMS ENCOUNTERED

DOİ: 10.71447/2413-7235-2025-1-87

Asuda Z. Nuriyeva
Azerbaijan State University of Economics, Master
International Center for Master's and Doctoral Studies
E-mail: asudenuriyeva@gmail.com
ORCID :0009-0006-4858-0886

Resume

The Strategy for Socio-Economic Development of the Republic of Azerbaijan for 2022–2026 aims to ensure the transition from a resource-dependent economy to a sustainable, competitive and diversified model. The strategy includes a complex of measures such as institutional reforms, optimization of tax and customs mechanisms, digitalization initiatives, the Great Return program and stimulation of the private sector. In 2025, GDP grew by 1.4 percent, and the non-oil and gas sector recorded an increase of 2.7 percent. In the first quarter of 2026, the growth of the non-oil sector slowed down relatively (0.2 percent), but forecasts indicate a real growth of non-oil and gas GDP of about 5.0 percent by the end of the year and total GDP reaching 134.1 billion manat.

The study estimates the potential growth of the non-oil sector based on the empirical application of the Cobb-Douglas production function (Y = A·K^α·L^β). The results show that digitalization and institutional changes increase total factor productivity (A), but labor productivity (Y/L) remains limited due to skills gaps and regional disparities. As a scientific novelty, the work models a relatively slow non-oil growth rate in 2025–2026 (on average 2.3–5.0 percent) and increased fiscal risks against the backdrop of declining oil revenues. Practical relevance: concrete recommendations are put forward to accelerate the transition to a post-oil economy through inclusive regional policies, human capital development, and strengthening fiscal sustainability.

Keywords*: socio-economic reforms, economic diversification, non-oil sector, GDP growth, inflation, budget deficit, regional development, Azerbaijan, macroeconomic stability, Great Return program.*

2022–2026-CI İLLƏRDƏ AZƏRBAYCANDA SOSİAL-İQTİSADİ İSLAHATLARIN XÜSUSİYYƏTLƏRİ, STATİSTİK GÖSTƏRİCİLƏR VƏ QARŞILAŞILAN PROBLEMLƏR

Asudə Z.Nuriyeva
Azərbaycan Dövlət İqtisad Universiteti – Magistr
Beynəlxalq Magistratura və Doktorantura Mərkəzi
E-poçt: asudenuriyeva@gmail.com
ORCID :0009-0006-4858-0886

Xülasə

Azərbaycan Respublikasının 2022–2026-cı illər üzrə sosial-iqtisadi inkişaf Strategiyası resurs asılı iqtisadiyyatdan dayanıqlı, rəqabətqabiliyyətli və diversifikasiya olunmuş modelə keçidi təmin etmək məqsədi daşıyır. Strategiya institusional islahatlar, vergi-gömrük mexanizmlərinin

optimallaşdırılması, rəqəmsallaşma təşəbbüsləri, Böyük Qayıdış proqramı və özəl sektorun stimullaşdırılması kimi kompleks tədbirləri əhatə edir. 2025-ci ildə ÜDM 1,4 faiz artmış, qeyri-neft-qaz sektorunda isə 2,7 faiz artım qeydə alınmışdır. 2026-cı ilin ilk rübündə qeyri-neft sektorunun artımı nisbətən yavaşlamış (0,2 faiz), lakin proqnozlar ilin sonuna qeyri-neft-qaz ÜDM-nin real 5,0 faizə yaxın artımını və ümumi ÜDM-in 134,1 milyard manata çatmasını göstərir.
Tədqiqat Cobb-Douglas istehsal funksiyasının ($Y = A \cdot K^{\alpha} \cdot L^{\beta}$) empirik tətbiqi əsasında qeyri-neft sektorunun potensial artımını qiymətləndirir. Nəticələr göstərir ki, rəqəmsallaşma və institusional dəyişikliklər ümumi faktor məhsuldarlığını (A) artırır, lakin əmək məhsuldarlığı (Y/L) bacarıq boşluqları və regional disparitetlər səbəbindən məhdud qalır. Elmi yenilik olaraq, iş 2025–2026-cı illərdə qeyri-neft artım tempinin nisbətən yavaşlamasını (orta hesabla 2,3–5,0 faiz) və neft gəlirlərinin azalması fonunda fiskal risklərin artmasını modellə əsaslandırır. Praktiki əhəmiyyət: inklüziv regional siyasətlər, insan kapitalının inkişafı və fiskal dayanıqlığın möhkəmləndirilməsi vasitəsilə post-neft iqtisadiyyatına keçidin sürətləndirilməsi üçün konkret tövsiyələr irəli sürülür.
Açar sözlər: *sosial-iqtisadi islahatlar, iqtisadi diversifikasiya, qeyri-neft sektoru, ÜDM artımı, inflyasiya, büdcə kəsiri, regional inkişaf, Azərbaycan, makroiqtisadi sabitlik, Böyük Qayıdış proqramı.*

ОСОБЕННОСТИ СОЦИАЛЬНО-ЭКОНОМИЧЕСКИХ РЕФОРМ В АЗЕРБАЙДЖАНЕ В 2022–2026 ГОДАХ, СТАТИСТИЧЕСКИЕ ПОКАЗАТЕЛИ И ВЫЯВЛЕННЫЕ ПРОБЛЕМЫ

Асуда З. Нуриева
Азербайджанский государственный экономический университет, Магистратура
Международный центр магистратуры и докторантуры
З-почта: asudenuriyeva@gmail.com
ORCID :0009-0006-4858-0886

Аннотация
Стратегия социально-экономического развития Азербайджанской Республики на 2022–2026 годы направлена на обеспечение перехода от ресурсозависимой экономики к устойчивой, конкурентоспособной и диверсифицированной модели. Стратегия включает в себя комплекс мер, таких как институциональные реформы, оптимизация налоговых и таможенных механизмов, инициативы по цифровизации, программа «Большое возвращение» и стимулирование частного сектора. В 2025 году ВВП вырос на 1,4%, а в не нефтегазовом секторе зафиксирован рост на 2,7%. В первом квартале 2026 года темпы роста не нефтегазового сектора относительно замедлились (0,2%), но прогнозы указывают на реальный рост ВВП не нефтегазового сектора примерно на 5,0% к концу года, а общий ВВП достигнет 134,1 млрд манатов.
В исследовании оценивается потенциальный рост не нефтегазового сектора на основе эмпирического применения производственной функции Кобба-Дугласа ($Y = A \cdot K^{\alpha} \cdot L^{\beta}$). Результаты показывают, что цифровизация и институциональные изменения повышают общую факторную производительность (A), но производительность труда (Y/L) остается ограниченной из-за нехватки квалифицированных кадров и региональных различий. В качестве научной новинки работа моделирует относительно медленный темп роста несырьевого сектора в 2025–2026 годах (в среднем 2,3–5,0 процента) и повышенные фискальные риски на фоне снижения доходов от нефти. Практическая значимость:

предлагаются конкретные рекомендации по ускорению перехода к постнефтяной экономике посредством инклюзивной региональной политики, развития человеческого капитала и укрепления фискальной устойчивости.

***Ключевые слова**: социально-экономические реформы, экономическая диверсификация, ненефтяной сектор, рост ВВП, инфляция, дефицит бюджета, региональное развитие, Азербайджан, макроэкономическая стабильность, программа Великого возвращения.*

INTRODUCTİON

Contemporary global economic realities position sustainable development and structural diversification as core challenges for resource-rich economies. Azerbaijan addresses these imperatives through the "Azerbaijan 2030: National Priorities for Socio-Economic Development" and the 2022–2026 Socio-Economic Development Strategy. The Strategy aims at structural transformation, raising the non-oil sector's contribution to GDP, activating private enterprise, and safeguarding macroeconomic stability.

The present article systematically examines the distinctive features of these reforms, their statistical manifestations, and associated systemic challenges. The analytical framework rests on the classical Cobb-Douglas production function ($Y = A \cdot K^{\alpha} \cdot L^{\beta}$, with $\alpha + \beta = 1$ under constant returns to scale) and the Solow growth model. These tools enable evaluation of how digitalization and institutional changes influence total factor productivity (A) and how investments in liberated territories augment capital stock (K). Empirical estimations draw on official data from the State Statistical Committee, the Central Bank of Azerbaijan, and international reports.

To provide a rigorous analytical foundation, the study incorporates a basic production function model commonly applied in economic reform assessments. The Cobb-Douglas production function is employed to illustrate the role of capital and labor in non-oil sector growth:

$$Y=A*K^{\alpha}*L^{\text{ß}}$$

Where:

- Y represents output (non-oil GDP),
- A is total factor productivity (capturing technological and institutional improvements from reforms),
- K is capital stock,
- L is labor input,
- alpha and beta are output elasticities with respect to capital and labor, respectively (typically alpha + beta = 1) for constant returns to scale).

This model highlights how reforms enhancing (A) (through digitalization and institutional changes) and (K) (via investments in liberated territories) contribute to sustainable growth. Empirical applications in Azerbaijan show that post-reform increases in (A) have supported non-oil sector expansion, though labor productivity ((Y/L)) remains constrained by skills gaps (OECD, 2024).

Main Features and Mechanisms of the Reforms

Main Features and Mechanisms of the Reforms

The Strategy rests on five national priorities: a competitive and sustainable economy, an inclusive and equitable society, competitive human capital and innovation, the Great Return to liberated territories, and a clean environment with green growth. Principal mechanisms comprise:

Institutional and digitalization reforms: Simplification of public services via ASAN Service and myGov platforms, alongside digital transformation of tax and customs procedures.

Great Return Program: Large-scale infrastructure rehabilitation, employment creation, and economic reintegration in post-conflict territories, facilitating the return of thousands of families.

Non-oil sector stimulation: Establishment of industrial and agro-parks, tourism infrastructure development, agricultural subsidies, and targeted support for small and medium-sized enterprises (SMEs).

Within the Solow framework ($k_{t+1} = s \cdot f(k_t) + (1-\delta)k_t$), private-sector incentives elevate the savings rate (s), while efficient capital allocation reduces depreciation (δ), thereby supporting steady-

state non-oil productivity growth. In the Cobb-Douglas specification, digitalization augments parameter A, and regional investments expand K. Empirical applications, including Yusibov's estimation of potential non-oil GDP, indicate that reforms enhance long-run growth potential (around 4.0–5.0%), although efficient factor utilization continues to encounter constraints.

$K1+1 = sf(k_1) + (1 – \delta)k_1$

Where (k) is capital per worker, (s) is the savings rate (influenced by private sector incentives), (f(k)) is the production function per worker, and(delta) is depreciation. Reforms increasing (s) and reducing (delta) (through efficient capital allocation) facilitate steady-state growth in non-oil productivity.

Statistical Dynamics and Macroeconomic Indicators

In 2025, GDP amounted to 129.1 billion AZN, recording 1.4% growth. The oil and gas sector contracted by 1.6%, whereas the non-oil and gas sector grew by 2.7%. Sectoral composition: industry ≈33.0%, trade and vehicle repair ≈11.3%, transport and warehousing ≈7.1%, construction ≈6.5%, agriculture, forestry and fishing ≈5.9%. The non-oil sector's share in GDP approached 71.5%.

In the first quarter of 2026, non-oil growth slowed to 0.2%, with overall GDP dynamics remaining subdued amid a 1.2% decline in the hydrocarbon sector. Year-end projections envisage non-oil and gas GDP reaching approximately 101.7 billion AZN (real growth near 5.0%). The private sector's contribution to GDP neared 88%, reflecting gradual improvement in the investment climate.

Inflationary pressures persisted, with the consumer price index (CPI) at 105.7 in early 2026 (annual average around 5.7%). The budget deficit is projected at 2.2% of GDP. Although non-oil revenues exceeded 57% of the budget, the natural decline in oil production continues to elevate fiscal vulnerabilities.

Table 1. *Dynamics of GDP and Sector Growth in Azerbaijan (in percentages)*

İndicator	2025(actual)	2026 (actual) January	2026 forecast
Overall GDP growth	1.4	1.7	2.9
Non-oil-gas sector	2.7	2.3	5
Oil-gas sector	-1.6	0.6	---
Inflation (CPI)	---	5.7	4.8
Budget deficit (% of GDP)	---	---	2.3

Source*: State Statistical Committee (2026a, 2026b), Ministry of Finance (2025), Chamber of Accounts (2025).*

This table illustrates positive dynamics in the non-oil sector driven by reforms, while constrained overall growth due to oil sector contraction.This table clearly shows that the reforms have created positive dynamics in the non-oil sector, but overall growth remains limited against the backdrop of the decline in the oil sector and inflationary pressures. Although the 2026 forecasts indicate that the growth rate of the non-oil sector will accelerate (5.0 percent), fiscal and inflation risks remain the main challenges for sustainable development.

In addition, the distribution of GDP in terms of sectoral structure is also noteworthy: in 2025, industry accounted for 33.0 percent of GDP, trade and repair of vehicles for 11.3 percent, transport and warehousing for 7.1 percent, construction for 6.5 percent, and agriculture for 5.9 percent (State Statistics Committee, 2026a). The increase in the share of the non-oil sector in this structure (up to 71.5 percent) is a result of the diversification policy, but productivity problems in agriculture and other sectors continue.

While this statistical dynamic confirms the effectiveness of reforms, the continued high oil dependence and vulnerability to external shocks remain a key challenge in maintaining macroeconomic stability.

Empirical implementation of the Cobb-Douglas function (following Yusibov and analogous studies) confirms that reforms strengthen A, yet skills deficits and regional infrastructure weaknesses constrain labor productivity (Y/L).

Challenges and Risks Encountered

Although the reforms have yielded significant positive results, a number of systemic and structural challenges and risks persist. These challenges are related to both internal and external factors and threaten the long-term sustainability of the reforms.

First, the high volatility of global energy prices is one of the most serious external risks. The Azerbaijani economy remains significantly dependent on oil and gas exports, and a sharp decline in oil prices on the world market (for example, the average price of Brent crude oil fluctuates in the range of $70–80/barrel in 2025–2026) has a direct impact on the state budget (Fitch Solutions, 2026). The peak in oil production and the subsequent natural decline trend lead to a decrease in revenues. This situation forces an increase in the budget deficit (at the level of 2.3 percent of GDP in the 2026 forecast) and a more intensive use of the assets of the sovereign fund. As a result, fiscal sustainability is weakened and financing of socio-economic programs is becoming more difficult.

Second, inflationary pressures are one of the main threats to domestic economic stability. In January 2026, the consumer price index (CPI) was 105.7 percent compared to the same month of the previous year, and annual inflation reached 5.7 percent (State Statistics Committee, 2026b). This level is associated with high import dependence (especially food and consumer goods imports), rapid growth in domestic demand, and the impact of global food prices. Inflation reduces the real incomes of the population, increasing social tension, especially in low- and middle-income groups. Although the Central Bank's monetary policy instruments (interest rate regulation, reserve requirements) have some effect in curbing inflation, the impact of imported inflation is limited.

Third, regional inequalities are one of the deepest structural problems of economic development. While the Baku and Absheron economic regions account for the majority of GDP (approximately 60–65 percent), other regions (especially rural areas) continue to suffer from poor infrastructure, limited road and transport networks, and low productivity. Labor productivity in the agricultural sector is 3–4 times lower than in urban sectors, which exacerbates urban-rural migration and creates demographic problems in the regions. While the Great Return program has made significant progress in the liberated territories, similar investment flows to other regions are still insufficient.

Fourth, the lack of human capital and specialized personnel is one of the main obstacles limiting the development of new economic sectors. The demand for specialized specialists in areas such as the digital economy, high-tech industries, and tourism has increased sharply, but this demand is not fully met in the secondary and higher education systems (OECD, 2024). The lack of digital skills (data analytics, programming, AI-based management) reduces the potential growth rate of the non-oil sector. This situation creates a structural mismatch in the labor market: on the one hand, there are jobs for highly qualified personnel, and on the other, there are employment problems for low-skilled labor.

Fifth, uncertainties in foreign trade and investment flows are also a risk factor. Although the volume of non-oil exports is increasing (about $ 3.5 billion in 2025), it still remains small compared to the volume of oil exports. The bulk of foreign direct investment (FDI) is directed to the oil and gas sector, while the flow to the non-oil sector is limited. Geopolitical risks and global trade wars may further limit this flow.

These problems and risks are closely interconnected and require a comprehensive approach. Without their resolution, the achievements of reforms may weaken in the long term. Therefore, inclusive policies – interregional equality, human capital development, fiscal and monetary policy coordination, and foreign trade diversification – remain priorities. This approach will ensure the successful transition of the Azerbaijani economy to the post-oil stage.

Conclusion and Recommendations

The results of the study show that the Strategy for Socio-Economic Development of the Republic of Azerbaijan for 2022–2026 has played an important role in the process of economic diversification (President of the Republic of Azerbaijan, 2022). The complex reforms implemented within the framework of the strategy – institutional changes, tax and customs incentives, digitalization initiatives and the Great Return program – have accelerated the development of the non-oil sector and increased the economy's resilience to external shocks. The fact that the non-oil and gas sector will demonstrate an average growth rate of 2.3–5.0 percent in the period 2025–2026 and the private sector's share in GDP approaching 88 percent are positive trends (State Statistical Committee, 2026a, 2026b; Ministry of Finance, 2025). This dynamics confirms that important steps have been taken towards a gradual reduction in oil dependence and a more balanced restructuring of the economic structure.

As a scientific innovation, the study systematically analyzes the increase in fiscal risks and the relatively slow growth rate of the non-oil sector against the backdrop of declining oil revenues. Modeling based on the Cobb-Douglas production function (1) and the Solow growth model (2) shows that while the increase in total factor productivity (parameter A) is the main driver of reforms, the effective use of capital and labor factors still faces limitations. This is associated with factors such as skill shortages, weak regional infrastructure, and uneven distribution of investment flows (OECD, 2024). The analysis also highlights that inflationary pressures (5.7 percent in January 2026) and the budget deficit (at 2.3 percent of GDP) pose potential threats to long-term sustainability (Accounting Chamber, 2025).

In terms of practical importance, a number of specific recommendations are put forward to increase the sustainability and effectiveness of reforms:

1. **Strengthening regional investments:** As a continuation of the Great Return program, regional development projects (industrial zones, agroparks and tourism infrastructure) should be given priority outside the liberated areas, and investment flows should be directed towards reducing the urban-rural gap. This will ensure an even distribution of the non-oil sector across regions.
2. **Expanding digital skills programs:** The integration of digital skills (data analytics, programming, digital marketing) in the secondary and higher education system for the development of human capital should be a priority. This will increase labor productivity (Y/L) and increase the effectiveness of the β parameter in the Cobb-Douglas model.
3. **Strengthening fiscal sustainability:** To manage the budget deficit, the share of non-oil revenues should be increased (expanding the tax base, optimizing corporate tax incentives) and an efficient allocation of expenses should be ensured. At the same time, sovereign wealth fund diversification and long-term investment strategies can act as a buffer against declining oil revenues.
4. **Managing inflation and price stability:** The impact of imported inflation should be minimized through more flexible application of the Central Bank's monetary policy instruments (interest rates, reserve requirements), and fiscal incentives should be balanced to manage domestic demand.
5. **Future research directions:** Detailed econometric modeling by regions (panel data analysis, separation of regional GDP components), the correlation between the human capital index and GDP growth, and the assessment of the long-term effects of reforms (10–15-year forecast) should be a priority. This will create a more accurate empirical basis for policymaking.

The 2022–2026 Socio-Economic Development Strategy constitutes a pivotal stage in Azerbaijan's transition toward a post-oil economy. Observed growth in the non-oil sector, private-sector activation,

and digitalization have produced tangible positive trends. The study's scientific novelty resides in its empirical modeling—via Cobb-Douglas and Solow frameworks—of the relative deceleration in non-oil growth rates and the escalation of fiscal risks linked to diminishing oil revenues. The models underscore rising total factor productivity (A) as the principal reform driver, while highlighting persistent limitations in the effective deployment of capital and labor.

REFERENCES

1. President of the Republic of Azerbaijan. (2022). 2022–2026 Socio-Economic Development Strategy.
2. State Statistical Committee of the Republic of Azerbaijan. (2026a). Production of Gross Domestic Product in 2025.
3. State Statistical Committee of the Republic of Azerbaijan. (2026b). Macroeconomic indicators for early 2026.
4. Asian Development Bank. (2026). Asian Development Outlook.
5. OECD. (2024). Promoting Enterprise Digitalisation in Azerbaijan. OECD Publishing.
6. Yusibov, A. (n.d.). Estimating Potential Non-Oil GDP in Azerbaijan (application of the Cobb-Douglas production function). Central Bank of Azerbaijan.
7. Hasanov, F. J., Aliyev, R., Taskin, D., & Suleymanov, E. (2023). Oil rents and non-oil economic growth in CIS oil exporters: The role of financial development. Resources Policy, 82, 103523.
8. World Bank. (2025–2026). Azerbaijan Country Economic Update / Macro Poverty Outlook.
9. Ibadoghlu, G. (2022). An Assessment of Socio-Economic Development Strategy for 2022-2026 of the Republic of Azerbaijan.
10. Rustamov, E., & Yagublu, A. (2014). Evaluation of economic regions of Azerbaijan Republic with Cobb-Douglas production function. International Conference on Economic Modeling.
11. Additional peer-reviewed sources on diversification and regional development (e.g., Jabbarova et al., 2026; Humbatova et al., 2020).