

& IQTISODIYOT

*ijtimoiy-iqtisodiy, innovatsion texnik,
fan va ta'limga oid ilmiy-amaliy jurnal*



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05.00.00 – Texnika fanlari
08.00.00 – Iqtisodiyot fanlar



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- 05.01.00 – Axborot texnologiyalari, boshqaruv va kompyuter grafikasi
- 05.01.01 – Muhandislik geometriyasi va kompyuter grafikasi. Audio va video texnologiyalari
- 05.01.02 – Tizimli tahlil, boshqaruv va axborotni qayta ishlash
- 05.01.03 – Informatikaning nazariy asoslari
- 05.01.04 – Hisoblash mashinalari, majmualari va kompyuter tarmoqlarining matematik va dasturiy ta'minoti
- 05.01.05 – Axborotlarni himoyalash usullari va tizimlari. Axborot xavfsizligi
- 05.01.06 – Hisoblash texnikasi va boshqaruv tizimlarining elementlari va qurilmalari
- 05.01.07 – Matematik modellash
- 05.01.11 – Raqamli texnologiyalar va sun'iy intellekt
- 05.02.00 – Mashinasozlik va mashinashunoslik
- 05.02.08 – Yer usti majmualari va uchish apparatlari
- 05.03.02 – Metrologiya va metrologiya ta'minoti
- 05.04.01 – Telekommunikatsiya va kompyuter tizimlari, telekommunikatsiya tarmoqlari va qurilmalari. Axborotlarni taqsimlash
- 05.05.03 – Yorug'lik texnikasi. Maxsus yoritish texnologiyasi
- 05.05.05 – Issiqlik texnikasining nazariy asoslari
- 05.05.06 – Qayta tiklanadigan energiya turlari asosidagi energiya qurilmalari
- 05.06.01 – To'qimachilik va yengil sanoat ishlab chiqarishlari materialshunosligi

- 05.08.03 – Temir yo'l transportini ishlatish
- 05.09.01 – Qurilish konstruksiyalari, bino va inshootlar
- 05.09.04 – Suv ta'minoti. Kanalizatsiya. Suv havzalarini muhofazalovchi qurilish tizimlari
- 10.00.06 – Qiyosiy adabiyotshunoslik, chog'ishtirma tilshunoslik va tarjimashunoslik
- 10.00.04 – Yevropa, Amerika va Avstraliya xalqlari tili va adabiyoti
- 08.00.01 – Iqtisodiyot nazariyasi
- 08.00.02 – Makroiqtisodiyot
- 08.00.03 – Sanoat iqtisodiyoti
- 08.00.04 – Qishloq xo'jaligi iqtisodiyoti
- 08.00.05 – Xizmat ko'rsatish tarmoqlari iqtisodiyoti
- 08.00.06 – Ekonometrika va statistika
- 08.00.07 – Moliya, pul muomalasi va kredit
- 08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit
- 08.00.09 – Jahon iqtisodiyoti
- 08.00.10 – Demografiya. Mehnat iqtisodiyoti
- 08.00.11 – Marketing
- 08.00.12 – Mintaqaviy iqtisodiyot
- 08.00.13 – Menejment
- 08.00.14 – Iqtisodiyotda axborot tizimlari va texnologiyalari
- 08.00.15 – Tadbirkorlik va kichik biznes iqtisodiyoti
- 08.00.16 – Raqamli iqtisodiyot va xalqaro raqamli integratsiya
- 08.00.17 – Turizm va mehmonxona faoliyati

Ma'lumot uchun, OAK
Rayosatining 2024-yil 28-avgustdagi 360/5-son qarori bilan "Dissertatsiyalar asosiy ilmiy natijalarini chop etishga tavsiya etilgan milliy ilmiy nashrlar ro'yxati"ga texnika va iqtisodiyot fanlari bo'yicha "Muhandislik va iqtisodiyot" jurnali ro'yxatga kiritilgan.

Muassis: "Tadbirkor va ishbilarmon" MChJ

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9. Jizzax politexnika instituti



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WAYS TO STRENGTHEN THE ECONOMY OF KARAKALPAKSTAN

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Abstract: This article examines key strategies for developing the economy of Karakalpakstan, an autonomous republic within Uzbekistan. The region is rich in natural resources and cultural heritage but faces significant economic challenges, particularly due to the ecological disaster of the Aral Sea. The study identifies crucial sectors for growth, including agriculture, industry, tourism, and environmental restoration. It emphasizes the need for modern infrastructure, sustainable practices, and investment in human capital to ensure long-term economic development. By implementing these strategies, Karakalpakstan can unlock its economic potential, improve living standards, and contribute to the broader economic growth of Uzbekistan.

Keywords: Karakalpakstan, economic development, agriculture, industrial growth, tourism, environmental restoration, infrastructure, sustainable development, green economy, economic strategies, Uzbekistan.

Annotatsiya: Ushbu maqolada O'zbekiston tarkibidagi avtonom respublika – Qoraqalpog'iston iqtisodiyotini rivojlantirishga qaratilgan asosiy strategiyalar ko'rib chiqiladi. Mintaqa boy tabiiy resurslari va madaniy merosiga ega bo'lishiga qaramay, Aral dengizining ekologik fojiasi tufayli jiddiy iqtisodiy muammolarga duch kelmoqda. Tadqiqotda iqtisodiy o'sish uchun ustuvor yo'nalishlar sifatida qishloq xo'jaligi, sanoat, turizm va atrof-muhitni tiklash sohalari aniqlangan. Maqolada zamonaviy infratuzilmani shakllantirish, barqaror amaliyotlarni joriy etish va inson kapitaliga sarmoya kiritish zarurligi ta'kidlanadi. Ushbu strategiyalarni samarali amalga oshirish orqali Qoraqalpog'iston o'z iqtisodiy salohiyatini ochib bera oladi, aholi turmush darajasini yaxshilaydi va O'zbekiston iqtisodiyotining umumiy rivojiga hissa qo'shadi.

Kalit so'zlar: Qoraqalpog'iston, iqtisodiy rivojlanish, qishloq xo'jaligi, sanoat o'sishi, turizm, atrof-muhitni tiklash, infratuzilma, barqaror rivojlanish, yashil iqtisodiyot, iqtisodiy strategiyalar, O'zbekiston.

Аннотация: В данной статье рассматриваются ключевые стратегии развития экономики Каракалпакстана – автономной республики в составе Узбекистана. Регион обладает богатыми природными ресурсами и культурным наследием, но сталкивается с серьезными экономическими трудностями, в первую очередь из-за экологической катастрофы Аральского моря. В исследовании выделены приоритетные направления роста, включая сельское хозяйство, промышленность, туризм и восстановление окружающей среды. Отмечается необходимость создания современной инфраструктуры, внедрения устойчивых практик и инвестиций в человеческий капитал для обеспечения долгосрочного экономического развития. Реализация этих стратегий позволит Каракалпакстану раскрыть свой экономический потенциал, повысить уровень жизни населения и внести вклад в общее экономическое развитие Узбекистана.

Ключевые слова: Каракалпакстан, экономическое развитие, сельское хозяйство, промышленный рост, туризм, восстановление окружающей среды, инфраструктура, устойчивое развитие, зелёная экономика, экономические стратегии, Узбекистан.

INTRODUCTION

The Republic of Karakalpakstan, as an important part of Uzbekistan, possesses unique geographical, natural, and cultural resources that present significant opportunities for economic development. However, the region also faces challenges, such as the ecological disaster caused by the Aral Sea and other environmental issues, which have had a considerable impact on its economy. This article explores the key strategies and recommendations for fostering economic growth in Karakalpakstan.



REVIEW OF LITERATURE ON THE SUBJECT

The socio-economic development of Karakalpakstan has been the subject of increasing scholarly attention, particularly in relation to environmental challenges, regional disparities, and investment potential. Scholars have emphasized that effective strategies for economic strengthening must be grounded in both the unique geographic conditions of the region and broader national development goals.

Ismailov and Sattorov highlight that Karakalpakstan faces a dual burden of economic underdevelopment and ecological vulnerability due to the desiccation of the Aral Sea. They argue that targeted investment in green technologies and sustainable agriculture is critical for fostering inclusive growth in the region. Their analysis shows that without addressing environmental degradation, long-term economic stabilization remains unlikely.

In a macro-regional context, Rudenko, Lamers, and Grote examined the potential of value chains in rural Uzbekistan and identified Karakalpakstan as a region with untapped opportunities in agri-business and horticulture. Their field-based research suggests that improving infrastructure, logistics, and access to credit can unlock local productivity and enhance livelihoods.

According to a study by the UNDP Uzbekistan, Karakalpakstan requires integrated strategies that combine social protection, water resource management, and SME development. The report underlines the importance of decentralizing policy implementation and enhancing local governance to respond more effectively to the region's specific needs.

From a financial perspective, Kadirov et al. assess the dynamics of regional investment flows and conclude that Karakalpakstan receives disproportionately low levels of both domestic and foreign investment. They recommend establishing a regional development bank and improving investor guarantees to build trust and stimulate capital inflow.

In the domain of labor economics, Ataniyazova explores the demographic shifts and youth unemployment trends in Karakalpakstan. Her research suggests that vocational education and digital entrepreneurship could play a transformative role in creating job opportunities, particularly for women and young people.

Finally, a comparative analysis by Abdullaev and Wegerich on water governance reveals that cross-border water resource coordination is essential for agricultural revival in Karakalpakstan. Since agriculture remains a dominant sector in the region's economy, ensuring irrigation security is fundamental to sustainable economic growth.

Taken together, the literature underscores that strengthening Karakalpakstan's economy requires multi-dimensional and context-sensitive approaches, including environmental resilience, inclusive financial instruments, infrastructure modernization, and human capital development.

RESEARCH METHODOLOGY

This study employs a mixed-methods approach, integrating both qualitative and quantitative research techniques. Data were obtained from primary sources through surveys and interviews with government representatives, farmers, entrepreneurs, and investors operating in Karakalpakstan. Additionally, secondary sources such as official reports, statistical datasets, and academic publications related to the region's economic conditions were thoroughly analyzed. A comparative analysis was also conducted, examining the experiences of other developing regions to extract relevant insights and practical lessons that could inform strategies for Karakalpakstan's economic development.

ANALYSIS AND RESULTS

The analysis identifies several priority sectors with strong potential to stimulate economic growth in Karakalpakstan. In the agricultural sector, key measures include the adoption of modern irrigation systems to enhance water efficiency, the promotion of sustainable farming practices such as cultivating drought-resistant crops, and investments in advanced agricultural technologies to increase productivity. Industrial development is another vital area, focusing on the expansion of light industries like textiles, food processing, and manufacturing by leveraging local resources. Support for small and medium-sized enterprises through credit schemes and subsidies, as well as sustainable exploitation of natural resources such as minerals and energy, are crucial. The establishment of industrial and free economic zones is also seen as a catalyst for attracting investment and fostering industrialization.

Tourism, particularly eco-tourism and cultural tourism, offers opportunities for regional revitalization. This includes efforts to restore the Aral Sea region and promote cultural landmarks such as the Savitsky Museum, alongside infrastructure improvements and strategic marketing to position Karakalpakstan as a distinctive travel destination. Environmental restoration and the development of a green economy are equally significant, with initiatives such as large-scale afforestation projects, renewable energy development, and the encouragement of environmentally responsible industries contributing to both ecological sustainability and economic resilience.

Finally, comprehensive infrastructure development remains essential. Priorities include enhancing transport networks to ensure better connectivity, upgrading digital infrastructure to expand access to internet and e-services, and improving water supply and sanitation systems to support both agricultural and industrial sectors. Collectively, these targeted efforts are expected to generate broad-based and sustainable economic growth across the region.

Quarterly Economic Indicators - Bremer County

For the Quarter Ending March 31, 2018

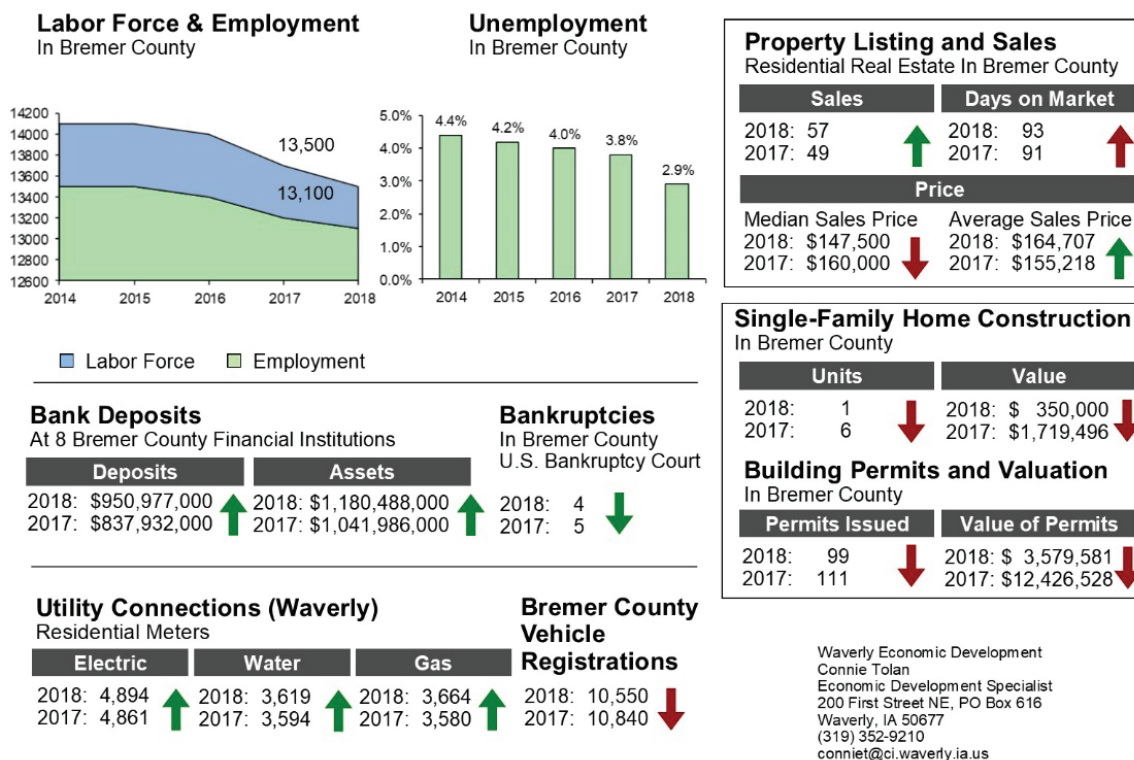


Figure 1: Quarterly Economic Indicators

The infographic titled “Quarterly Economic Indicators – Bremer County (March 31, 2018)” provides a detailed snapshot of local economic trends, which can be highly instructive when designing regional economic strategies for underdeveloped areas such as Karakalpakstan.

The labor market in Bremer County shows positive trends: the labor force stands at 13,500 with employment at 13,100, resulting in a low unemployment rate of 2.9%, down from 3.8% in 2017. This indicates healthy economic activity and efficient absorption of labor, which is a critical objective for Karakalpakstan, where underemployment and informal labor markets are widespread.

Bank deposits and assets have both grown significantly, with deposits increasing from \$837.9 million in 2017 to \$950.9 million in 2018, and assets reaching \$1.18 billion. This growth reflects public confidence in financial institutions and a rising propensity to save—key markers of financial inclusion and economic stability, both of which remain weak in Karakalpakstan.

Residential real estate shows mixed signals: although sales increased from 49 to 57 units, the median sales price dropped from \$160,000 to \$147,500, suggesting either market correction or limited high-value transactions. Still, the average sales price rose, pointing to possible volatility or a shift in market segmentation. For Karakalpakstan, this illustrates the need for developing formalized real estate markets and property valuation systems to stimulate construction and investment.

Notably, building permits and valuations sharply declined, with total permit value falling from \$12.4 million in 2017 to \$3.6 million in 2018. This suggests a slowdown in construction, which contrasts with Karakalpakstan’s urgent need for infrastructure development.

Overall, Bremer County demonstrates the importance of coordinated public-private activity, investment in infrastructure, and labor market integration. These experiences offer valuable lessons for Karakalpakstan in building localized, data-driven economic policies that are responsive to both market and social dynamics (Figure 2).

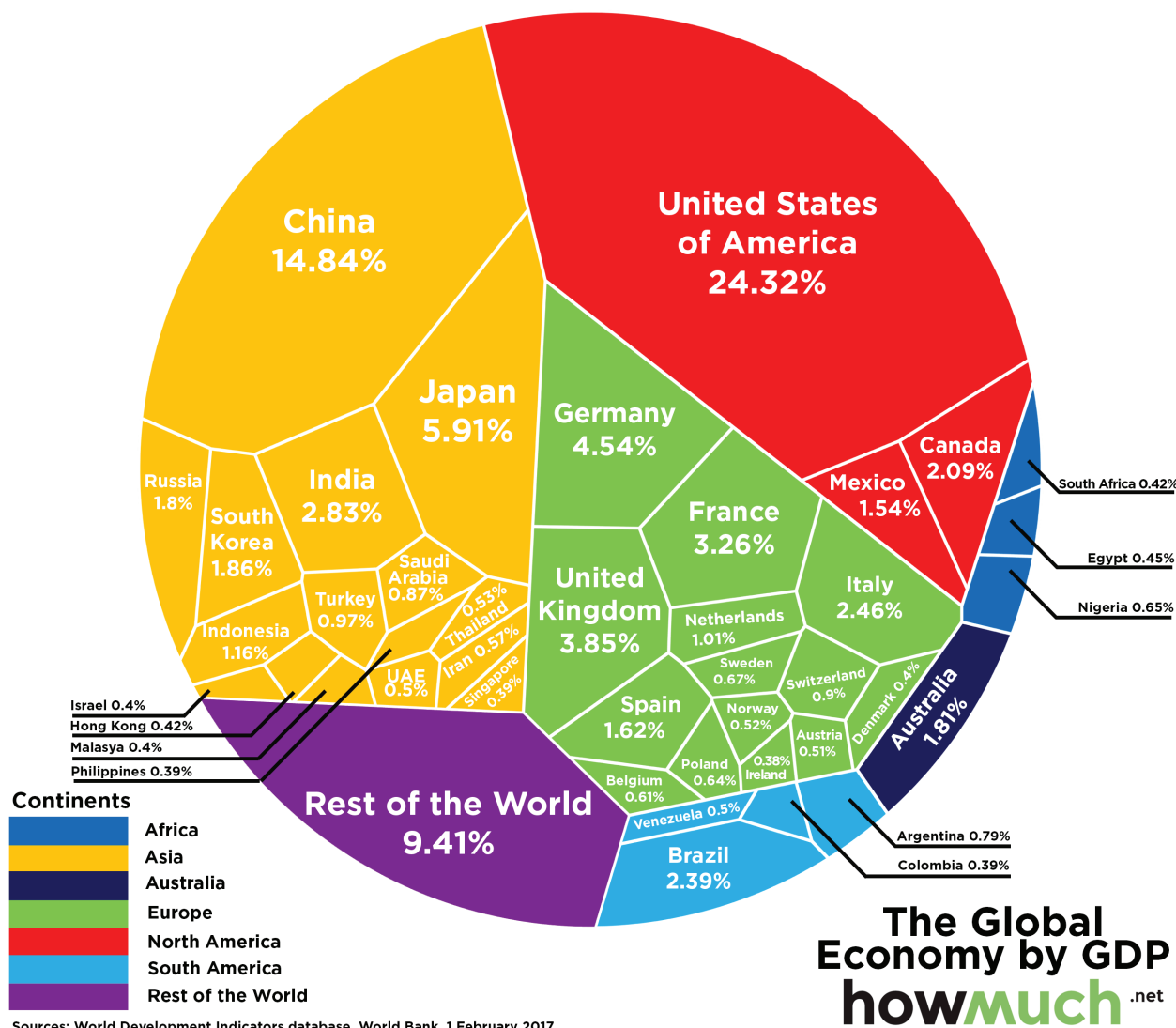


Figure 2: The Global Economy by GDP

The pie chart titled “The Global Economy by GDP” provides a visual breakdown of the world’s gross domestic product distribution by country and region, based on data from the World Bank as of February 2017. This visualization is especially relevant for analyzing the economic position of developing regions such as Karakalpakstan within the global context.

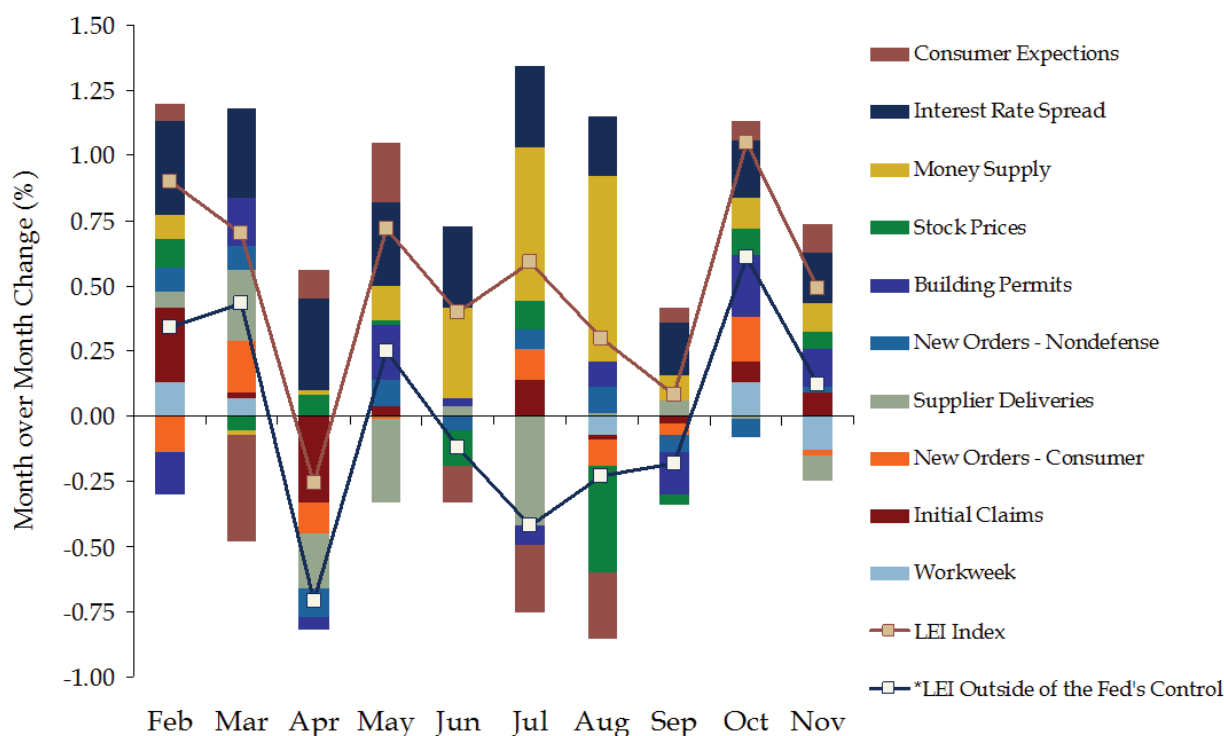
The United States holds the largest share of global GDP at 24.32%, followed by China at 14.84% and Japan at 5.91%. These figures underscore the dominance of highly industrialized economies, which benefit from strong institutions, technological innovation, and diversified industrial bases. Meanwhile, countries such as India (2.83%) and Brazil (2.39%) reflect the emerging economies that are transitioning into major global players but still lag behind in per capita income and development indicators.

The “Rest of the World” category, which accounts for 9.41%, includes numerous lower- and middle-income countries. For Karakalpakstan, an autonomous republic within Uzbekistan, this context is important. As part of a country not individually represented in the chart due to its relatively small GDP share, Karakalpakstan’s economic strengthening must focus on identifying niche sectors for growth, such as sustainable agriculture, renewable energy, and regional trade.

The chart also illustrates the stark economic disparities between continents. North America and Europe collectively dominate, whereas Africa’s total contribution remains minimal. Countries like Nigeria (0.65%) and Egypt (0.45%) are examples of economies with resource wealth but limited diversification.

In summary, the chart highlights the urgency for regions like Karakalpakstan to develop tailored economic strategies aimed at increasing productivity, attracting investment, and integrating into broader regional and global markets. This calls for structural reforms, infrastructure modernization, and investment in human capital to elevate Karakalpakstan from the statistical invisibility reflected in such global charts (Figure 3).

Leading Economic Indicators



* Excludes money supply, interest rates, and stock prices

ECONOMICDATA

Figure 3: Leading Economic Indicators

The chart titled “Leading Economic Indicators” illustrates month-over-month changes in various economic indicators, highlighting both aggregate and Fed-independent movements. Each colored bar represents key components such as consumer expectations, stock prices, building permits, and new orders, while the lines track the overall LEI Index and a version of it that excludes elements directly influenced by the Federal Reserve (money supply, interest rates, and stock prices).

The data shows notable volatility. April and July exhibit sharp declines in the LEI Index, driven mainly by negative shifts in initial claims, consumer expectations, and new orders. In contrast, months like February, June, and October experienced strong positive growth due to increases in money supply, building permits, and stock prices.

For regions like Karakalpakstan, where policy tools and market infrastructure are limited, this analysis is instructive. It highlights the importance of diversifying economic levers beyond monetary policy. In particular, building permits, consumer demand, and non-defense new orders are components that local governments can influence more directly. Monitoring such indicators can help Karakalpakstan adopt a more proactive and targeted approach to macroeconomic management, even when broader monetary policy remains centralized.

CONCLUSION AND SUGGESTIONS

To achieve long-term and sustainable economic development in Karakalpakstan, a comprehensive and multifaceted approach is required, targeting key sectors and leveraging the region’s unique potential. One of the most critical priorities is the modernization of agriculture, which remains central to the region’s economy but is constrained by severe water scarcity. Improving water resource management through advanced irrigation technologies such as drip systems, restoring existing canals, and introducing drought-resistant crops can significantly enhance productivity and ensure the sustainability of agricultural activities. Parallel efforts in promoting agro-processing industries will add value to raw agricultural outputs, stimulate job creation, and reduce dependency on primary exports. Providing farmers with access to modern technologies and sustainable practices, supported by training programs, is essential to achieving these goals.



Industrial growth and the development of small and medium-sized enterprises (SMEs) offer another pathway for diversifying the regional economy. Harnessing the region's untapped mineral and energy resources in an environmentally responsible manner can fuel the growth of light industries, including textiles, food processing, and machinery manufacturing. Creating a favorable business environment through streamlined regulations, tax incentives, and accessible financial instruments will further support entrepreneurship and attract both domestic and foreign investment. Vocational education and skills training are also pivotal in ensuring that the local workforce can meet the evolving demands of a modern industrial base, while public-private partnerships can be instrumental in implementing large-scale industrial projects.

The tourism sector, although underutilized, holds considerable potential due to Karakalpakstan's rich cultural and natural assets, such as the Savitsky Museum and the Aral Sea region. Strategic investments in tourism infrastructure—including accommodation, transport networks, and visitor services—are necessary to unlock this potential. Developing eco-tourism and cultural tourism offerings can appeal to both domestic and international visitors, especially when supported by branding and targeted marketing campaigns that highlight the region's unique heritage and ecological landscapes.

Addressing environmental degradation is equally critical, with the Aral Sea crisis presenting both a challenge and an opportunity. Large-scale restoration projects, such as afforestation programs involving the planting of saxaul trees, can mitigate desertification and contribute to climate stabilization. At the same time, Karakalpakstan's natural endowments in solar and wind energy position it well for a transition to a green economy. Investments in renewable energy infrastructure will not only reduce reliance on fossil fuels but also lower energy costs and generate green employment. Encouraging sustainable practices in agriculture and industry is essential for balancing economic growth with ecological preservation, fostering the emergence of green technologies and environmentally responsible enterprises.

Infrastructure development underpins all these strategies. Upgrading transportation networks, including roads, railways, and airports, will improve regional connectivity, facilitate trade, and enhance the region's appeal to investors. Simultaneously, expanding digital infrastructure is crucial for enabling e-governance, improving access to healthcare and education, and promoting digital entrepreneurship. Extending internet coverage to remote areas and investing in smart infrastructure such as energy-efficient buildings and intelligent transport systems will not only modernize public services but also lay the foundation for inclusive and sustainable urban development. Together, these integrated efforts will help unlock Karakalpakstan's full economic potential and improve living standards across the region.

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