

**COMPARISON OF ECONOMIC DEVELOPMENT LEVELS OF INTERREGIONAL
INEQUALITY**

Fayzieva Dilsuz Bakhodirovna

Assistant, Department of Economic Theory, Tashkent State University of Economics

d.fayzieva@tsue.uz

Abstract: This article analyzes the issue of regional inequality and compares differences in levels of economic development across regions from both theoretical and empirical perspectives. The study examines regional disparities in gross regional product, employment levels, household incomes, investment activity, and infrastructure development. The factors contributing to regional economic imbalances and their impact on socio-economic development are assessed. In addition, the role and effectiveness of regional development policies in reducing inequality are explored. The findings provide valuable insights for achieving balanced regional development and sustainable economic growth.

Keywords: regional inequality, economic development, regional disparities, investment, employment, regional policy.

Annotatsiya: Mazkur maqolada hududlararo tengsizlik muammosi hamda hududlarning iqtisodiy rivojlanish darajalari o'rtasidagi farqlar nazariy va empirik jihatdan tahlil qilinadi. Tadqiqotda hududlar kesimida yalpi hududiy mahsulot, bandlik darajasi, aholi daromadlari, investitsiya faolligi va infratuzilma rivojlanishidagi tafovutlar taqqoslanadi. Hududlararo iqtisodiy nomutanosibliklarning shakllanish omillari hamda ularning ijtimoiy-iqtisodiy rivojlanishga ta'siri baholanadi. Shuningdek, hududiy siyosatning tengsizlikni kamaytirishdagi roli va samaradorligi tahlil qilinadi. Tadqiqot natijalari hududlararo muvozanatni ta'minlash va barqaror iqtisodiy rivojlanishga erishish bo'yicha ilmiy-amaliy xulosalar chiqarishga xizmat qiladi.

Kalit so'zlar: hududlararo tengsizlik, iqtisodiy rivojlanish, hududiy tafovutlar, investitsiyalar, bandlik, hududiy siyosat.

Аннотация: В данной статье рассматривается проблема межрегионального неравенства и проводится сравнительный анализ уровней экономического развития регионов с теоретической и эмпирической точек зрения. В исследовании анализируются различия между регионами по показателям валового регионального продукта, уровня занятости, доходов населения, инвестиционной активности и развития инфраструктуры. Оцениваются факторы формирования межрегиональных экономических диспропорций и их влияние на социально-экономическое развитие. Особое внимание уделяется роли и эффективности региональной политики в сокращении неравенства. Полученные результаты способствуют формированию научно обоснованных выводов по обеспечению сбалансированного регионального развития и устойчивого экономического роста.

Ключевые слова: межрегиональное неравенство, экономическое развитие, региональные различия, инвестиции, занятость, региональная политика.

Introduction

In the context of modern economic development, regional inequality has emerged as one of the most persistent and complex challenges facing both developed and developing economies. Differences in economic performance, income levels, employment opportunities, infrastructure development, and access to public services across regions create uneven growth patterns that hinder national economic stability and social cohesion. As a result, understanding the nature, causes, and consequences of regional disparities has become a key priority in economic research and policy formulation.

Regional inequality reflects the unequal spatial distribution of economic resources and development outcomes within a country. Regions with higher concentrations of capital, skilled labor, industrial activity, and infrastructure tend to experience faster economic growth, while less-developed regions often remain trapped in cycles of low productivity, limited investment, and weak labor markets. These disparities not only widen income gaps between regions but also intensify social challenges such as internal migration, unemployment, and unequal living standards.

Economic theory provides various explanations for the emergence and persistence of regional disparities. Neoclassical growth models suggest that market mechanisms and factor mobility should eventually lead to regional convergence, as capital flows to less-developed regions with lower costs. In contrast, endogenous growth theory and new economic geography emphasize the role of agglomeration effects, economies of scale, and institutional factors in reinforcing regional concentration of economic activity. These perspectives highlight that without targeted policy interventions, regional inequalities may persist or even intensify over time.

In recent decades, globalization, technological change, and structural transformations have further reshaped regional development patterns.

Literature Review

Regional inequality has long been a central topic in economic theory and empirical research, as disparities in economic development across regions pose significant challenges to national growth and social cohesion. The literature on regional inequality spans multiple theoretical frameworks, including neoclassical growth theory, endogenous growth theory, new economic geography, and institutional economics, each offering distinct explanations for the persistence of spatial disparities.

Early neoclassical models of regional development, rooted in the works of Solow (1956) and Barro and Sala-i-Martin (1992), argue that regional inequalities are temporary phenomena. According to this perspective, differences in capital-labor ratios across regions lead to varying marginal returns, encouraging capital to flow toward less-developed regions. Over time, factor mobility and market mechanisms are expected to promote regional convergence in income and productivity levels. Empirical studies based on convergence analysis have found mixed evidence, with some countries exhibiting conditional convergence while others experience persistent divergence.

In contrast, endogenous growth theory emphasizes the role of human capital, innovation, and knowledge spillovers in shaping regional development outcomes. Romer (1990) and Lucas (1988) argue that regions with higher levels of education, research capacity, and technological adoption are more likely to achieve sustained growth. From this perspective, regional inequality persists because advanced regions are better positioned to accumulate knowledge and attract

skilled labor, reinforcing existing advantages. Empirical research supports this view by highlighting the strong correlation between regional human capital levels and economic performance.

The New Economic Geography (NEG), pioneered by Krugman (1991), provides further insights into regional disparities by focusing on agglomeration economies, increasing returns to scale, and transportation costs. According to NEG models, economic activity tends to concentrate in regions with favorable initial conditions, leading to self-reinforcing growth processes. Once agglomeration takes place, peripheral regions may struggle to compete, resulting in long-term spatial inequality. Numerous empirical studies confirm that industrial clustering and urban concentration significantly influence regional income and productivity gaps.

Institutional economics offers an additional explanation for regional inequality by emphasizing the role of governance quality, policy frameworks, and institutional capacity. North (1990) and Acemoglu et al. (2005) argue that regions with stronger institutions, effective public administration, and transparent regulatory environments are more likely to attract investment and foster economic development. Empirical evidence indicates that institutional quality at the regional level plays a crucial role in explaining variations in investment, employment, and income across regions.

Recent empirical studies increasingly adopt multidimensional approaches to measuring regional inequality, incorporating indicators such as gross regional product per capita, employment rates, income distribution, infrastructure development, and access to public services. Reports by international organizations such as the World Bank, OECD, and European Commission emphasize that regional disparities are closely linked to structural factors, including industrial specialization, demographic trends, and connectivity. These studies also highlight that regional inequality can undermine national growth by limiting the efficient allocation of resources and exacerbating social tensions.

Furthermore, the literature on regional policy evaluates the effectiveness of government interventions aimed at reducing spatial disparities. Place-based development strategies, infrastructure investment, and support for local entrepreneurship are widely discussed as tools for promoting balanced regional growth. However, empirical findings suggest that policy outcomes vary significantly depending on institutional capacity, policy design, and regional characteristics. This underscores the need for context-specific approaches rather than uniform policy solutions.

Overall, the literature demonstrates that regional inequality is a complex and persistent phenomenon driven by economic, institutional, and spatial factors. While market forces alone may not be sufficient to ensure regional convergence, well-designed and targeted regional development policies can play a critical role in mitigating disparities. Despite extensive research, gaps remain in comparative analyses that integrate multiple development indicators across regions, highlighting the relevance of further empirical investigation. This study seeks to contribute to the existing literature by providing a comparative assessment of regional economic development levels and identifying key drivers of regional inequality.

Methodology

This study employs a comparative and empirical research design to analyze regional inequality and differences in economic development levels across regions. The methodological framework

is structured to identify both the scale of regional disparities and the key factors influencing uneven economic development.

The research adopts a mixed-methods approach, combining quantitative statistical analysis with qualitative comparative assessment. This approach allows for a comprehensive evaluation of regional economic disparities by integrating numerical indicators with contextual interpretation. A cross-regional comparative analysis is conducted to examine variations in economic performance among regions over a defined time period.

The study is based on secondary data obtained from reliable national and international sources. These include:

- National statistical agencies and regional statistical yearbooks;
- World Bank databases (World Development Indicators);
- OECD regional statistics;
- Reports from international organizations related to regional development.

The use of official and internationally comparable data ensures consistency, reliability, and cross-regional comparability of the results.

To measure regional economic development and inequality, a set of key socio-economic indicators is employed. These indicators reflect multiple dimensions of regional development, including economic output, labor market conditions, income levels, and investment activity. The main variables include:

- Gross Regional Product (GRP) per capita;
- Employment and unemployment rates;
- Average household income levels;
- Investment per capita;
- Infrastructure development indicators.

These indicators are selected to capture both economic capacity and living standards across regions.

Several analytical methods are applied in the study. Descriptive statistical analysis is used to identify trends and patterns in regional development indicators. Comparative analysis is employed to assess disparities between more-developed and less-developed regions. Additionally, inequality measures, such as regional dispersion indices and variation coefficients, are used to quantify the extent of regional inequality.

To examine relationships between regional development indicators, correlation analysis is conducted, allowing the identification of associations between economic output, employment, and investment. Where applicable, regression analysis is applied to evaluate the impact of key

explanatory variables—such as investment and employment—on regional economic performance.

Regions are grouped based on their level of economic development using a ranking and clustering approach. This classification enables the identification of leading, intermediate, and lagging regions. Such grouping facilitates clearer comparisons and supports the formulation of targeted policy recommendations for different regional categories.

While the methodology provides a robust framework for analyzing regional inequality, certain limitations should be acknowledged. Data availability and quality may vary across regions, potentially affecting comparability. Additionally, the study focuses primarily on economic indicators and may not fully capture social, cultural, or environmental dimensions of regional development.

All data used in this study are drawn from publicly available and officially published sources. The research adheres to academic standards of transparency and integrity, ensuring proper citation and objective interpretation of results.

Overall, the chosen methodology enables a systematic and multidimensional assessment of regional inequality and economic development disparities. By combining comparative analysis with quantitative methods, the study provides a solid empirical foundation for understanding regional development patterns and informing evidence-based regional policy design.

Results and Analysis

While some regions have benefited from increased foreign investment, innovation, and integration into global value chains, others have been left behind due to insufficient infrastructure, weak human capital, and limited access to markets. Consequently, regional inequality has become closely linked to broader issues of inclusive growth, social stability, and sustainable development.

Given these challenges, governments increasingly recognize the importance of regional development policies aimed at reducing spatial disparities and promoting balanced economic growth. Such policies typically focus on improving infrastructure, supporting local entrepreneurship, attracting investment, and enhancing human capital in lagging regions. However, the effectiveness of these measures depends on a clear understanding of regional development dynamics and the specific factors driving inequality.

Against this background, the purpose of this study is to analyze and compare the levels of economic development across regions and to identify the key determinants of regional inequality. The research examines regional differences in gross regional product, employment, income levels, investment activity, and infrastructure development. By providing a comparative analysis of regional economic performance, the study aims to contribute to the academic debate on regional inequality and to offer policy-relevant insights for designing more effective regional development strategies.

Table 2

Intra-Regional Economic Disparities within Central Asian Countries.¹

Country	Share of GDP – Most Developed Region (%)	Share of GDP – Least Developed Region (%)	Ratio
Kazakhstan	29 (Almaty city)	4 (Turkistan region)	7.2 times
Uzbekistan	27 (Tashkent city)	5 (Surkhandarya region)	5.4 times
Turkmenistan	31 (Ashgabat)	6 (Lebap region)	5.2 times
Kyrgyzstan	35 (Bishkek)	7 (Naryn region)	5.0 times
Tajikistan	38 (Dushanbe)	8 (GBAO)	4.8 times

The table highlights significant intra-regional economic disparities within Central Asian countries in 2023 by comparing the share of GDP generated in the most developed and least developed regions. The ratios clearly indicate a strong concentration of economic activity in capital cities or leading regions, reflecting structural imbalances in regional development.

In Kazakhstan, the most developed region—Almaty city—accounts for 29% of national GDP, while the Turkistan region contributes only 4%. The resulting disparity of 7.2 times is the highest among the countries considered, pointing to a highly polarized economic structure driven by financial services, trade, and investment concentration in major urban centers.

Uzbekistan shows a notable but comparatively lower level of disparity. Tashkent city generates 27% of GDP, whereas Surkhandarya region contributes 5%, resulting in a 5.4-fold difference. This suggests that although the capital remains the dominant economic hub, ongoing regional industrialization and infrastructure development may be gradually reducing extreme imbalances.

In Turkmenistan, Ashgabat accounts for 31% of GDP, compared to only 6% produced by the Lebap region, producing a 5.2 times gap. This disparity reflects the centralization of administrative functions, services, and state-led investment in the capital, alongside uneven regional diversification.

Kyrgyzstan demonstrates a similar pattern, with Bishkek contributing 35% of GDP and the Naryn region only 7%, resulting in a 5.0 times difference. The concentration of economic activity in the capital is closely linked to services, trade, and remittance-related consumption, while peripheral regions remain constrained by limited infrastructure and market access.

¹ Хажиев, Б., Юсупов, Р., Шарипов, К., & Отабоев, Ф. (2020). GLOBALIQTISODIY RIVOJLANISH. Архив научных исследований,1(10). 2020 йил.
[https://scholar.google.com/scholar?cluster=7646407432718170493&hl=ru&as_sdt=2005&scioldt=0,5. 169 б.](https://scholar.google.com/scholar?cluster=7646407432718170493&hl=ru&as_sdt=2005&scioldt=0,5.)

In Tajikistan, the disparity ratio is relatively lower at 4.8 times, with Dushanbe generating 38% of GDP and GBAO contributing 8%. Although this indicates a slightly more balanced distribution compared to other countries, it still reflects significant regional inequality influenced by geographic isolation, limited industrial capacity, and dependence on central government transfers.

Overall, the analysis confirms that capital cities dominate national economic output across Central Asia, while peripheral regions lag behind. Reducing these disparities requires targeted regional development policies, investment in infrastructure and human capital in less developed regions, and stronger decentralization mechanisms to promote inclusive and balanced economic growth.

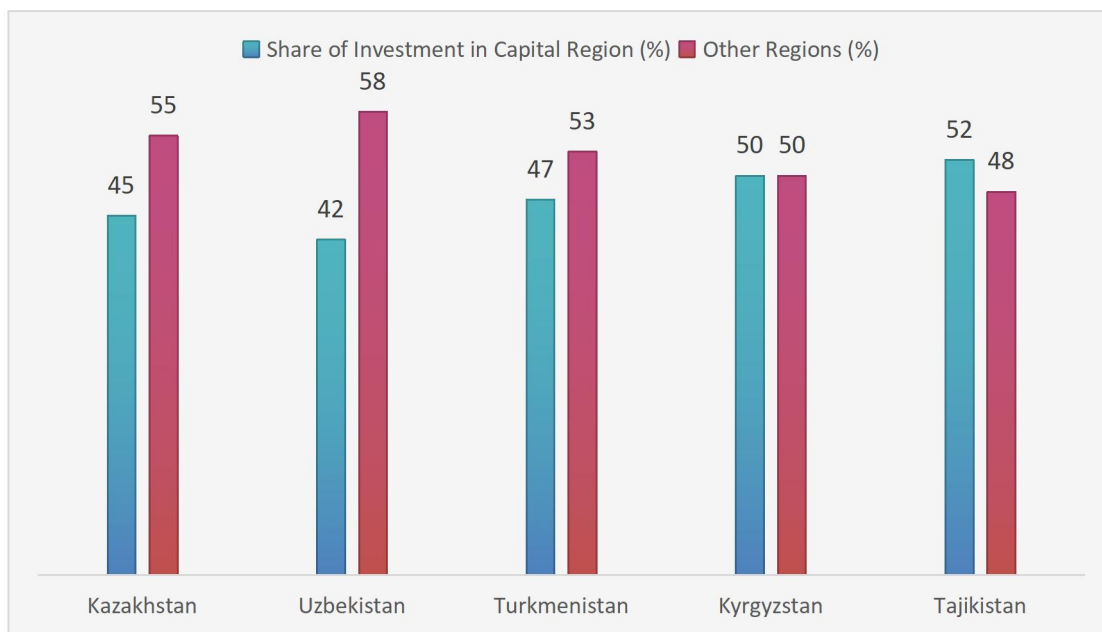


Table 3. Regional Distribution of Investment in Central Asia: Capital vs. Other Regions.²

The figure illustrates the distribution of investment between capital regions and other regions in selected Central Asian countries, highlighting the degree of regional concentration of capital flows. Overall, the data reveal a noticeable imbalance in favor of capital regions in most countries, indicating spatial disparities in economic development and investment attractiveness.

In Kazakhstan, 45% of total investment is concentrated in the capital region, while 55% is allocated to other regions. This relatively balanced distribution suggests that Kazakhstan has

² Хажиев, Б., Юсупов, Р., Шарипов, К., & Отабоев, Ф. (2020). GLOBALIQTISODIY RIVOJLANISH. Архив научных исследований,1(10). 2020 йил.
https://scholar.google.com/scholar?cluster=7646407432718170493&hl=ru&as_sdt=2005&scioldt=0,5. 169 б.

made progress in promoting regional investment, likely supported by resource-based projects and industrial development outside the capital.

In Uzbekistan, the dominance of non-capital regions is more pronounced, with 58% of investment directed to other regions and only 42% to the capital region. This pattern reflects recent regional development policies aimed at decentralization, industrial diversification, and the creation of new production capacities across provinces.

Turkmenistan also shows a higher share of investment in regions outside the capital (53%) compared to the capital region (47%). This can be associated with large-scale energy and infrastructure projects located in non-capital areas, particularly in resource-rich regions.

In Kyrgyzstan, investment is evenly distributed, with both the capital region and other regions receiving 50% each. This indicates a relatively neutral spatial allocation of investment, although the overall volume of investment may still remain limited compared to larger economies in the region.

In contrast, Tajikistan demonstrates a stronger concentration of investment in the capital region, where 52% of total investment is absorbed, compared to 48% in other regions. This suggests higher centralization and limited investment diffusion to peripheral areas, which may constrain balanced regional development.

In summary, the figure confirms that while some Central Asian countries are moving toward a more decentralized investment structure, regional disparities persist. Strengthening regional infrastructure, improving the business climate outside capital cities, and enhancing interregional connectivity are essential policy measures to ensure more inclusive and balanced economic growth across the region.

Conclusion

This article has examined interregional inequality through a comparative analysis of economic development levels across regions, with a particular focus on Central Asian countries. The findings demonstrate that economic activity and investment are highly concentrated in capital cities and a small number of economically advanced regions, while peripheral and less developed regions contribute a relatively small share to national GDP. Such spatial imbalances reflect structural differences in infrastructure development, industrial diversification, human capital accumulation, and access to markets.

The comparative analysis reveals that although the scale of interregional inequality varies among countries, a common pattern of capital-region dominance persists. Regions with better connectivity, administrative functions, and higher investment attractiveness consistently outperform remote and resource-constrained areas. This uneven distribution of economic development not only limits inclusive growth but also intensifies social disparities, labor migration, and regional dependency on fiscal transfers.

In conclusion, reducing interregional inequality requires a comprehensive and coordinated policy approach. Key priorities include strengthening regional infrastructure, promoting industrial and entrepreneurial activity in lagging regions, improving access to education and skilled labor, and enhancing decentralization and regional governance mechanisms. By fostering balanced regional development, countries can ensure more sustainable economic growth, improve social cohesion, and reduce long-term disparities in economic opportunities across regions.

References

1. Bourguignon, F. (2004). The Poverty–Growth–Inequality Triangle. World Bank Policy Research Working Paper No. 125. World Bank.
2. Dollar, D., & Kraay, A. (2002). Growth Is Good for the Poor. *Journal of Economic Growth*, 7(3), 195–225.
3. Ravallion, M. (2001). Growth, Inequality and Poverty: Looking Beyond Averages. *World Development*, 29(11), 1803–1815.
4. Sen, A. (1999). *Development as Freedom*. Oxford University Press.
5. World Bank. (2020). *Poverty and Shared Prosperity: Reversals of Fortune*. Washington, DC: World Bank.
6. United Nations Development Programme (UNDP). (2021). *Human Development Report*. New York: UNDP.
7. International Monetary Fund (IMF). (2019). *Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs*. Washington, DC: IMF.
8. OECD. (2015). *In It Together: Why Less Inequality Benefits All*. Paris: OECD Publishing.
9. Easterly, W. (2001). *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. MIT Press.
10. Kuznets, S. (1955). Economic Growth and Income Inequality. *The American Economic Review*, 45(1), 1–28.
11. World Bank. (2022). *World Development Indicators*. Washington, DC: World Bank.
12. Stiglitz, J. E. (2012). *The Price of Inequality: How Today's Divided Society Endangers Our Future*. W. W. Norton & Company.