HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

THE ROLE OF FREE ECONOMIC ZONES IN REGIONAL ECONOMIC DEVELOPMENT AND METHODOLOGY FOR ASSESSING THEIR IMPACT

Ibragimov Aziz Turayevich
Asia International University
Department of Economics
E-mail: [azizibragimovj5@gmail.com]

Abstract

This article examines the role of free economic zones in regional economic development and develops a methodological approach for assessing their socio-economic impact. In the context of economic liberalization, industrial modernization and increasing competition for foreign direct investment, free economic zones are becoming one of the most important instruments for attracting capital, expanding export-oriented production, creating employment, developing infrastructure and reducing regional economic disparities. The study argues that the effectiveness of free economic zones cannot be evaluated only by the number of established zones, the amount of attracted investment or the volume of industrial output. A comprehensive impact assessment should also include export diversification, employment quality, infrastructure spillovers, technological modernization, local supplier linkages, fiscal efficiency and environmental sustainability. Based on international experience and the institutional context of Uzbekistan, the article proposes a multidimensional methodological framework for evaluating the impact of free economic zones on regional transformation. The findings show that free economic zones can become effective drivers of sustainable regional development only when they are integrated with national industrial policy, supported by transparent governance, connected with local enterprises and oriented toward high-value-added production and exports.

Keywords: free economic zones, special economic zones, regional development, investment, export diversification, employment, industrial policy, impact assessment, Uzbekistan.

Аннотация

В данной статье рассматривается роль свободных экономических зон в развитии региональной экономики и разрабатывается методологический подход к оценке их социально-экономического воздействия. В условиях либерализации экономики, промышленной модернизации и усиления конкуренции за привлечение прямых иностранных инвестиций свободные экономические зоны становятся одним из важнейших инструментов привлечения капитала, расширения экспортно ориентированного производства, создания рабочих мест, развития инфраструктуры и сокращения региональных экономических диспропорций. В исследовании обосновывается, что эффективность свободных экономических зон не может оцениваться только количеством созданных зон, объёмом привлечённых инвестиций или промышленного производства. Комплексная оценка должна включать экспортную диверсификацию, качество занятости, инфраструктурные эффекты, технологическую модернизацию, связи с местными поставщиками, бюджетную эффективность и экологическую устойчивость. На основе международного опыта и институционального контекста Узбекистана предложена многомерная методика оценки влияния свободных экономических зон на региональную трансформацию.

Ключевые слова: свободные экономические зоны, специальные экономические зоны, региональное развитие, инвестиции, экспортная диверсификация, занятость, промышленная политика, оценка воздействия, Узбекистан.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

Annotatsiya

Mazkur maqolada erkin iqtisodiy zonalarning hududlar iqtisodiyotini rivojlantirishdagi o‘rni hamda ularning ijtimoiy-iqtisodiy ta’sirini baholash uslubiyoti tahlil qilinadi. Iqtisodiyotni liberallashtirish, sanoatni modernizatsiya qilish va xorijiy investitsiyalar uchun raqobat kuchayib borayotgan sharoitda erkin iqtisodiy zonalar kapital jalb etish, eksportga yo‘naltirilgan ishlab chiqarishni kengaytirish, yangi ish o‘rinlari yaratish, infratuzilmani rivojlantirish va hududiy iqtisodiy tafovutlarni kamaytirishning muhim vositasiga aylanmoqda. Tadqiqotda erkin iqtisodiy zonalar samaradorligini faqat tashkil etilgan zonalar soni, jalb qilingan investitsiyalar hajmi yoki sanoat ishlab chiqarishi ko‘rsatkichlari bilan baholash yetarli emasligi asoslanadi. Kompleks baholash eksport diversifikatsiyasi, bandlik sifati, infratuzilma ta’siri, texnologik modernizatsiya, mahalliy yetkazib beruvchilar bilan aloqalar, fiskal samaradorlik va ekologik barqarorlikni ham qamrab olishi zarur. Maqolada xalqaro tajriba va O‘zbekistonning institutsional sharoitlari asosida erkin iqtisodiy zonalarning hududiy transformatsiyaga ta’sirini baholashning ko‘p mezonli uslubiy modeli taklif etiladi.

Kalit so‘zlar: erkin iqtisodiy zonalar, maxsus iqtisodiy zonalar, hududiy rivojlanish, investitsiya, eksport diversifikatsiyasi, bandlik, sanoat siyosati, ta’sirni baholash, O‘zbekiston.

INTRODUCTION

Regional economic development is one of the most important priorities of modern economic policy. Uneven distribution of investment, employment, industrial infrastructure, innovation capacity and export opportunities creates long-term disparities between territories. In many developing and transition economies, peripheral regions often remain dependent on agriculture, raw materials or low-productivity services, while high-value-added production is concentrated in large cities and industrial centers. Under such conditions, free economic zones are widely used as instruments for accelerating regional modernization and creating new industrial growth points.

Free economic zones are geographically delimited territories that operate under a special legal, tax, customs, administrative and infrastructure regime. Their main purpose is to create favorable conditions for investors and exporters, stimulate industrial production, introduce modern technologies, increase employment and strengthen regional competitiveness. Unlike ordinary industrial territories, free economic zones provide a combination of institutional preferences, infrastructure support and administrative facilitation.

In Uzbekistan, the development of free economic zones is closely connected with the reforms aimed at economic liberalization, attracting foreign direct investment, developing private entrepreneurship, modernizing industry and reducing regional disparities. The country has established a broad network of special economic zones, small industrial zones, technoparks, clusters and youth industrial and entrepreneurial zones. This process reflects the increasing role of territorial industrial policy in national economic development.

The relevance of this research is determined by the need to evaluate whether free economic zones actually contribute to regional transformation or only generate isolated production activity within preferential territories. The creation of a zone itself does not automatically guarantee economic success. If a free economic zone remains weakly connected with local suppliers, labor markets, universities and infrastructure systems, its broader regional impact may be limited. Therefore, the key research problem is how to assess the real contribution of free economic zones to regional economic development.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

The objective of this article is to analyze the role of free economic zones in regional economic development and to propose a methodological framework for assessing their socio-economic impact. The article addresses three main tasks: first, to identify the theoretical channels through which free economic zones influence regional economies; second, to examine the key indicators used to evaluate their performance; and third, to develop an integrated impact assessment model applicable to Uzbekistan and other developing economies.

METHODOLOGY AND LITERATURE REVIEW

This research is based on a qualitative analytical design supported by systemic, structural, comparative and institutional approaches. The systemic approach treats a free economic zone not as an isolated territory but as part of a broader regional economic system that includes enterprises, public institutions, labor markets, transport networks, educational organizations, financial institutions and local communities. This approach is important because the impact of a free economic zone depends not only on its internal activity but also on its external linkages with the surrounding economy.

The structural approach is used to analyze changes in the sectoral composition of regional economies. It helps determine whether free economic zones contribute to industrial diversification, technological modernization and higher value-added production, or whether they reproduce existing dependence on traditional sectors. The comparative approach allows the performance of different zones and regions to be compared over time. The institutional approach focuses on the quality of governance, stability of legal rules, transparency of administrative procedures, investor protection and coordination between state bodies and private enterprises.

The theoretical foundation of the article is based on regional development theory, industrial policy theory, export-led growth theory and the concept of structural transformation. Regional development theory emphasizes that territorial disparities cannot be eliminated by market forces alone and that targeted policy instruments are needed to stimulate economic activity in less developed regions. Industrial policy theory argues that the state can play an active role in creating conditions for new industries, technological upgrading and export diversification. Export-led growth theory suggests that integration into international markets can increase productivity, improve competitiveness and accelerate economic growth.

The international literature on free and special economic zones shows mixed results. Some zones have become engines of industrialization, exports and employment, while others have remained isolated enclaves with weak domestic linkages. Farole and Akinci (2011) argue that the success of special economic zones depends on location, infrastructure, governance quality, investment climate and links with the domestic economy. Frick, Rodríguez-Pose and Wong (2019) emphasize that special economic zones in emerging economies are more effective when they are embedded in broader regional development strategies. UNCTAD (2019) notes that the global expansion of special economic zones requires governments to adapt zone policies to sustainable development, digital transformation and new industrial technologies.

In Uzbekistan, the legal and institutional basis of free economic zones has been strengthened by the Law of the Republic of Uzbekistan “On Special Economic Zones”. This law regulates the organization, functioning and development of special economic zones and defines the powers of state bodies, the rights of zone participants and the general framework for providing preferences. The law also creates a basis for improving monitoring and evaluating the effectiveness of special economic zones.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

RESULTS AND DISCUSSION

1. Free economic zones as instruments of regional investment attraction

The first major function of free economic zones is investment attraction. Investors usually prefer locations with reliable infrastructure, clear legal rules, available land, skilled labor and efficient administrative services. Free economic zones reduce investment barriers by concentrating these advantages within a defined territory. This is especially important for regions that have limited access to capital and weak industrial infrastructure.

In Uzbekistan, the expansion of free economic zones reflects the government's intention to create new industrial growth points across regions. As of January 1, 2024, there were 766 industrial-zone structures in the country, including 24 special economic zones, 532 small industrial zones and 210 youth industrial and entrepreneurial zones. By April 1, 2026, the system had expanded further, with 33 special economic zones, 396 small industrial zones, 27 technoparks, 349 clusters and 143 youth industrial and entrepreneurial zones operating with active enterprises.

However, investment attraction should not be assessed only by the total volume of capital inflow. The developmental quality of investment is equally important. High-quality investment creates long-term production capacity, introduces modern technology, generates stable employment, increases exports and supports local supplier networks. Low-quality investment may depend mainly on tax preferences and have limited impact on regional competitiveness.

Therefore, an effective methodology for evaluating free economic zones should distinguish between the quantitative and qualitative dimensions of investment. Quantitative indicators include total investment, foreign direct investment, domestic investment and the number of investors. Qualitative indicators include technological level, export potential, local content, employment quality and contribution to regional diversification.

2. Industrial production and structural transformation

The second channel through which free economic zones affect regional development is industrial production. By attracting manufacturing enterprises, free economic zones can increase industrial output, develop new production capacities and reduce regional dependence on low-productivity sectors. They may also contribute to structural transformation by shifting resources from agriculture or raw-material extraction toward manufacturing and high-value-added services.

In Uzbekistan, industrial output in special economic zones reached 14,000.6 billion soums in January–March 2026, compared with 10,652.9 billion soums in the same period of the previous year. This represents a 31.4 percent year-on-year increase and indicates the growing role of free economic zones in national industrial production.

Nevertheless, the growth of industrial output alone does not fully reflect the effectiveness of zones. It is necessary to analyze the sectoral structure of production, the share of value-added products, capacity utilization, productivity, technology adoption and innovation content. A free economic zone that produces mainly simple goods with low value added may have limited long-term impact. In contrast, a zone that develops machinery, electrical equipment, pharmaceuticals, processed food products or other technology-intensive sectors can contribute more strongly to regional modernization.

Structural transformation also depends on whether free economic zones help regions diversify their economic base. For example, agro-industrial zones may transform agricultural regions by developing processing, storage, packaging and export logistics. Pharmaceutical zones may support the development of high-value-added production and import substitution. Tourism-oriented zones may

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

create new service-sector growth points. Therefore, the specialization of each free economic zone should correspond to regional comparative advantages.

3. Export diversification and external competitiveness

Export expansion is one of the main objectives of free economic zones. By providing customs preferences, simplified procedures, logistics infrastructure and administrative support, these zones can reduce transaction costs for exporters and help enterprises enter foreign markets. Export-oriented production also encourages firms to improve quality standards, certification, packaging and technological processes.

However, export growth should be evaluated together with export diversification. A region that exports a narrow range of raw materials remains vulnerable to global price fluctuations. Free economic zones can reduce this vulnerability by promoting manufactured goods, processed agricultural products, pharmaceuticals, textiles, electrical equipment, construction materials and other value-added products.

For Uzbekistan, export diversification is particularly important because it supports the broader goal of reducing dependence on traditional exports and increasing the competitiveness of domestic producers. The impact of free economic zones on exports should be measured by export volume, export growth rate, number of exporting firms, export geography, share of value-added products and degree of product diversification.

If enterprises located in free economic zones mainly serve the domestic market, their contribution to external competitiveness remains limited. Therefore, export-oriented residents should receive targeted support in certification, logistics, digital trade, participation in international exhibitions and access to foreign distribution channels.

4. Employment creation and human capital development

Employment creation is one of the most visible social effects of free economic zones. Zone-based enterprises create direct jobs in manufacturing, logistics, services and administration. They also create indirect employment through construction, transport, maintenance, retail, catering and supplier networks. This effect is especially important for regions with high youth unemployment or limited industrial activity.

However, the quality of employment is as important as the number of jobs. If free economic zones mainly create low-skilled and low-wage employment, their long-term contribution to human capital development remains limited. A stronger developmental effect appears when zone enterprises introduce vocational training, engineering skills, digital competencies, technical specialization and modern management practices.

Therefore, employment impact should be assessed through several indicators: number of jobs created, average wages, labor productivity, share of skilled workers, training programs, staff turnover and cooperation with educational institutions. Universities, technical schools and vocational colleges can play an important role in preparing specialists for free economic zone residents. Without such cooperation, zones may face skill shortages or depend excessively on external labor.

5. Infrastructure development and territorial spillovers

Infrastructure is one of the most important factors determining the success of free economic zones. Investors need stable electricity, gas, water supply, roads, warehouses, logistics terminals,

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

customs facilities, telecommunications and digital connectivity. If these elements are weak, even generous tax incentives may not be sufficient to attract high-quality investment.

Free economic zones can contribute to regional infrastructure modernization. Roads, engineering networks and logistics facilities built for zone residents may also benefit nearby communities and local businesses. This creates territorial spillover effects beyond the boundaries of the zone. In this sense, infrastructure development is not only a condition for the success of free economic zones but also one of their long-term contributions to regional development.

However, infrastructure impact should be assessed not only by the existence of physical assets but also by their reliability, cost, capacity and accessibility. For example, a zone may have an electricity connection, but frequent interruptions can reduce production efficiency. Similarly, a road may exist, but poor logistics services can limit export competitiveness. Therefore, infrastructure indicators should include service quality, operational reliability and integration with regional transport corridors.

6. Innovation, technology transfer and local linkages

Modern free economic zone policy increasingly focuses on innovation rather than simple tax privileges. Technology transfer occurs when firms introduce new equipment, digital systems, production standards, quality management, environmental technologies and organizational practices. These innovations may spread to local firms through supplier relationships, labor mobility, demonstration effects and cooperation with universities.

However, spillover effects do not occur automatically. If enterprises located in free economic zones import most inputs, employ limited local labor and operate separately from domestic firms, the zone may become an enclave. In such a case, production may increase inside the zone, but the surrounding regional economy may receive limited benefits.

Therefore, an impact assessment methodology should include indicators of local supplier participation, SME integration, university-industry cooperation, innovation activity, research and development, training intensity and technology adoption. The stronger the linkages between zone residents and the local economy, the greater the multiplier effect of free economic zones.

7. Methodology for assessing the impact of free economic zones

A comprehensive methodology for assessing the impact of free economic zones on regional development should include several interconnected blocks of indicators. The proposed framework is presented in Table 1.

Table 1

Proposed indicators for assessing the impact of free economic zones on regional economic development

Indicator block	Key indicators	Assessment purpose	Expected regional effect
Investment impact	Total investment, FDI, domestic investment, number of investors	Measures capital attraction and investment quality	Expansion of productive capacity
Production impact	Industrial output, value added, sectoral structure, capacity utilization	Evaluates real economic activity	Industrial modernization and diversification
Export impact	Export volume, export	Assesses external	Integration into global

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

	growth, export destinations, value-added exports	competitiveness	markets
Employment impact	Jobs created, wages, labor productivity, skilled labor share	Measures social and labor-market effects	Income growth and human capital formation
Fiscal impact	Tax revenues, customs effects, public infrastructure costs	Evaluates budgetary efficiency	Balanced public cost-benefit outcome
Infrastructure impact	Utilities, transport access, logistics capacity, digital connectivity	Assesses business environment quality	Improved regional infrastructure
Innovation impact	Technology adoption, R&D, training, university-industry cooperation	Measures modernization capacity	Technology transfer and knowledge spillovers
Spillover impact	Local suppliers, SME participation, service-sector linkages	Assesses integration with the local economy	Multiplier effects beyond the zone
Sustainability impact	Energy efficiency, environmental standards, green technologies	Evaluates long-term sustainability	Cleaner and more resilient industrial growth

The proposed framework makes it possible to evaluate free economic zones through a multidimensional lens. For example, a zone may perform well in attracting investment but poorly in local supplier development. Another zone may create employment but fail to generate innovation spillovers. Therefore, an integrated assessment prevents policymakers from overestimating zone success based on one indicator only.

For quantitative assessment, this article proposes the Free Economic Zone Regional Impact Index:

$$FEZ\text{-}RII = w1I + w2P + w3X + w4E + w5F + w6INF + w7INN + w8S + w9ENV$$

where I represents investment impact, P production impact, X export impact, E employment impact, F fiscal impact, INF infrastructure impact, INN innovation impact, S spillover impact, ENV environmental sustainability impact, and w represents the weight assigned to each indicator.

Each indicator can be normalized on a scale from 0 to 1. Weights may be determined according to national development priorities, expert evaluation or statistical methods such as principal component analysis. The index can be used to compare free economic zones across regions, monitor their progress over time and identify zones that require policy correction.

8. Policy implications for Uzbekistan

For Uzbekistan, the proposed methodology has several practical implications. First, free economic zones should be evaluated not only by the volume of production or number of residents but also by their broader regional impact. Second, export-oriented and technology-intensive projects should be prioritized. Third, cooperation between zone residents and local enterprises should be strengthened to increase multiplier effects. Fourth, infrastructure development should be accelerated through public-private partnership mechanisms. Fifth, human capital policies should be linked with the labor needs of free economic zones.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

In addition, transparent governance and regular monitoring are essential. Each free economic zone should have clear performance targets, including investment, export, employment, innovation and sustainability indicators. Public reporting of results would increase accountability and help policymakers identify both successful and underperforming zones.

CONCLUSION

The study demonstrates that free economic zones can play a significant role in regional economic development when they are strategically designed, institutionally supported and integrated with the broader economy. Their main contribution lies in attracting investment, increasing industrial output, expanding exports, creating employment, improving infrastructure, stimulating innovation and supporting regional diversification.

At the same time, the developmental impact of free economic zones is not automatic. Zones that rely only on tax incentives, lack reliable infrastructure or remain isolated from local enterprises may generate limited regional benefits. Therefore, the effectiveness of free economic zones should be evaluated through a multidimensional methodology that includes investment, production, export, employment, fiscal, infrastructure, innovation, spillover and sustainability indicators.

For Uzbekistan, the continued expansion of free economic zones creates an important opportunity to strengthen regional competitiveness and accelerate industrial modernization. To maximize this opportunity, policy should focus on high-quality investment, export-oriented production, local supplier development, human capital formation, transparent governance, technological innovation and environmental sustainability. Future empirical research should apply the proposed FEZ-RII model to specific regions and zones in Uzbekistan in order to identify best-performing models and improve evidence-based regional industrial policy.

REFERENCES

1. Farole, T. (2011). Special economic zones in Africa: Comparing performance and learning from global experience. World Bank.
2. Farole, T., & Akinci, G. (Eds.). (2011). Special economic zones: Progress, emerging challenges, and future directions. World Bank.
3. Frick, S. A., Rodríguez-Pose, A., & Wong, M. D. (2019). Toward economically dynamic special economic zones in emerging countries. Economic Geography, 95(1), 30–64. https://doi.org/10.1080/00130095.2018.1467732
4. Investment Promotion Agency under the Ministry of Investment, Industry and Trade of the Republic of Uzbekistan. (2026). Special economic zones. Government Portal of the Republic of Uzbekistan.
5. OECD. (2025). Roadmap for sustainable investment policy reforms in Uzbekistan. Organisation for Economic Co-operation and Development.
6. Porter, M. E. (1998). Clusters and the new economics of competition. Harvard Business Review, 76(6), 77–90.
7. Republic of Uzbekistan. (2020). Law of the Republic of Uzbekistan No. ZRU-604: On Special Economic Zones.
8. Todaro, M. P., & Smith, S. C. (2021). Economic development (13th ed.). Pearson.
9. UNCTAD. (2019). World investment report 2019: Special economic zones. United Nations.
10. Uzbekistan Embassy in the United Kingdom. (2024). As of January 1, 2024, 766 industrial zones have been created in Uzbekistan.

HSR (LONDON),
HOUGHTON STREET REVIEW JOURNAL
ISSN: 2058-5519|Impact factor-15.9
http://houghtonstreetreview.com/index.php/hsr

11. UzDaily. (2026, May 17). Uzbekistan SEZ output rises 31% in Q1 2026.
12. World Bank. (2020). Global investment competitiveness report 2019/2020: Rebuilding investor confidence in times of uncertainty. World Bank.
13. Zeng, D. Z. (2016). Special economic zones: Lessons from the global experience. PEDL Synthesis Paper Series, 1, 1–12.