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THE SCIENTIFIC-POPULAR ELECTRONIC
JOURNAL "INNOVATION SCIENCE AND
TECHNOLOGY" HAS BEEN REGISTERED
UNDER THE NUMBER **C-5669633** BY THE
AGENCY FOR INFORMATION AND MASS
COMMUNICATIONS (AOKA) OF THE
REPUBLIC OF UZBEKISTAN, EFFECTIVE
FROM OCTOBER 9, 2024.

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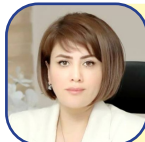
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Electronic publication, Issue 1. 137 pages. Approved for
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ANALYSIS OF INVESTMENTS IN REAL CAPITAL OF UZBEKISTAN

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Abstract: This article analyzes the dynamics of investment in Uzbekistan's real capital from 2012 to 2023, revealing an average annual investment growth rate of 1.1%. This indicates the need for enhancements in investment policy. Based on the analysis, the study proposes recommendations to strengthen the investment climate, attract foreign capital, promote regional investment activity, and enhance economic resilience to external shocks. Emphasizing economic diversification and innovation, the research highlights their crucial role in ensuring sustainable growth.

Key words: Investments, real capital, growth rates, investment climate, investment activity.

INTRODUCTION

Investments in real capital are a key driver of economic growth, facilitating infrastructure development, modernizing production capacities, and enhancing the national economy's competitiveness. Analyzing investment dynamics provides valuable insights into the effectiveness of state economic policies, including reforms aimed at improving the investment climate and attracting foreign capital.

The period from 2012 to 2023 includes several significant events, most notably the global economic crisis triggered by the COVID-19 pandemic. This makes the study particularly relevant for assessing Uzbekistan's economic resilience to external shocks. Additionally, examining investment trends helps identify structural shifts in the economy, such as industry diversification and the transition toward more sustainable development models.

The findings of this analysis serve as a foundation for developing recommendations to optimize investment policy, which is especially crucial in the context of global instability and increasing competition for international investment.

LITERATURE REVIEW

In recent years, several key legislative acts have been adopted in Uzbekistan to stimulate investment in real capital and improve the investment climate. The most significant among them is the Law of the Republic of Uzbekistan No. 598¹, dated December 25, 2019, "On Investments and Investment Activities." This law establishes the legal framework for investment activities, including investment protection guarantees, dispute resolution mechanisms, and incentive measures for investors. Additionally, it ensures equal conditions for both local and foreign investors, thereby promoting capital inflows into the real sector of the economy [1].

Furthermore, the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 606², dated October 15, 2022, "On Additional Measures to Accelerate Innovation and Investment Activities in the Regions of the Republic" focuses on stimulating innovation and investment activities across the country's regions. This resolution outlines measures to enhance coordination between government agencies and the private sector to facilitate the effective implementation of investment and innovation projects [2].

Thus, analyzing the dynamics of real capital investments in Uzbekistan is not only valuable for advancing economic science but also has practical significance in shaping strategies for sustainable economic growth.

1 <https://lex.uz/uz/docs/-4664142>

2 <https://lex.uz/uz/docs/-6240100>

RESEARCH METHODOLOGY

The study of investment dynamics in Uzbekistan's real capital from 2012 to 2023 employed descriptive, time-series, and comparative analysis methods, along with the calculation of the compound annual growth rate (CAGR) and graphical visualization. Growth periods were identified in 2017–2019 and 2023, while declines were observed in 2016 and 2020, followed by a recovery phase in 2021–2022 due to internal reforms and external shocks, such as the COVID-19 pandemic. The average annual growth rate stood at 1.1%, indicating low investment dynamics. Factor analysis linked these changes to economic policy and global conditions. The forecast suggests continued investment growth, provided favorable conditions persist. For a more in-depth analysis, the application of regression and scenario-based methods is recommended.

ANALYSIS AND RESULTS

The study revealed that, despite observed fluctuations, investment activity in Uzbekistan demonstrates a tendency toward recovery, particularly in the post-crisis period. However, to ensure the sustainable growth of investments in real capital, further improvements in investment policy are necessary. This includes creating favorable conditions for attracting foreign capital and implementing strategic projects aimed at diversifying the economy and enhancing its competitiveness.

Future research in this area could focus on analyzing the structure, sources, and efficiency of investments, enabling the development of more accurate forecasts and policy recommendations. **Table 1** provides an analysis of investments in real capital in Uzbekistan from 2012 to 2023.

Table 1. Growth rates of investments in real capital in the Republic of Uzbekistan for 2012-2023³ (in percent).

Years	Rates of investments in real capital (in percent)
2012	110,6
2013	111,3
2014	109,8
2015	109,4
2016	104,1
2017	119,4
2018	129,9
2019	138,1
2020	95,6
2021	102,9
2022	100,2

Based on the analysis of the dynamics of investments in real capital in Uzbekistan from 2012 to 2023, several key trends and patterns can be identified. At the beginning of the review period, from 2012 to 2015, the volume of investments demonstrated relative stability, fluctuating within 109–111%, which indicates a balance in investment processes within the economy. However, in 2016, there was a noticeable decrease in investment volume to 104.1%, likely due to a combination of factors, including economic reforms, changes in investment policy, and the influence of external economic conditions.

3 Source: Statistics agency under the President of the Republic of Uzbekistan.

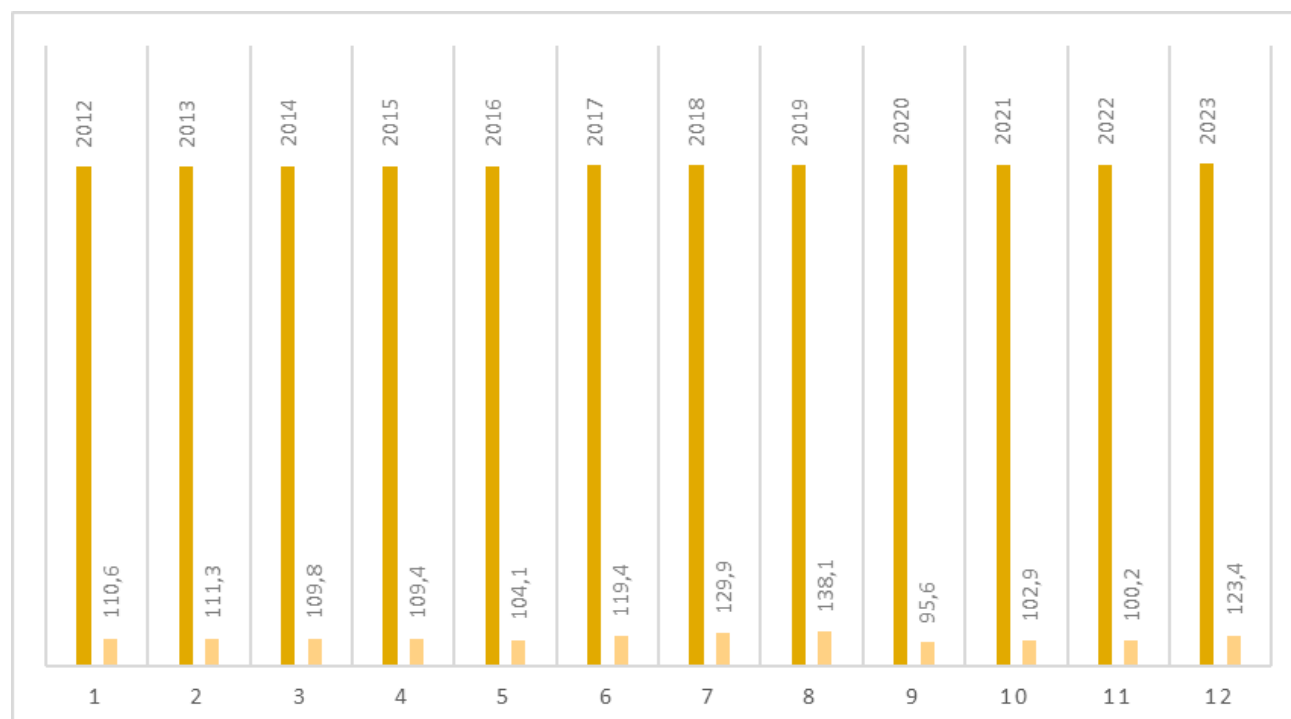


Figure 1. Trend graph of the volume of investment in real capital for 2012-2023⁴.

Since 2017, investment activity has shown steady growth, reaching its peak in 2019 when the volume of investments amounted to 138.1%. This positive trend can be attributed to an improved investment climate, increased attraction of foreign capital, and the implementation of large-scale infrastructure and industrial projects. However, in 2020, a sharp decline in investment volume to 95.6% was observed, undoubtedly a consequence of the global economic crisis triggered by the COVID-19 pandemic. This decline reflected the worldwide trend of reduced investment activity due to uncertainty and restrictions.

In the following two years, 2021 and 2022, investment volumes began to gradually recover, reaching 102.9% and 100.2%, respectively. However, these figures remained below pre-crisis levels, highlighting the prolonged nature of the recovery process. In 2023, a significant increase in investment volumes was recorded, reaching 123.4%, indicating a revival of economic activity, improvements in the investment climate, and the implementation of government programs aimed at stimulating investment.

The compound annual growth rate (CAGR) for the period 2012–2023 was approximately 1.1%, indicating a relatively low growth rate of investments in real capital. This may be due to internal structural constraints as well as external factors, including global economic crises and changes in international trade policies.

The conducted analysis of the dynamics of investments in real capital in Uzbekistan for the period 2012–2023 has revealed several key trends and patterns. Over the analyzed period, both growth phases and significant declines in investment activity were observed due to external and internal factors. In particular, the stable growth of investments during 2017–2019 reflects the effectiveness of measures to improve the investment climate and attract foreign capital. However, the sharp decline in investments in 2020, caused by the global economic crisis due to the COVID-19 pandemic, highlights the vulnerability of Uzbekistan's economy to external shocks. The subsequent recovery in investment activity in 2021–2023, especially evident in 2023, indicates gradual economic stabilization and improved economic conditions. Nevertheless, the average annual investment growth rate of only 1.1% over the entire period suggests the need for further enhancement of investment policies.

CONCLUSION AND RECOMMENDATIONS

Based on the analysis, the following recommendations can be formulated. To ensure the sustainable growth of investments in real capital, it is essential to continue implementing measures to enhance the investment climate, including simplifying administrative procedures, reducing bureaucratic barriers, and strengthening investor rights protection. Efforts to attract foreign investment, particularly in high-tech and innovative industries, should

⁴ Statistics agency under the President of the Republic of Uzbekistan.

be intensified, as this will contribute to economic diversification and enhance national competitiveness. Special attention should be given to fostering regional investment activity to ensure balanced economic growth across all regions of the country. To strengthen the economy's resilience to external shocks, anti-crisis management mechanisms should be developed and implemented, including the creation of reserve funds and incentives for domestic investment sources. For more accurate forecasting and planning of investment activities, regular monitoring and analysis of investment dynamics should be conducted using modern analytical methods such as regression analysis and scenario modeling. Implementing these recommendations will not only enhance Uzbekistan's investment attractiveness but also ensure long-term, sustainable economic growth.

References:

1. Law of the Republic of Uzbekistan No. ZRU-598 dated December 25, 2019, "On Investments and Investment Activities". <https://cis-legislation.com/document.fwx?rgn=121647>
2. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 606 dated October 15, 2022, "On Additional Measures to Accelerate Innovation and Investment Activities in the Regions of the Republic". <https://azizovpartners.uz/en/legislativenews/creation-of-a-number-of-technoparks-in-uzbekistan/>
3. Sayfullaeva, M., & Khairova, D. (2023). "ESG Principles as a Tool for Increasing the Sustainability of Uzbekistan's Economy." *Economics and Innovative Technologies*, 11(5), 284–293. https://doi.org/10.55439/EIT/vol11_iss5/a31
4. Sayfullaeva, M. (2023). "Features of ESG Criteria in Uzbekistan's Construction Industry." *Gwalior Management Academy*, 113. <https://www.gwalioracademy.in/>
5. Sayfullaeva, M. (2023). "Development of the Construction Industry in Bukhara Region as a Factor of Stable Growth." *Nashrlar*, 1(1), 368–371. <https://doi.org/10.60078/2023-vol1-iss1-pp368-371>
6. Sayfullaeva, M., & Xairova, D. (2023). "Corporate Governance in the Construction Industry: Development Directions, Issues, and Specific Features." *Iqtisodiyot Va Ta'lim*, 24(2), 115–120. https://doi.org/10.55439/ECED/vol24_iss2/a18
7. Official Website of the Statistics Agency under the President of the Republic of Uzbekistan. <https://www.stat.uz/>
8. Decree of the President of the Republic of Uzbekistan No. UP-4947 dated February 7, 2017, "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan". <https://lex.uz/docs/3107042>
9. Resolution of the President of the Republic of Uzbekistan No. PP-4300 dated April 29, 2019, "On Measures to Improve the Investment Climate in the Republic of Uzbekistan". <https://lex.uz/docs/4312783>
10. World Bank Group. (2020). "Uzbekistan: Investment Climate Assessment." <https://openknowledge.worldbank.org/handle/10986/34016>

Proofreader: Zokir ALIBEKOV

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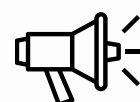
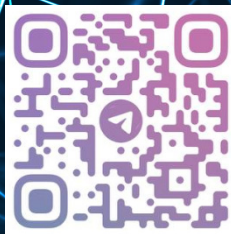
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