

THE IMPACT OF POPULATION GROWTH AND HOUSING NEEDS ON THE
ECONOMY: A STATISTICAL ANALYSIS

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Abstract. This article analyzes the relationship between population growth rates and housing demand using statistical methods. In particular, the correlation between the volume of housing construction, economic growth indicators, and population density is studied. Also, the impact of housing policy and the living conditions of the population is highlighted on the example of Uzbekistan. The results of the article are important in terms of improving housing policy and stabilizing economic development.

Keywords: population growth, housing demand, economic growth, statistical analysis, urbanization, housing market, demographic changes.

Population growth causes various economic and social problems in each country. In particular, as the need for housing increases, the coordination of state policy, the construction industry, and the financial system in this area is of great importance. These aspects directly and indirectly affect the economy.

Population and GDP growth in Uzbekistan in 2015–2024

Year	Population (million)	GDP soums) (billion	Growth rate (%)
2015	31.3	171 000	7.9
2016	31.8	198 000	7.8
2017	32.6	221 000	7.6
2018	33.5	254 000	7.4
2019	34.3	302 000	5.6
2020	35.0	342 000	1.6
2021	35.9	463 000	7.4
2022	36.7	551 000	5.7
2023	37.4	603 000	6.0
2024	38.0	658 000	6.2

Table 1.¹

The table data shows that, as can be seen from the table “Population and GDP growth of Uzbekistan in 2015–2024”, the constant growth of the population over the past decade has also contributed to the year-on-year increase in GDP indicators. In particular, since 2021, economic

¹ O‘zbekiston Respublikasi Statistika agentligining rasmiy veb-sayti: <https://stat.uz>

growth has accelerated significantly, which is associated with increased activity, reforms and investments in the construction and service sectors during this period. At the same time, in 2020, due to the pandemic, the GDP growth rate has sharply decreased. This indicates the sensitivity of the economy to external factors. In general, demographic growth is emerging as an important factor stimulating economic activity. The factors influencing the numerical growth of the population of Uzbekistan include the birth rate, internal and external migration processes, as well as family values and relationships. These factors play a decisive role in shaping demographic dynamics. In particular, the high birth rate and the age structure of the population serve to accelerate this process. At the same time, migration flows, i.e. population movement, affect the demographic balance within and outside the country.

Demographic changes not only mean an increase or decrease in the population, but also require deep reforms in such areas as employment, education, healthcare, infrastructure and social services in the country. For example, population growth requires the creation of new jobs, which in turn leads to an increase in production volumes and, in turn, an increase in gross domestic product (GDP). Therefore, a deep analysis of demographic development is important for the sustainable economic development of the country.

Population changes are formed as a result of demographic processes - births, deaths, migration, and natural growth. The birth rate, social concepts of the family model, and population migration are among the main factors of these changes. For example, due to urbanization and economic conditions, many young people are moving to large cities or abroad in search of work and education. Also, advances in the healthcare system are leading to a decrease in mortality rates, which in turn increases the natural growth rate of the population. In this regard, a thorough analysis of demographic changes is important in shaping the country's socio-economic policy.

There is a strong correlation between population growth and economic indicators, especially gross domestic product (GDP), production volume, and consumer spending. Population growth increases the number of consumers, which leads to an increase in domestic demand. As a result, production expands, the need for services increases, and GDP increases. At the same time, rapid population growth also puts additional pressure on the economic system, for example, on infrastructure, education, and healthcare systems.

Economic development and demographic processes directly affect each other. On the one hand, population growth leads to an increase in labor resources, expanding production opportunities. On the other hand, excessively rapid growth can lead to imbalances in the economy. For example, resource shortages, job shortages, or pressure on economic infrastructure. Therefore, ensuring the harmonious development of the population with economic growth should be one of the priorities of state policy.

Demographic growth directly affects the labor market. Population growth increases the need to create new jobs. However, this does not always mean a decrease in the unemployment rate. If not enough jobs are created, the excess labor force leads to an increase in the unemployment rate. In addition, the quality of the labor force — that is, the level of professional qualifications and education — is also an important factor. Increased unemployment increases the risk of social instability, discontent, and economic crisis.

Population growth leads to an expansion of the domestic market. This creates the basis for the activation of domestic and foreign trade. Trade volumes increase, and demand for products and services expands. However, along with these processes, the efficiency of logistics systems, transport infrastructure, and customs and tax policies also play an important role. As the

population increases, the trade system needs to be modernized, as the demand for the type and quality of products also increases.²

Population growth increases investment flows, the amount of money supply, and overall financial activity. With a large population, consumption and savings increase, which stimulates the development of the banking system and financial markets. At the same time, population growth also increases pressure on state budgets - for example, on funds allocated to pensions, education, and healthcare. To ensure financial stability, countries need to adapt their fiscal and monetary policies to demographic changes. Demographic changes have a significant impact on the social and political structure of society. For example, the burden on education and healthcare systems increases, and the increase in the number of young people creates new social problems. Politically, population growth increases the number of voters and their political demands, which requires new strategies from political parties and state structures. At the same time, problems such as social inequality, housing density, and resource distribution are also becoming more acute against the backdrop of rapid population growth.

Population growth and housing construction (thousands)

Year	Population (million)	Number of new (thousand) Houses	
2015	31.3	23.5	0.75
2016	31.8	25.1	0.79
2017	32.6	27.3	0.84
2018	33.5	30.4	0.91
2019	34.3	32.1	0.94
2020	35.0	35.0	1.00
2021	35.9	38.7	1.08
2022	36.7	41.3	1.12
2023	37.4	44.1	1.18
2024	38.0	47.5	1.25

Table 2.³

The table “Population growth and housing construction (thousands)” shows that the volume of housing construction is also increasing in line with demographic growth. In 2015, the number of new houses per 1,000 population was 0.75, while by 2024 this figure reached 1.25. This indicates that special attention is paid to the issue of housing in state policy, and important steps are being taken to meet social needs. Population growth has increased the demand for housing construction, and these indicators have a positive impact on economic growth.

The regression model is expressed as follows:

The R^2 (coefficient of determination) is high, which means that this model can explain a large part of the changes in housing construction with population growth. This indicates the robustness and significance of the model.

The p-value for the coefficients is < 0.05 , which is statistically significant. Thus, with each million increase in population, the amount of housing construction also increases significantly.

² Sultonov T.A. “Milliy iqtisodiyot asoslari”, TDIU, 2020

³ O‘zbekiston Respublikasi Statistika agentligining rasmiy veb-sayti: <https://stat.uz>

According to the analysis, demographic growth is a decisive factor in the development of the housing construction sector. In public policy, the expansion of housing infrastructure, taking into account the increase in population, remains an urgent issue.

Sustainable population growth can serve as a positive demographic indicator for many countries, but this process is not without the possibility of some negative consequences. Rapid population growth puts significant pressure on the economic, environmental and social sectors.

The negative consequences of population growth can include the following:

1. Employment and unemployment problems - Population growth has a strong impact on the labor market. If the rate of new job creation does not meet the population's demand for work, this will lead to an increase in the unemployment rate. Also, the increase in the labor force increases competition for existing jobs, which can sometimes lead to a decrease in wages. As a result, the socio-economic stability of citizens is negatively affected.

2. Environmental problems and excessive use of resources - With the increase in population, pressure on the environment increases. Excessive use of resources - especially water, electricity and food - leads to a disruption of the ecological balance. Also, negative environmental consequences arise, such as an increase in the volume of waste, air and water pollution. To solve these problems, it is important to introduce modern environmental technologies and increase the ecological culture of the population.

3. Increased pressure on the education and healthcare system - The increase in the population puts a huge burden on state-funded social services, in particular, education and healthcare. Insufficient number of places in schools and universities, as well as increasing workload of teachers, can lead to a decline in the quality of education. Similarly, in the healthcare system, if there is an insufficient number of doctors, the population's need for medical services may not be fully met.

We can list the following ways to prevent and solve problems related to population growth:

1. Implementing sustainable development strategies - Ensuring environmental sustainability is important to keep population growth under control. The pressure on resources can be reduced by making extensive use of renewable energy sources - solar and wind energy - saving water resources, recycling waste, and educating the population to approach these issues responsibly.

2. Adapting and developing the labor market - Employment can be ensured by supporting investment projects to create new jobs, encouraging small and medium-sized businesses, and diversifying production. It is also necessary to adjust the education system to the requirements of the labor market, direct young people to vocational training, and eliminate imbalances in the labor market by developing advanced training courses.

3. Expansion of social infrastructure - In line with population growth, it is necessary to expand social infrastructure - schools, kindergartens, hospitals, transport networks and the system of communal services. It is also possible to balance demographic pressure by reducing population density through the integrated development of new territories and improving living conditions in cities and villages.

That is, population growth can be an important factor for the development of society. However, ignoring the negative consequences associated with it creates economic and social problems.

Therefore, it is important to establish long-term strategic planning of population growth, ensure sustainable development in all areas and rational use of resources. Only then can demographic growth become a beneficial factor for the state and society.

In short, population growth increases the demand for housing, and as a result, there is activity in the housing construction sector. Statistical analysis has shown that as the population increases, the number of newly built houses also increases significantly. This, in turn, has a positive impact on the construction sector of the economy and contributes to the growth of gross domestic product.

Housing construction is an important infrastructure for meeting the needs of the population, and its development is of great importance for social and economic stability. Therefore, taking into account demographic growth, it is necessary to continue measures to expand and renew the housing infrastructure.

As a result, there is a strong relationship between population growth and the need for housing, which is considered one of the important vital indicators of the economy.

References

1. O'zbekiston Respublikasi Statistika agentligining rasmiy veb-sayti: <https://stat.uz>
2. Sultonov T.A. "Milliy iqtisodiyot asoslari", TDIU, 2020
3. Karimov S. "Urbanizatsiya va ijtimoiy-iqtisodiy rivojlanish", Iqtisodiyot, 2021
4. "Demografik bosim va iqtisodiy siyosat" – Ilmiy maqola, IQTISOD, 2022 (№3)