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BUBBLE RISK INDEX AND METHODS OF ITS APPLICATION IN UZBEKISTAN

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Annotation:
This thesis aims to determine the bubble risk index's correspondence to real income from housing prices and the artificial increase in prices. To use the index, costs such as housing prices, income, rental income, interest rates are studied.

Keywords: Union Bank of Switzerland (UBS), observation effect, price-income ratio, price-rent ratio,

Introduction

The real estate and mortgage market is an important indicator of Uzbekistan's economic development and future growth. In recent years, the housing market in Uzbekistan has experienced significant growth. State programs implemented as part of socio-economic reforms to provide the population with affordable housing have been a key factor in the development of the housing market. In particular, during 2017-2023, the volume of construction work increased by 77 percent, and the share of the construction sector in GDP increased from 4.8 percent to 5.9 percent. Despite the slowdown in economic growth in 2020 amid the COVID-19 pandemic, the construction sector managed to maintain real growth rates. In 2023 alone, 17,683 citizens with low incomes and in need of improving their housing conditions received subsidies from the state budget in the amount of 565.9 billion soums to partially cover the initial payment on mortgage loans[1].

The "Uzbekistan - 2030" Strategy envisages increasing the level of urbanization from 51% in 2022 to 60% by 2030, transforming the cities of Samarkand and Namangan into "million-dollar cities", increasing the number of cities and districts

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with a population of over 300,000 to 28, and developing master plans for all settlements. It is also planned to build 1 million housing units in the regions, increase the number of "New Uzbekistan" estates to 100, build houses for an additional 200,000 families, and build social housing for at least 140,000 families in the republic[2].

In 2023, a total of 328 houses and 9,758 apartments were completed in "New Uzbekistan" estates across the republic. In 2022-2023, a total of 286.5 hectares of land were sold for housing construction through electronic online auctions across the republic[2].

The provision of mortgage loans and subsidies to low-income residents who need to improve their housing conditions, the simplification of the permanent registration procedure, as well as reforms in the system of allocating land plots for construction and incentives in the field of building materials are ensuring the stable development of the real estate market. As a result of these reforms, the amount of investment in housing and commercial facilities has increased significantly in recent years. Housing and rental prices are directly related to the standard of living of the population and economic growth, and these factors are the main driving forces of the real estate market.

Main section

Housing prices are determined mainly as a result of the balance of supply and demand for housing. Understanding this balance is important in determining the causes of changes in housing prices. On the demand side, factors such as demographic changes (population growth, changes in family structure, number of marriages and divorces), economic growth and income growth, and mortgage lending conditions affect housing and rental prices. On the supply side, factors such as construction costs (construction materials, labor, land prices), the availability of land resources and restrictions on their use, government policies (subsidies for housing construction, tax breaks, and restrictions on construction), and the level of competition in the market determine new housing prices. In 2020-2023, housing prices increased by 71% in the primary market and by 78% in the secondary market. Price-to-income ratio It takes an average of 9 to 18 years to buy a house with 3 or

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more bedrooms. Samarkand region – 18 years, Tashkent city – 14 years, Fergana region – 10 years, Navoi region – 9 years, Khorezm region – 9 years, Republic of Karakalpakstan – 9 years. In 2023, the average price of 1 sq.m. of housing in Tashkent city will be -$1273 in the primary market, -$1192 in the secondary market [5].

For comparison, as of September 2023, in the most expensive cities in the world, Tokyo, Paris, Tel Aviv and London, it was found that more than 10 times the annual income would be required to purchase a 60 sq.m. apartment [2]. [UBS, 2023]. Such an increase in prices in Tashkent city poses a threat to the stability of the real estate market.

According to financial chaos theory, rising house prices will cause investors to invest more in the housing market, which will push prices even higher. As a result, this growth can become unsustainable and eventually create a "bubble" that will cause prices to fall sharply. This can throw the housing market out of balance and lead to an economic crisis. Just as the housing bubble crisis in the United States in 2007-2008 spread to other countries, a crisis in one region can "spill over" to other nearby regions.[4] Housing prices that rise faster than local incomes and rents indicate the formation of a housing bubble. The term "bubble" refers to a persistent underestimation of the real value of assets, but its existence cannot be proven until the bubble bursts. The housing price bubble that contributed to the global financial crisis of 2007–2009 is a complex phenomenon with many interrelated causes and mutually reinforcing mechanisms.[1]

The increase in demand for housing due to population growth can lead to the emergence of price bubbles at times when the increase in housing supply is not matched by the increase in housing supply. The low cost of borrowing in a country increases the availability of mortgage loans, which leads to an increase in demand for housing.

In addition, speculative bubbles can be created by investors buying houses in anticipation of rising prices. The "bystander effect," that is, the belief that "others are doing the same and are making big profits," can encourage people who can afford to buy houses to invest in real estate. Sometimes, high expectations of price growth can lead homebuyers to believe that house prices will continue to rise indefinitely,

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which can encourage them to take more risks. In order to assess the likelihood of a price bubble in the housing market in Uzbekistan, the "Bubble Index" was developed based on the methodology of the Union Bank of Switzerland (UBS) Global Group [3].

This Bubble Index is determined by calculating the weighted average of the following 5 standardized sub-indices:

1) the ratio of house prices to the average annual income of the population;

2) the ratio of house prices to annual rental income;

3) the difference between the price in the region and the average price in the Republic;

4) the change in the ratio of mortgage loans to GDP;

5) the change in the ratio of construction work to GDP.

If this index is higher than 1.5, this indicates the risk of a bubble forming in the housing market. The weights of the sub-indices were determined using the factor analysis recommended in the OECD's Composite Indicators Manual [4]. The factor analysis assigns weights to the sub-indices so that they reflect as much of the overall bubble risk as possible. In particular, these factors are given greater weight because fundamental factors are more important to homeowners than economic factors. One of the "bubble index" indicators, the price-to-income ratio, indicates how many years a worker earning an average monthly wage would have to work to buy a two-bedroom apartment in their area. The price-to-rent ratio, on the other hand, measures how expensive a two-bedroom apartment is in relation to the annual rental income it generates. The higher the ratio, the more expensive the housing prices are.

A faster increase in housing prices than rental prices increases the price-to-rent ratio, or conversely, a faster increase in rental prices reduces the time required to fully cover the cost of purchasing a house through rental income.

The Housing Bubble Index data reveals specific aspects of housing market values in different regions of the country. Fundamental factors such as the price-to-income ratio and the price-to-rent ratio, as well as economic factors such as the mortgage-to-GDP ratio, are the basis for assessing the risk of a bubble in the real estate market, and constant monitoring of these indicators is important for the formation and stability of reasonable prices in the market.

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The risk of a housing bubble. The situation in the housing market of Uzbekistan, especially in Tashkent, shows a number of important trends. Real estate prices in Tashkent are increasing significantly, which may indicate the emergence of a "bubble risk". Since the majority of housing transactions in Tashkent are financed by buyers' own funds, the risk of a "bubble" is unlikely to have a significant impact on the stability of the financial sector, but high prices could reduce the opportunities for residents in need of improved housing conditions. At the same time, the gradual increase in prices in regions such as Tashkent and Samarkand creates a risk of "migration" of high prices in the regions of Tashkent region close to the capital and in regions close to the centers of Samarkand region, that is, housing prices may also increase in these regions. Maintaining a high level of profitability of investments in housing in conditions of limited financial resources for population savings stimulates a large influx of capital into the real estate market. The negative side of this situation is that while population savings are invested in housing, financial resources do not reach the banking and financial system to finance other promising projects. In addition, speculative growth in housing prices may negatively affect the stability of the banking system. These processes may lead to an uneven distribution of financial resources in various sectors of the economy and increase price speculation, which poses a threat to long-term sustainable economic growth.

Conclusion

According to the analysis, the direct participation of the state in the development of the housing and mortgage market is decreasing, and the participation of private investors and commercial banks is increasing. The decrease in the direct financial participation of the state in the development of the housing market allows to focus limited financial resources on the implementation of more and more socio-economic reforms. At the same time, the level of competition in offering various options for housing supply in terms of price and quality by private investors in accordance with the demand of the population increases.

At the same time, solving a number of issues in order to further improve the functioning of the housing and mortgage market can bring the development of the sector to a new level.

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1. Increasing the supply of affordable housing. By further encouraging private and foreign investment in the housing sector, it is necessary to increase the construction of new, modern and affordable housing, taking into account population growth rates, while considering the possibilities of providing investors with differential benefits (tax incentives, simplification of land allocation processes and reduction of bureaucratic barriers) based on the specific characteristics of the regions [6]. For example, it is proposed to focus on the construction of affordable housing in cities with a rapidly growing population or in economically underdeveloped regions, and to provide more tax incentives for construction projects in areas with a large number of low-income residents.

2. Preventing the increase in housing prices due to speculative activity in the real estate market. For example, using the experience of Singapore, it is advisable to introduce the practice of setting separate differential tax rates for second and subsequent housing units compared to the first housing unit.

3. Increasing transparency in the housing market and reducing information asymmetry in the market. Increasing the availability of information on housing prices and availability for buyers and sellers will reduce information asymmetry in the market. Accordingly, it is advisable to fully launch the web portal "www.ipoteka-bozori.uz", which provides information on business entities engaged in the construction of housing, multi-apartment housing being built by them, the number, area, cost and location of apartments in them, mortgage loans and subsidies. Increasing the transparency and reliability of information on the housing market, in particular, providing accurate information on prices, offers and terms of sale, will improve the decision-making process of investors and buyers.

4. It is necessary to accelerate the development of the capital market, including expanding the possibilities of financing the purchase of housing through the proper management of the securitization strategy

5. Analyze demographic changes in the housing market. Demographic characteristics of the population, such as age structure, income level and marital status, significantly affect the development of the housing market from the demand side. Therefore, it is important to take these factors into account when forecasting future market demand and making appropriate decisions

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