

Real estate market as an indicator of urban sustainable development

*Ivan Antipin, Natalia Vlasova, and Elena Shishkina**

Ural State University of Economics, Ekaterinburg, Russia

Abstract. The present study analysed the real estate market and the methodological aspects used for the assessment of the real estate market influence on urban sustainable development. Real estate market activity was proposed to be used as a sustainable development indicator. Research methods included comparative and expert analyses; research synthesis; systemic, structural, and strategic approaches. Recent research in the real estate market efficiency and sustainability provided the theoretical and methodological basis. The data for research were collected from official statistics, international assessment reports, corporate performance reports, rating, and regulations. The present study facilitated better understanding of challenges in achieving sustainability in the real estate market, i.e. the use of the real estate market as a sustainable development indicator and a source of information for risk assessment, the integration of ESG principles into management practice, and the development of the methodology for sustainability assessment.

1 Introduction

Ensuring sustainable development in economic, social as well as environmental spheres has been regarded as one of the most important strategic objectives for a number of years now.

Since a variety of academic disciplines as well as applied research have focused on examining a wide range of sustainable development challenges, a large amount of data has been accumulated. However, with the evolving nature of the field, sustainability development is not a straightforward matter and there are many factors to consider. Recent research has mostly explored Environmental, Social and Governance factors (ESG), resilience, and shock resistance. Creating favourable conditions for long-term economic and social sustainability is one of the priorities for the Russian Federation; therefore, Decree of the President of the Russian Federation No. 633 ‘Fundamentals of State Policy in the Field of Strategic Planning in the Russian Federation’ was signed on November 8, 2021. The decree is aimed at establishing mandatory regulations of social, economic, and technical issues to ensure urban sustainable development.

Considering the findings of previous extensive research into social, economic, theoretical, as well as methodological aspects of urban sustainable development, the major trends are as follows:

*Corresponding author: le_gre@mail.ru

- first, studying sustainability as the ability to operate continuously over time while handling external and internal changes and uncertainties;
- second, examining the ‘sustainable element’ in order to comprehend and ensure sustainable functioning of specific territories in certain conditions;
- third, considering sustainability in terms of balance and consistency in the regional economic and social infrastructure development;
- fourth, assessing the interrelationship between sustainable development of the region and economic security.

Taking into account current economic conditions, we believe that the research into the sustainable elements as well as the sustainable development indications is of utmost importance. The study of the urban environments should be focused on identifying the core systemic indicators for the sustainable development framework, which can be applied to monitor and assess urban sustainable development progress. As real estate market activity reflects changes in economic, social, and environmental environments, it can be considered one of the sustainable development indicators. Thus, the present study is aimed at analysing the methodological aspects used for assessing the influence of the real estate market on urban sustainable development.

2 Materials and Method

Publications of domestic and international scientists along with the findings of applied research into the real estate market efficiency and sustainability provided the theoretical and methodological basis for the present study. The data for research were collected from official statistics, international assessment reports, corporate performance reports, rating, and regulations. Research methods included comparative and expert analyses; research synthesis; systemic, structural, and strategic approaches; as well as the calculation of structure indicators and dynamics. The research was structured to:

1. classify and arrange available domestic and international research on real estate market sustainability,
2. identify approaches for real estate market valuation and justify the use of the real estate market valuation as an indicator of urban sustainable development.

3 Results and Discussion

1. Although the real estate market assessment as a factor in sustainable development is a relatively new approach, it has evolved rapidly and there are several important trends. When considering the existing practices and principles for the real estate market sustainability, Manzhinsky S. A. and Rossokha E. V. advocate for focusing on ‘sustainable real estate market’ and ‘sustainable real estate company’ [1]. Green construction, green building certification, environmental risk assessment for construction are among the most significant sustainability issues that drive the real estate market transformation.

Another major issue in real estate sustainability is the development of the methodology for evaluating sustainability in the real estate market, with sustainability indicators being the integral part of the valuation. Krause A. L., Bitter C. highlight the importance of taking into account energy efficiency, green building standards along with the location, when determining the value of real estate [2]. Environmental friendliness and sustainable design are regarded as interdependent in sustainable real estate development [3].

Many researchers emphasise the growing influence of a good location for sustainable real estate. When evaluating a particular location, the entire neighbourhood has to be examined in order to assess all environmental building factors.

Studying the perception of Nigerian real estate valuation specialists, Babawale G. K. and Oyalowo B. A. conclude that similar to valuers in many other countries around the globe, Nigerian valuers acknowledge the need to apply sustainability principles in the real estate valuation practice, even though they were more focused on social factors[4].

In his paper on the evolution of sustainability in the real estate market over twenty years, Warren-Myers G. points out that although earlier research targeted the normative aspects, more recent studies were aimed at addressing the impacts made by the development of sustainability. Warren-Myers G. argues that despite existing guidelines and standards valuers in their practice are still experiencing difficulties with understanding many aspects of sustainability [5].

Since existing studies related to sustainable development in the real estate market consider the real estate market as an indicator of urban sustainable development and a source of information for risk assessment, as well as examine tools for integrating ESG principles into management practice, it is necessary to develop the methodology for both evaluating sustainability and better understanding of all sustainability dimensions.

2. The real estate market has a fundamental role in sustainable development of the economy. The real estate market: 1) reflects the state of the construction industry, 2) represents the purchasing power of the population as well as consumer preferences, 3) contributes to job creation, and 4) fosters territorial attractiveness.

The findings of available domestic and international, theoretical and applied research contributed to the development of tools and techniques for assessing real estate.

In the Russian Federation, state and regional governments along with businesses are currently incorporating the ESG principles in order to comply with A/RES/71/313 resolution adopted by General Assembly of the United Nations. Within the framework of official statistics, only a limited number of the real estate sustainability indicators has been embraced so far. According to the report on SDGs published by Federal State Statistics Service of the Russian Federation, in 2023, 45% or 114 Sustainable Development Goals (SDGs) were targeted, 1% or 4 SDGs were under development, 52% or 130 SDGs were yet to be considered in the Russian Federation. Goal 11 that was set to make cities and settlements safer, more resilient, more inclusive and sustainable is one of the most important for the real estate market. According to the data on the National set of SDG, the major indicators for the real estate market of the Russian Federation are 'Inadequate housing resettlement' (an increase of 97.2% was recorded in 2021, when compared to 2020,) and 'Ratio of the residential building commissioning rate to the population growth rate' (in 2021, the ratio was 1.13).

The introduction of the ESG framework into real estate valuation is a slow and challenging process. In general, the two principles, which are usually incorporated, are related to social and environmental aspects.

Tools for assessing real estate sustainability have mostly been developed within the framework of corporate practice. In 2022, DOM.RF, which is a financial institution committed to fostering real estate progress, developed the first national standard for green residential apartments blocks GOST (Federal Standard) P 70346-2022. Moreover, voluntary ESG real estate assessments, the use of the ESG framework in development projects, and standards for environmental certification of buildings (for example, LEED, BREEAM, Well, etc.) are also being introduced. With the introduction of the ESG framework, the existing methods for real estate valuation are to be revised.

Another reason to modify the existing methods and approaches to real estate valuation is the introduction of new models for urban spatial development, namely different approaches to the development of the city and to the development of the agglomeration.

Moreover, a difference in cadastral and market values causes a lot of misunderstanding in the real estate market. Therefore, there is a remarkable difference in prices in agglomerations with infrastructural interdependence.

Spatial differentiation and clustering for particular areas of an agglomeration can contribute to better understanding of homogeneous and similar territories and assist in real estate valuation, i.e. narrow the price gap between the cadastral value and the market value. Thus, in order to improve the real estate valuation process, it is necessary to revise current approaches to price estimates based on comparisons of prices for similar pieces of real estate and to incorporate the ESG principles into real estate valuation. This proposal is aimed at determining the true state of the real estate market, taking into account the interdependence and the development of territories, as well as internal and external factors of spatial differentiation of territories.

4 Conclusions

The present study facilitated better understanding of challenges and issues faced on the way towards achieving sustainability in the real estate market. The contemporary real estate market research has been mostly focused on ensuring sustainable real estate development, the role of ESG in real estate, as well as the advancement of tools for real estate valuation (certification, standardisation, etc.), thus, the real estate market can be considered to be an indicator of urban sustainable development.

Having analysed the methodological aspects applied to the real estate development assessment, we came to the following conclusions.

First, sustainability indicators should be included into the real estate valuation process and a proper methodology should be designed.

Second, a high-quality real estate valuation enables both sellers and buyers to make more informed decisions. Poor valuation procedures can have a negative effect on the real estate market of a single city as well as the whole urban agglomeration.

Third, sustainability criteria should be taken into account in real estate valuation to provide for improved urban territories management and urban planning of agglomerations, enhanced spatial structure, as well as spatial models of housing costs [6]. If urban areas with different vibrancy levels and housing prices are identified and explored, then plans and strategies for urban development can be modified to ensure more streamlined development of territories and, thus, 'drive important changes to develop more efficient, sustainable, and competitive cities' [7].

Fourth, sustainable development induces a restructure of urban planning processes and ensures the prevention of uncontrolled land use by restricting the development potential of areas and reducing environmental and cultural losses. Moreover, existing heritage assets can be restored and enhanced. When considering urban development planning and regulations, short-term uncertainty is another challenge to be regarded along with social, economic and environmental issues [8; 9]

References

1. S. A. Manzhinsky, E. V. Rossokha, Implementation of the concept of sustainable development in the real estate market. Works of BSTU. Series 5: Economics and Management, **7** (2014)
2. A. L. Krause, C. Bitter, Spatial econometrics, land values and sustainability: Trends in real estate valuation research. *Cities*, **29**, S19-S25 (2012).

3. T. Runde, S. Thoyre, Integrating sustainability and green building into the appraisal process. *Journal of Sustainable Real Estate*, **2(1)**, 221-248 (2010)
4. G. K. Babawale, B. A. Oyalowo, Incorporating Sustainability into Real Estate Valuation: the Perception of Nigerian Valuers. *Journal of Sustainable Development*, **4(4)** (2011)
5. G. Warren-Myers, Valuing sustainability part 1: a review of sustainability consideration in valuation practice. *Journal of Property Investment & Finance*, **40(4)**, 398-410 (2022)
6. H. Gale, S. S. Roy, Optimization of United States residential real estate investment through geospatial analysis and market timing. *Applied spatial analysis and policy*, **16(1)**, 315-328 (2023)
7. A. Barreca, R. Curto, D. Rolando, Urban vibrancy: An emerging factor that spatially influences the real estate market. *Sustainability*, **12(1)**, 346 (2020)
8. P. De Paola, F. Tajani, M. Locurcio, F. Di Liddo, Sustainable Real Estate and Resilient Cities: Management, Assessment and Innovations. *Sustainability*, **14**, 8984 (2022)
9. G. Warren-Myers, The value of sustainability in real estate: a review from a valuation perspective. *Journal of Property Investment & Finance*, **30(2)**, 115-144 (2012)
10. E. A. Belousova, E. I. Kaibicheva, *The Manager*, **13(1)**, 49-67 (2022)