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Sustainable Real Estate Investment Portfolio Management — Problems and Solutions

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Abstract: The analyzed Portfolios and Investors are selected according to specifics criteria. The analysis is focused on the "sustainable investment" characterization. Several major problems are formulated based on the results on the analysis. At the end of the paper alternatives to overcome them are indicated.

Key words: real estate portfolio; management; sustainable investment; sustainability criteria and indicators
JEL codes: G3, G11, G311, R3

1. Introduction

The present day social and economic development, including that in post-socialist countries such as Bulgaria, requires coordination of management decisions with the need to protect the environment and the principles of solidarity and responsibility for the lives of future generations. Therefore, the economic development of countries nowadays must unconditionally be sustainable in its nature.

The development of societies and companies is primarily a result of their successful investments. The principle of sustainable development is changing the nature of current investments, making them sustainable investments.

After the democratic changes in Bulgaria, a relatively new sector was formed and evolved, namely the real estate sector. It includes real estate construction, purchase, sale and other transactions, as well as real estate management. This is a sector comprising an extremely great number of investment projects with regard to various property types (residential, commercial, logistics, industrial, etc.). This process involves both Bulgarian and foreign investors and the share of those who invest in portfolios of properties requiring a contemporary management that accounts for the fact that real estate properties investments are sustainable in nature, is on the increase.

2. Key Terms

The portfolio of sustainable investment in real estate properties is a special kind of investment portfolio due to:

- The enormous economic importance of the assets included therein;

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- The nature of the constituting assets;
- The duration and dynamics of its lifecycle.

The economic importance of real estate is undeniable. Suffice it to note that, according to the Royal Institution of Chartered Surveyors — RICS, between 60% and 75% of the national wealth of each country is in the form of land and real properties; 60% of the energy is spent on heating and maintenance of buildings; 40% of the carbon emissions are produced by buildings. Besides the importance of the real estate business for national economies, the figures show also the importance of building and maintaining sustainable buildings.

With regard to the nature of the assets, it should be underlined that nowadays investors interested in real estate invest not only in physical objects (real estate), but also in parts of them (through indirect investment), i.e., by buying REIT shares or other securities, including derivatives, the core of which is the value and dynamics of yields or prices of real estate. We need to mention here also the requirement for sustainability of the investment. The latter is associated with the evaluation of the investment in the following areas:

- Environmental impact;
- Health and safety at work;
- Ethical attitude to clients;
- Ethical attitude to staff;
- Efficient use of all kinds of resources;
- Ethical attitude to the managers and owners.

There are no standardized procedures for assessing the sustainability of immovables when taking a decision whether to include them in the portfolios and this is one of the issues that have to be addressed. A more fundamental problem, however, is the fact that funding decisions are not tied to the nature of the investments in the portfolio (whether they are sustainable or not).

Regarding the life cycle of the portfolio of sustainable investments in real estate, it is sufficient to note that the very nature of the assets of such a portfolio (here we focus on the physical assets) provides more criteria and opportunities for diversification (by regions, locations, type of property, purpose of use of the properties, etc.). Furthermore, such a portfolio is capital-intensive, the process of formation itself is relatively long, the investment horizon is generally long and restructuring takes place slowly. On this basis, the life cycle of a portfolio of sustainable property investment is long, with low dynamics in terms of composition and structure, which does not exclude in some cases a more pronounced dynamics in terms of yield and risk.

To sum up the conceptual apparatus we can note that for the purposes of this paper, a portfolio of sustainable investments in real estate will be intended to mean a totality (set) of sustainable real estate properties representing physical objects and other assets whose characteristics are interrelated and stem from characteristics of physical objects formed according to the objectives, principles and constraints of the investor.

The management of a portfolio of sustainable investments in real estate will be perceive as a purposeful process of impacts on individual investment vehicles designed to protect the sustainability characteristics of the portfolio, including in the occurrence of changes in the economy, changes in the objectives and status of the investor and changes in the characteristics of the very investment assets included in the portfolio.

3. Methodological and Methodical Aspects of the Management of Sustainable Real Estate Investment Portfolio

Underlying the aspects formulated below is the notion that through sustainable investment in real estate assets (real estate) components of the portfolios are created, which are used for business purposes with limited or no adverse effects on people and the environment at a correlation between returns and risk that is acceptable to investors.

Since virtually there is no standardized procedure and summarized methodology in this area and moreover considering that the formation and management of sustainable real estate investments are a new and rather imminent problems in Bulgaria, entailing the specifics of the transition economy, we believe that as a start an exemplary scheme can be developed which can be institutionalized by decision of the newly established Ministry of Investment Planning and the Investments Agency.

The scheme applies only to the management of the already established portfolios of sustainable investments in real estate, which has to be understood in the sense that the individual investments included in the portfolio are the result of sustainable investment projects.

Under these restrictions the management of the portfolio focuses on the following activities, subject to the main objective: preserving the sustainability of the portfolio:

(1) Project sustainability assessment. This assessment is formed as an average weighted value. For this purpose each investment in the portfolio is evaluated in accordance with the degree of achievement of the sustainability criteria and indicators.

The criteria and their respective indicators are shown in the following table:

Table 1 Criteria and Indicators for Sustainability Assessment

Criteria	Indicators
Material and physical criteria	Energy efficiency
	Limited hazardous emissions
	Degree of functionality
	Life span of the real estate property
	Structure
	Possibilities for refurbishment and change in the purpose of use
	Possibilities for a good organisation of the maintenance and management of the building
	Possibilities for security guarding
	Favourable living/work conditions
Financial criteria	Property maintenance costs
	Marketing advantages and added value
	Image of the property and added value
	Occupancy rate (loss of rent)
	Renting potential (potential rent revenue)
	Risk of technical systems failure (costs)
	Labour productivity

Note: Specific indexes are developed for each of the indicators.

Considering the indicators listed in the above table, a sustainability index is calculated for each specific investment in the portfolio.

$$I_i = a * \sum_{i=1}^{m} c_j * d_j + b * \sum_{k=1}^{s} p_k * d_k \text{ for each "i" separately}$$

Where:

n–number of investments in the portfolio;

I_i*–sustainability index of the i-th investment (property) in the portfolio;*

a–weight of the material and physical criteria, determined by an expert method;

b–weight of the financial criteria, determined in the same manner

$$a + b = 1$$

m–number of indicators, characterizing the material and physical criteria;

c_j*–evaluation (on points 1 - 10) of the j-thindicator;*

d_j*–relative expert weight of the j-th indicator;*

$$\sum_{j=1}^{m} d_j = 1$$

P_k*–evaluation (on points 1-10) of the κ-th indicator;*

s–number of indicators, characterizing the financial criterion;

d_k*–relative expert weight of the κ-th indicator*

$$\sum_{k=1}^{s} d_k = 1$$

Using this approach, the sustainability index of the portfolio will be determined in the following way:

$$I_p = \sum_{i=1}^{n} I_i * d_i \Big/ \sum_{i=1}^{n} d_i$$

d_i–value of the *i-th investment in the portfolio*;

$\sum_{i=1}^{n} d_i$–volume (value) of the whole portfolio

(2) Application of a management system of the portfolio's sustainability.

Through this system the preservation of the portfolio's volume and structure or its restructuring are achieved. Another solution is also possible, resulting in increasing or decreasing the volume (value) of the portfolio.

The idea of such a system can be expressed graphically, as follows:

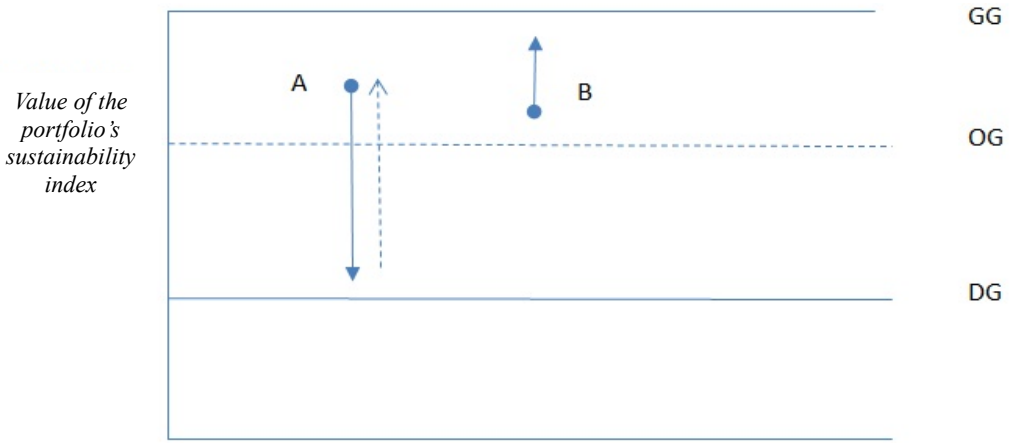

Figure 1 Working Way of the Management System of the Sustainability of the Portfolio

GG–permissible upper limit of the sustainability index of the portfolio (the limitation stems from the investor's potential. Ideally, the maximum value is equal to 10 in the ten-scale assessment).

OG–optimal (rated) value of the sustainability index of the portfolio. It does not necessarily coincide with the upper limit because it is determined by the character and capabilities of the client, as well as by the expert assessments of the weights of criteria and indicators.

DG–permissible lower limit of the sustainability index.

The system works as follows:

- If the index value is in point A and tends to decrease, the portfolio investor/manager should have intended backup financial resources to influence the indicators which have deteriorated and by improving them to raise the index of sustainability. In this case, it may be necessary to increase (decrease) the volume of the portfolio, to carry out restructuring, reconstruction, modernization, rehabilitation, etc. of some of the portfolio objects. Increasing the volume of the portfolio means investing in projects; reduction of the volume of the portfolio means selling properties and so on. In this case there are several alternatives. According to the target index of sustainability specified by the investor/manager a specific plan has to be developed.
- If the value of the index is in point B and there is an upward trend, the manager should maintain the existing situation and tendency. This may not require additional resources and actions, but it is also possible that such may be needed. It is worth mentioning, without underlining it as a separate item, that in case of an unsatisfactory sustainability index value, the portfolio manager has to analyse the related reasons:

(a) Economic changes having an adverse impact on the project sustainability: legal framework, business environment, etc.;

(b) Changes in the investor's aims and situation. It is recommended that only DueDilligence analysis is applied to investors holding sustainable investment portfolios; to monitor the investor's social status and to apply, alongside with the contemporary portfolio theory, also the principles of the behavioural theory (behavioural finances).

(c) Changes in the characteristics of the investments (objects) in the portfolio. These investments have been evaluated as sustainable but with a view of the fact that they are long-term fixed assets, new evaluations have to be performed on a regular basis, since new facts might occur that would remove them from the "sustainable investments" category.

4. Conclusion

Sustainable development does not have an alternative. It requires that each investment complies with the sustainability requirements and has an adequate relation to analogous, complementing and sometimes replacing investments. Thus sustainable investments portfolios are formed, comprising objects that are difficult to manage. These are new and complicated issues for the Bulgarian economic theory and business practice. The existing knowledge has to be adapted to the business environment and the nature of the investments and investors, which was attempted in this paper.