

UDC 625.7/.8:332.6

Slavinska O., Doctor of Technical Science

Kharchenko A., Candidate of Technical Science

METHODOLOGICAL APPROACHES TO PROPERTY VALUATION IN PPP PROJECTS IN THE ROAD SECTOR

Анотація. У статті розглянуто основні методичні підходи до вартісної оцінки споруд дорожньої галузі під час укладання контрактів державно-приватного партнерства, визначено основні проблеми та перспективи зазначених підходів.

Об'єкт дослідження – об'єкти транспортного будівництва, які підлягають оцінці в рамках реалізації проектів ДПП.

Метою статті є дослідження підходів до оцінки споруд транспортного будівництва у сучасних умовах.

У статті наведені підходи до оцінки транспортного будівництва, які застосовуються в сучасних умовах. Визначено два основних напрямки оцінки будівельних проектів, продемонстровано їх переваги і недоліки, намічено перспективи досліджень в цій області. Крім того, вказано на деякі недоліки з точки зору застосування витратного підходу до оцінки нерухомості в дорожньому секторі.

Ключові слова: вартісна оцінка, справедлива вартість, державно-приватне партнерство, об'єкти транспортного будівництва

Аннотация. В статье рассмотрено основные методические подходы к стоимостной оценке сооружений дорожной отрасли при заключении контрактов государственно-частного партнерства, определены основные проблемы и перспективы указанных подходов.

Объект исследования – объекты транспортного строительства, подлежащих оценке в рамках реализации проектов ГЧП.

Целью статьи является исследование подходов к оценке сооружений транспортного строительства в современных условиях.

В статье приведены подходы к оценке транспортного строительства, которые применяются в современных условиях. Определены два основных направления оценки строительных проектов, продемонстрировано их преимущества и недостатки, намечены перспективы исследований в этой области. Кроме того, указано на некоторые недостатки с точки зрения применения затратного подхода к оценке недвижимости в дорожном секторе.

Ключевые слова: стоимостная оценка, справедливая стоимость, государственно-частное партнерство, объекты транспортного строительства

Annotation. In the article the basic methodological approaches to valuation of construction transport construction projects in the public-private partnership and the main problems and prospects of these approaches.

Object of study - construction of transport to be assessed in the framework of PPP projects.

The article is to study approaches to the assessment of transport construction facilities in the present time. Defined two main areas of assessment of construction projects, showing their advantages and disadvantages and outlines the prospects of research in this area. Also there are some disadvantages of the cost approach to the assessment of real estate in the road sector.

Keywords: valuation, the fair value, public-private partnership, the objects of transport construction.

Formulation of the problem

Many of countries have a long practice of the participation of the private sector in the design, construction, operation or maintenance of roads. In Ukraine, as a country with low income, apply policy trend of private sector participation in practical work and funding development projects in the road sector in this time. [1]

Public-private partnership (PPP) offers an alternative model of partnership between the public and private sectors. Private company provides global service with sufficient autonomy and incentives for productivity growth for the benefit of all parties, particularly road users. Choosing the right private partner requires probing the market and conduct procurement through competitive bidding.

Competitive bidding - is the only way to protect the public interest, which can reduce the risk of corruption and abuse of dominant position by a private company. The contract between the parties to ensure fairness and equity partnerships. This becomes necessary examination and peer review sections of roads, bridges, tunnels and other objects of transport construction; research as building materials, structures; study permits for allotment of land and determine the order of use of land; performance evaluation of land.

Analysis of recent research and publications

Problems of implementation of PPP contracts devoted to the work of scientists such as Hunter E., Holmes S., Rowan K., Varnavskij V., Grishchenko S., Cherevykov E., Bondar N., Berezovskij M., Andreev S. etc.

The analysis of the study showed that the issue of peer review property governmental organizations participating in the implementation of contracts under public-private partnership, insufficient attention is given to researchers.

The article is to study approaches to the assessment of transport construction facilities in the present time.

Presenting main material

In today's world there is a sufficient number of models and forms partnerships PPP. As defined by the World Bank classifies them according to the degree of private sector participation in the project on the four basic groups (Table 1) [2,3].

Table 1 - Classification of projects on PPP for the World Bank

No п. п.	International name	Characteristics
1	Management and Lease Contracts	The private partner manages the project under contract and facility management is state owned. The right to make decisions about investments belongs to the state partner.
2	Concession	The private partner manages the project under contract. Created or transferred to the management of the property is subject to state property. The state has the right to profit from the management of the transferred object in the form of concession fees.
3	Greenfield projects	The private partner own or jointly with the state builds the facility and manages it for the period specified in the partnership agreement.
4	Divestitures	The private partner is part owner of state property through the purchase of shares or share public partner, either through privatization program.

This project is considered PPP if the private partner involved in its implementation is at least 25%, and the sale of project assets - if at least 5% of the shares belong to private owners.

According to World Bank infrastructure construction of roads under the terms of the PPP contract ranks first in the number of completed projects (as of 2014 - about 650 objects) [2].

According to the guidelines of the World Bank on the tendering and under the current legislation of Ukraine [4, 5] before the announcement of a tender to select a contractor, road agency should provide an inventory and data collection in order to: a careful determination of the state of road infrastructure, which is transferred to a private investor in PPP contract conditions and fulfillment of valuation; determining quality of work performed to indicate it in the contract; preliminary cost estimates; development of monitoring mechanisms and so on.

Valuation of objects of transport construction is mandatory during the execution of PPP contracts, according to [6], and carried out only with the assistance of professional valuers. The assessment is to provide information about the real value of transport construction in view of wear, both physical and functional. At the legislative level, there are two main approaches of the evaluation process of fixed assets, revaluation and indexation. From the point of view of the revaluation and indexation value of implementing cost approach.

In its economic essence revaluation - is bringing the book (accounting) value of transport construction in line with their real (fair) value. Fair pricing for infrastructure - a replacement value (current cost estimate for construction costs), net of depreciation on the valuation date.

According to [7] it is necessary to identify revaluation index, which is determined by the formula 1.

$$I_{II} = \frac{C_{cnp}}{C_{залиши}} , \quad (1)$$

where C_{cnp} - the fair value of the object;

$C_{залиши}$ - the residual value of the object.

The initial value of the object revalued by formula 2:

$$C_O = C_{nep6} \times I_{II}, \quad (2)$$

where C_O – the revalued value of the object;

C_{nep6} – the initial value of the object;

I_{II} – revaluation index.

By the same principle overestimate and wear object. Following the revaluation of the residual value of transport construction facilities should be equal to its fair value.

In addition, the original (revalued) cost of the project can be increased by the amount of indexing. In this case the basis for determining the initial cost revalued consolidated figures come from the replacement cost of transport facilities [8]:

$$C_O = C_{VII BB} \times \prod_{j=1}^{j=n} I_j, \quad (3)$$

where C_O – the revalued value of the object;

$C_{VII BB}$ – the value of object property determined the appropriate collection of aggregated indicators replacement cost;

I – index of value changes;

j – index number applied by the method of the State Property Fund, which depends on the date of revaluation (determined from 1 to n).

Unfortunately, this approach does not always reflect the fair value of property, as provides for indexing using code changes in market value, based on inflation, as consolidated performance replacement cost facilities were designed in Soviet times, so do not take into account the current innovations and technologies in the field of transport construction. Therefore, the actual cost of facilities involved in PPP projects at this stage to define authentically through their revaluation.

The main disadvantages of the cost approach to the assessment of real estate in the road sector are showed on the figure 1.

It may be a problem with the disparity of costs to build a new facility assessment (roads, structures, buildings, etc.) and the cost of playing the old object that is a situation that to build a new facility to recover less than the old one.

Conclusions

A prerequisite for the successful implementation of PPP projects in the road sector is not only a high quality legal framework, but also the presence of regulatory guidance based on expert evaluation of real estate state organizations participating in the implementation of PPP contracts. It is necessary also to provide expedited registration of use of land and buildings transferred to the private partner to the contract, regardless of their form of ownership (state or municipal). These problems require urgent attention in connection with the adoption of the State of the course focus on public-private partnership in the Concept of the state target economic development program of public roads [1], the authors will be included in future research in this area.

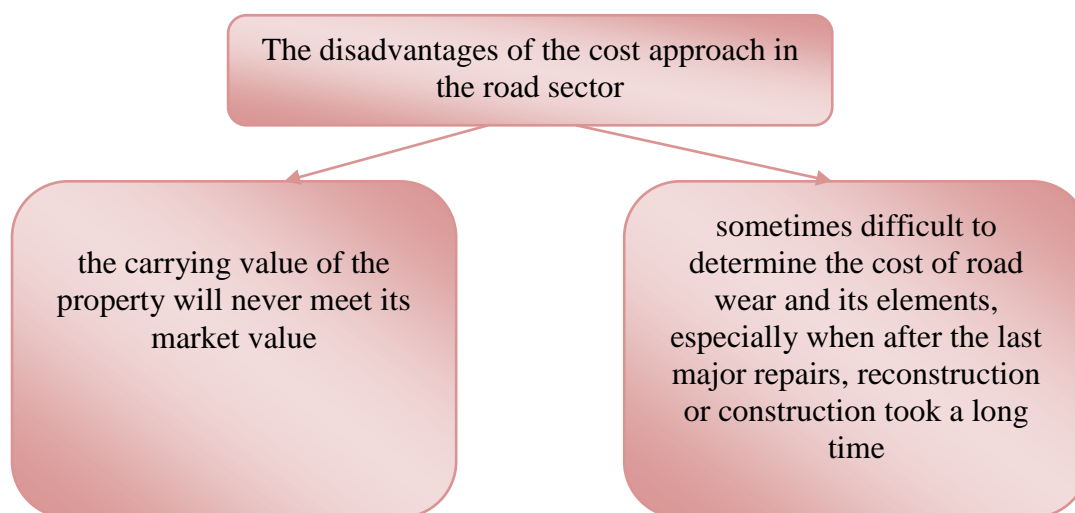


Figure 1 - The main disadvantages of the cost approach to the assessment of real estate in the road sector

REFERENCES

1. On approval of the Concept of the state target economic development program of public roads in the years 2013-2018: Regulation. №719 - official vision. - [In force since 06.12.13] - Kyiv: KMU. - 2013. (Ukr).
2. The World Bank (World Bank database) [Electronic resource]. – Access: <http://www.worldbank.org/>
3. Varnavskyy V. Partnership and state chastnoho sector: forms, projects, risk / V.H.Varnavskyy; In-t world economy and Internat. relations. - M .: Nauka, 2005. – 315p. (Rus).

4. The concession for the construction and operation of roads: Law of Ukraine № 1286-XIV - Official vision. - [In force since 14.12.1999] - Kyiv, Verkhovna Rada of Ukraine. - 1999. (Ukr).
5. On Public-Private Partnership: Law of Ukraine № 2404-VI - The official vision. - [In force since 01.07.2010] - Kyiv, Verkhovna Rada of Ukraine. - 2010. (Ukr).
6. On the assessment of property, property rights and professional valuation activities in Ukraine: the Law of Ukraine №2658-III. - Official vision. - [In force since 07.12.01] - Kyiv: VRU, 2001. (Ukr).
7. Policy (Standard) Accounting 7 "Fixed Assets": Decree №92 - official vision. - [In force since 27.04.2000] - Kyiv, Ukrainian Ministry of Finance, 2000. (Ukr).
8. As to the use of index changes in the market value of construction works, industrial production during the assessment of real estate: Letter of explanation FDMU number 10-36-9470 - The official vision. - [In force since 19 July 2010] - Kyiv: FDMU - 2010. (Ukr).

Рецензенти

Угненко Є.Б., д-р техн. наук, ХНАДУ (Харків)

Нагайчук В.М., канд. техн. наук, ДП “ДерждорНДІ” (Київ)

Reviewers

Uhlenko Ye.B., Dr.Tech.Sci., KhNAHU (Kharkiv)

Nahaichuk V.M., Ph.D., DerzhdorNDI (Kyiv)