МЕЖДУНАРОДНАЯ НАУЧНО-МЕТОДИЧЕСКАЯ КОНФЕРЕНЦИЯ

### СОВРЕМЕННЫЕ ПРОБЛЕМЫ ВНЕДРЕНИЯ ЕВРОПЕЙСКИХ СТАНДАРТОВ В ОБЛАСТИ СТРОИТЕЛЬСТВА

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# PROBLEMS OF STATE REGULATION AND WAYS TO IMPROVE THE SYSTEM OF THE CONSTRUCTION COST FORMATION

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### **Summary**

The subject of an investigation is the impact of government regulation of pricing in construction to implement value functions in the Republic of Belarus. The problems of state regulation of pricing and their influence on the industry development are defined. The need to revise the system of formation of value in construction is shown, and determining the estimated average of industry standards, taking into account the actual cost of construction and installation works, the transition to formation of cost on the basis enlarged guidelines. The concepts such as state regulation of pricing in construction, the formation of enlarged estimate standards, improving the pricing system in construction are considered.

### Introduction

Republic of Belarus independently regulates the relations in the construction for a little more than two decades only. All major efforts to develop the price formation system of construction works were directed on adaptation of the old Soviet pricing in construction to the realities of

transformational economy where market relations are interconnected with a high degree of state regulation of the social sphere. The rapid development of market relations, computerizing design, accounting, extensive data collection, processing and transmission of information put new requirements for the pricing in construction.

#### 1. Price functions

Performing a huge role in providing social housing for citizens who are registered in need of better housing conditions, providing construction sites, which are financed from the republican and (or) local budgets, including the state budget funds and state extra-budgetary funds, foreign government loans and external borrowings guaranteed by the Government of the Republic of Belarus of bank loans guaranteed by the Government of the Republic of Belarus and the regional and Minsk city executive committee exercises types of construction industry within the scope of state regulation of prices. The list of goods (works, services), prices (tariffs) which are regulated by the government bodies, established by the Decree of the President of the Republic of Belarus № 72 of 25.02.2011 [2]. Scope of regulated prices and methods of state regulation by law of the Republic of Belarus "On pricing» № 255-W from 10.05.1999. [1]

From an economic point of view price performs many functions:

- 1 Account;
- 2 Stimulating;
- 3 Distribution;
- 4 Balance of supply and demand;
- 5 Price function as a means of rational allocation of production;
- 6 Informational.

The key aspect of pricing in construction is done on the distribution function upon which the state regulates the reallocation of budgets. But at the same time, the price is a complex economic category, transforming under the burden of government regulation ceases to perform certain functions, or distort their meaning.

Therefore, in the Republic of Belarus two separate approach to pricing in construction have formed for the two decades of development: by organizations working on national regulations and organizations operating in a competitive market, the activity of which is not subject to price regulation.

# 2. Price function in the formation of prices on the basis of state regulation

In the first case in the formation of prices on the basis of state regulation, we have found that perform more work on large construction projects, for which legislation established state regulation of prices:

1 performs the function of an accounting and measurement of the cost of production of construction products, and is used to calculate all the cost and relative indicators reflecting the activities of the organization;

2 in stimulating function does not stimulate development construction companies themselves, since the decrease in the price level of profit - the main way to reduce prices at the state regulation. Price indices are based on the determination of the level of profitability at a rate of 5-7 per cent and below:

3 distributing and redistributing the state budget comes primarily from the optimization of public interest in the construction industry, and not the efficiency of the construction contracting organizations;

4 function balance of supply and demand ensures that the lower price for construction makes the state not only to ensure the availability of construction products, but also to stimulate the demand for it. Reduced prices stimulate demand for products for those customers who cannot provide real effective demand corresponding to the market price of the product, but having the opportunity to purchase it at a lower (regulated) prices.

At the same time, the proposal in construction cannot be changed as flexible industry (it has high material capacity) in which the output of capital construction work cannot be rapidly increased. Escalating construction capacity occurs gradually over several years, as it requires the purchase of expensive equipment, increasing production materials, the training of technical specialists.

On the other hand a sharp decrease in the volume of work also leads to a substantial loss of efficiency of the industry, as the existing production facilities cannot be effectively operated at low load. High material and capital intensity of production prevents construction industry to respond flexibly to changes in the volume of work while maintaining their effectiveness. High dynamics of demand and low dynamics proposals lead to permanent problems of scarce resources (labor, material) and capacity (production facilities) with an increase in demand and an oversupply when demand for its products falls.

Taking into account that the rate of obsolescence and obsolete means of production in the last decade is also quite high, it turns out that in a cyclically developing economy the construction industry spends huge resources to modernize in a period of increasing demand for its products, but by the time the full capacity it faces with falling demand and absence of payback investments in modernization;

5 price function as a means of rational distribution of production is also transformed under the influence of government regulation. This appears due to the fact that during the period of great demand for construction products, the investor makes a decision about investing long-term investment of resources in the development of the industry. However, relatively solvent consumer, may acquire construction products only when state regulation by setting lower (subsidized) prices. And the lower the regulated price is, the more aggressive and demand for construction products. But such demand can not provide a real recoupment on building project;

6, respectively, the information function provides price information and resources on the market. Under state regulation the information is not formed on the basis of the actual price, efficiency, solvency requirements, and reflects all the summary values which are formed as a result of government regulation.

## 3. Price function in the formation of prices in a competitive market

In the second case, the formation of the cost of construction products on the competitive market, prices reflect the essence of market relations:

1 accounting function of the price is involved in the formation of all the major quantitative and qualitative indicators of the organization's activities:

2 stimulating function of price, is stimulating or inhibiting its impact on the manufacturer, depending on the profit margins. Profit is defined as the difference between the proceeds received from the sale of construction products minus indirect taxes and the cost of the work. Improving the performance of the organization related to the search for ways to reduce production costs and opportunities for the implementation of works at higher prices.

On construction sites, the construction cost of which is subject to government regulation, the possibility of increasing the cost of operations are limited by local regulations. The way to reduce costs and limit the scope of the approved project is to provide them technical, technological, organizational solutions, which change due to the very high administrative costs. Opportunity to receive the contractual profits is associated with two main aspects of pricing: an objective definition of construction costs at the result of contract and compliance with the scope of work which are provided by the project.

Because the amount of construction work performed by species is highly diverse, and large volumes of work are measured by big units, the contract consists not from the envisaged cost of construction in general, but from the cost of implementation of each type of construction and design output. Accordingly, the contractor estimates the effectiveness of implementation of each set of works, and tries to form a structure of works from the most profitable for him sets;

3 Distribution function of prices provided through the tax component in the price of construction products. The legislation of Belarus provides tax incentives for certain types of construction, such as housing, construction of garages, parking spaces, without sharing their sources of funding, social significance. As a result, and the apartment is in the social panel house and cottage with pool and sauna have the same privileges in construction.

Moreover, the developer of a cottage settlement receives greater profit from these benefits, so the cost of construction of such facilities is much higher. Currently, the tax system in the building puts to disadvantage small businesses, working on the simplified system of taxation with the VAT payment, setting to them revenue taxes, which lead to an increase in the cost of work carried out by these organizations;

4 function balance supply and demand in a competitive environment defines a flexible response system of construction industry offers when the demand changes. With the increased demand for construction products primarily prices rise, providing the possibility of upgrading and development of construction companies, also with higher price volume of supply increases, that's in turn providing price reductions. By reducing the effective demand of construction organizations begin to work actively on exports, particularly in the Russian Federation, where the level of prices for construction work is much higher than in the Republic of Belarus;

5 price function as a means of rational distribution of production in the economic sector, where prices are not regulated by the state, associated with search for ways maximize the investment of the owner. In a market economy this function is called a guide, as it determines the scope of activities, investment in that can bring maximum benefit to the owner. For many years all over the world was considered that investing in real estate guarantees reliable preserve and increase capital.

Therefore, construction scope for both customers and contractors was positioned as a rational investment. With demand growing the individual weaknesses in pricing were covered by correcting the settlement system in the period of increasing cost of real estate. With the decline in demand on construction projects, with a sizeable decline in production requirements for objectivity reflection of costs, the restrictions on pricing cause the great wave of negative sentiment in construction. Reduced prices for the real estate market determines the movement of capital to finance outflow from the construction sector, curtailing construction industry;

6 price information function in market conditions is decisive in making managerial decisions. Therefore, modern requirements to investors based on the fact that the he does not agree to work for no apparent cost on the processing works. The standard rules of the market economy are who pays that determines the nature of the relationship.

Therefore, contractors, given changing market conditions with the so-called "seller's market", which recently was a deficit producers work on "buyer's market" which dictates the terms today, investors are forced to look for a more simple, intuitive, which is easily understood by people not associated with the construction systems forming the cost of works.

Thus, it should be noted that regardless of whether the work is done on the objects whose prices are regulated by the state, or on objects that are not subject to state regulation system formation in construction costs today requires its reform in order to meet the requirements of objectivity, cost, information, responsiveness and openness to correction.

### 4. Ways of improving the approaches to the formation of prices in construction

For further pricing reform in the construction and avoid errors it is necessary to wider use of foreign experience, because the cost of construction methods of forming in developed countries have been used for many years, and they are perfectly adapted to the market conditions.

In Belarus, the pricing methodology and calculation of estimates have not changed since the Soviet era. Until now, work is conducted in databases, where the cost of materials and labor is averaged and compiled on certain year, and to calculate the present value of the indices numerous changes in value by cost item are used. Moreover, our methods are complex and not visible – the part of the design estimates includes estimates for the calculation which are complex and incomprehensible to the customer.

At the same time, foreign financial plan (estimate documentation) is formed and described in a way that even an outsider having read it can get a sense of methods, technologies and cost of scheduled works. In international practice, the diversity of existing methods of determining the cost of construction can be divided into two separate groups:

- elementwise pricing methods used, as a rule, in the final stages of designing;
- methods of calculating prices with aggregate specifications at the initial stages of the investment process.

Calculating the cost of construction of the object in each case carried out individually tailored to the specific peculiarities of certain construction based on estimates compiled by the organization designer or engineering company.

Estimated norms and standards in the most developed countries of the world built around one principle, although different levels of detail and some other features.

In the most developed countries estimated norms and standards are done according the same principle varies by details and some other features.

For example, since 1942 in the United States and Canada almost constant detailed system for determining the main components of the cost of construction is operating. It's based on the use of annual summaries of construction prices provided by National Corporation RSMeans Co. Incorporated Ltd. It contains American average (including enlargement) of the cost parameters. These collections are not approved by anyone, do not have prescriptive, but are used by construction companies as a database for work and expenses.

Similar collections are operating in Germany and other EU countries. If it is necessary, the, and the inflation index is used with value recorded in the collection. And a contract price is based on the data of the previ-

ous year as well as the state of affairs in the economy and specifically in the industry during the current period.

Thus in the world a steady cost monitoring system of price formation for finished objects has already built as well as use of this information in the formation of value of designed objects. Specific cost of construction is based on the results of a contractor bidding at the contract establishment stage.

In the Republic of Belarus for the formation of enlarged estimates standards accounting and valuation of actual not estimated the cost of production of the integrated types of work is a fundamental. Because the estimates standards do not reflect the actual costs of the work. It only creates a multiplier effect on weaknesses of planned rationing system.

For the norms formation process of the consolidated construction cost the accounting and valuation of actual price is principal, rather than estimated cost of production of the integrated types of work or structural elements. Because the estimate price doesn't reflect the actual costs of the work, only creates a multiplier effect on disadvantages of the system of planned rationing.

Accounting of actual expenses is only possible by the customer of the project. Because no other organization has a comprehensive account of all sets of work and expenses in construction. The most reasonable is to organize the accounting of actual costs of fulfillment of works in organizations that perform the functions of government customers, as they are spending the state money and obliged to keep their accounting and reporting on the intended use of funds. Financial Accounting and Reporting is carried out today, but it does not provide the feedback, mean that no information of the actual cost of certain types of work is given to designer.

To provide flexibility for accounting and the formation of aggregates from the modular system the customer must keep records of the cost for completely finished stages (complexes) which should be according to design and technological modules which are formed in construction and design budget.

Formation of calculating the cost according the modules and payments for a fully finished module could make contractor be interested in forming a system of cost accounting in the context of design and technological modules.

Advantages of this system are that the price for customer and contractor will be formed on the same unit. And the adjustment of the volume of work, which is a specific feature of the construction, does not require complex calculations and studies, because the price is formed on an enlarged view of works and their cost is calculated by multiplying the volume by actually performed.

In addition, calculations for the volume of work could stimulate the contractor to comprehensive approach of resource allocation and not get involved in a wide scope of work without completing the previous execution.

Of course, in some cases, in the construction by its technological sequence of works does not allow it. Calculations for the performed brickwork all over the building or installation of wall panels accounted for in a separate design and technological module "Walls" can be done within a few months. Thus it will be required large amounts of current assets and the lengthening of working cycle. A system of advance payments or payments for separate stages of work in the contract can be provided.

However, many other works can be closed in the performance of whole set of works with an estimate of their quantity, quality and determination of the value per unit of volume of work.

Such system will create a database not only the actual cost of completed construction projects, but also certain types of work that can be compared by region, by implementing work on levels and types of construction, comparing the actual cost of work in certain types of objects with the average cost of the integrated types of work.

This system has the following advantages:

- 1. Information about the actual cost of certain types of work in the construction allow more informed approach to the definition of the architectural and design solutions implemented during construction;
- 2. For the investor formation of construction costs will be more simple, accessible, understandable;
- 3. Formation of the cost of construction at the stage of architectural design can be carried out by a designer himself, without resorting to the services of a specialist at a budget work;
- 4. Information about the actual cost of the integrated types of work allows us to give an objective evaluation of the efficiency of production of the various organizations, teams, performers;

5. Assessing the dynamics of changes in the value of the integrated type of construction tells about the dynamics of change in the cost of construction, based on the evidence on the cost of the work, rather than relying on a breakdown of the cost structure works in construction.

The presence of a data bank on the cost of the integrated types of work in the construction makes the pricing system in the building is not just ascertaining data on individual standards as well arm control for both the customer and the contractor, which can significantly improve the efficiency of the pricing system for the benefit of solving economic problems of organizations and society in general.

The availability of modern software, databases, opportunities for the rapid collection, processing, analysis and exchange of information allows us to solve the problem, previously unattainable.

Until database is created it is impossible to conduct an analysis of economic processes that affect the cost of construction, to assess the dynamics of prices, market conditions.

Today in Republic of Belarus the dynamics value of real estate were analyzed for a variety of indicators. But the cost of the property and the cost of its construction - it is different prices. The cost of construction - is the producer price. Property price - the price of sale of property investors. The difference in construction costs and the selling price may vary significantly. That is, the dynamics of real estate prices in many ways significantly different from the dynamics of prices in construction.

Creating a database of cost of works on the projects-analogues allows to move from prescriptive to indicative cost control method of works, to form a flexible and relevant system information, which is based on evidence and objective information.

#### Conclusion

Currently prevailing in Republic of Belarus State regulation of the construction cost requires correction and revision. Formation of the estimate cost of work on the basis of estimated norms allows to calculate the costs, but makes impossible to cost management. To create effective mechanisms for the construction project cost management information on the actual costs incurred for the construction work is needed.

#### **LITRATURE**

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