

INVESTMENT TAX CREDIT AS INSTRUMENT TO STIMULATE INVESTMENT- INNOVATIVE ACTIVITY OF HOUSING AND PUBLIC UTILITIES

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Abstract – Nowadays the condition and problems of the Housing and Public Utilities (HPU) raise concerns among scientists and experts as the number of accidents and failures in the work of the service systems is increasing. More and more financial resources are needed for the development of this industry; that is why, according to the authors, it is necessary to improve the management system and to apply the modern investment tools. The aim of this work is to examine the possibility of the application of the modern tools to stimulate the investment-innovative activity in the HPU sector and to prove its efficiency. The authors developed the model of the investment and innovation tool of management in the HPU sector based on the investment tax credit (ITC) which contributes to the development of organizational-economic relations in the HPU sector. In the article, the key parameters of granting the investment tax credit for the development of the investment-innovative activity in the HPU sector are considered in detail. The evaluation scheme of granting investment tax credit for the implementation of the innovative activity in the HPU sector is given, and it allows defining the parameters of the tax discrimination, taking into consideration possible threats of arising signs of insolvency (bankruptcy) of organizations in the HPU sector. Also, the technique of investment tax credit cost and payment deferral calculation is given. This technique allows calculating the necessary sum of payments considering accrued interests both for each accounting period and for the whole period of lending. After the conducted research, the authors concluded that a postponement of the use of tax obligations in the form of deferral helps to restore the financial situation of the HPU and creates the conditions for ITC registration to the sum of implemented innovations. So, the ITC is targeted and contributes to the transformation of innovative processes which enable us to reach the modern level of socio-economic development and to achieve maximum efficiency in the HPU sector.

Keywords – investment tax credit, tax concession, tax deferment, payments in installment, Housing and Public Utilities (HPU), investment-innovative activity, financial instruments.

I. INTRODUCTION

Housing and Public Utilities as a key sector of the economy provides the continuous production of utility services, and creates quality indicators of the environment of human life support. The efficiency of economic reforms in the HPU sector is largely determined by the strategic orientation of the management system, enabling HPU organizations to adapt to the continuously changing conditions of external and internal environment.

The need to invest in the innovative activity of the HPU sector is determined by the possibility of complex solution of the existing problems related to the sustainable development of the HPU sector at the regional, municipal and federal levels. It also concerns the importance of quality changes, the introduction of new methods and tools of management, the usage of innovative technologies, raw materials and materials of new generation while improving housing and utility provision.

Therefore, the state policy in the HPU sector should be based on the use of economic instruments and incentives, taking into account current national, industrial and regional characteristics [8]. That is why, it is necessary to use the investment resources more actively and to expand the possibilities of their attraction.

II. RESULTS AND DISCUSSION

The investment-innovative tool of management in the HPU sector.

In the condition of market relations, the competitiveness of the organizations in the HPU sector for providing quality housing and utility services, financial viability acquires relevance. This competitiveness should be based on the investment-innovative approaches to the organizational and business activity. However, the lack of effective methods and tools of management in investment and innovative activity is a

problematic factor of the development of the HPU sector in the modern market relations.

In the view of the above-mentioned information, it is suggested to create a flowchart of an innovative tool of management in the HPU sector, which is based on the principles of commercialization of innovations, self-financing and cost recovery.

The principle of commercialization is a series of steps targeted at the transformation of scientific achievements into really new goods and services in the course of innovative activity. It takes place in the market space uniting material production and social sphere.

The principle of self-financing and cost recovery has dual character. Cost recovery implies that financial resources providing operation of business should be repaid, i.e. recover the costs and provide the revenue, which meets the minimum level of profitability. Self-financing means domination of the equity funds for recoupment of expenses on manufacturing and sales, as well as for renewal of capital and circulating assets (i.e. production development) [19].

The aim of creating the author's mechanism is efficiency increasing of investment-innovative processes in the HPU sector. This aim of the given mechanism may become active due to the external financial resources. According to the author, the investment tax credit should be such resource.

The implementation of this mechanism in the activity of organizations in the HPU sector will enable one to reach the maximum economic effect (fig.1).

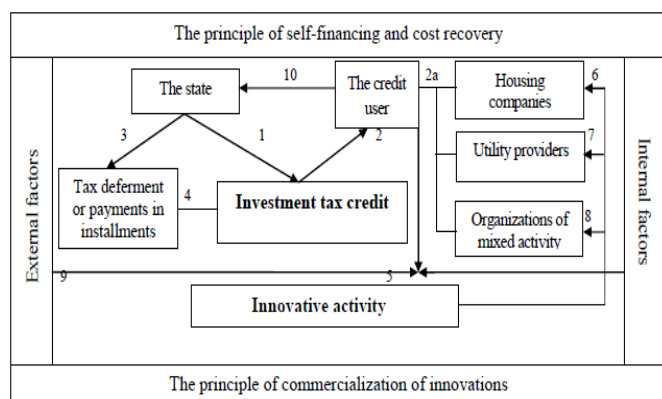


Fig. 1. A chart-flow of the investment-innovative management mechanism in the HPU sector

In Fig. 1, the numbers denote the following: 1, 2 - business relations between a state and credit user, the subject of which is an investment tax credit;

2a - tax users (may be housing companies, utility providers and organizations of mixed (housing and utility) activity);

3 - granting tax deferment or payments in installments;

4 - the party involved (has a right to make an application about tax deferment and investment tax credit at one time);

5 - relations connected to putting up of money as an investment tax credit in the innovative activity;

6, 7, 8 - the investment-innovative activity, targeted at economic development of the HPU sector;

9 - external and internal factors, influencing the investment-innovative activity of the HPU sector;

10 - the repayment of the accumulated funds to a state by a credit user according to the conditions of an investment tax credit.

An HPU company has a right to make an application about an investment tax credit and/or about tax deferment or payments in installments to the relevant authorized body.

The key point of the management mechanism in the HPU sector is a financial instrument of stimulation of the investment-innovative activity. This instrument is an investment tax credit (ITC)

ITC is a temporary reduction of tax payments with subsequent payment of funds according to the agreement in the amount of principal debt and interest charges, taking place due to the sum of money that a taxpayer spent on a cost effective directions.

Recently the problems of the government role in the stimulation of innovations have provoked the interest of researchers. Tax arrangements take an important place in such policy [16]. The most common way of tax incentives is tax concessions [23]. The main advantage of this is the fact that tax concessions are not granted in advance but are given as a reward for real innovation [6]. Concessions and competition together provide high demand for research and innovations [9].

The Russian government uses the mechanism of preferential taxation for regulation of economic relations widely, that is why the ITC is particularly relevant. ITC is becoming a tool, with the help of which investments are attracted in manufacturing and service industry [5, 24].

Initially the state introduced this tool in order to restructure existing tax and charge liabilities of the companies [18]. Over time, it became a mechanism contributing to technical upgrading of the own production of enterprises and enabling one to undertake implemental and innovative activity, including the creation of new or perfection of used technologies [11].

According to the Russian Tax Code, ITC is granted to the organizations for the period from one to five years and may be granted for income tax of organizations, and for regional and local taxes (art. 66 para. 1 of the Tax Code).

This instrument enables one to write off the main part of the equipment cost in the first years of its operation, lowering the cost of investment in new equipment and increasing incentives to technical and technological modernization of production [22].

The cost reduction for the new equipment, implemented by the organizations of the HPU sector for housing and utility public services and the organizations of different economic

entities, will allow reducing the cost of the services. In its turn, it will enable organizations to increase their income, which will have positive effect on the accounting liquidity.

So, the suggested mechanism will help to develop organizational-economic relations contributing to efficient investment-innovative management in the HPU sector.

In practice, the tax incentive mechanism of organizations is becoming more and more popular these days and it is recognized as one of the most efficient tools, affecting the innovative activity in OECD countries [14].

The algorithm of evaluating the possibility of granting the investment tax credit for implementation of the innovative activity in the HPU sector.

To determine the conditions for granting the investment tax credit and tax deferral (installment), the algorithm of evaluating the investments tax credit possibility of the innovative activity in the HPU sector was developed (Fig. 2).

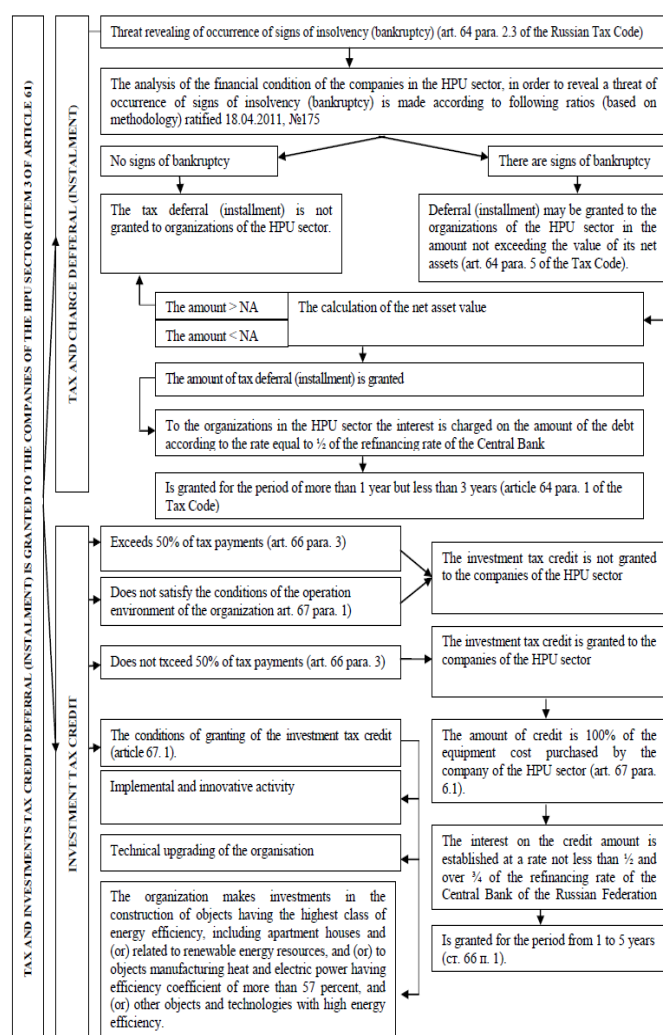


Fig 2. The algorithm of evaluating the possibility of granting investment tax credit for innovative development of the HPU sector.

The basis of the scheme is statutory and regulatory provisions given in Chapter 9 of the Tax code of the Russian Federation.

This scheme allows one to define possible options for granting the investment tax credit (tax and ITC deferral or installment) for organizations in the HPU sector, taking into consideration multifactor variants of granting tax concession to determine the optimal conditions for credit granting of this industry.

It is necessary to say that when there is a threat of bankruptcy signs of the organization, carrying out an innovative activity, an authorized body has a right to propose a tax deferral or installment if there are reasonable grounds for assuming that taxes will be paid during the period of the tax concession.

To identify the threat of insolvency (bankruptcy) sign occurrence of the organizations of the HPU sector, the analysis of the financial condition of the economic operator is made. This analysis is carried out in accordance with regulation № 175 "The methodology of the analysis of the financial condition of the party, involved to establish the threat of insolvency (bankruptcy) sign occurrence in case of lump-sum tax payment by that party," ratified April 18, 2011 [2, 21, 12, 15].

This methodology defines the rules of making analysis of the HPU organizations, which do not have signs of insolvency (bankruptcy) to establish the existence of the threat of occurrence of its insolvency (bankruptcy) sign in case of a lump-sum tax payment to make a decision on deferral or granting installments [4].

Tax deferral is the delay in the tax payment by appointing authorities when there are appropriate reasons with a further single application of the entire amount of debt by a taxpayer.

Tax installment is also the delay in the tax payment by appointing authorities when there are appropriate reasons, but with a stage-wise application, i.e. rescheduling tax payments for split amounts [20].

According to article 64 of the Tax code of the Russian Federation, tax deferral or installment for organizations of the HPU sector is a reduction of tax payments for an amount not exceeding the value of its net assets for the contractual time (more than 1 year, but less than 3 years), which contributes to the prevention of the company bankruptcy.

The interest is charged on the amount of debt according to the rate, equal to 1/2 of the refinancing rate of the Central Bank of the Russian Federation ruling during the period of the tax concession [3]. Housing and utility companies may refund principal debt and interest charges in two ways: using the delay – by lump-sum payment (a single amount upon the expiration of the contract term), in installments – by parts (during the contract validity period).

The tax concession in the form of a deferral or installment for taxes and charges contributes to the recovery of the financial condition of HPU companies and creates the conditions for ITC for the amount of implemented innovations.

Let us consider the basis for granting ITC to the HPU companies, which differ from the conditions of the tax deferral or installment. Under paragraph 1 of article 65 of the Tax code of the Russian Federation, the ITC may be granted to the HPU sector where there is at least one of the following reasons [3]:

- the organization carries out research or development activities or technical upgrading of its own manufacture, aimed at creation of workplaces for the disabled or environmental protection from industrial pollution and/or raising energy efficiency of producing goods, carrying out works, and providing services;
- this organization carries out implemental or innovative activity, including the creation of new or perfection of applied technologies, creation of new types of raw and other materials;
- the organization fulfils a particularly important order for socio-economic development of the region or provides essential services to the population;

the organization makes investments in the construction of objects, having the highest class of energy efficiency, including apartment houses and/or related to renewable energy resources and/or to objects, manufacturing heat and electric power having an efficiency coefficient of more than 57 percent, and/or other objects and technologies with high energy efficiency according to the list, approved by the Government of the Russian Federation.

An investment tax credit is a form of crediting budget, i.e. lending budget funds in order to pay taxes, which results from article 69 of the Budget Code of the Russian Federation [1], and is a statutory form of a promissory note between the budget and legal entity – a taxpayer [17].

An ITC is granted to HPU companies by the amount of 100% of the cost of innovative equipment, works, services or by the mutually agreed amount. The interest on the ITC is charged at a rate not less than 1/2 and not more than 3/4 of the refinancing rate of the Central Bank of the Russian Federation.

Organizations of the HPU sector engaged in the innovative activity, have the opportunity to sign more than one ITC contract. In this case, the accumulated sum of the ITC is determined separately for each contract.

The organization, which receives the ITC, may reduce its appropriate tax payments within the contract period of the investment tax credit. The reduction is made for each appropriate tax payment and each accounting period until the amount, not paid by the organization because of all such reductions (accumulated amount of credit), is equal to the contractual amount of the credit. An ITC contract must provide for the procedure of reducing tax payments, the amount of credit (specifying the tax for which the organization is granted with the ITC), contractual time, charged interest, plan of principal debt and interest redemption, the documents on the property, which is the subject of a pledge or guarantee, and the liability of the parties. The ITC contract must contain provisions in accordance with which it is not allowed to sell or transfer the equipment or other property, the acquisition of

which by the organization was a condition for granting ITC to other parties, or such conditions are specified.

If an organization signed more than one ITC contracts and their contractual time is not expired by next tax payment, the accumulated amount is determined separately for each of these contracts. In this case, the tax credit amount is increased firstly for the earliest contract, and when this accumulated amount of credit reaches the size, established by the contract, the organization may increase the accumulated amount of the next contract.

According to paragraph 3 of article 64 of the RF Tax Code, in each accounting period (regardless the number of ITC contracts), the sum by which tax payments are reduced may not exceed 50% of the tax payable by the organization in this tax period. If the accumulated sum exceeds the size limit of the tax reduction for such accounting period, the difference between this amount and the maximum acceptable amount is transferred to the next reporting period.

If the HPU organization had losses by the results of separate accounting periods during the tax period, or losses at the end of the whole tax period, the amount, excessively accumulated at the end of the tax period credit, is transferred to the next tax period and recognized as an accumulated sum of credit in the first reporting period of the new tax period [3].

According to paragraph 3 of article 61 of the RF Tax code, organizations of the HPU sector and other areas of economic activity have the right to change the terms of tax and charge payments in the form of deferral or installments on tax and ITC payments.

Granting the ITC, the state empowers HPU organizations not to divert money to pay the tax, but to direct it to innovative development during a certain period of time. Above all, granting the investment tax credit will allow solving the problems of the state investment policy while reducing the investment of federal, regional and local authorities [13, 22]. Investments are an important growth factor, which increases the capital level in the economy. It also improves productivity because of the complementarity of capital and workforce 1.

The goal principle of the investment tax credit is theoretically intended to support the investment and innovative activity of organizations making investments [10, 18].

As the loan market is limited and unavailable for most taxpayers, the discussed preferences could become an additional source of financing the current activity, capital investments and investment programs [7].

The calculation methodology of the payment of tax and investment tax credit is considered in the context of the coefficients of granting investment tax credit.

For an economic justification of modern tools of innovation activity in the HPU sector, the calculation methodology of the investment tax credit cost as an instrument of the investment-innovative activity of HPU organizations was developed.

The purpose of this tool is an efficiency calculation of the investment-innovative activity in the HPU sector.

In each accounting period, the amount by which a tax payment is reduced may not exceed 50% of the size of the corresponding tax payments, defined by general rules, without considering investment tax credit contracts. In this case, the amount of the credit, which was accumulated during a tax period, may not exceed 50 % of the amount of tax payable by the HPU organization for this tax period.

Based on the above-mentioned information, the coefficients of investment tax credit were developed:

1. The ratio of the investment tax credit amount to the income tax amount:

$$K_{IT_{cr_Tprofit_t}} = \sum_{t=1}^n IT_{cr} / \sum_{t=1}^n T_{profit_t}, \quad (1)$$

where IT_{cr} (Invest tax credit) – investment tax credit amount including interest charges;

T_{PROFIT_t} (Tax on profit) – income tax payable.

2. The ratio of the investment tax credit amount to the property tax amount:

$$K_{IT_{cr_Tproperty_t}} = \sum_{t=1}^n IT_{cr} / \sum_{t=1}^n T_{property_t}, \quad (2)$$

where $T_{PROPERTY_t}$ (Tax on property) – property tax payable.

3. The ratio of the investment tax credit amount to the transport tax amount:

$$K_{IT_{cr_Tcar_t}} = \sum_{t=1}^n IT_{cr} / \sum_{t=1}^n T_{car_t}, \quad (3)$$

where T_{CAR_t} (Tax on car) – transport tax payable.

If coefficients $K_{IT_{cr_Tprofit_t}}$, $K_{IT_{cr_Tproperty_t}}$, $K_{IT_{cr_Tcar_t}}$:
 $\geq 0,5$, granting investment tax credit is possible; if

$< 0,5$, investment tax credit granting is not possible.

These coefficients will reveal the presence or absence of the possibility of receiving investment tax credit by an economic entity, taking into account different types of taxes.

If these coefficients (according to paragraph 3 of article 66 of Chapter 9 of the RF Tax Code) have a value of ≥ 0.5 , the calculation of the investment tax credit amount, including interest charges paid off by annuity payments (IT_{cr}), is as follows:

$$\begin{aligned} S \times \frac{\frac{P \times (1+P/12)^n}{12}}{(1+P/12)^n - 1} \times n &= \frac{S \times P \times (1+P/12)^n \times n}{12((1+P/12)^n - 1)} = \\ &= \frac{S \times P \times \frac{(12+P)^n}{12^n} \times n}{12((1+P/12)^n - 1)} = \frac{S \times P \times (12+P)^n \times n}{12^{n+1}((12+P)^n - 12^n)} = \\ &= \frac{S \times P \times (12+P)^n \times n}{12((12+P)^n - 12^n)} = \frac{S \times y \times \frac{3}{4} \times (12+y \times \frac{3}{4})^n \times n}{12((12+y \times \frac{3}{4})^n - 12^n)} \quad (4) \end{aligned}$$

where S - available credit amount;

P - investment tax credit interest rate;

n – the number of months for paying off the credit;

y - refinancing rate.

In its turn, the calculation of the tax deferral (installment) amount, including interest charges (T_{cr}), is made in the following way:

$$\begin{aligned} S + \frac{S}{365} \times \omega \times q &= S + \frac{S \times \omega \times q}{365} = S \times \left(1 + \frac{\omega \times q}{365}\right) = \\ &= S \times \left(1 + \frac{y \times \frac{1}{2} \times q}{365}\right) \end{aligned} \quad (5)$$

where S - tax deferral (installment) amount;

ω - credit interest rate (in shares);

q – number of days of the tax deferral (installment).

These formulae allow calculating the amount of the tax and investment tax credit deferral (installment), including interest charges.

Unlike irretrievable and permanent tax concessions, the ITC allows the state to have a regulating effect on the economy, satisfying public needs, to increase tax revenues and to encourage companies to increase capital. For the state, it is characterized by the decrease in capital investments, which contributes to saving financial resources [23].

III. CONCLUSION

An undertaken study of the effectiveness of the investment tax credit implementation in the HPU control mechanism allowed formulating conclusions of theoretical and methodological character.

Currently, in the HPU sector, there are a number of problems that require immediate solution. The amount of failures in the service system is increasing. To eliminate most of the problems and to improve this sector, more and more financial resources are needed. That is why, the improvement of the control mechanism through the introduction of modern investment tools is of vital importance.

The transition to a new management mechanism of the HPU sector will boost competitiveness by increasing the innovation process efficiency of the organizations involved. Therefore, all these changes will have a positive impact on organizational-economic relations, contributing to effective management of the HPU sector as a whole.

The result of the investment-innovation mechanism implementation in the HPU is: the reduction of budgetary financing of innovative activities in the HPU sector; the reduction of charges for utilities; the independent determination of the directions of innovative activities in a specific HPU organization; the use of innovative experience of other HPU organizations; the reduction of innovative expenses of the HPU organizations; the service quality improvement, the accelerated fixed assets reproduction.

Moreover, the implementation of an innovative tool will allow developing organizational and economic relations between HPU constituents contributing to the quality services and the financial sustainability of the HPU organization.

To determine the conditions of granting investment tax credit, the algorithm for evaluating the possibility of granting investment tax credit for innovative development of the HPU sector was developed. The novelty of this algorithm is the identification of possible parameters for tax and granting ITC deferral (installment), considering the multifactor variants of providing a tax concession.

For an economic justification, the calculation methodology of the tax and ITC deferral (installments) cost was developed. The ITC is considered to be an effective tool for the development of innovative capacity of the HPU organizations, taking into account the factors of granting investment tax credit.

In conclusion, it should be noted that the ITC is directed to the activation of innovative activity of the HPU sector, and the development of innovative technologies for the production of HPU services. The use of innovative methods of investing HPU organizations will contribute to the implementation of modern highly efficient technologies and equipment, providing services at a high level, etc. and, as a result, the overall efficiency of the management and operation of the HPU companies. This will result in a cost reduction in organizations of the HPU sector and other economic entities that should affect the costs of the services and, therefore, lead to a reduction of tariffs for housing and communal services.

Thus, in modern conditions in Russia, the improvement of tax stimulation methods of investments into fixed capital, considering the accumulated experience, remains one of the main priorities of tax policy. The use of granting investment-innovative credit will allow achieving maximum efficiency of reforming the HPU sector, and increasing the social standard of living.

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