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E-mail: mazur.ju.a@gmail.com**TAX INCENTIVES FOR R&D IN EMERGING ECONOMY CONDITIONS:
DIRECTION OF REFORMS FOR UKRAINE**

One of the main features of tax incentives for R&D is the creation of certain benefits for society in general and industry enterprises in particular. This is achieved by attracting additional investments for the development of the innovative sphere of the economy. International practice confirms the effectiveness of tax mechanisms for stimulating R&D both in advanced economies and in those economies that are developing and considered emergent. Governments use these mechanisms both as a tool to support broad R&D and as a targeted public policy to foster innovation in specific fields.

The article is devoted to the justification of the expediency of using tax incentives for research and development for the innovative development of industrial enterprises in Ukraine.

Features of the use of investment tax credits in the sphere of research and development in the conditions of the emergent economy are considered. Among them the ease of implementation, attraction of the private investments, reducing the effective tax burden on businesses and so on. The main requirement of R&D investment tax credit should be the activity in the sphere of the scientific and technological progress.

The features of using the volume and incremental scheme of qualified expenses (income) in calculating the tax credit for investment in R&D in different countries of the world are identified. It was determined that, the volume tax credit for investment in R&D is used in developing countries, because it is simple for use by enterprises and for state administration; contributes to the growth of profits of large enterprises, and, consequently, increases investment in research and development. In contrast to the incremental scheme, aimed mainly at stimulating the small and medium-sized businesses, tax incentives for large enterprises, that are used the volume tax credit for investment in R&D, are a more effective tool for ensuring stable GDP growth rates in conditions of socio-economic crisis.

An improved evolutionary approach to tax incentives for R&D is proposed. It is aimed at researching the tax incentives for industrial enterprises in the context of providing them with a volume tax credit for investment in R&D.

It was determined that the application of tax incentives in the field of research and development can contribute to the growth of investment activity of enterprises and to accelerate their innovative development. The limited budget financing of industry in the country can be compensated, at least in part, with the help of such a tax policy tool as a volume tax credit for investment in R&D.

Keywords: Tax incentives, R&D, innovative development, emerging economy, industrial enterprises, investment tax credit, qualified R&D expenditures, evolutionary approach.

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A feature of tax incentives for R&D is, as a rule, the creation of certain benefits for society as a whole and industry in particular. This is achieved by attracting additional investments for the development of the innovative sphere of the economy, which should help to exceed the profits received by enterprises over their R&D expenses.

International practice confirms the effectiveness of tax incentives for R&D both in advanced economies and in those economies that are developing and considered emergent¹ [1; 2; 3, c. 110]. In 2015, the tax support for an additional R&D unit, which is calculated using the 1-B index², was the largest in developed countries such as Spain (0.37 for large, medium and small enterprises) and Portugal (0.36 for large enterprises, 0.37 for medium and small enterprises), as well as in emergent economies – Brazil (0.26 for large enterprises, 0.16 for medium and small enterprises) and South Africa (0.16 for large, medium and small enterprises) (Fig. 1). At the same time, real GDP for Spain

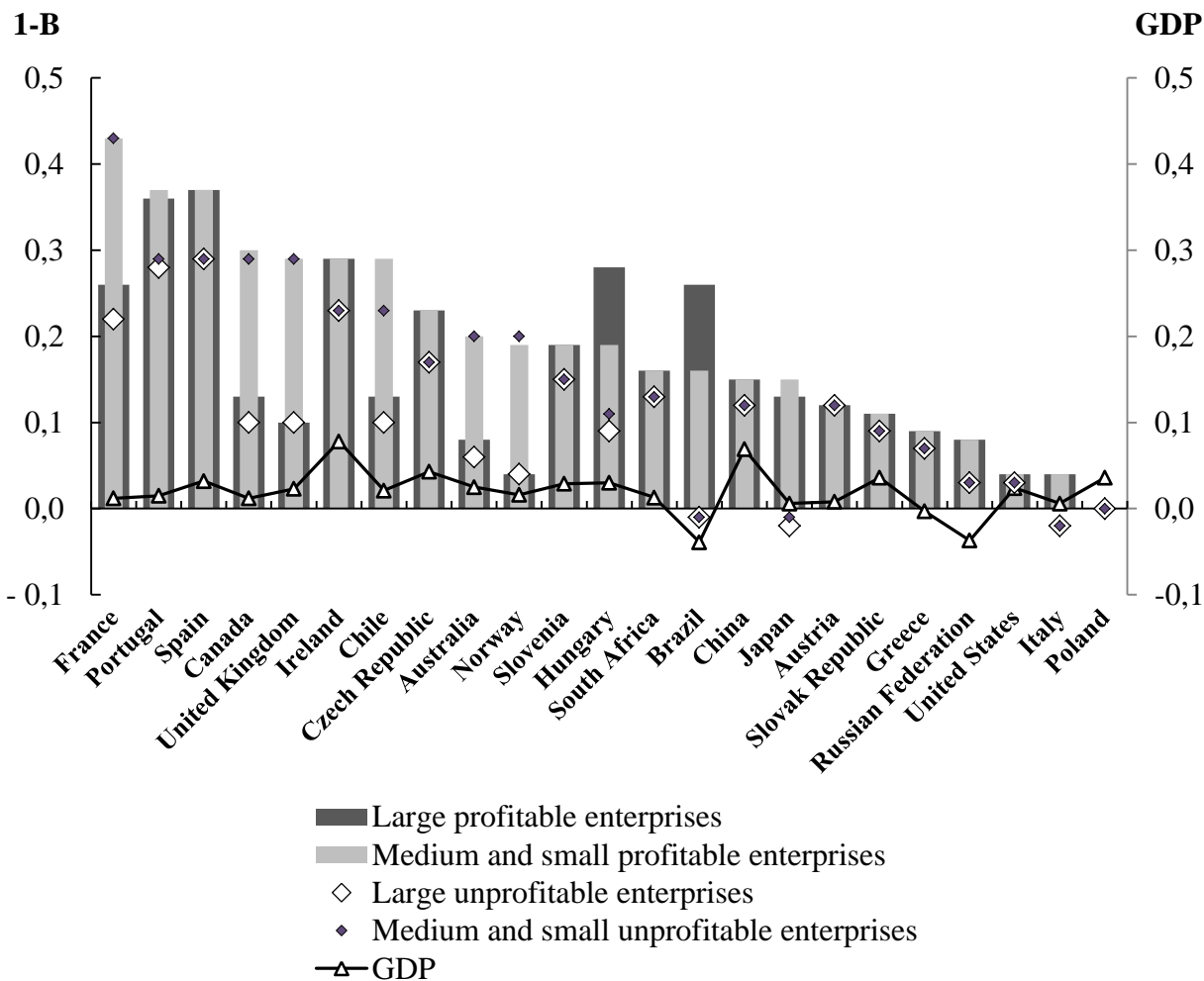
and Portugal was insignificant (3.2% and 1.5% respectively) compared to, for example, Ireland, where the real GDP was 7.8% with a sufficiently high level of tax support for additional R&D compared to other developed countries (0.29 and 0.23 for profitable and unprofitable enterprises, respectively). In Brazil, despite the high level of tax support for R&D among countries with emergent economies, the volume of GDP is declining (-3.9%). A decrease is also observed in the Russian Federation (-3.7%). This shows that in each government the innovative development of the economy is determined by a set of relevant tax incentives, as well as the effectiveness of their use in the context of the relevant institutional environment.

A number of papers by foreign and domestic authors have been devoted to the problems of researching the tax incentives for R&D in the conditions of the emergent economies.

The feasibility of introducing tax incentives for innovative and investment development of the domestic economy is justified in [9-15]. In the study, V.M. Geitz, A.I. Danilenko, E.M. Libanova and other Ukrainian scientists are invited to fix in the Tax Code of Ukraine the procedure for granting tax incentives for innovative projects, provisions on monitoring their use and withdrawing funds to the budget in case of misuse, and to provide interest-free lending (with inflation indexation) of innovative projects and transfer projects technologies in priority areas [9, p. 235, 246]. Some scientists [10; 11; 15, p. 16] are analyzed and generalized foreign experience of using tax approaches to activating innovative and investment activity of industrial enterprises, suggest introducing an incremental R&D allowances for investment tax credit with a rate not exceeding 50% of the amount of the assessed profit tax. In contrast to them, in the papers [12, p. 156; 13, p. 43-44; 14, p. 408-410] is proved the

¹ Countries with emergent economies (Brazil, India, China, the Russian Federation, South Africa and others) are a heterogeneous group for a number of reasons: the size of the territory and population, per capita income and labor productivity. In such countries, the effectiveness of tax systems is lower than in advanced economy, which is reflected in fairly moderate tax revenues due to tax evasion, the growth of the shadow sector, corruption of government [6, p. 48-50; 7; 8, c. 3, 32, 40]. Coverage and generosity of social protection systems are generally lower than in many advanced economies: social spending is highest in Brazil and the Russian Federation (about ¾-average for OECD countries), and the lowest in China and India (there is 3-4 times lower than the average for OECD countries) [6, p. 49]. However, such countries play a significant role in the world economy and are the source of its innovative development.

² The indicator 1-B index characterizes the tax regime of the state for attracting additional investments into the researches and innovation. If the value of this indicator is higher, the level of tax support for the R&D unit in the country is higher.



Compiled by the author according to [4; 5].

Fig. 1. Tax support for an additional R&D unit and real GDP in selected countries of the world, 2015.

feasibility of using a volume investment tax credit in the sphere of R&D as a tool of targeted stimulation of innovative activity of enterprises with a rate of 50% to the tax base. In general, such papers are aimed at developing certain recommendations on the introduction of tools to stimulate research and development in the tax practice of Ukraine.

Foreign studies are aimed at systematization of changes in the tax policy of countries with emergent economies and their impact on the economies of the developed countries of the world [16; 18; 19], the evaluation of the organization of

R&D in the conditions of the emergent economy [17], the rationale for the principles of effective tax incentives [20].

Thus, P. Reddy [16] is analyzed modern changes in the state policy of countries with emergent economies (India, China, Brazil, South Africa), aimed at using tax incentives to provide favorable conditions for innovation and improve the quality of R&D. A. Brodzka notes that tax incentives in such countries can be used in different ways: as a counterbalance to investment disincentives inherent in the general taxation system, or to solve problems that investors may encounter (for

example, lack of infrastructure, complex and the outdated the legislative framework, bureaucratic difficulties and weak administrative management) [18, p. 30-31]. For a long time, such incentives have been identified as a significant factor affecting foreign direct investment and accelerating economic growth in countries with emergent economies. Nevertheless, the author comes to the conclusion that transparency, simplicity, stability and reliability of tax legislation and tax administration contribute more to the inflow of investments than individual tax incentives [18, p. 34].

In the papers [19; 20] there are some of the problems associated with the provision of tax incentives in emergent countries. V. Tanzi and H.H. Zee point out that, incentives tend to distort the choice of fixed assets in favor of those with a short life cycle, as well as enterprises, that have qualified R&D expenditures, may abuse the tax incentive system, claiming for several of them [19, C. 317].

E. Zolt regards tax incentives as a departure from the reference system. They are provided only taking into account the satisfaction of the requirements and can be justified only if it is impossible to obtain additional investments without them. The author singles out such principles of effective tax stimulation of economic activity of enterprises: a clear statement of the purpose of tax incentives; estimating the expected costs and benefits of such incentives; minimizing the possibility of corruption in the provision of tax incentives and abuse of tax incentives by taxpayers; assessment of the advantages and disadvantages of each of the tax incentive programs [20, p. 44-45].

Evaluation of the organization of R&D in the conditions of the emergent economy using the evolutionary model is carried out in the study [17]. It describes the trajectories of promoting R&D to foreign markets. The obtained results show that tax

incentives in the sphere of scientific research and development can be beneficial to the state only in view of their use by industrial enterprises for environmental protection.

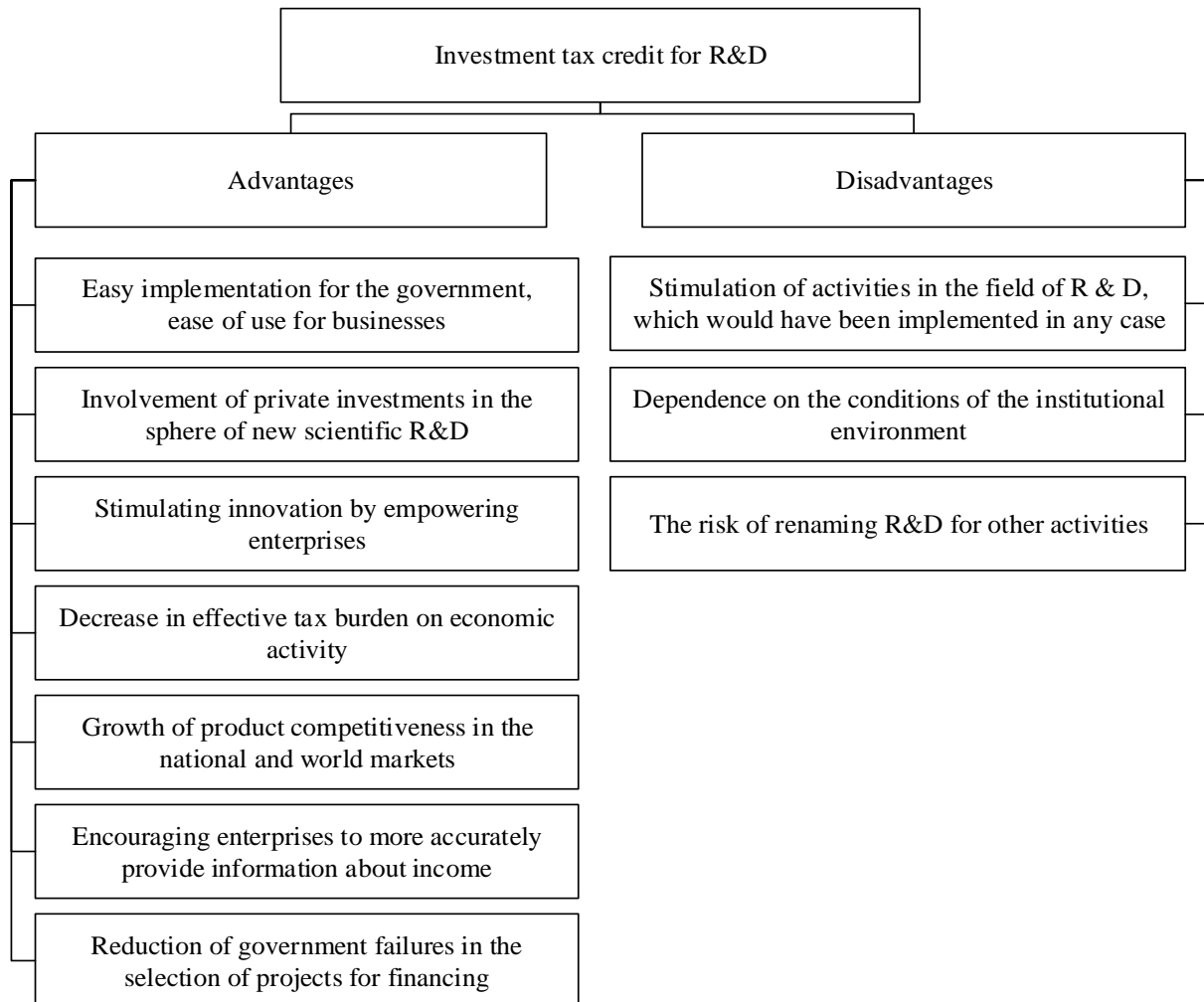
In general, the conducted studies on tax incentives for innovative development of countries with emergent economies analyze the peculiarities of using tax incentives in the field of R&D with the aim of bringing industrial enterprises to a new level of development and growth of global competition, provided that the problems of tax administration are resolved. Such developments in modern conditions of Ukrainian tax legislation reforming are relevant, since they are aimed at enhancing the use of modern achievements in science and technology in the activities of domestic industrial enterprises. However, the recommendations of scientists on the using of tax incentives for innovation activities of enterprises have not been developed at the legislative level. Therefore, it is necessary to justify the expediency of tax incentives for R&D in Ukraine, using the modern apparatus of economic and mathematical modeling, and outline the main directions of legislative changes regarding such implementation in the long term, taking into account the institutional and evolutionary features of the development of the state.

The purpose of the article is to justify the expediency of using tax incentives for research and development for innovative development of industrial enterprises in Ukraine.

In international practice, the practice of tax incentives for R&D is aimed at directly reducing the tax burden on enterprises whose activities are related to the development and implementation of innovations in production. In the conditions of emergent economy, especially when there is limited budgetary resources and direct government instruments do not cope with the task of innovative development, the state

can rely on tax credits to stimulate R&D. Internal and external risks of applying such tax incentives are related to their peculiarities in the relevant institutional environment – the availability of a qualified workforce, the development of university infrastructure, the structure of intellectual

property rights, the investment climate, the promotion of public-private partnerships, the level of corruption in the state, the stability of tax legislation and etc. The main features of the use of investment tax credits in the field of R&D in the conditions of emergent economy are presented in Fig. 2.



Compiled by the author on research [20; 22, p. 4].

Fig. 2. Features of investment tax credits in the field of R&D in the conditions of the emergent economy

To obtain an investment tax credit in the field of R&D, the directions of economic activity in Ukraine can be the following:

carrying out scientific research and development activities with the aim of creating samples of new products (goods, services);

the introduction of intellectual property in the field of science and technology;

creation of prototypes, carrying out of research tests, development and putting into operation of new samples of products (goods, services);

patent-licensing activity;
fulfillment of an especially important order for social and economic development or provision of especially important services to the population.

The directions of enterprises that do not provide for an investment tax credit usually include the following:

research in the field of social and human sciences and art;

conducting scheduled testing and analysis for the purpose of qualitative or quantitative control over the production of products (goods, services);

change of cosmetic or stylistic characteristics in the production of products (goods, services) in order to enhance its aesthetic value;

operational research on enterprise management or the search for production efficiency, which are not related to R&D;

activities related to the repair of equipment for commercial production of products (goods, services);

legal and administrative activities for the licensing of patents;

activities related to the construction, relocation, rearrangement or commissioning

of facilities or equipment other than facilities or equipment that will be used solely for the purpose of R&D;

testing consumers in order to stimulate demand for products;

exploration work, as well as activities for the extraction of minerals, oil or natural gas;

activities related to commercial production, distribution of new or improved products;

administrative and support services (for example, transportation, storage, cleaning, repair, maintenance and security) that are not related to R&D activities.

Usually, in order to calculate the base of a tax credit as an investment discount for research and development in many countries with emergent economies, the amount of qualified income (for example, in China) or skilled expenses (for example, in Brazil, India and South Africa) is used for R&D that arise in the process of creating a new or improving existing products [3, p. 110-111; 23, c. 12].

The size of the investment tax credit for R&D is defined as

$$Q_t = \tau_Q \cdot D_t$$

or

$$Q_t = \begin{cases} \tau_Q \cdot R_t, & \text{for a large investment tax credit,} \\ \tau_Q \cdot \Delta R_t, & \text{for incremental investment tax credit,} \end{cases}$$

where Q_t – the sum of the investment tax credit for R&D; τ_Q – the rate of investment tax credit for R&D, $0 \leq \tau_Q \leq 1$; D_t – the amount of qualified income; R_t – the amount of qualified expenses; t – the time period.

The rate of investment tax credit in the field of R&D is set as a percentage of the tax base. Its size can be 50% (approximately this rate is valid in Brazil, China and South Africa [2; 21, p. 7]). It should be unified for all types of enterprises

within the prescribed period of granting a tax credit.

The choice of the volume or incremental scheme of expenditure (income) for R&D depends on the assessment of each country's advantages and disadvantages. The volume scheme is used in Brazil, China (for qualified incomes), the Russian Federation, South Africa, and growth is prevalent mainly in advanced economies (e.g. Austria, Italy, Portugal, Japan) [2]. In developing countries, which form the system of tax incentives for R&D (for example, in Ukraine), the most appropriate is the use of

a large investment tax credit due to the fact that it is simple for use by enterprises and for state administration; contributes to the growth of profits of large enterprises, and, consequently, increased investment in research and development. In contrast to the incremental scheme aimed mainly at encouraging small and medium-sized businesses, in the context of the socio-economic crisis, tax incentives for large enterprises with the help of a large investment tax credit are a more effective tool for ensuring stable GDP growth rates.

The qualified expenses for R&D should be justified and documented, that is, they should be, on the one hand, economically justified and expressed in monetary form, and, on the other hand, – documented and documented in accordance with the law. They can be carried out by the taxpayer independently or jointly with other organizations. If such costs did not lead to the creation of new samples or technologies, then they should be included in the composition of expenses on a general basis.

Providing an investment tax credit for R&D implies that the results obtained in the conditions of its use by the enterprise contribute to the innovative development of the emergent economy. Therefore, in many countries, such results are public property (Brazil, India, South Africa) [24, p. 95]. Therefore, it should be available to enterprises regardless of their size and be provided on an irrevocable basis during a statutory period of time. Such a period of time should be from one to five years.

An investment tax credit in the field of R&D can be provided for enterprise profit tax, personal income tax and single tax. Then the reduction is carried out for each of them:

$$\begin{aligned} T_t^k &= \tau_k \cdot X_t - Q_t, \\ T_t^l &= \tau_l \cdot L_t - Q_t, \\ T_t^e &= \tau_e \cdot E_t - Q_t, \end{aligned}$$

where T_t^k – the amount of tax on the profit of the enterprise; τ_k – the corporate income

tax rate; τ_k – the labor tax rate; τ_e – the single tax rate; X_t – profit of the enterprise before taxation; L_t – wage fund; E_t – profit of economic entities-payers of single tax.

It's provided as a percentage of qualified expenses and ensures a reduction in the company's expenses for the payment of relevant taxes to the state budget. Projects that were implemented by innovative enterprises without tax incentives do not act as a source of real loss of tax revenues for the state budget. If such enterprises are permanent taxpayers and their economic activities provide tax revenues to the budget (for example, due to increased profits from the sale of products or increase of wages to employees), then there is an increase in government revenues from these projects. For the state, the loss of tax revenue from stimulating R&D can arise from two main sources:

first, loss of income from projects in the field of R&D that were not implemented in conditions when tax incentives were used;

secondly, loss of income from projects in the field of R&D, for which enterprises improperly claimed tax incentives or shifted tax liabilities to other taxpayers, subject to a favorable tax regime.

In other words, the additional losses associated with the receipt by the state of income from tax incentives for research and development are primarily due to abuse by taxpayers of the regimes of such stimulation by avoiding paying taxes on profits received from unskilled activities. E. Zolt identifies the following forms of tax evasion [20, c. 15]:

- when taxpayers hide their operations in order to claim various tax incentives. For example, if they are available only to foreign investors, domestic enterprises can use foreign corporations for investment. Likewise, if tax incentives are available only for new enterprises, taxpayers can repeatedly include or create other new firms

that will be treated as a new taxpayer in accordance with the tax incentive regime;

- when taxpayers use tax incentives to reduce tax liabilities from unskilled activities. For example, an enterprise has the right to receive an investment tax credit in the field of R&D, because it is engaged in qualified activities that, in the opinion of the government, need tax incentives. It is quite reasonable to say that it is difficult to control the work of an enterprise to make sure that it does not engage in unskilled activities. Even when the activity is clearly divided into qualified and unqualified, the process of tracking transactions with interested parties is quite laborious in order to make sure that the income is not shifted from the taxpayer to the one that has the right to an investment tax credit.

The existence of a high level of corruption can be a serious obstacle to the flow of investment in R&D. The international non-governmental organization Transparency International estimates that the corruption perceptions index is lower in many countries with emergent economies (for example, in South Africa – 44, Brazil and India – 38, in China – 37, the Russian Federation – 29, Ukraine – 27) than in advanced economies (for example, in Austria – 76, Japan – 75, Portugal – 63, Italy – 44) [25].

Opportunities for the growth of corruption expand under those tax incentive regimes where officials have greater freedom in determining which investors or projects will receive some tax incentives [20, p. 16]. The likelihood of abuse also increases when there are no clear guidelines for determining qualifications, income and expenses. The OECD, the IMF and the World Bank have projects [28-32], that are trying to reduce the level of corruption and help countries develop programs to combat corruption. One of the directions of such programs is the monitoring of investment projects for the provision of tax incentives

in the field of research and development. If it subsequently turns out that such incentives were received inappropriately, then, in addition to any other legal sanctions, privileges are withdrawn from the enterprise, and taxes that could be avoided are repaid to them. From this it follows that the main requirements for ensuring the effectiveness of the use of tax incentives, including an investment tax credit for research and development, in countries with emergent economies should be, first of all:

1) stability of tax legislation in terms of granting an investment tax credit for new research and development, which allows enterprises to have confidence in planning future investments, as well as forecast the periods of its return;

2) the expanded definition of qualified activities, qualified expenses (or revenues) for tax purposes;

3) a simplified form of granting an investment tax credit in the field of R&D to eliminate problems in tax administration when calculating it and conducting an audit [26, p. 26-27; 27, p. 53-54].

In general, in order to reduce the loss of tax revenues to the budgets of states with emergent economy, it is advisable to use a large investment tax credit as an instrument of targeted stimulation of innovative activity of taxpayers, which is provided only for new investments on the basis of the implementation by business entities of systematic activities aimed at achieving scientific and technical Progress.

To justify such use, an improved evolutionary approach to tax incentives for R&D is considered, which was developed on the basis of the model of behavior change of economic agents in the implementation of investment and innovation activities proposed in [12, p. 101-132]. In contrast, this approach is aimed at studying the tax incentives for enterprises in the context of providing them with a large tax credit in the field of R&D.

The main requirements are the following:

the accidental nature of the emergence of new knowledge, its transformation into innovation, their use as technology;

the state uses a tax credit as a tax incentive for scientific research;

the functioning of the socio-economic system on the basis of the principles of generalized Darwinism, namely under the conditions of the mechanisms of selection, variability and heredity (or reproduction) [12, p. 91; 33, c. 12; 34, c. 400].

The evolutionary model can be represented in the form of a system of equations and a set of conditions characterizing the mechanisms of variability, selection and heredity, namely:

$$Y_t = \xi \cdot y(K_t, L_t) + \varepsilon,$$

$$X_t = \psi \cdot \Psi_0^* \cdot \ln K_t,$$

$$K_t = g(F_t, Q_{t-1}),$$

$$F_t = z(T_t),$$

$$T_t = f(T_t^k, T_t^*),$$

$$T_t^k = \tau_k \cdot X_t - Q_t,$$

$$Q_t = \tau_Q \cdot R_t,$$

mechanism of variability:

if $t \leq t_{N_0} + \Delta$ and $n = 1$, then $\kappa = 1$,
otherwise if $t > t_{N_0} + \Delta$, then $n = 0$ and $\kappa = 0$,

selection mechanism:

if $P(\iota) = 1$ and $\zeta = 1$, then $\iota = 1$ and $n = 0$, otherwise $\iota = 0$,

mechanism of heredity:

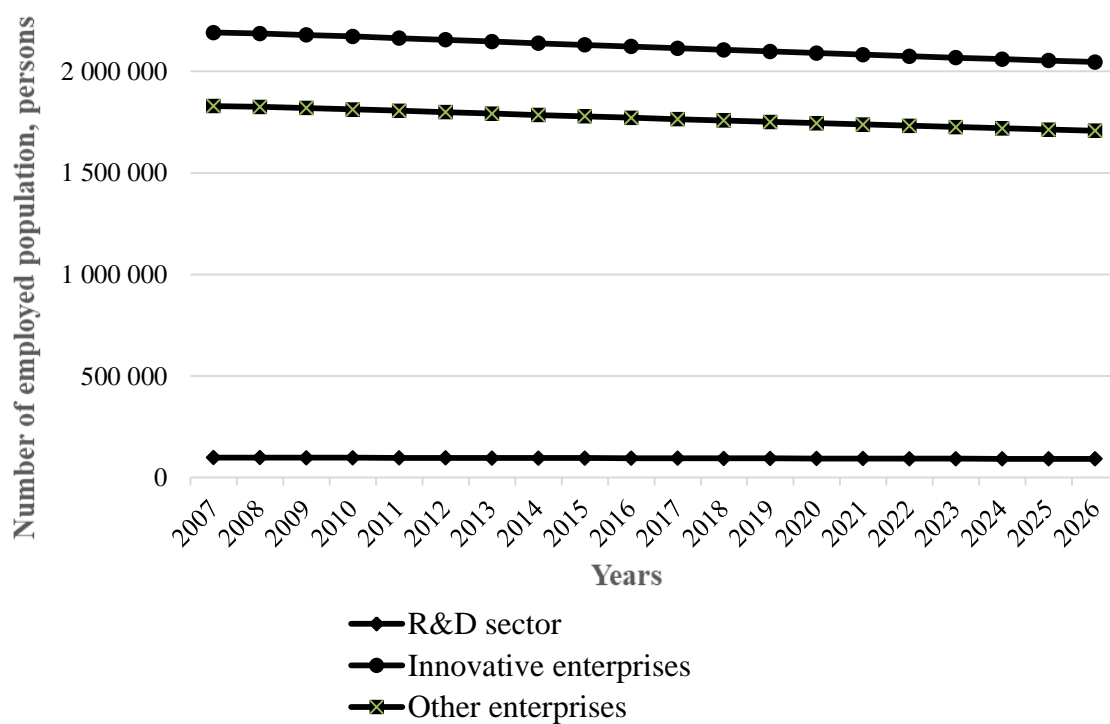
if $\iota = 1$, then $n = 1$,

if $\iota \vee n = 0$, then $\zeta = 0$,

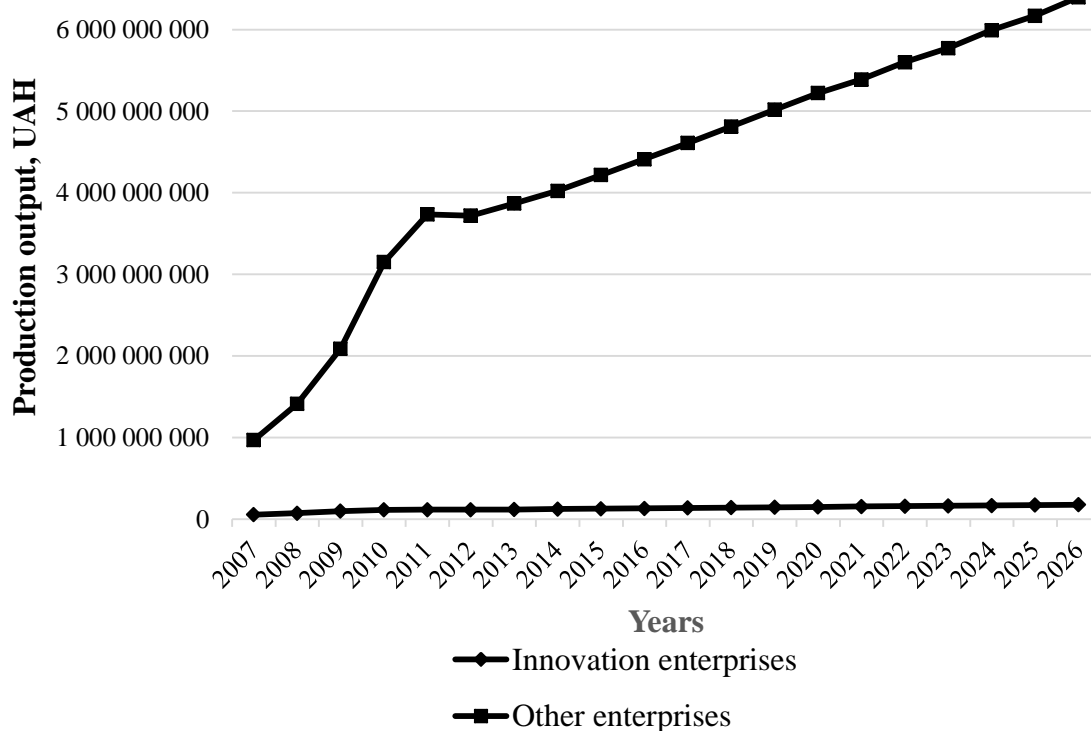
where Y_t – the output of the final product; ξ – the parameter of neutral technology efficiency; K_t – physical capital, expressed in terms of the residual value of fixed assets (machinery and equipment); L_{t+1} – labor expressed by the wage fund; ε – random observation errors; ψ – the part of the capital directed to economic activities of the

enterprise with the purpose of profit formation, $0 < \psi \leq 1$; Ψ_0^* – approximation parameter, $\Psi_0^* > 0$; F_t – public investment in the development of the enterprise; T_t – total amount of tax revenues to the budget; T_t^* – other tax revenues to the budget; t_{N_0} – the time of transformation of knowledge into innovation; n – the parameter of the transformation of knowledge into innovation; κ – a parameter that characterizes the willingness of an innovative enterprise to transfer innovation in the form of technology to enterprises that do not engage in innovative activities; $P(\cdot)$ – the probability of selecting innovation as a technology; ι – the parameter of selection of innovation as a technology by an enterprise that does not engage in innovative activity; ζ – the parameter that characterizes the enterprise's willingness to use innovation as a technology; ζ – the parameter that characterizes the readiness of an enterprise that does not engage in innovative activity, accept innovation as a technology.

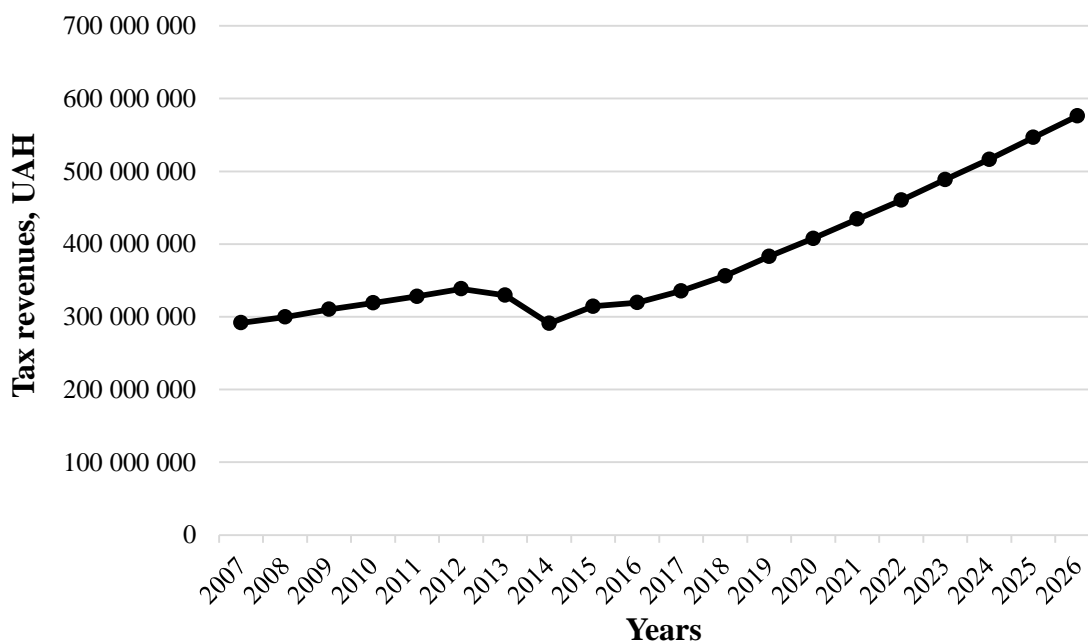
The implementation of the model in the AnyLogic environment made it possible to establish the effect of a large investment tax credit on R&D on the activities of industrial enterprises in Ukraine. The initial data for the implementation of the model was provided by statistical information at comparable prices in 2011. The obtained results showed that the use of an investment tax credit in the field of R&D at a rate established in percentage terms to the tax base for profit tax of innovative enterprises of 50% (a similar rate is valid in Brazil, China and South Africa - in innovatively active countries with emergent economies [21, p. 7], provided that the qualified expenses of the enterprise are 2% of the volume of output products (similarly to the largest value of R&D expenditure in GDP index among innovatively active countries with emergent economies [38, c. 326]), is reflected positively on the innovation climate in the country (Fig. 3a-c).



a)



b)



c)

Fig. 3. Dynamics of changes in the main indicators of tax incentives for R&D

As a result of the experiments, the following was established. In conditions of granting to innovative enterprises of an investment tax credit in the field of research and development on income tax since 2013, the average rate of decline in the number of employed people has practically not changed compared to the previous period: by 0.4% in the research sector and 0.37% at enterprises in 2014-2026, which is due to a decrease in the total population of the country. The average annual growth rate of output increased to 3.1% in 2014-2026 at innovative enterprises; up to 3.9% in 2014-2026. at other enterprises. The total tax revenue after the decrease of 7.2% in 2013-2014 compared to the previous period began to increase with an average annual growth rate of 5.9% in 2015-2026, compared with 3.01% in 2007-2012, which is due to the increase in output of enterprises and, accordingly, an increase in tax deductions to the budget.

In general, the use of the evolutionary approach in the conditions of the emergent

economy of Ukraine gives grounds for the conclusion that the application of tax incentives in the field of R&D can contribute to the growth of investment activity of enterprises and acceleration of innovative development. As the results of the study showed, the limited budget financing of industry in the country can be compensated, at least in part, with the help of such a tax policy tool as a volume investment tax credit.

Thus, the instruments of tax policy in the sphere of stimulating the innovative development of the economy differ depending on the state's understanding of the direction of their design, the purposeful nature and control over their use. In general, based on the generalized experience of innovative countries, it can be concluded that tax incentives can be useful in encouraging domestic and foreign innovations and investments. However, to what extent the tax incentives for R&D will be effective and at what cost – depends on the institutional validity of the

methodological approach to their implementation and monitoring of use.

The implementation of the proposed economic-mathematical model allows to justify the dynamics of the main indicators of the emergent economy of Ukraine in conditions of using a large investment tax credit for R&D. This is due to the fact that this form of tax incentive for R&D is the simplest from the point of view of tax administration for the use and transparent in the corrupt state of state authorities and management. At the same time, it should be taken into account that the results reflect trends in the development of the economy in stable conditions with a fixed amount of qualified expenditures allocated for financing R&D. With a decline in economic growth in Ukraine, this approach will be necessary to stimulate R&D, which will avoid the development of corruption in the provision of an investment tax credit and reduce the risk of budget losses due to its use by taxpayers.

At the heart of this approach are: firstly, a clear statement of the objectives of tax incentives for R&D; secondly, the government's assessment of the expected costs and benefits of tax incentives for R&D is similar to the assessment of other types of tax expenditures, taking into account the institutional features of economic development, which will ensure timely identification of their advantages and disadvantages in the current institutional environment, and will also facilitate their adjustment for further use; thirdly, the tools of tax policy to stimulate the innovative development of the emergent economy of Ukraine should be developed taking into account minimization of opportunities for corruption. Therefore, further scientific research should be directed at an applied rationale for the principles of tax incentives for R&D, as well as the development of provisions for the use of an investment tax credit for R&D in an unstable institutional environment.

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ПОДАТКОВІ СТИМУЛИ НДДКР В УМОВАХ ЕМЕРДЖЕНТНОЇ ЕКОНОМІКИ: НАПРЯМ РЕФОРМ ДЛЯ УКРАЇНИ

Статтю присвячено обґрунтуванню доцільності використання податкових стимулів НДДКР для інноваційного розвитку промислових підприємств України. Розглянуто переваги та недоліки використання інвестиційних податкових кредитів у сфері НДДКР в умовах емерджентної економіки. Виявлено особливості використання об'ємної та прирісної схеми кваліфікованих витрат (доходів) при обчисленні інвестиційного податкового кредиту у сфері НДДКР у різних країнах світу. Встановлено, що в країнах, які розвиваються, найбільш доцільним є використання об'ємного інвестиційного податкового кредиту у зв'язку з тим, що він є простим для використання підприємствами та для адміністрування державою. Запропоновано вдосконалений еволюційний підхід до оцінки податкового стимулювання НДДКР, із використанням якого досліджено стимулювання промислових підприємств в умовах надання їм об'ємного податкового кредиту у сфері НДДКР. Встановлено, що застосування податкових стимулів у сфері НДДКР може сприяти зростанню

інвестиційної активності підприємств і прискоренню їх інноваційного розвитку. Обмеженість бюджетного фінансування промисловості в країні може бути компенсована, принаймні частково, за допомогою такого інструменту податкової політики, як об'ємний інвестиційний податковий кредит.

Ключові слова: податкове стимулювання, НДДКР, інноваційний розвиток, емерджентна економіка, промислові підприємства, інвестиційний податковий кредит, кваліфіковані витрати на НДДКР, еволюційний підхід.

JEL: E62, H21, H23, H25.

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НАЛОГОВЫЕ СТИМУЛЫ НИОКР В УСЛОВИЯХ ЭМЕРДЖЕНТНОЙ ЭКОНОМИКИ: НАПРАВЛЕНИЕ РЕФОРМ ДЛЯ УКРАИНЫ

Статья посвящена обоснованию целесообразности использования налоговых стимулов НИОКР для инновационного развития промышленных предприятий Украины. Рассмотрены преимущества и недостатки использования инвестиционных налоговых кредитов в сфере НИОКР в условиях эмерджентной экономики. Выявлены особенности использования объемной и приростной схемы квалифицированных расходов (доходов) при исчислении инвестиционного налогового кредита в сфере НИОКР в разных странах мира. Установлено, что в развивающихся странах наиболее подходящим является использование объемного инвестиционного налогового кредита в связи с тем, что он является простым для использования предприятиями и для администрирования государством. Предложен усовершенствованный эволюционный подход к налоговому стимулированию НИОКР, который направлен на исследование налогового стимулирования промышленных предприятий в условиях предоставления им объёмного налогового кредита в сфере НИОКР. Установлено, что применение налоговых стимулов в сфере НИОКР может способствовать росту инвестиционной активности предприятий и ускорению их инновационного развития. Ограниченность бюджетного финансирования промышленности в стране может быть компенсирована, по крайней мере частично, при помощи такого инструмента налоговой политики, как объёмный инвестиционный налоговый кредит.

Ключевые слова: налоговые стимулы, НИОКР, инновационное развитие, эмерджентная экономика, промышленные предприятия, инвестиционный налоговый кредит, квалифицированные расходы на НИОКР, эволюционный подход.

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