

**TAX BENEFITS FOR HUMAN CAPITAL
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Abstract. *The economy uses various tax incentives to develop human capital. From the point of view of human capital development, tax incentives are aimed at encouraging investments in education, healthcare, entrepreneurship development and improving living standards, which should ultimately lead to increased economic growth and competitiveness of the country. This article analyzes the problems of using tax incentives for investments in human capital.*

Key words: *human capital, tax incentives, education, healthcare, innovative activity, investment, efficiency, income tax.*

Introduction. The problems of applying tax incentives for human capital development are an important issue of the modern economy. Tax incentives can be an effective tool for developing human capital, but their application is often associated with a number of difficulties in practice. The problems of applying tax incentives for human capital development in our country can be classified as follows: economic problems, administrative problems, social consequences of applying tax incentives, and problems of obtaining information about tax incentives. This classification of the problems of applying tax incentives for human capital development is necessary for a better understanding of them, as well as for developing effective solutions to eliminate existing problems in tax legislation, and for increasing the effectiveness of tax incentives for human capital development.

The use of tax incentives for human capital development is an important issue in the modern economy. Tax incentives can be an effective tool for human capital development, but their implementation often faces a number of practical difficulties.

The problems in the use of tax incentives for human capital development can be classified as follows: economic difficulties, administrative difficulties, social consequences of tax incentives, and awareness of tax incentives.

Technological advances in enterprises can also supplement the skills of workers, leading to changes in the composition of the employed population (by specialization and type of profession). For example, they contribute to an increase in the share of technical specialties in the labor market, which is clearly reflected in the growth of the number of IT specialists in Uzbekistan over the past five years.

Furthermore, the intensity of substitution effects may vary across occupations and depend on the skills of workers [1]. Such debates have led to renewed research on the important role of education and investment in human capital (hereafter referred to as HCI). Investment in human capital and higher education are key to protecting workers from the negative effects of the third wave of automation. Furthermore, human capital accumulation is closely related to income inequality and poverty rates in the process of economic development [2]. Human capital accumulation has become a key factor in promoting rapid economic growth [3].

Literature review. Modern concepts of economic growth identify the public sector as the main source of human capital accumulation. Issues of taxation of human capital have recently become the most popular topic, since its development ensures sustainable economic growth. However, recognition of the importance of HCI does not guarantee the practical application of tax incentives for such investments even in developed countries. The scientific community also did not come to a consensus on the effectiveness of tax regulators for the development of HCI. Economists consider human capital to be the most important component of the total wealth of the state, and in their works they note conflicting views on how income taxes affect the accumulation of human capital.

Issues related to the development of human capital are based on the works of foreign authors: G. Becker, R. I. Kapelyushnikov, A. Marshall, F. Neumann, R. M.

Nureyev, W. Petty, A. Smith and others. The authors draw attention to the importance of human capital in the formation of the country's economy. Many researchers consider human capital as a factor of economic growth and a factor of production, and investments in the development of human capital become a condition for increasing human productivity in the process of carrying out their labor activities.

M. R. Pinskaya [4] emphasizes the relevance of a professional income tax that could cover every fourth able-bodied person. M. V. Pyanova [5] emphasizes that tax benefits are no less than direct spending of budget funds on the development of the education and healthcare system. A.V. Tikhonova and A.Ya. Akulov [6] highlight the differences in the existing tax incentives aimed at the development of human capital in developed and developing countries. A.V. Tikhonova [7] highlights three areas of the impact of taxation on the formation of human capital: maintaining the current level of the human capital index, ensuring individual and corporate investments in human capital.

King and Rebelo [8] found a large negative impact of taxation (in particular, an increase in the tax burden) on human capital accumulation, while other studies find a negligible effect [9]. The effect of income taxes depends, most importantly, on the specification of the technology of human capital production. The difference between technological characteristics is based on the fact that human capital is affected by the time allocated to citizens to accumulate human capital, government spending on human capital production, and the level of human capital of parents. Thus, the first specification takes into account only the time costs of education (implemented in free education), the second - time and financial costs (implemented in paid education). If time is the only input to educational technology, the reduction in net wages resulting from the application of a progressive income tax rate affects the economic benefit of the citizen and the cost of investment in human capital equally. In this case, the income tax does not actually affect the accumulation of

human capital. However, if the money of an individual is invested in the production of human capital, the income tax becomes an important factor in the HCI. A study of the literature on this issue has revealed that there are very unrealistic proposals and very specific practical recommendations.

Pyanova and Lavnik conclude that the growth of tax incentives for investments in human capital significantly exceeds the growth of indicators of the population's educational level, employment, income, and life expectancy, which indicates the low effectiveness of the tax regulatory tools used [10].

Analysis and results. It is important to study the processes of investment in human capital that ensure economic growth in a country. In addition to the trade-off between consumption and investment in physical capital, when making decisions about the distribution of income, an individual faces a trade-off between consumption and investment in human capital. The role of tax incentives for investment in education is that when an individual's income decreases, he spends less on his education due to the return (non-payment) of part of his tax payments. For example, a change in the income tax rate has a stronger correlation with investment in human capital than in physical capital. Thus, an increase in the tax rate leads to a significant reduction in the volume of investment in human capital than in physical capital. It should be noted that the effect of tax incentives on the population cannot always be achieved in countries around the world. It is important to consider the following two factors that significantly affect the individual's susceptibility to the "education" tax benefit:

- the stage of the human life cycle at which the tax benefit is applied.

Numerous studies, summarized by Carneiro and Heckman, confirm that most investments in human capital occur in the early stages of a person's life [11]. Therefore, it is necessary to develop a system of tax benefits and incentives that would cover the costs of individuals for obtaining basic higher and secondary

specialized education at the bachelor's and master's levels (we will define them as the "main" tax regulatory bodies of the Tax Code);

- the propensity of the working-age population to self-educate. The human capital literature has long recognized the difficulty of distinguishing between investment in human capital and ordinary consumption expenditure [12]. This problem is most acute in countries where the population has minimal personal savings. Unfortunately, it is not possible to accurately calculate the share of the population spent on education.

Thus, maintaining the level of IKI is most closely related to the level of the tax burden on income tax. It should be noted that an increase in the burden on even a small part of taxpayers can have a significant negative impact on the state of human capital. One should not be fooled by the “magic of small numbers”, because it is precisely this “small part of taxpayers” that finances the mass production of innovative products, introduces them into the production process of goods, works and services and is able to move to a more fiscally liberal state. The above zones are only part of the possible vectors for applying tax incentives. Given the multifaceted nature of the concept of human capital, such zones can include: investments in the health of the nation, pension provision, social insurance. However, given the research goal, which predetermines ensuring economic growth, they primarily reveal the social sphere of state regulation. From the perspective of this research methodology, it is appropriate to determine the scope of tax instruments to be analyzed for promoting human capital based on the presented interpretation of the human capital category (Figure 1).

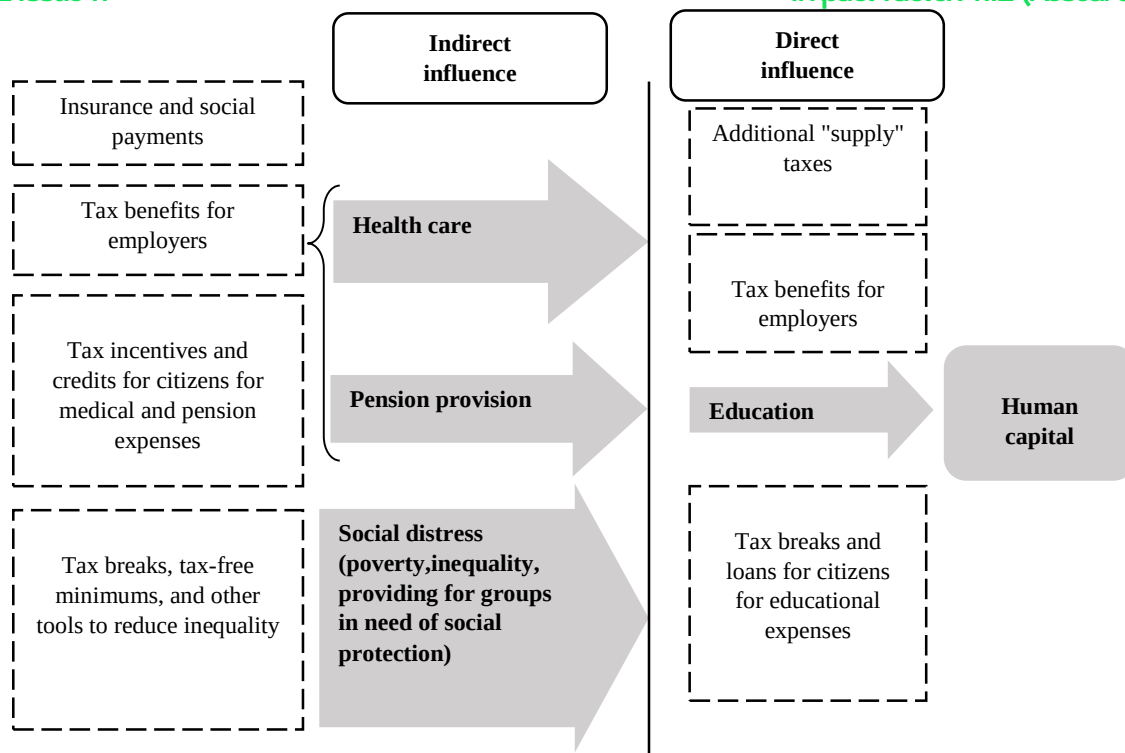


Figure 1. System of tax incentives for IHC

Here, human capital is considered as a macroeconomic category, since state support for investments in human capital is not a direct incentive for citizens to invest in education, but an investment in all human resources. Historical analysis shows that initially the ideas about human capital were based only on human education, in which investment instruments in education are considered direct, and investment instruments in other aspects are considered indirect. This approach is broader and allows for the multiplicative effect of tax incentives for HCI. In accordance with modern ideas about the components of human capital, tax incentives considered in countries of the world affect not only education, but also other areas that contribute to its development. In the context of this study, we highlight the following main principles of tax incentives for investments in human capital:

1. The principle of risk minimization. Empirical studies have shown that the return on investment in human capital is associated with risk. In particular, initial investments in human capital are subject to inherent risks, and the level of

accumulated human capital is subject to inherent depreciation shocks. As soon as an individual's human capital is subject to a negative shock, his or her skill profile shifts to a deterministic, exogenous profile with a low skill level. In other words, such an individual works in occupations and activities with a low skill level. Enterprises that invest in human capital also face the risk that workers will change jobs before the firm recoups its investment. Economists argue that such firm-specific risk does not translate into a risk for the economy as a whole, since the worker still contributes to production and economic growth elsewhere. However, in the context of external labor migration, the outflow of skilled human capital appears to be a major problem. Two possible ways to mitigate risk are:

- 1) temporarily restricting the mobility of workers for whom the firm is investing in training;
- 2) compensating the firm for the potential loss of its investment in cases where the employee decides to move elsewhere.

The first of these options is already a common practice in some companies that use highly skilled labor. The employee is offered a contract that limits job mobility for a certain period of time in exchange for the employer financing certain training programs. Although this method of reducing the risk of investing in human capital is pragmatic, it contradicts the free movement of labor in the economy. The second alternative could be to provide tax breaks/deductions, in particular for "unsuccessful/unrealized" investments. This would reduce the losses of firms in cases of labor migration, without restricting the free movement of labor within the economy.

2. The principle of multi-directionality by the subjects of incentives. When forming a system of tax support for HKI, it is recommended to take into account its multi-directionality, that is, its orientation towards both employers and employees - individuals. This principle involves identifying the differences between individual and corporate targeted incentives for HKI. Corporate tax incentives include any

forms of tax deductions / credits applied to the employer's expenses for training its employees.

3. The principle of differentiation by types and forms of HCI. A differentiated approach to creating a system of tax incentives for HCI based on the specification of types of HCI and forms of human capital is the most justified. Let us consider in more detail the forms of human capital in order to select priority tax instruments. Gary Becker defined human capital as a set of human knowledge and skills that are developed through investments in education and various experiences [13]. Thus, the first form of human capital is based on the presence of work experience. At the same time, another main form of human capital that has been identified in the last decade is the “quantity” of formal education. The logical question is whether human capital accumulated through formal education is as important as human capital accumulated through work experience, and which form of investment is more appropriate to develop.

In this context, it is worth noting that the value of a particular form of human capital is reflected in the level of development of a national economy. Work experience is often considered valuable, since industrial knowledge increases with experience. However, the benefits of the latter are less clear for developing countries with underdeveloped institutions and rapid growth. Investment in family education of children is also crucial for the accumulation of human capital and increasing future incomes.

4. The principle of the systematization of state support for HKI. It should be remembered that taxes are only one element of the system of state regulation of investment in human capital. Therefore, the impact of fiscal policy on stimulating HKI depends not only on taxes, but also on state financing of educational institutions and direct subsidies to households and employers. For example, in most OECD countries, the government finances more than 80% of expenditure on higher education. At the same time, Chile and Korea finance less than 25%, and Japan, the

UK and the USA finance less than 40%. In countries such as Japan, Korea and Chile, this reflects the widespread use of education in private educational institutions, and in the UK and the USA - in public colleges and universities, but mainly on a commercial basis. Thus, the selection and scope of tax incentives should take into account the size, composition and structure of public spending on education and soft loans. Tax incentives for individuals and legal entities aimed at increasing the insufficient volume of investment in human capital due to imperfect credit markets should take the form of tax breaks that are carried over several periods until they are fully used by households or businesses that do not have access to credit.

It should be noted that tax incentives may be inappropriate if the problem of insufficient investment in human capital can be more effectively addressed outside the tax system (for example, through lending or direct budget payments). In this case, it is important to maintain tax neutrality for investments in human capital. Since decisions on such investments concern not only their level, other aspects of tax neutrality are also important. Taking into account the principles outlined above and the established areas of tax incentives for HCI, it is proposed to use three categories of tax incentives that ensure the preservation and development of human capital:

- 1) incentives that encourage corporate HCI;
- 2) incentives that encourage individual (private) HCI;
- 3) incentives aimed at minimizing HCI risks.

There are two tax mechanisms that, if properly designed, can encourage corporate investment in human capital:

1. Use of deferred tax liabilities on special taxes on human capital (if established). Foreign scholars have proven that deferring taxation of human capital is acceptable. The main conclusion here is that the marginal tax rate that determines the deferred tax liabilities on human capital should depend on the current income of the economic agent. In particular, agents with low labor income are subject to higher

deferred taxes, while those with high labor income pay lower deferred taxes on capital. Taxes, along with increasing state revenues, should provide incentives to prevent one of the following situations:

- highly skilled employees consider their work to be low-skilled in order to obtain more favorable taxation (increasing the tax burden on highly skilled labor);
- able-bodied citizens deliberately avoid work (a "poverty trap" characteristic of a number of developed European countries).

Thus, taxes should provide sufficient incentives not only to prevent an increase in "voluntary" unemployment, but also to encourage adequate investment in human capital early in the life cycle. Governments around the world have little reason to impose special taxes on human capital when they have a single, undistorted tax on labor income.

2. Develop a system of tax incentives for employers, facilitating their investment in training their employees. It seems most relevant to support the development of a dual system of training with elements such as obtaining theoretical knowledge on the basis of educational institutions and professional training by the employer in a particular company, which creates general and specific human capital for the company. This practice is widely used in Germany. In some cases, tax incentives are provided for a fixed amount that is not related to the actual costs incurred by the taxpayer (education tax incentives in Canada, the Czech Republic). This amount may conditionally indicate direct or indirect training costs.

In Uzbekistan, educational services are subject to zero income tax. To apply the exemption, income from educational services must constitute at least 90 percent of the taxpayer's total income. Educational services are also exempt from value added tax. Property tax is paid at a lower rate for educational institutions (buildings and structures). Land plots occupied by educational institutions are not subject to land tax. Educational services include services in the field of preschool, primary,

secondary, technical and vocational, higher and postgraduate education, as well as services for retraining and advanced training of personnel.

Medical services are subject to zero income tax. To apply the exemption, income from medical services must constitute at least 90 percent of the taxpayer's total income. Medical services are also exempt from value added tax. Property tax is paid less for medical institutions (buildings and structures). Land plots occupied by medical institutions are not subject to land tax. Medical services include diagnostic, preventive and treatment services, as well as dental services and dental prosthetics.

Technopark residents are exempted from paying all types of taxes and mandatory contributions to state trust funds, including social tax, until January 1, 2028. Income received by employees under employment contracts with Technopark residents until January 1, 2028 will be subject to personal income tax at a rate of 7.5 percent (instead of the usual 12 percent).

Conclusion. Tax incentives for investments in human capital are one of the priority areas of state regulation to ensure economic growth. At the same time, the results of the study showed that not all fiscal incentives work as a means of stimulating IKI, since there are doubts about the effectiveness of their use both among practitioners and in the scientific literature.

The economic problems of using tax instruments for the development of human capital are associated, first of all, with their inefficiency and budgetary costs, which emphasizes the need for rational design and assessment of tax incentives, which will ensure their rational allocation of resources, without leading to loss of income or budget constraints, and contribute to the development of human capital. Solving all economic issues requires a balanced approach that takes into account both the direct and indirect impact of tax incentives on the economy as a whole, on state finances.

For the effective implementation of tax incentives for human capital development, coordination between the Tax Committee of the Republic of Uzbekistan, the Ministry of Higher Education, Science and Innovations, and the Ministry of Health is necessary. Ensuring continuous communication and cooperation between these departments is often a difficult task, but not limited to this, since a reliable technological infrastructure for accounting and managing the benefits provided is essential for the implementation and management of tax incentives for human capital development. Developing and maintaining such infrastructure is a costly task, requiring additional financial costs, reliable data management, and security.

Identifying the most effective tax incentives requires a robust methodology for assessing the effectiveness of existing and proposed tax incentives that takes into account many non-tax factors, since changes in human capital development are difficult to attribute to tax incentives alone due to the much more complex socio-economic factors. Therefore, it is important to analyze behavior and identify unintended consequences of tax incentives for human capital development. To understand how organizations and individuals react to tax incentives and their possible side effects, it is necessary to use elements of behavioral economics for analysis and comprehensively assess the impact of tax incentives on the behavior of business entities. To assess the long-term impact and sustainability of tax incentives for human capital development, longitudinal studies, comprehensive socio-economic analysis, and econometric models are required to predict the sustainable impact of tax incentives on human capital development.

The use of tax incentives for human capital development in Uzbekistan is hampered by a number of problems, the resolution of which requires a comprehensive review of tax legislation and a revision to include clear and inclusive provisions to ensure human capital development. By streamlining administrative processes and expanding the scope of tax incentives, Uzbekistan can create favorable

conditions for organizations to effectively use tax incentives for human capital development. Resolving all these problems requires joint efforts of policymakers, tax authorities and relevant stakeholders to create favorable conditions for the use of tax incentives for human capital development in Uzbekistan.

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