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Tax incentives to intangibles: a comparison between the United Kingdom and the Russian Federation

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Resumo

Neste trabalho, estudamos a tributação de certos intangíveis, particularmente a propriedade intelectual (PI) a nível internacional. A questão principal é a comparação de incentivos fiscais ao desenvolvimento de PI no Reino Unido e na Federação Russa. Também investigamos a importância dos ativos intangíveis para as empresas, e como a sua atividade internacional levanta, em alguns casos, o problema da dupla não tributação, devido a lacunas na legislação. Isso pode originar a erosão da base tributária, o que analisamos no contexto do Plano de Ação sobre Erosão da Base e Deslocalização de Lucros (BEPS), realizado pela OCDE. Da nossa comparação, concluímos que algumas características da tributação britânica para empresas inovadoras podem ser introduzidas no sistema tributário russo. Mas, primeiro, é necessário resolver problemas internos da legislação tributária russa.

Palavras-chave: tributação internacional, propriedade intelectual, incentivos fiscais, regime das patentes, benefícios fiscais

Abstract

In this research, we study the taxation of intangibles, particularly the intellectual property (IP) at the international level. The main issue is the comparison of IP tax incentives in the United Kingdom and the Russian Federation. We also investigated the importance of R&D and intangible assets for companies. International activity of corporations raises in some cases the problem of double non-taxation due to gaps in legislation. This leads to the erosion of the tax base and we analyse it in the context of the Base Erosion and Profit Shifting (BEPS) Action Plan issued by OECD. This plan contains recommendations for countries on avoiding tax evasion by taxpayers. From our comparasion we conclude that some features of British taxation for innovative companies can be introduced into Russian tax system. But first, it is necessary to resolve internal problems in Russian tax legislation.

Keywords: international taxation, intellectual property, tax incentives, patent box, tax benefits

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List of abbreviations and symbols:

OECD - Organization for Economic Co-operation and Development

BEPS - Base Erosion and Profit Shifting

IP - Intellectual property

R&D - Research and development

SEZ - Special Economic Zone

Content

1 Introduction

The strengthening of trade connections between countries exacerbates the problem of international taxation. There may be problems of double taxation and potential double non-taxation. Levchencova (2015) claims that due to gaps in the legislation, taxpayers can find ways to avoid the paying taxes or the possibility of tax reducing. States seek cooperation for effective exchange of tax information and for reducing tax avoidance.

The OECD has drawn a plan of recommendations for countries on international taxation. The BEPS Action Plan is designed to influence states legislation. A separate point of the plan deals with the taxation of intellectual property (IP).

The process of transition from existing IP taxation regimes to recommended OECD standards can not be the same for different countries. Some countries do not have a special tax regime for IP at all. Russia is not a member of the OECD, but it has always been in favor of supporting the BEPS Action Plan.

Russia supports innovative activities through the use of tax system. Koroleva (2016) found that such support has an unsystematic character. The country needs to work on the improvement of this tax issue, and can use the experience of developed European countries. For comparative analysis, I chose Great Britain. This country was one of the first to introduce a special tax regime for IP and it has many years of experience in this matter.

The purpose of the study is to consider the taxation system of IP in the UK and to identify the possibility of its adaptation to Russia. In accordance with the analysis of the present situation in both countries, two research issues can be singled out in this paper.

The first issue is the review of the IP tax regime in the UK and identification of its strengths and weaknesses. The second issue is aimed at highlighting aspects that can be implemented in Russian tax legislation. Literature review gives a general description of the Intellectual property regime, its history and development. It also shows a brief presentation of the BEPS Action Plan, its main tasks and characteristics.

The main body is devoted to the Action 5, that focus on IP taxation. This part describes the IP tax regime in the UK, and to the ways of stimulating innovations in Russia through the tax system. After the completion of the main analytical part, the work contains conclusions and recommendations for Russia and the possibilities for introducing the features of the British IP taxation into Russian legislation.

2 Literature review

In this study, we analyze the concepts of R&D and intangible assets, as they are the basis of IP. Mowery and Rosenberg (1989) find that R&D became part of the purpose of corporations, starting with the creation of industrial laboratories in the late 19th century. By the end of the 20th century, it included between 2% and 3% of GDP in advanced economies.

The Frascati Manual of the OECD, first published in 1963, defines R&D as "creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications."[1] Hall (2006) considers R&D as the activities undertaken by organizations to create new or improved products and processes.

Intangible assets are important for taxation because they can be a major source of revenue for multinational companies. Often, the related intellectual property does not have a clear geographical location. Darby and Lernaster (2007) found that some firms can use this flexibility to reduce tax payments. Patents, brands, and copyrights can be located in low-tax jurisdictions with the purpose of reducing tax liabilities.

Evers, Miller and Spengel (2013) claim that some countries tighten the rules of taxation of R&D. For example, Germany has made rules for the transfer of intangible assets more rigorous. Other countries, on the contrary, create favorable conditions for taxing R&D to attract companies to the country. Such preferential terms are reflected in the Intellectual property box regime (IP box) or patent box tax regime.

The IP box, as it is applied today, was introduced in 2000. It operates in several European countries and also in Asia and South America. IP box is intended to support companies performing R&D and protect their intellectual property.

The first scheme for taxing intellectual property was introduced in Ireland, back in the 1970s. The Finance Act of the country contained some privileges for companies working on patents registered in Ireland. Only in 2000 such schemes began to appear in the legislative acts of other countries (Faulhaber (2016)). The spread of such regimes started in Europe. In 14 EU countries patent boxes appeared under different names. For example:

[1] OECD (2002) Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development. Paris, France: OECD.

1. France – Reduced rate for long term capital gains and profits from the licensing of IP rights;
2. Netherlands – Innovation-Box;
3. Great Britain – Patent Box;
4. Portugal – Partial exemption for income from certain intangible property;

In addition to European countries, the elements of this regime are applied in Colombia (Software regime), in Turkey (Technology development zones), in Israel (Preferential company), in China (HNTE program).

Alstadsaeter, Barrios and Gaetan (2015) show the main elements of the taxation of income from IP are:

1. List of assets and types of non-taxable income;
2. Effective tax rate;
3. The procedure for determining tax base;
4. Conditions for the application of the regime.

There are several common features shared by all IP boxes. First, to obtain the right to apply this regime, the taxpayer must own the listed IP assets. Patents and rights to them are usually included in the list. The type of non-taxable income from the operation of IP-objects is legally determined. Usually it includes revenues from intellectual property created by the taxpayer as a result of R&D, which are patented and included in the company's balance sheet.

Gross income or net income is used to determine the tax base. Expenses for the creation of IP assets are deducted from the taxable base. The profit from the transfer an IP asset is defined as the difference between the sale price and the costs of obtaining the qualifying intellectual property asset.

The tax rate for the patent box regimes is lover than the statutory rate of income tax. As a rule, its size depends on the share of income. The main advantage of applying privileges for IP is to stimulate innovation and attract capital. Benefits from the growing stream of income resulting from the exploitation of intellectual capital are obtained by countries and regions that provide the best conditions for investment.

The conditions of the taxation regime for IP revenues have a determining effect on the choice of jurisdiction by the taxpayer, especially for companies with a high level of expected revenues. Alstadsaeter, Barrios and Gaetan (2015) analyzed the advantages of

patent box regimes. Their research shows significant impact of using an IP box for different sectors, and shows a positive effect of the patent box tax benefit. Patent boxes have a strong influence on the attraction of patents, mainly because of the specific favorable tax regime that they are carrying out.

Due to the gaps in international legislation some Transnational companies (TNCs) can reduce their tax liabilities by transferring profits, revenues to low-tax states. The OECD official sources show that revenue losses due to the erosion of the tax base reached 100-240 billion annually, representing 4-10% of global revenues from corporate income taxes.[2] This situation leads to the following negative consequences:

1. The state where the company actually operates loses taxes;
2. Tax losses imply that the tax burden is distributed to other taxpayers;
3. Medium and small businesses face tax disadvanteges relatively to TNCs, since they can not use international methods of tax optimization.

Faulhaber (2016) examined the problem is the existence of certain schemes through which the taxation of companies' profits is carried out at lower rates or not carried out at all. On one hand, the use of such schemes can be legitimate for taxpayers. On the other hand, the artificial creation of conditions for transferring revenues to low-tax jurisdictions and the search for inconsistencies in international tax legislation leads to hidden aggregate profits.

Earlier, steps were taken to establish international relations to jointly combat harmful tax practices. The OECD has adopted various policies aimed at resolving issues of international tax cooperation. These include: Model Double Taxation Convention (1977), Convention on Mutual Administrative Assistance in Tax Matters (1988), Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations (1995). International double taxation agreements for the avoidance of double taxation in different countries were created on the basis of the above documents.

A big step on the development of the IP box application is provided by the OECD Base Erosion and Profit Shifting (BEPS) Action Plan. In accordance with the BEPS action plan, countries should change their internal regimes in order to comply with international rules.

[2] OECD (2016b) Countries adopt multilateral convention to close tax treaty loopholes and improve functioning of international tax system http://www.oecd.org/

Merrill (2016) claims that the issue of regulating the use of tax privileges of foreign companies led to the analysis of new economic trends and development a unified approach for their regulation. For the first time, the relevant issue was raised at the summit of the leaders of the G20 in 2012. Subsequently, in February 2013, within the framework of the OECD, The BEPS plan was developed. Further reports were prepared by the OECD and approved by the finance ministers and leaders of the G20 countries. The main conclusions were consolidated into 15 actions, that constitute the final BEPS plan:

Action 1: Address the tax challenges of the digital economy.

Action 2: Neutralise the effects of hybrid mismatch arrangements.

Action 3: Designing Effective Controlled Foreign Companies (CFC) rules.

Action 4: Limit base erosion via interest deductions and other financial payments.

Action 5: Counter harmful tax practices more effectively, taking into account transparency.

Action 6: Prevent treaty abuse.

Action 7: Prevent the artificial avoidance of permanent establishment (PE) status.

Actions 8, 9 and 10: Ensure that transfer-pricing outcomes are in line with value creation.

Action 11: Establish methodologies to collect and analyse data on BEPS and the actions to address it.

Action 12: Require taxpayers to disclose their aggressive tax-planning arrangements.

Action 13: Re-examine transfer-pricing documentation.

Action 14: Make dispute-resolution mechanisms more effective.

Action 15: Develop a multilateral instrument to modify bilateral tax treaties.

The OECD/G20 Final Report[3] highlights three fundamental pillars on which actions under the project are based on:

1. Introducing coherence in the domestic rules that affect cross-border activities;
2. Reinforcing substance requirements in the existing international standards;
3. Improving transparency, for businesses that do not take aggressive positions.

Considering all the actions included in the BEPS plan, it can concluded that the project does cover a large number of areas of international taxation system. The main focus of the plan is to avoid "double non-taxation." Marchgraber (2017) defines it as a situation where, due to inconsistencies in the tax legislation of different countries, a TNC's income

[3] OECD (2016a) OECD/G20 Base Erosion andProfit Shifting Project 2015, Final Reports http://www.oecd.org

does not fall under the taxation of any country. According to the BEPS plan, such instances should be eliminated by coordinating the introduction of standardized provisions in the tax legislation of all interested countries, as well as in tax agreements between them.

Another important aspect of international taxation is the increase of information transparency, that contributes to counteracting the abuse of schemes of income shifting by companies. The goal is to increase the exchange of tax information between countries. In order to improve the requirements for documenting transfer pricing, transnational corporations, operating in different countries, will have to provide better reporting data.

Much attention is also focused on situations where the company's profit is admitted in the country of formal registration instead of the country of the main activity. In particular, this refers to IP, when an asset is created in one country, and then registered in another country. There are special tax regimes designed to attract such "mobile" activities, such as placing income from IP in favoured jurisdictions. Such practice is considered by the OECD as "harmful" (Merrill, 2016).

The BEPS plan is not a legally binding document for participant countries. The provisions of the project are just recommendations. The implication of the plan is the result of an international consensus. The idea is to create common "rules of the game" for all states that want to tight the problem of international taxation related to global businesses.

Initially, the plan was joined by the member countries of the OCED and G20. The Report by PwC states that initial participants of the Convention were 68 countries.[4] Another 9 jurisdictions expressed their intention to join it in the near future.

Because states are at different stages of development of their tax systems, the way to implement different actions has a specific time scale. In some aspects, progress has been already been made, as stated from official OECD sources. This includes prevention of tax treaty shopping, clarifying the purpose of tax conventions and improving the effectiveness of cross-border tax dispute resolution between tax administrations. Harmonization of common approaches to the implementation of policies between states is the main BEPS achievement.

Our study is initially focused on a review of Action 5, the UK experience and the possibility of applying this experience in Russian legislation.

[4] A Global Approach to Combating Tax Abuse https://www.pwc.ru/

3 Methodology

3.1 Doctrinal legal research

According to Vranken (2009) doctrinal legal research consists of the direct description of laws and their comparison with interpretative comments. On the other hand, based on doctrinal method, an innovative theory or systematization can be built.

The main resource in the doctrinal study is legal sources. Gawas (2017), for example, refers to laws and regulations, legal history and court rulings.The legal texts of the governments of the Russian Federation and the United Kingdom are the main sources for research and analysis in this paper.

The main legislative act of Russia, regulating the relationship between regulators and taxpayers, is the Tax Code. In this document all elements of taxation, rights and obligations of the parties are fixed. The Tax Code defines categories of taxpayers who have rights to R&D benefits, as well as a list of these benefits and the conditions for their provision. Other important documents are federal laws that regulate the activities of companies in the field of IP. For example, Federal Law "On the Innovation Center Skolkovo" (2010).

Regarding the UK, the main source of information on patent box regime is the "Corporate Intangibles Research and Development Manual." This manual contains information on both the current tax regime and a new kind of patent box.

3.2 Comparative analysis

A comparative study is based on the analysis of similarities and differences between the laws of two or more countries. The availability of legal documents makes it possible to conduct a study of the legislation of a specific country in the area of research interest. Adams (2011) states that comparative law usually remains at the level of description, combined with some comparison.

Statistical data and analytical documents are also useful for conducting detailed analysis. For example, statistics may include data on the amount of granted benefits.

In Russia such data is provided by the Accounts Chamber of the Russian Federation, the supreme body of external state control. Official sources contain information about control event "Checking the effectiveness of the provision and application of tax

benefits and preferences in the administration of corporate income tax." This document contains indicators of the effectiveness of the application of granted tax benefits, including taxpayers conducting R&D or working inside special economic zones.

The United Kingdom Government regularly publishes statistical information on the patent box regime. These statistics provide information on the numbers, values and costs to the Exchequer of patent box tax reliefs. On the official website of the UK government we can see data on the appropriate tax benefits for different groups of taxpayers. Based on this, it is possible to analyze the structure of granting benefits in a breakdown by different sectors of the economy and the size of the companies.

In addition to statistics, it is important to consider changes introduced regarding patent taxation in both countries in recent years. The decisions that the government adopts at the legislative level help to trace the trend in the development of preferential regimes. These sources include various publications in official sources, as well as changes to the legislative documents and regulations.

In this study, a comparative analysis of both states is the key to finding similarities and differences. Identification of strengths and weaknesses, as well as the search for patterns and trends in the development of taxation of innovation - the main task for the formation of a detailed view of the existing system of benefits and preferences. On the basis of a comparative analysis, it is possible to find ways to reform tax legislation in Russia within the framework of taxation of innovations and R&D. The UK experience is of relevant importance for this purpose.

4 BEPS Action 5 on harmful tax practices

The BEPS plan includes standards, which are recommendations for countries on tax policy issues. The standards include action 5 *"Countering Harmful Tax Practices more Effiectivly, Taking into Transparency and Sybstance"*. The Action 5 report establishes the requirement for significant activity in the field of tax regimes of intellectual property objects, offering a "Nexus Approach." [5]

Faulhaber (2016) argues that the Nexus Approach requires significant economic activities in the benefiting country. There must be a direct connection between the income benefiting from preferential treatment and the R&D expenditure that contributes to the income. Taxpayers must therefore track expenditure and income to IP assets to justify a claim that expenditure qualifies under the IP regime.

The approach allows a taxpayer to benefit from an IP regime to the extent that it can show that it itself incurred costs, such as R&D, which originated the IP income. According to the nexus approach, the application of the IP regimes should depend on the volume of R&D performed directly by the taxpayer. In addition, the application area of IP tax regimes should generally be limited by patents and software protected by copyright.

This approach affects tax regimes in countries where IP regimes, in particular "patent boxes", do exist. There are specific features of the application of the IP box in each state, which now need to be brought into line with the "new model of patent box" defined by BEPS, in Action 5.

Despite the common general principles, there are differences in granting privileges for R&D in different states. The agreement about new Modified Nexus Approach was reached by all OECD and G20 countries following the proposals of Germany and the United Kingdom.

Under the proposed approach, businesses that already use patent box regimes may face a reduction in income receiving preferential treatment, as R&D expenditure to develop the patent must be undertaken in a more limited number of entities, including the company holding the relevant patent, to qualify. This leads to a restructuring of the business and change decisions regarding the IP, which in turn leads to additional costs for enterprises.

[5] Action 5: Agreement on Modified Nexus Approach for IP Regimes http://www.oecd.org/

To account for these problems, companies are allowed, in a transitional period, to increase qualified costs. However, the corresponding increase is limited to 30%.

The OECD Peer Review Documents show two aspects to the Action 5 standard: a process for reviewing preferential tax regimes to ensure they are not harmful, and a transparency framework that applies to tax rulings.[6] The report offers a special approach in order to assess whether the preferential IP regime is harmful or not:

1. Is activity moved from one state to another state due to a preferential tax regime rather than creation of a considerable new activity?
2. Is the presence and activity level in the host state proportionate with the amount of investment or income received in the host state?
3. Is the regime's primary motivation the activity location or the income location?

Thus, this section is devoted to the definition of specific economic requirements for activities for IP tax regimes, and also to the definition of IP regimes that prevent the avoidance.

In order to solve the problem of the profit shifting low-tax jurisdictions, the BEPS Plan proposed to establish a more efficient exchange of tax information. Furthermore, it was planned to include non-OECD countries as partners in this area. The result of this activity was an overview of preferential tax regimes in OECD countries and non-member countries, and a review of existing criteria used to qualify the national regimes as potentially abusive.

The transition from the current IP regime to the regime corresponding to the Modified Nexus Approach occurs in two stages:

1. No new entrants in the old regime. The approach gives a transition period for countries to restructure the relevant IP regimes. This means that after the date that a new regime consistent with the new nexus approach is set up, it is forbidden to use the old regime. The latest date was 30 June 2016.
2. Final cancellation and transition to a new regime. For no more than five years, countries are allowed to apply existing patent boxes and IP regimes for a smoother transition to new standards. Last date or "abolition date" is 30 June 2021. At the end of this period, taxpayers will no longer be able to use the benefits and privileges of a retrospective tax regime, and will have to follow new standards and

[6] OECD (2017a) BEPS Action 5 on Harmful TaxPractices: Transparency Framework https://www.oecd.org/

rules. During the transition period, tax administrations need to protect companies from inappropriately using the transitional period to get tax benefits under existing intellectual property regimes.

Many countries have their own taxation regimes for innovation activities or special incentives for such companies. At the same time, full and centralized support of enterprises is not established everywhere. Different time periods will be required for different states to adapt the proposed changes. New tax regimes for IP should be established in accordance with the recommendations presented in the Action 5. Many countries have begun active work on the implementation of the relevant provisions of the plan.

In accordance with a Deloitte report[7], it can be noted that individual states are already actively bringing national regimes closer to the standards of the Modified Nexus Approach. These countries include Belgium, Brazil, Hungary, Italy, Luxembourg, Portugal, United Kingdom. Each country has amended its legislation in accordance with the Modified Nexus Approach.

At this stage, it is difficult to formulate a specific approach for those countries where there was no special regime for IP. For example, countries like Canada, Estonia, Sweden and Russia have never had a special regime for IP. It is necessary to study the experience of developed European countries, where there is an already established IP regime. Moreover, for each state there are features in accordance with which the proposed changes can not carry a unified character. In each individual case, the country itself implements new rules in its legislation.

The next section is devoted to the special regime for taxation in Great Britain. The country has a big experience in this area. To understand how to improve the taxation of IP, it is necessary to cconsider the experience of developed countries.

5 Patent box tax regime in UK

The United Kingdom has been a member of the OECD since the foundation of the organization in 1961. Gauke (2014) highlighted the United Kingdom's support for the OECD BEPS Action Plan: "We'll continue to work through the G20 and OECD — on the digital economy, on coherence, on substance and on transparency — to make sure that this

[7] OECD (2017b) BEPS Actions implementation by country. Action 5 - Harmful tax practices https://www2.deloitte.com/

area is properly reformed."[8] The country had previously struggled with tax avoidance, and the UK is actively implementing the provisions of the plan in its tax legislation. Despite the country's future exit from the EU, it is not expected that Brexit will become an obstacle to the further implementation of the plan.

The standard corporate tax rate in the country is 19 %. In accordance with preferential IP treatment, the rate is reduced to 10 %, which largely reduces tax payments.[9] The patent box regime in the UK was adopted in 2013 and became the most generous in the European community. Clearly defined income groups fall under the corresponding benefits. First of all, they include income from licensing and sale of patent rights.

The profit from the sale of inventions or their components created on the basis of a patent is also taken into account. The profit from the use of patented inventions, as well as compensation payments, are also included. All other revenues of the company that are not received from the use or sale of patented inventions are subject to corporate taxation on a general basis.

The statistics on the application of the preferential regime shows that since 2013 the number of companies applying the regime has increased.[10] The data is presented in tables 1 to 4, in the Appendix.

Table 2 shows that the number of large, medium and small companies is approximately the same. But the amount of relief prevails for large taxpayers: 94.6%. Manufacturing is the predominant sector, which accounts for more than 50% of the total number of companies (table 3). A good indicator is the geographical distribution of companies across the country. In spite of the fact that taxpayers in London receive most of relief, in all regions one can see the use of a patent box in a similar amount. This indicates a uniform distribution of support in the country (table 4).

Chanda, Drysdale and Miller (2017): the use of preferential terms of taxation consists of deduction of the reduced volume of IP'sprofit from the total amount of the

[8] David Gauke's speech to the Lord Mayor's Taxation Forum, https://www.gov.uk/
[9] Corporation Tax: the Patent Box, https://www.gov.uk/
[10] Statistics on uptake of the Patent Box, https://assets.publishing.service.gov.uk/

company's profit. This amount of deduction is calculated using the formula of "old" IP box:

$$RP * \frac{(MR - IPR)}{MR}$$

where:

RP - relevant qualified profit derived from the use or sale of a patent invention or other IP object;

MR - base corporate tax rate;

IPR - special corporate tax rate for IP.

In order for a taxpayer to use a patent box, it must be a qualified company. There are many conditions and limitations to get this status. First of all, this includes companies that have a qualified IP right or a relevant license in the reporting period. Another condition is that the company had previously a relevant IP right or license, but in this period also receives taxable income from their use. In addition, the company must carry out significant "management activity". This consists in conducting activities aimed at taking appropriate decisions and plans, protecting and disseminating the IP asset.

The Patent Box of the UK extends principally to a patent issued by the UK Intellectual Property Office and the European Patent Office. The regime also extends to patents issued by other organizations of the European Economic Area, if they are comparable to the criteria of the United Kingdom.

According to official sources of the UK Government the old regime was recognized as "harmful tax practice" by the OECD.[11] The main reason was the definition of a qualified entity and expenses. For such organization, it was important to own a large amount of rights to the IP asset. The new rules are also based on determining the share of expenses that the company incurred to develop and create a patent or IP asset. The UK old IP box was weak on both issues. For example, third party expenses could influence IP tax benefits for a certain firm.

[11] Corporation Tax: Patent Box - compliance with new international rules, https://www.gov.uk

In regards to the Action 5, the UK took the commitment to change the current regime in accordance with the recommendations of the OECD “nexus approach.” The decision of the UK illustrates the incessant search for optimal instruments of national innovation policy in the context of integration processes in the EU in developed countries.

After the agreement reached in late 2014, the UK will be able to maintain the existing order of "patent boxing" only until June 2016. The companies that managed to file until this point will enjoy benefits until 2021. The rest of taxpayers will receive benefits according to the new rules, which were determined by June 2016.

Thus, the opportunity to use the "old" form of the regime is impossible after June 30, 2016. The modified version came into effect on July 1, 2016. Until June 30, 2021 the old regime still exists. The choice of the patent box in the UK is voluntary. The company that enjoys the privileges granted, substantially reduces its tax burden. Supervision in the field of taxation in the United Kingdom, including the control of companies using a The Patent Box, is maintained by the UK Tax Authority.

The new regime is available to all companies that meet the following conditions:

1. The company opted for The Patent Box;
2. The company has a patent or other intellectual property subject that falls under the established qualification;
3. The company receives income from the use of a patent or an IP object.

The new rules are based on determining the share of expenses that the company incurred to develop and create a patent or IP asset. All the taxpayer's profits are divided into two parts. The first part was related to the profit obtained from the use of the IP asset. The rest included profits from other non-IP related activities. Rules have become thus more complicated. After dividing the qualified profit and allowable deductions, the company must separate them further by the “substreams” that correspond to the different IP assets. After that, the profit must be calculated separately for each substream. This means that a company with three patented products will need to carry out separate calculations with income and expenses allocated to each substream.

In addition, the so-called “nexus fraction” is added to the calculations. Now only income received from activities in the field of R&D can be admitted to the claim. The size

of the allowable profit will depend on the share of qualified and not qualified expenses. This fraction is the lesser of 1 and is calculated by using the following formula:

$$N = [(D + S) * 1.3] / (D + S + A + R)$$

D - direct expenditure on R&D;

S - expenditure on R&D subcontracted to third parties;

A - costs associated with the acquisition of an IP object;

R - R&D costs subcontracted to related parties (this parameter is related to the "nexus approach")

Companies have the right to increase their expenses by no more than 30% from (D + S). In other words, N is the qualifying costs plus this increase, divided by the total qualifying and non-qualifying costs. This parameter is calculated separately for each IP object. Thus, the company must take into account and calculate the income and expenses for each patent or IP object.

Currently, the UK is in a transition from the old Patent Box regime to the new. This tax regime is an excellent example of how the government can support and stimulate innovative activity in the country. The UK's experience in introducing the "patent box" regime and its changing is extremely valuable from the point of view of its adaptation to Russian conditions.

The next section is devoted to the taxation of IP in Russian Federation.

6 Tax policy of the Russian Federation aimed to incentivise research and development

Russia is not a member of the OECD, but the country has joined the BEPS convention. On June 7, 2017, in Paris, the document was signed on behalf of the Russian government by Deputy Minister of Finance. Russia fully supports the establishment of a single transparent system of bilateral agreements between countries to avoid double taxation and base erosion.

However, this is not the first time Russia cooperates with the OECD in the tax sphere. Russian Federation has already been guided by the OECD recommendations in its

domestic policy. For example, in the adoption of rules on transfer pricing documentation and adoption of legislation on controlled foreign companies (CFC) rules. Russian tax legislation has added a new definition to its vocabulary - "person who has the right to income" This concept is important for the application of benefits under agreements for the avoidance of double taxation. This way, Russia follows international tax trends and plans to strengthen the corresponding ties with other countries.

Regarding the provisions of the Action 5, Russia lags behind developed European countries on the issue of establishing Intellectual Property regimes. The country does not have special tax regime for research and development. However, some elements of stimulating innovation are contained in The Russian Tax Code (2017). In particular, such instruments include:

1. All R&D costs, as well as operations related to the implementation of patents and licenses, are exempt from Value-Added Tax (VAT);

2. The organization has the right to apply accelerated depreciation. The coefficient can not exceed 3.

The coefficient of accelerated depreciation is often used in Russian tax and accounting as a benefit. The method is accompanied by the following effect (in comparison with usual depreciation): in the first years of operation and write-off of the object taxable profit is reduced due to relatively high costs of depreciation. Therefore, the amount of income tax is decreasing.

*K = Koef / n * 100*

K - depreciation rate (interest to the initial cost of the facility);

Koef - acceleration coefficient;

n - useful life of the object (in months).

3. The taxpayer has the right to include expenditure on R&D in the corresponding reporting period with a coefficient of 1.5. The list of such expenses is defined in the tax code. This allows to reduce taxable profits and, as a consequence, the amount of tax;

4. R&D tax deductions reduce tariffs for insurance premiums as well. In Russia, the total amount of insurance contributions is 30% of the employee's salary. This includes contributions to the pension fund and the health insurance fund;

5. Investment tax credit for taxpayers engaged in R&D. The organization receives a loan for a certain amount. A company pays a reduced amount of tax at the end of the reporting period. This occurs until the total amount of unpaid tax is equal to the amount of the loan granted. Interest is accrued on the loan amount and the payment schedule is drawn up.

In addition to the general benefits for all R&D companies, Russian tax legislation establishes special preferences for companies that are residents of technology-innovative special economic zones (technoparks). For example, Skolkovo Innovation Center is one of the entities. This center is a modern scientific and technological innovation complex for the development and commercialization of new technologies. In the Russian press, the center is often called “The Russian Silicon Valley.” The complex provides special economic conditions for companies operating in priority sectors of Russia's economic modernization: telecommunications and space, biomedical technology, energy efficiency, information technology, and nuclear technologies.

The participants in the Skolkovo Innovation Center can be legal entities that have proposed new ways of solving important scientific, social and economic problems. Priority is given to projects that can change the face of the market and introduce new, unique products and technologies. The organization that received the status of a participant in the project for the implementation of research, development and commercialization of their results in accordance with the Federal Law "On the Innovation Center Skolkovo" (2010) has a number of tax preferences:

1. Exemption from income tax;

2. Exemption from corporate property tax;

3. Exemption from the obligation to pay VAT (except for VAT paid in case of importation of goods into the Russian Federation);

4. Reduced rate of insurance premiums;

5. Compensation of customs duties (customs duties and VAT) in respect of goods imported for research activities.

The above benefits are granted to the participants of the innovation center for 10 years, starting from the 1st day of the month following the month of obtaining the status of the Skolkovo member. A significant reduction in the tax burden helps companies in the first years of their activity that involve heavy investment in R&D.

Skolkovo city center was opened in 2010. Over the first 5 years of its existence, more than 1,300 companies have become participants. The volume of innovative products sold by them exceeded 52 billion rubles. More than 17 thousand new jobs have been created. During this time, about 2 thousand international patents have been registered in the center, which is 10% of patents registered in Russia.

However, the activity of the center is criticized. It's extremely difficult to become a member, especially for a small company. If the company could not become a member of Skolkovo or another special economic zone, then it will not be able to receive the same amount of benefits in any way.

Skolkovo is not the only Special Economic Zone (SEZ) in Russia.The purpose of SEZs is the development of certain areas of the economy and the provision of eficient conditions for doing business. One of the type is SEZ of Techno-innovative type (Innovation Zones). Such SEZs are created to support and stimulate R&D. Located in large centres of science and education with perennial scientific traditions and recognised research institutions, the Innovation Zones offer opportunities for innovative businesses to manufacture science-intensive products and sell them on the international and domestic markets. These zones include:

1. Dubna SEZ (Moscow Region);
2. Technopolis SEZ (Moscow);
3. Istok SEZ (Moscow Region);
4. St. Petersburg SEZ;
5. Tomsk SEZ;

6. Innopolis SEZ (Tatarstan Region).

One of the main advantages for members of the SEZ are tax incentives. They are not as significant as for the members of Skolkovo and depend on regional policy. Depending on the region of location, participants are granted privileges for income tax, property tax, land tax, VAT, customs fees and insurance premiums. For example, the total tax rate for profits in Russia is 20%. In the SEZ, the rate does not exceed 15.5%.

Kookueva and Tsertseil (2016) claim that effectiveness of the SEZ is doubtful. Zones develop in different ways. If we consider the performance indicators of Innovation Zones, then we see a gap between the indicators. Table 5 (Appendix) shows the differences in the number of companies, jobs and income level.[12] The highest values of indicators belong to the SEZs of the Moscow region. Unlike the UK, where users of the patent box are distributed throughout the country, there is a clear concentration of innovation in the central part of Russia.

It is obvious that the financial effectiveness of Innovative SEZs does not correspond to the costs of their financing. Zones were created in different years and are at different stages of their development.

Smirnov and Molchanova (2017) say that despite a large list of individual benefits, at present, supporting activities in the country is rather scattered. There is no unified system that allows to assess the effectiveness of state support and the degree of development of innovation and investment activities in the country. It is necessary to develop an integrated approach to assessing the appropriateness and effectiveness of applying tax incentives, which will help stimulate innovation. At the moment, the Russian Federation does not yet have sufficient experience in supporting innovation and investment activities in comparison with the developed countries of Europe.

Blinnikova (2017) show that in addition to tax benefits, the state annually allocates considerable funds for the financing of R&D. In 2016 the internal costs of research and development in Russia amounted to 943.8 billion rubles, and the growth rate for the year

[12] JSC «Special Economic Zones» (2017) Annual reports on the activities of special economic zones "Official website of the Russian special economic zones" http:// www.russez.ru [20 March 2017].

was 0.2% (table 6). As a percentage of GDP, this value was 1.1%.[13] By it's size, Russia ranks 10th in the world. At the same time, in terms of the share of expenditures on science in GDP, Russia lags behind the leading countries of the world, occupying 34th place. Table 7 (Appendix) represent top leaders. Top 5 is the Republic of Korea (4.23%), Israel (4.25%), Japan (3.14%), Austria (3.087%) and Sweden (3.26%).[14]

It can be concluded that the gross monetary investment in science matches the investment in science of other developed countries in Europe. However, the percentage of GDP invested in R&D in Russia is smaller than that of developed european countries. In addition, it is important to understand the cost structure by source of funding. The overwhelming share of financing is made up of state sources, the share of Russian business spending on R&D is much smaller.

The main directions of innovative activity of the Russian Federation are defined in the adopted "Strategy of innovative development of the Russian Federation for the period up to 2020." This document was approved by the government in 2011. The goal of the Strategy is to move the Russian economy to an innovative development path by 2020. The intermediate results of the implementation of the document can already be seen. The open expert-analytical report on the implementation of the "Strategy", developed by experts with the assistance of the Ministry of Economic Development of the Russian Federation, reflects its strengths and weaknesses.[15]

It was possible to achieve tangible progress in such areas as the popularization of innovation activities and the formation of an innovation support infrastructure. At the same time, in many areas, there are still limitations and shortcomings:

1. Low demand for innovation from enterprises in the industries;
2. Insufficient tax incentives for innovative business;
3. Shortcomings of the current system of intellectual property protection.

[13] Federal State Statistic Service "Official website" http://www.gks.ru [15 March 2018]
[14] Data of the OECD "Official website of the OECD" https://data.oecd.org [15 March 2018]

[15] Russian Venture Company (2014) Open expert-analytical report on the implementation of the "Strategy for Innovative development of the Russian Federation for the period to 2020", "Official website of the Russian Venture company" https://www.rvc.ru [20 November 2017]

Ushakova (2015) claims that despite the adoption of a large number of normative acts, regulating innovative activity in the sphere of taxation is complex. There is a lack of a unified and transparent system for stimulating R&D in Russia. A potential solution to this problem could be the introduction of a special taxation system. It is possible to introduce a preferential taxation regime as an instrument of state support for science, technology and innovation. Such regimes are used in many countries to foster sustainable economic growth. In this regard, the experience of European countries in adopting preferential tax legislation for companies that create and use innovations in their activities is important for Russia. It is important to take into account the specifics of the economic development of the Russian Federation in order to develop the most effective system for supporting innovations.

7 Conclusion

Any changes in the legislation, including taxation, should rely on the current state of the economy. According to the research of the Business Software Alliance, which studies piracy problem, in 2011 in Russia 63% of the software market was illegal.[16] Unfortunately, the statistics relating to the following years are not yet represented by this organization, but the situation has hardly changed.

Bezdenezhnyh and Sevastyanova (2015) say that problems also arise because of the difficulties in interpreting tax legislation and accounting regulations. Initially, it is difficult to determine the criteria by which an object relates to R&D. Moreover, the tax legislation in Russia changes frequently. Because of this, enterprises often have to review their accounting policies.

All of the above problems lead to the fact that companies do not have enough incentive to actively engage in R&D. Additionally, it is easier for economic entities to make expenditures into the cost of production than to capitalize their results as an intangible asset. The level of patent activity in Russia confirms these assumptions. According to the World Intellectual Property Organization (WIPO) in 2016 the number of Russian patent applications amounted to only 41 587 units, or 1.33% of the total number of applications filed worldwide.[17]

According to the WIPO Global Innovation Index in 2017 Russia ranks 45th in the world in terms of the level of innovation development. In the same ranking, the UK is on the 5th place.[18] However, tax incentives are not the only way to stimulate innovation in the country. Great Britain has a favorable intellectual climate. British policy supports the commercialization and practical application of scientific discoveries. The UK is developing a strong network of research and innovation parks and business incubators. The UK has the special Knowledge Transfer Network and actively involves innovative enterprises in the system of public procurement.[19]

[16] BSA Global Software Piracy Study http://globalstudy.bsa.org
[17] WIPO IP Facts and Figures 2017 http://www.wipo.int
[18] The Global Innovation Index 2017 https://www.globalinnovationindex.org/
[19] Overview of the state of the economy and the main directions of foreign economic activity of Great Britain", http://www.ved.gov.ru/

Both countries support innovation. However, the methods of stimulation are different. Therefore, it is difficult to compare countries among themselves. However, there are provisions in matters of tax support that can be used in Russian legislation.

A special tax regime for innovative companies can be introduced into Russian tax system. This measure will make it possible to implement a comprehensive solution of taxation issues in this area. The single regime can also solve the problems of tax accounting, reporting and tax administration.

First of all, it is necessary to create a clear criteria and rules for determining an object as R&D. In the Russian legislation in different sources they are treated differently. This causes problems in accounting and taxation.

At the launch of a special regime, it is necessary to designate a strict list of companies that have the right to benefits. Such companies must own a patent or a license. Such patents should relate to high-tech developments and innovations. There are several reasons for this. First, the government is focusing on this area. Every year large funds are allocated for the support of innovative technologies.

Additionally, the regime should aim at eliminating any possibility of law abuse. A narrow list of permitted activities may make the system more transparent. Otherwise, many taxpayers can use the law to evade taxes.

In the UK, a patent box can be used by companies that have received a patent in other countries. However, in such countries, the criteria for the patentability of an object must coincide with the criteria of the British Patent Office. The list of such countries is limited. For Russia this is a premature measure. If a patent box is entered, it will take time to adapt the mode.

Enterprises under this regime will be eligible for benefits. For example, a reduction in the rate of taxation, reduced tariffs for social payments and utilities. At the same time, it is important to give to the regions the authority to regulate the size of the provided benefits. The development of regions in Russia is uneven. Some of them are more active in innovation. For example, biotechnology and the chemical industry prevail in the Altai region. Nanotechnology is developing in the Sverdlovsk region. The autonomy of the

regional authorities will help to use the new tax regime more effectively. At this level, regions can regulate the size of the tax rate and other benefits within established limits.

The introduction of a patent box in Russia is possible. However, the process must be gradual. State measures in the field of taxation can be an effective tool to stimulate the innovation activity of enterprises only if the socio-economic problems are solved.

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Appendix

Table 1. Patent Box data by year

Year	Companies	Relief claimed under patent box (£ million)
2013/2014	828	365,5
2014/2015	1135	651,9

Source: Statistics on uptake of the Patent Box, https://assets.publishing.service.gov.uk/

Table 2. Patent Box data by company size, 2014-2015

Company size	Companies claiming relief under the Patent Box			
	Number of companies	Number of companies as a percentage of total	Amount of relief (£ million)	Amount of relief as a percentage of total
Large	305	26,9%	616,6	94,6%
Medium	275	24,2%	26,7	4,1%
Small	285	25,1%	6,2	1,0%
Micro	255	22,5%	2,3	0,4%
Unknown	15	1,3%	0,1	0,0%
All	1 135	100,0%	651,9	100,0%

Source: Statistics on uptake of the Patent Box, https://assets.publishing.service.gov.uk/

Table 3. Patent Box data by industry sector, 2014-2015

Standard Industrial Classification	Companies claiming relief under the Patent Box			
	Number of companies	Number of companies as a percentage of total	Amount of relief (£ million)	Amount of relief as a percentage of total
Agriculture, Forestry and Fishing	10	0,9%	0,1	0,0%
Manufacturing	615	54,2%	330,4	50,7%
Construction	30	2,6%	-	-
Wholesale and Retail Trade, Repairs	220	19,4%	48,2	7,4%
Transport and Storage	5	0,4%	-	-
Information and Communication	30	2,6%	-	-
Financial and Insurance	5	0,4%	-	-
Professional, Scientific	135	11,9%	87,8	13,5%
Admin and Support Services	50	4,4%	-	-
Arts, Entertainment and Recreation	5	0,4%	0,0	0,0%
Other services activities;	15	1,3%	0,3	0,0%
Total	1 135	100,0%	651,9	100,0%

Source: Statistics on uptake of the Patent Box, https://assets.publishing.service.gov.uk/

Table 4. Patent Box data by UK region, 2014-2015

Government Office Region (GOR)	Companies claiming relief under the Patent Box			
	Number of companies	Number of companies as a percentage of total	Amount of relief (£ million)	Amount of relief as a percentage of total
North East	35	3,1%	4,5	0,7%
North West	110	9,7%	7,9	1,2%
Yorkshire and The Humber	115	10,1%	29,4	4,5%
East Midlands	90	7,9%	16,0	2,5%
West Midlands	115	10,1%	-	-
East of England	130	11,5%	44,8	6,9%
London	115	10,1%	363,1	55,7%
South East	200	17,6%	52,6	8,1%
South West	100	8,8%	43,5	6,7%
Scotland	55	4,8%	23,1	3,5%
Wales	35	3,1%	7,9	1,2%
Northern Ireland	35	3,1%	4,3	0,7%
Total	1 135	100,0%	651,9	100,0%

Source: Statistics on uptake of the Patent Box, https://assets.publishing.service.gov.uk/

Table 5. Performance indicators of Innovative SEZ at the end of 2015[20]

Indicators	Tehnopolis SEZ	Moscow Region SEZs	St. Petersburg SEZ	Tomsk SEZ	Innopolis SEZ	In total
Number of companies, units	37	100	36	67	15	255
Number of jobs created, units	3076	2328	1649	1623	37	8713
Revenues, billion rubles	12986	10798	12811	8277	3	44875
Financing from the federal budget, billion rubles	8774	9534	4588	8405	15000	46301
Financing from the regional budget, billion rubles	15501	2185	9636	5428	0	32750
Amount of taxes paid, billion rubles	1604	503	4678	1404	1	8190
The volume of tax benefits, billion rubles	414	64	0	460	0	938

Source:Annual reports on the activities of special economic zones, http:// www.russez.ru

[20] 1 euro ≈ 71 rubles

Table 6. Domestic expenditure on R&D for the Russian Federation

Year	2012	2013	2014	2015	2016
Domestic expenditure on R&D, mln. rub.					
in actual prices	699869,8	749797,6	847527,0	914669,1	943815,2
to the percentage of GDP	1,03	1,03	1,07	1,1	1,1

Source: Federal State Statistic Service of Russian Federation, http://www.gks.ru

Table 7.Gross domestic spending on R&D (Total, % of GDP)

Location	2015	2016
Austria	3.048	3.087
Germany	2.917	2.939
Denmark	2.957	2.871
Israel	4.269	4.251
Korea	4.217	4.239
Sweden	3.265	3.255
Japan	3.278	3.141
Russia	1.099	1.097

Source: Data of the OECD “Official website of the OECD” https://data.oecd.org