

IS THE UK PATENT BOX A FRAMEWORK FOR TAX INCENTIVES TO INTELLECTUAL PROPERTY ASSETS IN RUSSIA?

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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 da comparação de incentivos fiscais ao desenvolvimento de PI no Reino Unido e na Federação Russa, e se o regime de patente box do Reino Unido pode servir como modelo a implantar na Rússia. Também analisamos a importância dos ativos intangíveis para as empresas, e como a sua atividade internacional suscita, 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 e ter em conta aspetos socioeconómicos relevantes.

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

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level. The main issue is the comparison of IP tax incentives in the United Kingdom and the Russian Federation and if UK's patent box can be seen as a model. 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 analyze 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 comparison 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 and consider relevant socioeconomic issues.

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

1. INTRODUCTION



Trade and investment connections between countries highlight the issue of international taxation. Levchencova (2015) claims that due to gaps in the legislation, taxpayers can find ways to avoid their fair share of taxes. States seek cooperation for effective exchange of tax related information and for reducing avoidance.

The OECD has drawn a plan of recommendations for countries on several topics of international taxation (OECD, 2013). The BEPS Action Plan is designed to influence states' legislation. A separate point of the plan deals with the taxation of intellectual property (IP).

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 issue, and can use the experience of developed European countries. For a comparative analysis, we chose the United Kingdom, one of the first countries to introduce a special tax regime for IP.

The purpose of the study¹ is to consider the taxation of IP in the UK and to identify the possibility of its adaptation to Russia. Two research issues can be singled out in this paper. The first issue is the review of the patent box regime in the UK and identification of its strengths and weaknesses. The second highlights aspects that can be implemented in the 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.

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 the ways of stimulating innovation 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 patent box into Russian legislation.

2 LITERATURE REVIEW

Mowery and Rosenberg (1989) find that R&D activities 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

¹ Adapted from Shtuk (2018).

of knowledge to devise new applications.”² Hall (2006) considers R&D as 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 Lerner (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 their tax burden (Dhar-mapala, 2014).

Evers, Miller and Spengel (2013) argue that some countries have been tightening the rules of taxation of R&D activity. For example, Germany has made rules for the transfer of intangible assets substantially more rigorous. But, on the other hand, some countries created favorable conditions for taxing R&D, in order to attract companies. Such preferential terms are reflected in the Intellectual property box regimes (IP box) or patent boxes.

The IP box operates in several European countries, and also in Asia and South America. It 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 developing 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. 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;

² OECD (2002) Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development. Paris, France: OECD.

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 that the main elements of the IP box are:

1. The range of eligible assets and categories of non-taxable income;
2. The special (reduced) tax rate;
3. The procedure for determining tax base;
4. The conditions for the application of the regime, or criteria for selecting firms.

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 are usually included in the list. Categories of non-taxable income are legally established. Usually, they includes different revenues streams³ from intellectual property created by the taxpayer as a result of R&D, which are patented and included in the company's balance sheet.

The special tax rate for the patent box regimes is lower than the general statutory rate of income tax. The main advantage of applying privileges to 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 an important 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

³ Such as royalties and capital gains.

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 they may face. But not all research shows positive results, and some authors point to avoidance strategies based on IP boxes (Faulhaber, 2016; Clausing, 2016).

Due to gaps in international legislation some Transnational companies (TNCs) can reduce their tax liabilities by transferring profits to low-tax states. The OECD shows 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.⁴ 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 disadvantages 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. 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. Even the effects of tax incentives are not a closed topic.

Weiner (2009) analysed studies conducted in the USA and concluded that the evidence for New England shows that tax

⁴ OECD (2016b) Countries adopt multilateral convention to close tax treaty loopholes and improve functioning of international tax system <http://www.oecd.org/>

incentives have an impact on decisions or activities they try to promote. But the author points out that some investments would have occurred irrespective of the incentives and tax credits would have often influenced the distribution of investment among the six states that make up the region, rather than increasing the overall level of investment. That is, investors carry out the so-called "tax credit shopping" seeking the more generous tax location.

Romero-Jordán et al (2014) studied the impact of tax incentives on investment decisions in R & D by Spanish companies. These incentives worked as tax credits or financial subsidies. They conclude (p. 961): "*Tax credits have a positive and significant contribution (although weak) to private R&D investments only for large firms.*"

Thus, research on the effects of tax benefits in intangible investments does not offer a definitive conclusion. Some studies find that tax incentives have an impact on firms' decisions; others put in doubt the effectiveness of incentives. However, if a country provides investors with incentives, States that compete to attract investment are led to initiate similar procedures. Otherwise, they will be negatively ranked in international reports.

Earlier, steps were taken to jointly fight 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 significant step on the development of the IP's box rules 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.

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. This 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 Report⁵ 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 be concluded that the project does cover a large number of areas of the 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 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 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 allocated to the country of formal registration instead of the country where activity is effectively carried out. In particular, this refers to IP, when an asset is created in one country, and then registered in another. There are special tax regimes designed to attract such "mobile" activities, such as placing income from IP in favoured jurisdictions. Such practice

⁵ OECD (2016a) OECD/G20 Base Erosion and Profit Shifting Project 2015, Final Reports <http://www.oecd.org>

is considered by the OECD as "harmful" (Merrill, 2016; OECD, 2013).

The BEPS plan is not a legally binding document for participant countries. 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.⁶ 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. 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 patent box experience and the possibility of applying this experience in Russian legislation.

3. METHODOLOGY

A comparative study is based on the analysis of similarities and differences between laws of two or more countries. 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 analysis. For example, statistics may include data on the amount of granted tax benefits to R&D and, more specifically, IP assets.

⁶ A Global Approach to Combating Tax Abuse <https://www.pwc.ru/>

In Russia, data is provided by the Accounts Chamber of the Russian Federation, the body of state control. Official sources contain information about "Checking the effectiveness of the provision and application of tax benefits and preferences in the administration of corporate income tax." This document contains indicators about granted tax benefits, including taxpayers conducting R&D or working inside special economic zones.

The United Kingdom's Government regularly publishes statistical information on the patent box regime. These statistics provide information on values and costs to the Exchequer of the patent box tax reliefs. From the official website of the UK tax authority we can retrieve data on the tax benefits for different groups of taxpayers. It is possible to breakdown benefits 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 governments adopt, at the legislative level, help to trace the trend in the development of preferential regimes.

In this study, a comparative analysis of both states is aimed at finding similarities and differences. Identification of strengths and weaknesses, as well as the search for patterns and trends in the development of taxation of innovative activities is quite relevant for the formation of a detailed view of the existing systems of benefits and preferences. On the basis of a comparative analysis, it is possible to find ways to discuss tax legislation in Russia within the framework of the UK experience.

Finally, our study will also highlight the BEPS Project and its impact on IP boxes. Given that these preferential regimes can be used as avoidance tools, the OECD advanced the "nexus approach", in Action 5 of the Project, to minimize this risk.

4. BEPS ACTION 5 ON HARMFUL TAX PRACTICES

The BEPS plan includes several recommendations on tax policy issues. They include Action 5 “*Countering Harmful Tax Practices more Effectively, Taking into Transparency and Substance*”. This Action establishes the requirement for significant activity by the IP holder or seller in order to benefit from tax regimes directed at intellectual property assets, offering a “Nexus Approach.”⁷

Faulhaber (2016) argues that the Nexus Approach implies 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 special regime.

The approach allows a taxpayer to benefit from an IP regime to the extent that it can show it incurred costs, such as R&D, which originated the IP income. According to the new 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 such regimes should generally be limited to 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 may be brought into line with the “new model of patent box” defined by BEPS, in Action 5.

The problems with the “old system” can be seen in the following example: suppose a company (ALFA) is developing IP in a country, like the UK, with a low tax rate for IP profits. Suppose ALFA has an affiliate (BETA) in a low tax country. Therefore, by subcontracting the biggest part of the IP development to BETA, and using transfer pricing, profits are shifted, firstly to BETA, where they are taxed at a low rate. Then, when

⁷ Action 5: Agreement on Modified Nexus Approach for IP Regimes. See <http://www.oecd.org/>

ALFA sells the IP, or its rights, it benefits again from the special UK rate applicable to the patent box.

Under the new proposed approach, that tries to mitigate the mentioned problems, 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 changes decisions regarding the IP, which in turn leads to additional compliance costs for enterprises. To give businesses an adapting lapse of time, and a smoother change process, companies are allowed, in a transitional period, to increase qualified costs. However, the corresponding increase is limited to 30%.

The OECD Peer Review Documents shows 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.⁸ The report offers a special approach in order to assess whether the preferential IP regime is harmful or not:

1. Is activity shifted from one state to another state due to a preferential tax regime, rather than the creation of a considerable new innovative 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 may reduce tax avoidance.

In order to solve the problem of profit shifting to low-tax

⁸ OECD (2017a) BEPS Action 5 on Harmful Tax Practices: Transparency Framework . See <https://www.oecd.org/>

jurisdictions, the BEPS Plan proposed a more efficient exchange of 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. 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 recommended date to set up a new regime 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 (grandfathering). 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 the ancient box regime, and will have to follow new rules.

Many countries have their own taxation regimes for innovative 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.

A Deloitte report⁹ notes that individual states are already 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 cannot 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 UK. The country has a big experience in this area. To understand how to improve the taxation of IP, it is necessary to consider 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) highlights 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 area is properly reformed."¹⁰ The country has been struggling with tax avoidance, and is implementing provisions of the BEPS plan in its tax legislation. Despite the country's future exit from the EU, it is

⁹ OECD (2017b) BEPS Actions implementation by country. Action 5 - Harmful tax practices <https://www2.deloitte.com/>

¹⁰ David Gauke's speech to the Lord Mayor's Taxation Forum, <https://www.gov.uk/>

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 box treatment, the rate is reduced to 10 %. 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.

The statistics from 2013-2015 shows that the number of companies applying the regime has increased.¹¹ The data is presented in tables 1 to 4.

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 shows that the number of large, medium and small companies is approximately the same. But the amount of relief is overwhelmingly used for large taxpayers: 94.6%.

¹¹ 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%
Un-known	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/>

Manufacturing is the predominant sector, which accounts for more than 50% of the total number of companies.

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/>

A good indicator is the geographical distribution of companies across the country. In spite of the fact that taxpayers in London receive most of the relief, many regions have a important number of firms using patent box incentives. This indicates a general regional dispersion of patent box recipients.

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/>

Chanda, Drysdale and Miller (2017) analyse the use of preferential terms of UK's patent box. It consists on preferential

treatment of profits emerging from IP assets. This tax advantage is calculated, assuming the formula of the “old” IP box, by:

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

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.

The Patent Box of the UK extends principally to patents issued by the UK Intellectual Property Office and the European Patent Office. The regime also applies to patents issued by other organizations of the European Economic Area.

The old regime was recognized as “harmful tax practice” by the OECD.¹² The main reason was the definition of a qualified entity and expenses. For the OECD, 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. Related party transactions and transfer pricing could be used to conveniently shifting profits.

Concerning Action 5, the UK committed to change the old box regime in accordance with the recommendations of the OECD “nexus approach.”

After the agreement, reached in late 2014, the UK was able to maintain the previous "patent box" 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.

¹² Corporation Tax: Patent Box - compliance with new international rules, <https://www.gov.uk>

Thus, the opportunity to use the "old" form of the regime is impossible after June 30, 2016. 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 now 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 has joined the BEPS convention. On June 7, 2017, in Paris, the document was signed on behalf of the Russian government. Russia supports the establishment of a single transparent system of bilateral agreements between countries to avoid double taxation and base erosion. Russian Federation has also been guided by some 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.

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 patent box tax regime. However, some elements of stimulating innovation (R&D) 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 cannot exceed 3. That is, the value from the straight line method (constant) is then increased by the coefficient.

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.

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 profit and, as a consequence, the amount of tax;
4. R&D tax incentives reduce fees for insurance premiums. 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.

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 these entities. This center is a modern 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 involved. The volume of innovative products sold by them exceeded 52 billion rubles¹³. More than 17.000 new jobs have been created. During this time, about 2.000 international patents have been registered in the center, which is 10% of the total number 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 cannot 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 efficient conditions for doing business. Another form of 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 recognized scientific tradition, 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;

¹³ 1 euro =71 roubles.

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 shows the differences in the number of companies, jobs and income level.¹⁴ 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.

¹⁴ 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].

Table 5. Performance indicators of Innovative SEZ at the end of 2015¹⁵

Indicators	Tehno- polis SEZ	Mos- cow Region SEZs	St. Pe- ters- burg SEZ	Tomsk SEZ	Inno- polis SEZ	In to- tal
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.rusez.ru>

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

¹⁵ 1 euro ≈ 71 rubles

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 was 0.2%.

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>

As a percentage of GDP, this value was 1.1%.¹⁶ By its 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. Top 5 is the Republic of Korea (4.23%), Israel (4.25%), Japan

¹⁶ Federal State Statistic Service "Official website" <http://www.gks.ru> [15 March 2018]

(3.14%), Austria (3.087%) and Sweden (3.26%).¹⁷

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>

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

¹⁷ Data of the OECD “Official website of the OECD” <https://data.oecd.org> [15 March 2018]

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.¹⁸

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.

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 IP taxation regime, with general application in the country. 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. DISCUSSION AND CONCLUSION

¹⁸ 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]

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.¹⁹ Unfortunately, the statistics relating to the following years are not yet represented by this organization, but the situation has hardly changed.

Bezdenzhnyh 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 and tax options.

All of the above problems highlighted 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.²⁰

According to the WIPO Global Innovation Index, in 2017 Russia ranked 45th in the world in terms of innovation and development. In the same ranking, the UK is on the 5th place.²¹ However, tax incentives are not the only way to stimulate innovation in the country. Great Britain has a favourable intellectual climate. British policy supports the commercialization and practical application of scientific discoveries. The UK has developed

¹⁹ BSA Global Software Piracy Study <http://globalstudy.bsa.org>

²⁰ WIPO IP Facts and Figures 2017 <http://www.wipo.int>

²¹ The Global Innovation Index 2017 <https://www.globalinnovationindex.org/>

a strong network of research and innovation parks and business incubators and has the special Knowledge Transfer Network and actively involves innovative enterprises in the system of public procurement.²²

Both countries support innovation. However, the methods of stimulation are different. 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.

²² Overview of the state of the economy and the main directions of foreign economic activity of Great Britain”, <http://www.ved.gov.ru/>

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 mentioned socio-economic problems are solved.



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