

**TIES 2020****International conference «Trends and innovations in economic studies»****TAX REGULATION AND PROMOTION OF INNOVATION IN  
RUSSIA AND CHINA**

Anastasia G. Dykusova (a)\*, Lu Hongyu (b), Feng Dapeng (c).

\*Corresponding author

(a) Irkutsk national research technical University, Irkutsk, Russia, sara\_krapalik@mail.ru

(b) Irkutsk national research technical University, Irkutsk, Russia, 565856096@qq.com

(c) Irkutsk national research technical University, Irkutsk, Russia, 929793860@qq.com

***Abstract***

In modern conditions of economic growth, in order to achieve high results, the state needs to create an ecosystem that would meet not only the needs of the local market but also be competitive on the world scene. In this situation, it is very important to create the favourable terms for the development of scientific and technological progress, to attract foreign specialists and capital, including domestic investors. And here, many investors and innovative companies often face problems of imperfection of Russian legislation with its inconsistencies and contradictions. The summary of the Russian economic status is characterized by a pronounced raw material specialization that has recently been formed and a significant technological lag behind the world level which cannot but affect the importance of carrying out a balanced state policy in the scientific and technical sphere. As for China's innovation policy, we can note the following: despite the positive prospects and forecasts, the Chinese economy has a number of shortcomings that prevent it from further breaking into the global ecosystem. First of all, this is due to the direct dependence of the yuan on the dollar rate (in fact, as in Russia), and China's financial institutions are characterized by low competitiveness in comparison with the world's.

2357-1330 © 2020 Published by European Publisher.

**Keywords:** Innovation activity, tax benefits, state support.



## 1. Introduction

The main goal of the state policy in the field of development of innovative infrastructure and investment climate is to create economic conditions for entering the market of competitive products in the interests of implementing the strategic national priorities of the Russian Federation (Dykusova, 2010).

There are following current tasks of the state's innovation policy:

- the development and improvement of legal routes, provision of innovation activity;
- creating a system to support innovation activities, including legal ones, development of production, increase of competitiveness and export of high-tech products;
- the development of the innovation process infrastructure, including information support, expert evaluation and selection of innovative projects and programs;
- creating a system of guarantees and benefits for priority innovation and investment projects;
- the establishment of a system of coordination of investment activity;
- the development of investment cooperation.

In order for the state to successfully implement the tasks set, it is necessary to form a general development plan, assess the needs of various industries, including innovative ones, for investment and develop a list of alternative options and ways of the country's economic development to choose from.

In addition, the main directions of innovative development should meet international standards and be built in the following directions:

- maintaining social and political stability;
- stimulate economic growth;
- improving competitiveness.

As part of the implementation of the national innovation system, the state intends to form:

- the national innovation strategy;
- the technical and social infrastructure;
- stimulating taxation and banking support;
- a stable and stimulating legislative framework;
- government regulation, coordination and supportive administration (How does the state influence internal innovation?, 2019).

Taking into account the importance of the tax mechanism as one of its tools, it becomes obvious that it is expedient to study the use of taxation in order to stimulate the innovative sector of the economy

## 2. Problem Statement

In the course of the study of the features of tax incentives and regulation of innovation activity, the author draws on the work of domestic and foreign authors, analyzes the tax benefits and preferences provided by the laws of different countries in relation to innovative enterprises of various forms of ownership, as well as possible options and measures for further stimulating innovation. The works of Russian authors consider the main benefits provided for VAT and corporate income tax, their impact and role in fiscal regulation, and the practice of applying tax benefits provided to residents of special economic zones.

The works of foreign authors consider measures to stimulate innovation after the financial crisis of 2008, related not only to the use of accelerated depreciation but also incentive mechanisms and the use of a system of tax discounts. It also provides an assessment of the scale and effectiveness of the adopted state support for innovative enterprises.

One of the forms of support and stimulation of innovative activity is the state's tax policy which legally reduces the size of the tax burden by applying various methods of tax optimization.

### **3. Research Questions**

The role of the tax system in supporting innovation activity and forming the investment attractiveness of Russian enterprises is to create conditions for increasing demand for innovative products and for modernizing existing enterprises, including those of an innovative type. In addition, the current tax system should not become a "stumbling block" for the growth of the supply of innovations and activities of taxpayers, and here we are talking not only about existing tax preferences, but also about the planned adjustment of the tax mechanism, setting up the tax system taking into account modern challenges, as well as the needs of innovative enterprises.

The modern tax system includes the following regulatory tools:

- support of taxpayers' activity in the field of scientific research and R & d;
- investment tax credit provided for corporate income tax, as well as for a number of - regional and local taxes;
- formation of regional preferences through the creation of special economic zones and territories of advanced development;
- decreasing the size of insurance tariffs for individual subjects.

Taking into account the state's interest in the development of science and technology, it can have a significant impact on this process, using the tax system and various mechanisms for regulating the tax burden. In addition, the state needs to increase interest in innovative technologies, their application and modernization of outdated enterprises, in order to increase their attractiveness in terms of investment and production efficiency, as well as the formation of competitiveness.

Tax incentives for innovation on the example of foreign countries show that the most productive is a combination of several mechanisms and forms of such regulation.

Accordingly, the tax system in Russia should be regulated in a way that does not create obstacles to innovation and investment, but at the same time takes into account the fiscal interests of the state and keeps the economy open.

Russian legislation on taxes and fees has undergone radical changes since 2014, primarily due to the introduction of sanctions and the government's new policy of creating a more developed and competitive infrastructure. Over the course of several years, the state has gradually adopted a set of measures aimed at tax incentives for industry and science (How does the state influence internal innovation?, 2019).

The changes were aimed at supporting innovation, encouraging research and increasing the share of R & d. With this in mind it is difficult to identify a number of methods of tax regulation:

- change in the mass of tax revenues;
- replacing some methods or forms of taxation with others;
- differentiation of tax rates;
- changing benefits and discounts;
- reorientation in areas, objects and subjects of taxation.

However, it is necessary to take into account the fact that the tax incentive measures taken in the field of innovation policy must meet a number of requirements:

- compliance with national security;
- maintaining social stability and sustainability;
- ensuring the fiscal interests of the state and the balance of budgets at different levels;
- accounting for the competitiveness of the Russian fiscal system.

Most countries (the United States, Japan, the EU and more recently Russia) use tax incentives for innovation based on so-called "stream" types of tax systems. These systems are based on taxation of actual production, sales, income and consumption. Taking into account the development and changes in the general system of legal relations, this type of tax system has significant disadvantages associated with a high degree of state control over economic activities and the growth of foreign trade and international capital flows.

As a result, many countries have switched to the use of taxes on final consumption, which has significantly reduced the tax burden on the activities of economic entities and income from capital. This makes it clear that the mechanism of tax regulation should include rational administration, not reduction of VAT and customs duties in the export of high-tech goods, that is, in fact, we are talking about applying a mechanism for clarifying the taxation of transactions that are made in the field of innovative technologies and using intellectual property.

In particular, the practice of collecting value-added tax (VAT) in Russian conditions does not stimulate innovative activity, since innovative products usually have a sufficiently long development and manufacturing period, which requires its advance payment from its consumers. At the same time, the amounts received as advance payments and received on the current account are subject to VAT even before the delivery of goods or performance of works. In a situation of lack of own funds for innovative enterprises and extremely limited opportunities for customers to advance innovative activities, this procedure is not beneficial to either party. Therefore, it is advisable to exclude from VAT the funds allocated for the advance of innovative activities, especially given the increase in the overall rate to 20 % (Dykusova, 2013).

Currently, all organizations and individual entrepreneurs engaged in R & d (engaged in innovative activities) are eligible for VAT exemption. The basis for applying the tax preference is the research nature of the work. However, to confirm the right to the R & d benefit, one contract and specifications are not enough, you must also submit work performance certificates and copies of payment orders confirming the transfer of funds by the customer for R & d. Under these conditions, the taxpayer's relations with the tax authority will be formalized as much as possible, which reduces the risks of the state and taxpayers under the VAT tax administration procedure.

Russia uses a number of measures and methods aimed at tax incentives for innovation. All benefits and schemes for optimizing the tax burden are fixed by law.

#### **4. Purpose of the Study**

Analyzing the experience of foreign countries in supporting investment and innovation, it is worth noting that each country implements its own set of solutions for tax incentives for innovation (Table 01). Many countries use tax incentives, accelerated depreciation for research equipment and equipment, provide various discounts on payments to the state budget, taking into account the costs of innovative development and costs, and provide tax incentives and installments for the purchase of foreign technologies.

**Table 01.** The tax incentives measures abroad

<b>Tax incentives measure</b>	<b>Country</b>
1. Tax incentives in connection with R&d	China, India, Finland, Ireland, USA
2. Tax break	China, India, Israel
3. Motive for venture capital	China, Malaysia, Singapore
4. Tax benefits for transactions with intellectual property entities	Ireland
5. Indirect taxation	Japan, China, India

According to the results of research by the PwC Center for technology and innovation (Kalakov, 2012).

#### **5. Research Methods**

The system of measures aimed at supporting innovation includes measures that are typical for both the Russian system and the tax legislation of most countries with developing economies in General.

These measures include:

- deduction with an increasing coefficient of R & d expenses and similar expenses from the corporate income tax base;
- providing an investment tax credit for the amount of R & d expenses and for investments in high-tech equipment;
- accelerated depreciation for certain types of equipment used in innovation;
- перенос postponing losses to future periods for all taxpayers or individual innovative companies;
- освобождение exemption from property taxes for innovative companies or certain types of property used for R & d;
- tax holidays for income tax and (or) social payments for individual taxpayers (for R & d-related activities or for R & d companies) (Fedoreev, 2010).

Along with various incentives, foreign governments also provide other types of support for innovation infrastructure: subsidies and grants for development, one – time and regular discounts and benefits for creating jobs and paying salaries to research staff of laboratories and researchers.

The Chinese government, like the Russian government, is interested in increasing the country’s innovation potential. Innovations have a certain effect of driving economic growth, but for further

development and high rates, it is necessary not only to create the ground, but also to constantly maintain and stimulate the level of the obtained indicators. Many countries create certain prerequisites for this, and China is no exception.

During the period of extensive development in China, a certain groundwork has been created in the field of science and high technologies, and measures have been developed to encourage certain industries to use innovative technologies not only within special economic zones, but also at individual enterprises. Such measures include:

- direct administration and venture capital financing;
- tax incentives in the form of tax benefits for corporate income tax, tax credits;
- stimulation of R & d expenses, modernization of technological equipment, etc.

However, to date, the effectiveness of the measures used to stimulate innovative development is not high enough, more direct means of state influence are used in the implementation of targeted state programs (Kuklin, Zhu, Sun, & Xie, 2014a).

Since the middle of the last century, China has been implementing a tax system aimed at stimulating innovation and developing high technologies. One of the main tasks of this system is, as in the Russian economy, to create a national innovation system. This system provides for the fact that the initiative of innovative development should come not from state structures, but from private national capital, which is often spoken about in our country. Accordingly, many measures developed in the past and emerging in modern conditions are primarily aimed at stimulating innovative companies and supporting the commercialization of innovative products.

National programs include support for business incubators, taking into account foreign experience and national Chinese characteristics, special centers for the development of industry and high technologies are being created, all this allows increasing the competitiveness of the Chinese economy.

Accordingly, the tax incentive policy is aimed not only at residents of special economic zones and technoparks and, accordingly, at creating conditions for companies located in such territories, but also at implementing national projects in General. In some cases, innovative tax incentives apply to the activities of companies operating on the domestic market, starting development from scratch, and tax tools are also used to encourage the assimilation of innovative technologies in the national economy, that is, in relation to those companies that play the role of intermediate links in the innovation process.

## **6. Findings**

The Russian Federation currently uses several forms of tax incentives for innovation and research, as well as the introduction of new technologies and equipment in existing production facilities. First of all, this is an exemption from value added tax when implementing R & d, as well as using the results of this work, accounting for the costs of innovative work and research occurs when calculating VAT.

Here it is necessary to take into account that in Russia, as in many countries, higher coefficients are used that accelerate the depreciation of fixed assets when conducting research activities.

The use of depreciation allows the organization to reduce the amount of tax payments (this moment primarily concerns the calculation of depreciation charges in a non-linear way) and, accordingly, allows the company to reduce financial risks, increase investment attractiveness and stability.

Also, in accordance with Russian law, targeted funding for R & d is exempt from income tax. As for the payment of this tax in General, the tax rate for residents of special economic zones was reduced in 2018 from 3 to 2 %, the corresponding amendments were made to article 284 of the tax code of the Russian Federation. However, at the same time, the zero rate for residents of technical and implementation economic zones has ceased to apply, and now such organizations will pay tax at the rate of 2 % (Tax code of the Russian Federation, 2017).

As for the import of equipment, which is especially new and has no analogues in Russia, organizations have the opportunity not to pay customs duties and VAT.

In general, tax benefits for companies participating in the innovation process can be divided into two groups:

- benefits for residents of special economic zones;
- benefits for certain types of activities (Kuklin, Zhu, Sun, & Xie, 2014b).

In accordance with the Russian legislation in respect of each of the groups has its own tax benefits.

**Table 02.** Comparative characteristics of tax benefits by type of tax

<b>Rate of taxation, %</b>		
Joint taxation	Residents of SEZ	Residents of technology park
Income tax (credits into the regional/federal budget)		
17.0/3.0	Not more than 13.5 (5.0–13.5)/0.0	17.0/3.0
Corporation property tax		
The tax rate is set by the laws of the Russian constituent entities and cannot exceed 2.2	Residents are exempt from payment for 10 years from the date of registration	0.0-2.2 by decision of the Russian constituent entity
Value added tax		
20.0	Residents are exempt from payment	Joint provisions of tax exemption
Land tax		
1.5	Released: - for a period of 5 years from the date of the ownership of each land plot; - for a period of 10 years for state organizations	The tax rate may be reduced. On the basis of a decision of the municipality representative bodies tax exemption may be granted

The source of the FTS of the Russian Federation, the Tax Code (Tax code of the Russian Federation, 2017).

These tables (Table 02 and Table 03) show that tax incentives are limited to the activities of companies within the respective territories, which cannot have a positive impact on the overall development of innovation infrastructure. Now let's look at what benefits are provided for SEZ in China.

**Table 03.** Tax benefits of SEZ in China

<b>Tax type</b>	<b>Incentive rate, %</b>	<b>Duration of the benefit</b>
Value added tax	0	When importing production equipment and various materials imported by foreign participants of the enterprise on account of their share in the company, VAT is not charged if they are involved in the production of products for export
Corporate income tax	from 0 to 17.0	In manufacturing industries: if the term is exceeded by more than 10 years, the first year is a full exemption for a period of up to two years, the third or fifth year is reduced by half. When investing more than 5 million dollars: release in the first, second, third year by half.
Property tax	1.2	-
Land tax	from 5 to 15.0	-

(Kuklin et al., 2014b)

This scheme does not work for all businesses, in addition, it is necessary to take into account the fact that China has a progressive tax scale, which depends on the overall level of income of the company. The changes made over the past 10 years have significantly changed the situation in favor of innovative companies, but have not completely solved the problem of innovative and investment risks.

In general, tax incentives in China significantly solve the problems of developing the innovation segment, affect the interests of high-tech companies, spending on R & d, import of high-tech equipment, technology transfer and high-tech services. With the adoption of the Strategic plan for China's research and development until 2020, the amount of tax incentives has increased significantly, and if previously the benefits were limited only to reducing the share of corporate income tax and VAT, now the tax benefits cover a wider range of preferences (Khan & Chen, 2019).

At the same time, analyzing the practice of applying tax incentives to stimulate innovation, it is worth noting the factors that hinder the development of innovation activities and the corresponding tax incentives:

- high science intensity, an excellent tax incentive will be the release through taxation of financial resources needed to Finance scientific, scientific and technical activities, and experimental developments;
- high intellectual capacity, the solution to this problem can also be the release of financial resources through tax incentives, which can be used to improve the efficiency of the system of material incentives for employees involved in the implementation of innovative activities;
- innovation is associated with high risks and here tax incentives can also serve as a source of additional funds and be put into reserve funds for possible losses;
- like any innovative project, it has a payback period, and in many cases this period may be longer than that of a standard investment project, because the use of tax incentives will allow the company to free up some of the funds to obtain an economic effect (Gersbach, Schetter, & Schneider, 2019).

Of course, this is not a complete list of negative factors that an enterprise may face in the course of implementing innovative activities, but in most cases it is a competent tax regulation policy that will allow them to stay afloat and achieve great results and, accordingly, will allow the state to build an



innovative infrastructure that meets the needs of the country and society in innovative technologies and their cost.

In many cases, the most active tax stimulation of innovation is working well in respect of the enterprises belonging to the public sector. These are extractive industries, research and development enterprises, defense and instrument-making industries, as well as educational, health, cultural and nature protection institutions.

However, world practice shows that it is more productive to apply such incentives to small businesses and young companies. Innovation in most cases occurs and is welcomed at the level of startups, and it is these enterprises that need to reduce the tax burden more in order to be able to grow.

The main directions of the budget, tax and customs tariff policy for 2020 and for the planning period of 2021 and 2022 have been developed as incentive measures in the Russian economy:

- acceleration of VAT refunds to exporters by reducing the threshold values of amounts paid for the previous three years;

- introduction of reduced insurance premium rates for residents of the Far Eastern Federal district and the free port of Vladivostok who have opened new production facilities by the end of 2025;

- it is also planned to create stable fiscal conditions and give the subjects of the Federation the right to set an investment tax deduction for research activities in order to provide regions with additional opportunities to stimulate innovation;

- creating a system of legal regulation of the digital economy and regulatory "sandboxes" for the introduction of technologies that are not controlled by current legislation, but will have guarantees of tax burden for participants of the "sandboxes" (The main directions of the ..., 2019).

The main role assigned to tax policy and tax incentives for innovation is to promote the development of innovation in all areas and areas of production, application of intellectual property and capital turnover. Of course, innovations have the greatest risk in the field of R & d, and the task of the state is to develop a mechanism to reduce such risks. Based on the overall level of profitability of new products or new technologies, the amount of tax benefits should also be determined, that is, the higher the profitability, the greater the tax benefits, but this measure may lead to the fact that enterprises will be more focused on borrowing technologies than on their research and development. This problem is typical for many countries, including Russia and China.

## 7. Conclusion

The development of measures aimed at stimulating innovation activity lays the Foundation for the development of high-tech enterprises. When forming a mechanism for tax regulation and incentives, we should not forget about other factors that influence the formation of innovative infrastructure, for example, human capital, accordingly, measures related to the development of reduced rates for income and wages should also be applied, and certain benefits or tax exemptions should be provided for the costs associated with training and payment of services.

In general, tax policies to encourage and support innovation even in advanced economies need to be refined. In many cases, the focus is on large high-tech enterprises, and the interests of small and

medium-sized businesses are not taken into account at all, there is no incentive to produce innovative products that meet international quality standards.

Despite the fact that Russia and China use different models of the innovation economy, they have common ground and common elements in the implementation of the state program for the formation and promotion of the innovation component, corresponding to the General global trends. China's tax policy in the field of innovation regulation has a more thoughtful and consistent structure, while the Russian system still has many inconsistencies and pitfalls that hinder the full development of innovation.

## References

- Dykusova, A. G. (2010). Taxation of innovative activity. Problems of innovative development of the Russian Federation economy. *Collection of articles of the Department "Finance and credit"*, 1, 42–48.
- Dykusova, A. G. (2013). Measures of tax administration of innovative activity. *Bulletin Of Irgtu. Science Journal*, 7(58), 161–164.
- Fedoreev, S. V. (2010). The Mechanism of tax incentives for science and innovation in Russia: modern state and prospects of development. *Management Today*, 5, 266–275.
- Gersbach, H., Schetter, U., & Schneider, M. T. (2019). Taxation, innovation and entrepreneurship. *The Economic Journal*, 129(620), 1731-1781.
- How does the state influence internal innovation? (2019). Retrieved from <https://viafuture.ru/sozdanie-startapa/pravovoe-regulirovanie-innovatsionnoj-deyatelnosti>
- Kalakov, R. N. (2012). Taxation of innovation: modern trends and perspectives. *Finance and Management*, 1, 21–82.
- Khan, N., Chen, S., & Danish. (2019). Technological innovation as a moderating role in the relationship between managerial incentives and tax avoidance in IT and software industry of China. *International Journal of Manufacturing Technology and Management*, 33(3-4), 150-161.
- Kuklin, E. A., Zhu, X., Sun, Yu., & Xie, T. (2014a). Tax policy for stimulating innovation as a factor of economic growth: the Chinese way. *Management consultation*, 2, 84–93.
- Kuklin, E. A., Zhu, X., Sun, Y., & Xie, T. (2014b). Tax Incentives of Development of Innovative Infrastructure as Element of Implementation of the State Economic Policy: Analysis of the Russian and Chinese Experience. *Management consultation*, 3, 61–72.
- Tax code of the Russian Federation. (2017). Retrieved from: <http://www.nalog.ru>. – Information from the official website of the Federal tax service of the Russian Federation.
- The main directions of the budget policy for 2019 and for the planning period of 2020 and 2021. (2019). – Information on the official website of the Ministry of Finance of the Russian Federation. Retrieved from [http://www.minfin.ru/document/?id\\_4=116206](http://www.minfin.ru/document/?id_4=116206)