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Analysis of the Impact of Taxation of Business Entities on the Innovative Development of the Country

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Abstract:

The widely acknowledged fact is that the economic growth based only on an export of the raw materials cannot be stable for a long time and thereupon the financial support of an innovative activity gets of a special urgency. In the innovative activity stimulation the tax system plays one of the key roles and it is urged to create the conditions for the innovative production demand and the economy modernizations.

Key Words: *Innovation Activity, Taxation, Global Innovation Index, Investment, Business Economic Grows*

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1. Introduction

To provide higher and steady rates of an economy growth it is necessary to carry out a transition to an innovative way of the development and to spur the creation of the hi-tech manufactures. At the same time it does not mean the automatic termination of the raw materials extraction. The stocks of some kinds of them make the state the leading one in the world.

At present time, innovations play a key role in ensuring the competitiveness of any economy, improving living standards, and contributing to the growth of people's welfare. An efficient state regulation and business activity support system is one of top priority factors to successful innovative development. The analysis conducted proved the relationship between the level of innovative development of countries, that is assessed by means of Global Innovation Index, and the rate of tax burden (in the context of direct and indirect taxes) on business entities and private persons (individuals), as well as the volume of direct investments and the production activity index.

Basing on such data, the ways to modernize fiscal policy (budget, leasing, amortization, investment, tax, customs, monetary, investment tax credit and tax credit application policy) by introducing changes into regulatory legal acts have been developed in order to improve the effectiveness and productivity of innovation-active economic entities.

Recently, the term "innovative development" begins to be applied in connection with a comprehension of the necessity to accelerate the introduction of a new knowledge in practice of an ability a person to live (Atkinson and Ezell, 2012). On the basis of the economic literature analysis, concerning an innovative development of the territories, it is possible to allocate some concepts considered in the works of the domestic and foreign authors. They are presented in the Table 1.

In Russia, the intensive research works in the field of formation and development of NIS began in second half of 90^{th} last century (Amosenok and Bajanov, 2006). The main aim of an innovative system creation in Russia – is to maintain a sustainable development of a national economy and improvement of a population life quality on the basis of a mental potential use, generation, distribution and realization of a new knowledge.

The practice showed that the existing approaches in a maintenance the ability of the regions to live based on the acquisition of grants from the federal budget and the use of natural resources and available industrial potential cannot provide complex development of the territories and improvement of a population life quality any more (Basova and Nechaev, 2013). These problems can be solved by use of the innovative mechanisms for the territories development. Such an approach completely answers the modern dispositions, which show that from the last century in the Great Britain, Germany, the USA and other states the territorial authorities along with the federal government start to play an escalating role in development of the high technology

industries, and also the innovative processes (Ananiashvili, 2010; Kondratiev, 1984, Kuznets, 1955).

In the world practice, there are examples of fast and successful innovative development of the local territories (Canto, Joiness and Laffer, 1983). Originally, in a role of territories of science high concentration and the high technology manufacture acted campuses (Oxford, Cambridge) and large industrial centers (Lyons). Then appeared technological areas (Karlsruhe) and research-production clusters among which it is possible to allocate such world famous places as "Silicon Valley", "Karolinsky triangle", "Highway 128". Today the most widespread organizational elements of the innovative infrastructure integrating a science and a manufacture in the world are scientific technological parks (Lenchuk and Vlaskin, 2014). Considerably smaller circulation has technopolises (for example a technopolis of San Antonio, the State of Texas).

The domestic history of the creation and development of high concentration science territories and the high technology manufacture is also wide enough and various (Ebrill, 1999). Here it is necessary to mention the closed administrative-territorial formations created within the limits of the so-called "nuclear project" and the academic scientific small towns functioning on the basis of the institutes of Academy of Sciences (Sharpe, Alexander and Bailey, 1998). The newest history of the country development gives the examples of such form of a science territorial concentration and the high technology manufacture as science towns (Gadzhiev, Akopov and Styrov, 2013).

The key role of innovations, innovation activity intensification, and enhancement of innovation process efficiency are the leading features of modern economy (Nechaev and Prokopeva, 2013). Taxation and effective financial structure appears to be one of the most efficient tools of state regulation, both, in terms of national economy and international economic processes (Folomev and Revazov, 2001 and Thalassinos et al., 2014).

Among the factors contributing to the fact are the intensification of specialization and cooperation of production at global scale, the overall process of economic integration as well as international trade expansion (Fraser and Simkins, 2012). Therefore, the study and analysis of the impact of tax leverages on the combined economy are becoming increasingly important in terms of ensuring economic growth within the economic unions as well as increasing the efficiency of foreign economic relations of every state (Janeway, 2012).
By authors were noticed that the idea of the state support of the most effective territories must not be rejected totally. As well as it is impossible to reject a creation and a development of the innovative centers, science towns etc. Innovative development should concern both "strong" and "weak" municipal unions, but both should have strategy and programs of an innovative development.

An innovative development of territories should be based on the concept of an alignment ("softening"). First of all, it is connected with fact that the manufacture of innovations of a technical character certainly occurs in the prepared territories where there are corresponding conditions for the given kind of activity. But it should not become the reason for an exception of a bigger part of the territories entering in the subject of the Russian Federation from an innovative development.

Secondly, each municipal union has a possibility to provide an innovative development of its manufacture, sphere of services and a social infrastructure because any territory possesses a mental potential which formation is based on set of people knowledge available in this territory.

Tax policy contributes to providing a state with financial resources under condition of effective tax burden distribution, and increasing state revenues through economic growth that also implies an increase in income and property of taxpayers (Raevsky, 2006).
Various aspects of innovative development, and innovation activity of economic and business entities are studied in the works by Porter (1985), Nechaev (2012), Yakovets (1999), Glazyev (1993), Shumpeter (1982), Kondratiev (1984), Kuznets (1955), Drucker (1985; 2013), Tviss (1989), Zaikina (2010).

The peculiarities of taxation scheme in different world countries are considered in the works by Ananiashvili (2010), Laffer, Moore and Tanous (2014), Ivanova (2009), Uvarova (2011).

2. Methods

Nowadays the strategic character of the problem to put Russia to an innovative way of development is defined in legislative, program and standard documents (Kamenskaja, 2011,). It is actively debated in scientific and public discussions. At the level of the Russian Federation subjects the regulatory legal acts are developed and accepted (Korobeynikov, Trifilova, and Korshunov, 2012). They are called to stimulate innovative activity in the regions.

The economy of innovative type can exist only due to the situation when the country and the regions, the municipal unions and a society are capable to innovations and carry them out. Thus we suggest to consider transition to qualitatively new stage of development not only from a position of federal and regional levels but also from local government level as a basic territorial link of managing in which all the basic processes of the population ability to live proceeds. They are a manufacture and a social consumption, a reproduction and a labor stuff preparation, management of the daily processes of life-support, an organization of the consumer market and an exit to other markets, the territorial infrastructure, a self-development and a self-management.

Innovative development of a country is contingent on a great variety of factors. Some researchers classify the overall package of such factors into the following groups: socio-economic factors, factors relating to human capital, administrative-type factors, and political factors (Golichenko, 2006).

There are also demographic, economic, cultural, investment factors, which have a significant impact on the level of innovative development (Nechaev, 2012).
Besides, other factors divided into educational, environmental, labour and natural factors are also quite important (Dynkin, 2005).

Thus, the level of innovative development of a country depends on a great number of factors, which can be classified into different groups, and this relationship is shown as a function:

$$y = f(d, e, f, t, s, i, sl, ed, n, ec, p, tx, pol, l, c) \quad (1)$$

Where: d – demographic factors, e – economic factors, f – financial factors, t – labour factors, s – socio-psychological factors, i – investment factors, sl – social standard of living, ed – educational factors, n – scientific factors, ec – environmental factors, p – natural factors, tx – technological factors, pol – political factors, l – legal factors, c – cultural factors.

At the same time, economic factors, with taxation playing a particularly considerable role, have a really essential impact on the level of innovative development of a country. The analysis and determination of interdependencies between the level of innovative development and various taxation aspects are specified below.

3. Results

3.1 Relationship between the Innovative Development of Countries and their Tax Systems

It is necessary to carry out an analysis to determine the relationship between different taxation measures and the level of innovative development around the world, including Russia. The level of innovative development of world countries by Global Innovation Index is shown in Figure 1.

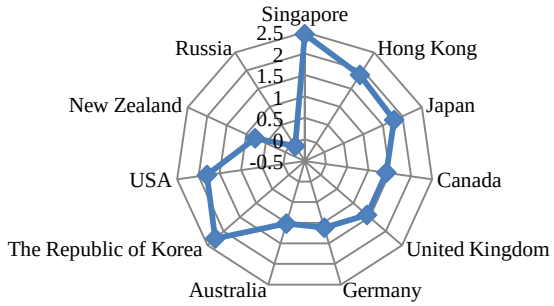

Figure 1. Innovative Development of Countries in the Global Innovation Index Values, 2014

Note: countries as Singapore, Republic of Korea, Hong Kong and Japan are characterized by the highest level of innovative development.

The authors analyzed the impact of tax burden on legal entities for various types of taxes in Figure 2.

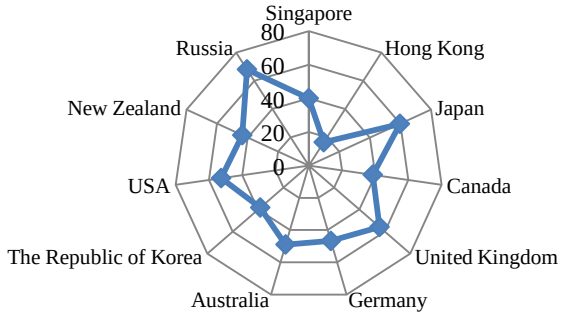

Figure 2. The Tax Burden on Legal Entities for Income Tax, VAT, Insurance Premiums from the Employer, 2014

The graphs given indicate that countries with a lower rate of tax burden on enterprises for such tax types as income tax, VAT, insurance premia paid by employers demonstrate the highest level of innovative development.

Analyze of the production activity index that has an important economic value for the years of 2005, 2010 and 2014 (Figure 3).

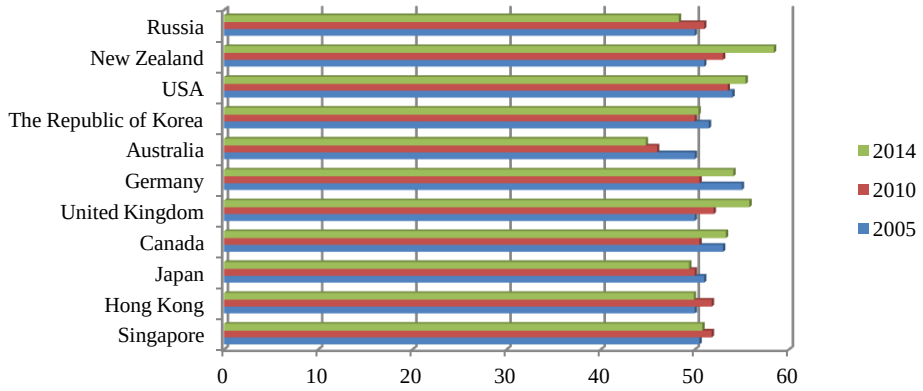

Figure 3. Index of Manufacturing Activity

Note: if these indicators fall down, it means that a country is experiencing an economic downtime.

A significant increase in this parameter is observed in such countries as New Zealand, the UK, the USA, and Canada. Analyze of the investment volume in such countries is shown in Figure 4.

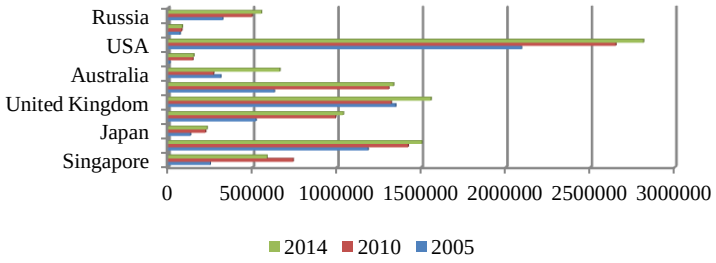

Figure 4. Direct Investments, Billion Rubles

The highest investment volume is typical for such countries as the USA, the UK, Hong Kong and Germany. At the same time, only Hong Kong demonstrates a high level of innovative development that is assessed by Global Innovation Index, as compared to other countries mentioned.

Therefore, the correlation between the level of innovative development that is measured by Global Innovation Index and the tax burden rate (in terms of direct and indirect taxes) has been detected. Such interdependencies enable public authorities and local government authorities increasing local innovative development by enriching local budgets as well as enhancing the index of production activity of economic and business

entities by the simultaneous adjustment of the tax burden rate between legal entities and private persons.

3.2 Analysis of the Types of Financial Policy

To improve the efficiency of innovation-active economic entities' performance, which includes the phases of the innovation life cycle, it is necessary to implement measures with corresponding amendments to regulatory legal acts with regard to financial policy, in particular budget, leasing, depreciation, investment, tax, customs, monetary and loan policies as well as investment tax credit and tax credit application policy. (Table 2)

Table 2. Directions

№	Policy	The Proposed Policy Statement to Improve the Efficiency of Innovation Active Enterprises	Stages of the Life Cycle of Innovation		
1	Fiscal policy	Application of the program financing of innovative enterprises through involvement in the investment process various categories of potential investors, which allows the use of the innovation process in financing the most important sources of funds from various fields and thereby contribute to solving the problem of resource support for innovation.			TECHNICAL
2	Leasing policy	1. Increasing the acceleration factors for leasing property used for the realization of innovative activity in the manufacturing sector. 2. Extension of lease financing forms: revolver (renewable); external (export, import, transit, indirect international, inter-state); financial (return, leverage leasing (equity, separate, credit, unions)).	MAINTENANCE	TECHNOLOGICAL	
3	Depreciation policy	The increase in depreciation rates for equipment production sphere used in the activity of innovation active enterprises.			
4	Investment Policy	State support for innovation in the form of debt financing.			
	Tax	1. Increasing the maximum amount of			

5	policy	interest recognized as an expense to a value equal to the refinancing rate of the Central Bank of the Russian Federation increased by more than 1.8 times.			
		2. Introduction of correction factors that reduce the tax burden of innovation-active business entities, depending on their performance on the following taxes, duties:			
		- Value-added tax			
		- Income tax			
		- Transport tax			
		- Property tax			
		- Land tax			
		- Contributions to the extra-budgetary funds			
		- Import duties			
		- Export duty			
		3. Reduction in the tax rate on income derived by a foreign organization in the form of dividends on shares of Russian companies, as well as dividends from equity organization in some form (from 15% to the rate applicable to Russian companies in similar transactions - up to 9%). 4. Reduction in tax rates for income received by individuals who are not tax residents of the Russian Federation in the form of dividends from equity participation in the activities of Russian companies (from 30% to the rate applicable for residents in similar transactions - up to 13%).			
		4. Settlement of the issues of double taxation: - In terms of tax revenue with the following main countries - investors in the Russian economy: Cyprus, the Netherlands, Luxembourg, China, Britain, Germany, Ireland, France, USA, Japan.			
		5. The division of responsibilities for the payment of insurance premiums to extra-budgetary funds in terms of contributions to the Pension Fund of the Russian Federation between corporations and individuals, with regards to wages last.			
6	Customs policy	1. Change in the amount of customs duty for the fixed assets of industrial and research purposes, necessary for the implementation of innovation (for a specified list of equipment). 2. VAT reduction for the fixed assets of industrial and research purposes, necessary			

		for the implementation of innovation (in the absence of domestic counterparts) from 18% to 10%.			
7	Politics of the application of investment tax credit (INC) and the tax credit	1. Increase of up to ten years in providing the Congress for all innovative enterprises regardless of the registry area residents territorial development in accordance with the Federal Law № 392-FZ of 03.12.2011 "On the areas of territorial development in the Russian Federation"). 2. The increase in the amounts to which reduced tax payments in the amount of more than 50% from the corresponding s tax payments identified by the general rules of contracts without the presence of an innovative tax credit. 3. Increasing the delay, installment for a period of more than one year on the regional and local taxes for non-current assets used for innovation (namely the transport tax, property tax, land tax).			
8	Monetary policy	Decrease the refinancing rate of the central bank in providing loans to commercial banks, subject to the direction of funds for lending to enterprises that produce innovative products, works and services			

4. Conclusion

Innovation activity has a significant impact on the promotion of a long-term economic development. New products, more efficient processes and up-to-date administration and management methods can provide new entrepreneurial opportunities for innovation-active economic entities and greater profitability. Since innovations are vital, it is necessary to create conditions at state level to overcome reasons that cause the lack of innovations. There are many government programs and initiatives aimed at introducing a great number of technological changes. Basically, they can be divided into several groups.

Firstly, that concerns the creation of favorable environment for innovations and their introduction: elimination of barriers on the development of innovations and their commercial exploitation, as well as insurance of enough profitability contribute to overall business climate favoring innovation project implementation. This should be included into general positive atmosphere for innovations, where society will be focused on innovations and open to new technologies (Atkinson & Ezell, 2012).

Secondly, that concerns patent protection. Methods for intellectual property rights protection provide for legal support to the creators of such intellectual property for several years (Golichenko, 2006).

Thirdly, basic research funding should be considered. Public authorities should inject direct investment into fundamental researches through state-owned laboratories and research centers or by means of grants. The government may also subsidize scientific research conducted by private companies, directly or by establishing joint ventures with higher education establishments (Dynkin, 2005).
The analysis revealed that higher innovative development level that is measured by Global Innovation Index is mainly observed in countries with higher tax burden rates on private persons (individuals) and low tax burden rate for legal entities, in particular in the field of insurance prize to foundations that have a significant impact on the prime cost of innovative products.

Secondly, a high rate of tax burden on legal entities in terms of income tax, VAT, insurance contributions by employers lead to the decreased production activity index of enterprises. Thirdly, a great volume of direct investments into economy shall not be considered as the leading factor in the process of improving the level of innovative development, as taxable profit quota plays a significant role.

It should be noted that the determined relationship between the level of innovative development of countries and their tax schemes enables public authorities as well, as local government authorities simultaneously adjusting the tax burden rate between legal entities and private persons, that allows enlarging budget at different state levels and enhance the production activity index, which will encourage the growth of innovative development.
The implementation of the offered ways to improve the efficiency of innovation-active economic and business entities' performance with regard to all types of financial policy, including the introduction of changes into corresponding regulatory legal acts, will enable creating a favorable investment climate for the investment process by means of optimized (improved) tax tools; enlarged amortization tools; concessional lending; expanded range of application of tax credit and customs policy in the area of export and import operations; extended lease financing; and increased sources of funding by involving social and economic institutions.

APPENDIX

Table 1. Concepts of Innovative Development of Territories

Researchers	**Features of the concept**
The Concept of Technological Structures	

D.Lvov, S.Glazev, G.Fetisov, J.Jakovets, S.Kuznets, G.Mensh	As a result of an economic development non-uniformity there is a replacement of complete complexes of technologically interfaced manufactures - technological structures. As a result of dominating structures replacement appear the new possibilities for economic success of the countries, regions etc. The countries which had the time to create reserves in formation the structure industrial technological systems appear the centers of an interest for the capital and reach qualitatively new level of a development.
The Concept of Clusters	
N.D.Kondratyev, A.Marshall, M.Porter, M.Enrajt	The theory of clusters is based on the fact that the most competitive firms of one branch are usually concentrated in one region, it is connected with the wave nature of innovations which are extended by the most competitive companies and touch suppliers, consumers and competitors of the given companies what finally promotes the innovative development of the territory.
The Concept of National Innovative Systems (NIS)	
V.V.Ivanov, O.G.Golichenko, N.I.Ivanova, B.Lundvall, R.Nelson, K.Frimen.	The features of the concept consist in a creation of the system representing the set of managing subjects co-operating in the course of a manufacture, a distribution and a use of the new economic knowledge and new technologies for the purpose of steady economic development maintenance and improvement of the population life quality.

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