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## Редакционная политика

### Цели:

- создание востребованной информационной площадки для обнародования результатов исследований социально-экономических и иных последствий налоговых реформ и анализе ожидаемых эффектов от различных налоговых преобразований;
- приращение научно-теоретических знаний в области налогов и налогообложения как науки, направленной на поиск новых конструктивных решений в сфере налогообложения;
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- разработка конструктивных мер по актуальным вопросам противодействия и профилактики уклонения от уплаты налогов;
- поддержка междисциплинарного подхода к изучению таких феноменов, как налогообложение и налоговые реформы;
- взаимодействие ученых различных наук (экономики, математики, юриспруденции, социологии и психологии) и практиков в процессе совершенствования национальных налоговых систем.

## Editorial policy

### Objectives:

- creation of an in-demand information platform to make public the results of studying socio-economic and other consequences of taxation reforms and analysis of expected effects from various tax transformations;
- increase of scientific and theoretical knowledge in the field of taxes and taxation as a science aimed at searching new constructive solutions in the taxation sphere;
- development of a package of measures of practical, organizational and legal, information character increasing efficiency and justness of taxation and tax transformations;
- comprehensive international cooperation of representatives of scientific community, public, business and various governmental bodies in improving the taxation system.

### Strategic tasks:

- comprehensive and complex analysis of international and domestic experience of reforming national taxation systems;
- development of constructive measures on topical issues of counteraction and tax evasion prevention;
- support of the inter-disciplinary approach to studying such hardest phenomena as taxation and tax reforms;
- cooperation of scholars of various sciences (economics, mathematics, law, sociology and psychology) in the process of improving national taxation systems.

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# Административно-управленческие проблемы налоговых реформ

## Administrative and managerial issues of tax reforms

УДК 336.227.+339.72

DOI [10.15826/jtr.2016.2.2.018](https://doi.org/10.15826/jtr.2016.2.2.018)

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### RACE TO THE BOTTOM IN INTERNATIONAL TAX COMPETITION: SOME CONCEPTUAL ISSUES

**ABSTRACT.** The purpose of the article is to provide analysis of conceptual background of the international tax competition, and its negative externality – the race to the bottom situation. We distinguished the three types of tax competition models, notably, traditional, asymmetric and Leviathan models. Also we analyzed briefly the main benefits and disadvantages of international tax competition in the modern world. Using both comparative and graphical analysis we provide a brief evaluation of the dynamics of statutory corporate income tax rates in countries worldwide. For the purpose of such analysis we distinguished the four regions: Europe, Latin America, Africa and countries of the former USSR. We used panel data on statutory corporate income tax rates for 70 countries for the period of 2006–2015. We found that in the three regions, notably Europe, Latin America and countries of the former USSR there were no significant changes in statutory corporate income tax rates while in African countries they have changed substantially. This can be explained by the weakness of these tax systems, i.e. the countries compete with each other, primarily by reducing statutory tax rates. But in order to make some conclusions both about taxation of corporate income and possibility of the race-to-bottom situation occurrence in neighboring countries, the real tax rates, taking into account the tax incentives and eliminations should be considered in future research. The obtained results could be useful for the elaboration of guidelines in order to create an attractive investment climate both for domestic and non-resident investors.

**KEYWORDS.** International taxation; tax competition; investment; corporate income tax; race to the bottom; cross-country analysis.

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### «ГОНКА УСТУПОК» В МЕЖДУНАРОДНОЙ НАЛОГОВОЙ КОНКУРЕНЦИИ

**АННОТАЦИЯ.** Цель статьи заключается в рассмотрении концептуальных положений международной налоговой конкуренции и негативной экстерналии этого явления – «гонки уступок». Определено три типа моделей налоговой конкуренции, в частности, традиционные, ассиметричные и модели Левиафана. Также представлен краткий анализ основных преимуществ и недостатков международной налоговой конкуренции в современных условиях. Используя методы сравнительного и графического анализа, представлена краткая оценка динамики номинальных ставок налога на доход корпораций в странах мира. Для целей анализа было выделено четыре региона: Европа, Латинская Америка, Африка и страны бывшего СССР и использованы данные по 70 странам мира за период 2006–2015 гг. Анализ показал, что в трех регионах мира (Европа, Латинская Америка и страны бывшего СССР) значительных изменений номинальных ставок налога на доход корпораций не происходило, тогда как в стра-

нах Африки наблюдались существенные трансформации этого показателя. Это можно объяснить слабостью налоговых систем этих стран, которая проявляется в том, что государства конкурируют друг с другом, прежде всего, за счет сокращения номинальных ставок налогов. Однако для того, чтобы сделать выводы относительно налогообложения дохода корпораций и возможности возникновения «гонки уступок» в соседствующих странах, последующие исследования предполагают анализ реальных ставок налогов, которые учитывают предоставленные налоговые льготы. Полученные результаты могут быть использованы при разработке рекомендаций, направленных на создание благоприятного инвестиционного климата как для инвесторов-резидентов, так и нерезидентов.

**КЛЮЧЕВЫЕ СЛОВА.** Международное налогообложение; налоговая конкуренция; инвестиции; налог на доход корпораций; «гонка уступок»; межстрановой анализ.

### **Introduction**

Over the last years under the conditions of globalization corporate income tax became a powerful policy instrument in the states' competition that serves to attract foreign capital. Consequently, one of the main features of modern economic systems, caused by globalization processes, is the international tax competition. The independent states inevitably should accept decisions on both the tax structure and level of taxes. The net effect is the difference in the tax burden creates the competitive economic climate for internationally mobile factors of production, capital and labor. The international tax competition could give a substantial incentive both to improve the efficiency of tax systems in countries worldwide and to increase foreign direct investment (FDI) on a global scale. The simplest, and consequently, the most popular way of international tax competition is the provision of tax incentives; the reduction of capital income tax rate is often regarded as an efficient tool for attracting investment. But if such a competition leads to negative tax externalities (arising primarily from capital movement), this refers to harmful tax competition and also the race-to-the-bottom situation, which appears when states compete with each other, principally, for the investment capital, by lightening gradually the statutory and regulatory structure. Under current conditions an important aspect, especially for small developing countries, is to create an attractive investment climate both for domestic and non-resident investors. The system of capital taxation therefore should be organized

in such a manner as to prevent the outflow of mobile factors to the jurisdictions with lower taxation; at the same time, the actual tax regime should be attractive for FDI. The attraction into country's economy the resources of profitable multinational companies creates problems of avoiding of shifting the tax base of corporate income tax outside the country.

In order to be able to elaborate some practical conclusions aimed at improving the country's tax policy in the area of capital income taxation it is expedient to consider conceptual issues concerning international tax competition and its externality – the race to the bottom situation.

So, the purpose of the paper is to provide analysis of conceptual background of the international tax competition and the race to the bottom situation. It will also focus on brief analysis of the dynamics of statutory corporate income tax rates in countries worldwide. To do this we structured the paper as follows. Section 2 reviews theoretical and empirical research on the international tax competition and race to the bottom. Section 3 provides brief theoretical background of tax competition, its benefits and disadvantages. Section 4 analyzes the dynamics of capital income tax rates in economics of the world. Finally, Section 5 presents some concluding remarks.

### **Literature review**

Some part of research studies the theoretical aspects of international tax competition under conditions of globalization.

Rudra (2008) in her book «Globalization and the Race to the Bottom in Devel-



oping Countries: Who Really Gets Hurt?» studied the interactions between globalization and the race to the bottom, domestic politics, and welfare strategies in developing countries, focusing on the impact of the expansion of the international market on the welfare policies of least-developed countries. She argued that for developing countries, unlike the developed ones, globalization is not the main reason of occurrence the race to the bottom situation occurrence [1].

The Report of the Tax Justice Network (2012) showed that governments in East African countries provide a wide range of tax incentives, such as tax holidays, notably in export processing zones (EPZs), and reduced standard rates, notably, import duties and VAT in order to attract foreign direct investment. This study, focusing on Kenya, Uganda, Tanzania and Rwanda, concluded that such tax benefits promote harmful tax competition, which leads to the race to the bottom in the region, and they are not needed to attract FDI [2].

Keen & Konrad (2013) provided a survey of the theory of international tax competition and factors, which determine countries' decisions in the area of their tax policy in an international context [3].

Olney (2013) tested the hypothesis that globalization could lead to a race to the bottom situation. Notably, when multinational companies invest in economies with lower regulatory standards; simultaneously these countries continue to undercut such standards in order to attract foreign direct investment. With two assumptions (multinational companies increase FDI in response to reductions in employment protection rules in the host country and economies undercut their labor standards in order to attract foreign capital). As a result he found that the employment protection rules could have a significant negative impact on foreign direct investment and the degree of such an impact depends on the type of FDI. Also he discovered a significant positive impact of labor standards on the employment protection rules, implemented in the host country. Therefore, Olney concluded that multinational companies invest pri-

marily in countries with lower regulatory standards, promoting therefore a race to the bottom, and, consequently, whether a race to the bottom is an intended effect depends on the employment protection rules [4].

Anguelov (2015) estimated the impact of change of marginal corporate tax rates on FDI and GDP. For this he used a multiple regression analyses of several economic indicators, notably, multinational companies' mergers and acquisitions, trade bloc membership and multinational companies' incorporation for the period 1999–2009 for 60 countries worldwide. The author found that reduction of corporate tax rates could lead to the increase of FDI but at the same time – to the decrease of annual GDP growth. He concluded that the tax competition could attract the foreign direct investment, but may not contribute to the economic growth; when both the trade integration and ease of merger and acquisitions increase, the trend in harmonizing tax rates decreases [5].

Another set of papers provides an empirical estimation of the impact of changes of corporate income tax rates on different macroeconomic indicators.

Bretschger & Hettich (2005) using the panel data of 12 OECD countries for the period 1967–1996 argued that globalization had a negative impact on capital income taxes. Thus, they found an evidence of the efficiency hypothesis of globalization in the tax competition theory, according to which the reduction of taxes on mobile factors as opposed to immobile ones is more efficient for governments [6].

Devereux et al. (2008) analyzed the possible tax competition in OECD countries over corporate taxes. They developed a model in which multinational companies could choose their capital stock in response to an effective marginal tax rate, and simultaneously could choose the location of their profit according to different statutory tax rates. The authors tested the model using data from 21 countries for the period 1982–1999 and found evidence that analyzed countries compete over both mentioned measures and they interact strategically only between open economies [7].



Yao & Zhang (2008) estimated both the patterns and extent of strategic tax competition between geographically neighboring governments in China. Using a set of panel data at the county level and applying the local indicator of spatial association (LISA) approach they statistically tested the existence of local capital tax competition and also analyzed its determining factors. The authors found heterogeneous tax competition behavior across country's regions, where local governments compete with each other in order to attract mobile capital, lowering tax rates and creating thereby the race to the bottom situation [8].

Ali Abbas et al. (2012) analyzed the impact of corporate income tax regimes in 50 emerging and developing countries over 1996–2007 on both corporate tax revenue and domestic and foreign investment. They estimated effective tax rates taking into account the special tax regimes like tax holidays, reduced rates and investment allowances. The authors found evidence of a partial race to the bottom, notably, no race to the bottom situation for standard tax systems in the sample compared to advanced economies (except the sub-Saharan Africa) and the presence of race to the bottom for special tax regimes, where effective tax rates are close to zero, especially in the case of African countries. Also their regression analysis showed that higher tax rates adversely affect both domestic investment and FDI, but do increase revenue in the short-run [9].

Vezina (2014) provided an empirical assessment of race-to-the-bottom unilateralism. He suggested that decades of unilateral tariff cutting (in order to obtain marginal locational advantages) in emerging economies of Asia have been induced, at least in part, by a competition aimed to attract FDI from Japan. Using spatial econometrics, the author showed that tariffs on parts and components, which could be considered as a crucial locational determinant for Japanese firms, followed those of competing economies if the latter were lower, if the motivation to obtain FDI was high, and when competing countries had the similar level of development [10].

The research providing an empirical assessment in order to make conclusion of presence of race to the bottom situation is generally carried out for appropriate regions, where the possibility of its occurrence is high. Typically this is true for the European Union countries.

Krogstrup (2004) analyzed corporate tax rates in European Union countries in order to define whether there is a race to the bottom in corporate tax burden. She found that the tax competition impact on the corporate tax burden exists but it has a relatively small magnitude and could not be qualified as a race to the bottom. Also Krogstrup (2004) suggested that many other factors like agglomeration economies influence significantly on the corporate tax burden and could provide the counterweight to tax competition effects [11].

Mendoza & Tesar (2005) estimated quantitatively the key features of tax competition in open economies in a two-country version with neoclassical balanced-growth model. Further, they introduced some modifications, notably the possibility for the countries to differ as a net debtor and as a net creditor in the pre-tax-competition equilibrium, the inelastic labor and lower capital adjustment costs. They found that both faster transitional dynamics and asymmetries between net creditors and debtors could increase the benefits of tax coordination. These results allowed them to conclude that economies with relatively inefficient tax systems could lose significantly in welfare if they compete by corporate income taxes against states with relatively efficient tax systems. Consequently, the harmonization of indirect taxation could be regarded as undesirable since it induces countries to respond to the negative impact of tax competition on tax revenue by raising the distorting taxes on labor income [12].

Nicodème (2006) analyzed the information about corporate income tax coordination in European countries. He found that despite a substantial decline of the statutory income tax, the revenue collected from corporate taxation remained relatively stable; and he concluded that there

is no evidence of a race-to-the-bottom situation in EU member countries [13].

Fourçans & Warin (2006) analyzed the question of the likelihood of occurrence of a race to the bottom situation, as a result of tax competition between countries, in a monetary union, like the Eurozone. In order to analyze the conditions of a race to the bottom they applied a two-stage game model describing a bargaining situation between countries with costs of changing tax policies. The authors concluded that the tax competition is not a reason of appearance of a race to the bottom between European countries. Also they showed that if revoking costs do exist, tax harmonization policies could not be regarded as useful if based upon concerns about race to the bottom [14].

Devereux & Loretz (2013) analyzed a tax competition in source-based corporate income taxes and classified an appropriate empirical literature, by highlighting the importance of the measurement of both tax rates and openness. They found that tax competition could take many forms and they concluded that there is evidence for tax competition mostly in the European Union countries [15].

Dvořáková (2013) analyzed the tax competition in EU countries in order to determine whether the race to the bottom is real in the European Union. She used a regression analysis for the 1998–2010 on a sample of 27 Member States. The author found that there is no race to the bottom in all EU states, while such trends were detected only in the EU-12 group of new member countries. Taking into account that there is a considerable statistical dependence between the revenue from corporate income tax and the economic cycle, she supposed that the theory of the race to the bottom could be in phase with other factors in economy, notably if the economic growth could be observed in some countries, then the reduction of tax rates to a certain minimum threshold will not have a negative impact on revenue from corporate income tax [16].

Baskaran & Fonseca (2014) analyzed both theoretical and empirical literature on local and international tax competi-

tion. Notably they discussed whether EU states should harmonize their tax policies and whether intergovernmental transfers could be an effective tool in order to prevent a race to the bottom. The authors supposed that the tax competition did not have a negative impact on the tax revenue and they argued that the tax coordination was not necessary in order to prevent low levels of taxation in the EU countries. Baskaran & Fonseca (2014) concluded that now the case for substantial tax coordination in the EU countries is rather weak [17].

Azémar et al. (2015) using data from 27 European Union countries for the period 1981–2005, developed an analytical model of regional trade and investment where countries could be differed from each other by the size of domestic markets. They found that large countries apply higher corporate tax rates than their smaller competitors for FDI; market size also plays an important role: larger markets are less responsive to corporate tax rates changes [18].

### **Theoretical background**

The tax competition could be regarded as the use of low tax rates by governments in order to attract additional productive resource (primarily capital and labor) to their countries.

Teather (2005) determined a two-stage effect of international tax competition on the world's tax systems:

- some pioneer countries would reduce their tax rates in order to offer low effective tax rates for potential investors;
- other countries could lower their own taxes to compensate expected or actual losses occurred from this competition [19].

In order to understand the nature of international tax competition let's consider the main theories of tax competition, developed in recent economic and tax literature.

The provided analysis allowed us to underline the three types of tax competition models: traditional, asymmetric and Leviathan models.

The first attempt to understand the problem of tax competition on the local level was made by Oates (1972), who con-

sidered that «The result of tax competition may well be a tendency toward less than efficient level of output of local services. In an attempt to keep taxes low to attract business investment, local officials may hold spending below those levels for which marginal benefits equal marginal costs, particularly for those programs that do not offer direct benefit to local business» [20, p. 143].

Further Zodrow and Mieszkowski (1986) presented a formalized basic tax competition model with a national system of competing local governments in order to show how the use of a distorting property tax on mobile capital could reduce the level of residential public services. The main conclusion derived from their model is that the mobility of capital could lead to the both non-optimal low capital taxation and under-provision of public goods [21, p. 2; 22].

Wilson (1999) noted that this view runs counter to the «Tiebout Hypothesis» [23, p. 270]. According to this hypothesis the competition between local governments for mobile households could improve the total social welfare. Tiebout (1956) concluded that if consumers were fully mobile, the appropriate local governments with definite patterns of revenue and expenditure would be adopted by the consumers [24, p. 424].

If some households want to have well-financed public goods, they could choose to pay higher property taxes. Otherwise, they could move to a territory with lower taxes and more efficient public services. Thus, the competition among governments tends to encourage both efficient production and provision of public services, which satisfy the consumers' demands. Consequently, the level of taxes established in certain jurisdiction reflects the results of tax competition. According to Edwards & de Rugy (2002), Tiebout's theory focuses on local governments but under current conditions of globalization, national governments become similar to local ones since they compete for investors- taxpayers across national borders [25, p. 14].

In 1988 Wildasin modified the Zodrow-Mieszkowski model, by including a

finite number of countries that, in turn, could have an impact on the after-tax return to capital. But despite this assumption, the results were the similar, i.e. taxes were still found to be low and suboptimal, but there were some quantitative differences [21, p. 6; 26].

Janeba & Schjelderup (2002), providing a review of the tax competition literature, considered the main restrictions which could effect on the conclusions of both Zodrow-Mieszkowski and Wildasin models of tax competition. Notably they distinguished variable supply of capital, multiple tax instruments, foreign ownership, double taxation, public input goods, public goods spillover effects, large regions, etc. [27].

In order to eliminate in some degree these limitations a set of asymmetric models of tax competition was developed (see for example, Bucovetsky (1991) [28], Keen & Kanbur (1993) [29], Krogstrup (2002) [21], Wilson (1991) [23]).

These models consider a proposition that market share of certain jurisdiction is inversely related both to its tax rate and allocative efficiency [30, p. 20].

But their conclusions were similar to the precedent models: the larger country would face a lower elasticity of capital to the tax rate, and consequently a lower marginal cost of public funds, and accordingly would choose a higher tax rate as compared to the smaller country [21, p. 8].

The separate group of models which considers the interaction between tax competition and welfare are the Leviathan models (see for example Edwards & Keen (1996) [31]), based on the ideas of Brennan and Buchanan (1980) [32]. In Leviathan models the government's goal is either to maximize the size of the state (i.e. the tax revenue) or its own consumption or utility. Notably in Edwards & Keen model the government concerns about maximizing the size of the public sector [23, p. 1073].

According to Krogstrup (2002) the main differences between the conclusions of Leviathan models and both «traditional» and asymmetric tax competition models are normative. She noted that «both types of models predict a fall in the tax

rate due to an increase in capital mobility, but in the Leviathan model, this fall enhances efficiency by constraining a tendency to spend too much and too wastefully, while if the government is benevolent, the downward pressure on the rate will lead to a sub-optimally low provision of public goods» [21, pp. 14–15].

Economic theory predicts that international tax competition could help to keep tax rates closer to their optimal level in order to constrain excessive government surplus. The more mobile will be both capital and labor, the more competitive pressure will exist [24].

To some detail, these benefits could be described as follows.

*Positive impact on markets*, since the lower taxes mean the greater wealth. Notably the lower taxes, particularly on mobile investment capital, have the beneficial impact on savings rates, encourage savings.

*Positive impact on global capital markets*. The widespread opinion is that tax heavens could lead to significant distortions in the global capital market by attracting disproportionate amounts of investment to these jurisdictions.

But according to the Teather (2005), tax heavens could be regarded as an important instrument in the global capital market, which is characterized by imperfect system of avoiding of double taxation. Tax heavens thereby make international capital markets more efficient, by increasing the available international investment capital, and creating possibility to invest it into the high profit companies, without distortions induced by the need to prevent double taxation.

*Positive impact on business*. Jurisdictions with lower level of tax burden give to investors a possibility to choose where to invest their capital. This is of particular interest for developing countries which often do not have enough domestic capital and thus should rely on the foreign one.

*Positive impact on government*. This could be considered both from the positions of restraints and efficiency.

The tax competition could have positive impact on the government since the former induces government to produce

public goods and to provide public services more effectively, since under absence of competition monopolists have fewer incentives to be efficient and to provide necessary public goods and services.

The positive impact from the point of view of efficiency means that under competition framework, governments face the restricted ability to increase revenue by raising the level of tax burden [19, pp. 26–35].

But the opponents of the tax competition argue, in turn, that it will have little impact on actual investment allocation decisions and thus the efficiency gains from such competition are minimum at best and these efficiency gains are outbalanced by the social losses occurred as a result of reduced tax revenue or sub-optimal tax measures aimed at prevention of tax revenue decrease (see for example Avi-Yonon (2000) [33], Roin (2000) [34]).

But according to OECD (1998), the tax competition policies, notably tax heavens, could lead to substantial negative practical consequences:

- distorting of capital and investment flows;
- violating the integrity and fairness of the tax system;
- discouraging compliance by taxpayers;
- shifting the tax burden towards less mobile factors of production;
- increasing the cost of tax administration and compliance both for taxpayers and tax authorities [35, p. 24; 36, p. 16].

From the point of view of the regulatory standards Drezner (2006) determined three main predictions of occurrence of the race to the bottom situation.

First, countries that are more open to foreign trade and FDI should have fewer regulations affecting the costs of production.

Second, he considered a strong negative correlation between inward capital flows and the rigidity of regulatory standards in the country, since the multinational corporations in order to maximize their profit would locate in areas with minimum costs of production. Third, when one government lowers its regula-

tory standards in order to attract more investment, other open economies, especially neighboring countries, will follow it. And according to the theory of the race to the bottom, states will have no choice but to lower their standards; otherwise they will face capital outflow [37, pp. 5–6].

The decision of the one state to reduce the corporate income tax rates by using tax incentives leads to certain fiscal externalities for other jurisdictions. Sokolovska (2014) distinguished the following fiscal externalities.

1. The shifting of factors of production into the jurisdictions with low level of tax burden, which leads to erosion of the tax base from jurisdictions with higher level of taxes. Even if the latter provides public services with higher quality in a whole, the additional expenditure could be incurred by those sectors, in which the voters, but not the investors, are interested (for example, the social services). In such a case the difference in services will not compensate the higher tax rate for the companies. This is called the «horizontal externality». It includes also the migration between countries with different tax regimes as considered by Razin & Sadka (2013) [38].

2. In case when federal government changes the tax rate it has an impact on the tax base of all sub-sovereigns, which, in turn, induces an appropriate reaction

of each entity, i.e. the vertical externalities [39, p. 1]. According to the Keen & Konrad such externalities could lead to the high tax burden, thereby worsening the position of the federal state compared at the unitary one [3, p. 51].

3. The countries with high level of taxation and providing due to this increasing public services could not reduce the tax rates in order to compete with jurisdictions, providing tax incentives to attract investment (for satisfying the appropriate social needs). In general, such countries with high level of taxation could maintain the necessary level of public services by increasing other taxes, but this policy could lead to the adverse effects and negatively influence of equity and efficiency principles.

4. The companies operating in two or more jurisdictions could choose appropriate taxes by providing the intra-group transactions and by shifting their income into countries with low tax burden. Consequently, the competition induced by levying of low taxes, leads to the losses of fiscal resources both for jurisdictions with high tax burden and for the fiscal system of the union as a whole [40, pp. 88–89].

Taking all above mentioned into account, as intermediate conclusion, we developed a general pattern of race to the bottom and its consequences (Fig. 1).

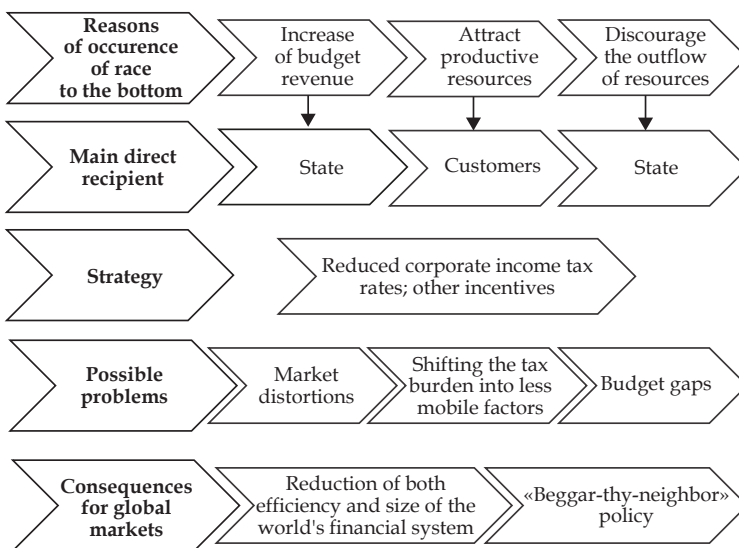


Fig. 1. General pattern of race to the bottom and its consequences



**Analytical estimation of the dynamics of statutory corporate income tax rates**

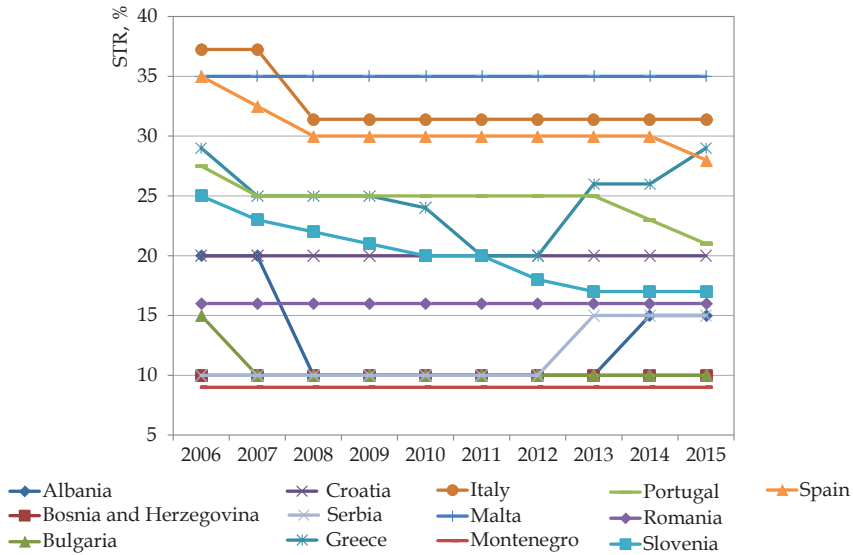
Let’s briefly analyze the dynamics of statutory corporate income tax rates (STR) in countries worldwide. In order to make some conclusions we divided countries by regions since the tax competition as well as the race to the bottom is typical primarily for the neighboring countries.

So, for our analysis we distinguished four regions: Europe, Latin America, Af-

rica and countries of the former USSR. We used panel data for 70 countries for the period of 2006–2015.

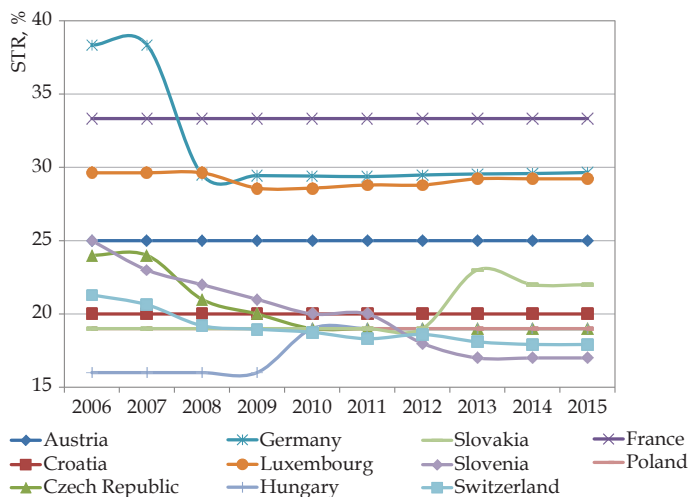
European countries, in turn, were divided into three «sub-regions», according to their geographical location: Northern, Central and Southern Europe.

Fig. 2–4 presents the changes of statutory corporate income tax rates in European countries for 2006–2015.



**Fig. 2. Statutory corporate income tax rates in Southern Europe**

Source: Corporate tax rates table. Available at: <https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>



**Fig. 3. Statutory corporate income tax rates in Central Europe**

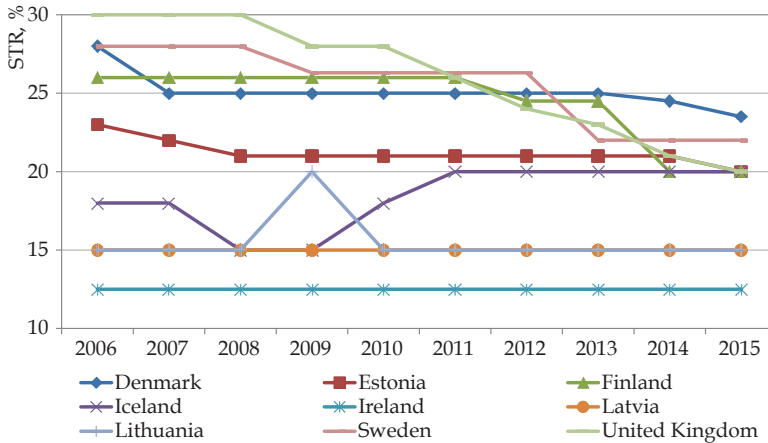
Source: Corporate tax rates table. Available at: <https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>

In Central Europe there were no significant changes in statutory corporate income tax rates, while in other «sub-regions» starting from 2012 these tax rates were reduced in the United Kingdom, Finland, Denmark, Sweden (Northern Europe) and increased in Albania, Serbia and Greece (Southern Europe).

The possible reason of such differences consists both in the pattern of tax policy and level of development of countries' tax systems, when in order to increase the tax revenue the less developed countries raise the tax rates, while the developed ones reduce the tax burden and simultaneously look for other ways of raising the tax revenue.

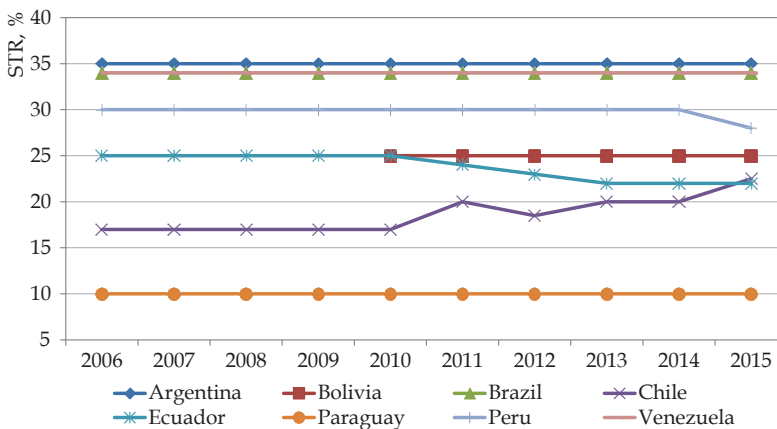
Fig. 5 describes the dynamics of nominal corporate income tax rates in countries of Latin America.

The same trend as in Central Europe countries could be observed: there were no significant changes, except Chile and Ecuador with gradual increase and reduction, respectively, of statutory corporate income tax rates. The former country provides an appropriate tax policy in order to compensate the losses of budget revenue occurred due to shift from shareholder taxation on a cash basis to taxation on an accrual basis. Ecuador has an opportunity to reduce statutory income tax rates (in order to attract FDI), since the government receives a significant oil tax revenue.



**Fig. 4. Statutory corporate income tax rates in Northern Europe**

Source: Corporate tax rates table. Available at: <https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>



**Fig. 5. Statutory corporate income tax rates in Latin America**

Source: Corporate tax rates table. Available at: <https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>



On Fig. 6 the changes of statutory corporate income tax rates in countries of the former USSR are presented.

Belarus, Ukraine and Uzbekistan, starting from 2010–2011, have gradually reduced statutory income tax rates. The main goal of such tax policy is to stimulate both innovation and investment activity.

The most interesting is the situation with dynamics of nominal corporate income tax rates in African countries (Fig. 7).

In many countries of this region (Angola, Cameroon, Egypt, Libya, Mauritius, South Africa, Zimbabwe) these rates have decreased over the last years, which corresponds to the general trend for the African region.

It can be explained by the fact that tax systems of these countries are weak, and they could compete with each other, primarily by reducing tax rates. Again, this is the region where the simplest tax incentives, like reduced tax rates, tax heavens etc., are the most widespread.

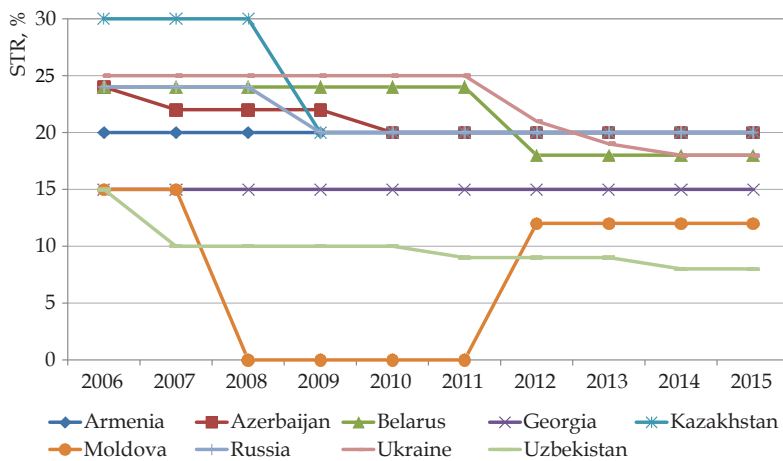


Fig. 6. Statutory corporate income tax rates in countries of the former USSR

Source: Corporate tax rates table. Available at: <https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>

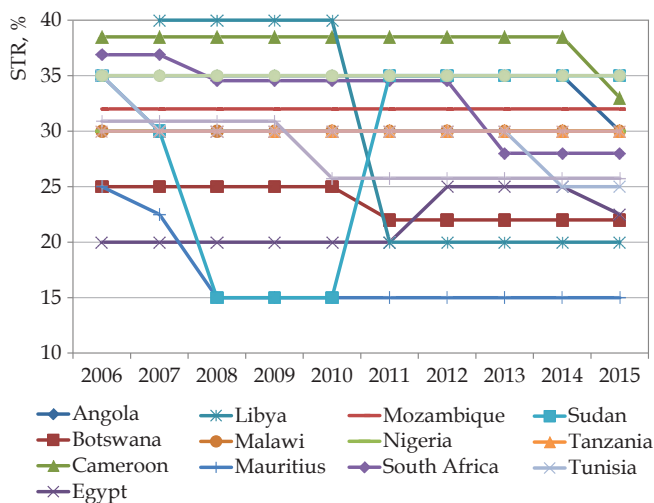


Fig. 7. Statutory corporate income tax rates in African countries

Source: Corporate tax rates table. Available at: <https://home.kpmg.com/xx/en/home/services/tax/tax-tools-and-resources/tax-rates-online/corporate-tax-rates-table.html>

## Conclusions

We briefly considered some conceptual issues concerning the international tax competition and the race to the bottom situation as its negative externality. The provided analysis allowed us to determine the three types of tax competition models: traditional, asymmetric and Leviathan models, and their main features.

Using the means of comparative and graphical analysis we provide an evaluation of dynamics of statutory corporate income tax rates in countries worldwide. We discovered that in Europe, Latin America and countries of the former USSR there were no significant changes in statutory corporate income tax rates while in African countries they have changed substantially.

But in order to make some conclusions both about taxation of corporate income

and possibility of presence of the race-to-bottom situation in this region, the real tax rates, taking into account the tax incentives and eliminations should be considered.

This means that one should estimate not only the dynamics of statutory capital income tax rates, but also changes of effective average capital income tax rates (EATR), which measure the effective tax burden of projects that earn more than the capital costs (i.e. projects generating economic rents) and is calculated as the difference between the pre-tax and the post-tax return of the project divided by the pre-tax return, and of effective marginal capital income tax rates (EMTR), measuring the extra tax of a marginal investment project and defined as the difference between the pre-tax and the post-tax return of this project divided by the pre-tax return. Therefore, this will be the direction of future research.

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# Экономические аспекты налоговых реформ

## Economic issues of tax reforms

УДК 336.225.66(490+571)

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### FEASIBILITY OF THE CHARITABLE TAX DEDUCTION INTRODUCTION IN THE RUSSIAN FEDERATION

**ABSTRACT.** The article devoted to evaluation the influence of preferential tax treatment for charitable expenses of commercial organizations. The aim of the study is to prove that the introduction of tax incentives for charitable activities of commercial organizations will promote their charitable expenses. Banking sector's organizations were selected for the empirical basis of the study; because the information about the charitable expenditure of other organizations is not available. The study has used a sample of 49 banks operating in Irkutsk Oblast as a constituent member of the Russian Federation in 2011–2014. The study sample was divided into three groups according to the principle proposed for the evaluation of social responsibility of banks in the United States. The current level of participation of banks in corporate philanthropy is evaluated in view of preferential taxation as a mechanism to reduce the cost of charitable services for the company. The study attempts to construct a theoretical model describing the effect of tax incentives for the financing of the charitable sector, as well as to find the optimal limit registration of charitable expenditure as an expense. It has also been found that, regardless of the charitable expenditures limit set as part of total expenses, the majority of credit organizations could exploit a maximum potential growth of donations (from 49,5 % to 74 % of the studied credit institutions, depending on the chosen accounting limit). It is concluded that introduction of preferential tax treatment might mean a possible rise in charitable expenditures, and the optimal level of charitable expenditure accounts as an expense in terms of budget efficiency is substantiated.

**KEYWORDS.** Tax deduction, Charitable deduction, Charity, Corporate donation's on charity, Commercial Banks.

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### ОБОСНОВАНИЕ ВВЕДЕНИЯ НАЛОГОВЫХ ВЫЧЕТОВ НА БЛАГОТВОРИТЕЛЬНОСТЬ В РОССИЙСКОЙ ФЕДЕРАЦИИ

**АННОТАЦИЯ.** Статья посвящена исследованию влияния льготного налогообложения на благотворительные расходы коммерческих организаций. Целью исследования является доказательство того, что введение налоговой льготы для благотворительной деятельности коммерческих организаций будет способствовать росту их благотворительных расходов. В качестве эмпирической базы

исследования выбран банковский сектор, так как информация о благотворительных расходах других организаций не раскрывается в публичной отчетности. Используются данные 49 банков, действующих на территории Иркутской области за период 2011–2014 гг. На основе анализа данных о сумме благотворительных расходов и направлениях благотворительной деятельности в сравнении с прибылью и собственным капиталом банков дана характеристика существующего уровня корпоративной благотворительности банковского сектора. Проведенный корреляционный анализ выявил, что налоговая нагрузка является фактором сдерживающим рост благотворительных расходов. Предложен алгоритм и построена модель оценки влияния налоговой льготы на благотворительные расходы организаций, учитывающая их благотворительную деятельность и величину прибыли в условиях отсутствия льготы. В результате применения модели установлено, что большинство кредитных организаций при введении льготы смогут увеличить благотворительные расходы (от 49,5 % до 74,0 % исследуемых кредитных организаций). Использование статистических инструментов множественного сравнения, позволило сделать вывод, что все исследуемые кредитные организации могли бы увеличить свои благотворительные расходы на 0,5–3,0 %, чтобы влияние льготного налогообложения было статистически значимым ( $p < 0,05$ ). Предложена льгота на благотворительные расходы в размере 5,0 % от налогооблагаемой прибыли, как наиболее эффективная для соотношения бюджетных потерь и роста благотворительных расходов. Таким образом, в ходе проведенного анализа было установлено несомненное позитивное влияние льготного налогообложения на величину благотворительных расходов.

**КЛЮЧЕВЫЕ СЛОВА.** Налоговые вычеты, благотворительные налоговые вычеты, благотворительность, расходы организаций на благотворительность, коммерческие банки.

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### Introduction

Development of the organization's socially desirable activities is the important element of social support during a growing crisis. From this point of view the socially desirable activities of private organizations can provide viable alternatives to direct government programs.

Taxation can stimulate this social activity through the mechanism of tax deduction. Charitable deduction is generally determined as the preferential tax treatment of expenditures or gifts to organizations that the law qualifies as having a socially beneficial characteristic and for which the donor is not motivated by direct benefit when making the contribution. The most widespread form of this preferential tax treatment is charitable deduction when taxpayers have been allowed to deduct gifts to charitable and certain other nonprofit organizations. Hereafter such organizations will be

called «charitable» [1, p. 55]. A charitable deduction extends the benefits of exemption to taxpayers, so that income donated to charitable organizations is exempted from all levels of income taxation. The deduction is intended to subsidize the activities of private organizations that provide viable alternatives to direct government programs.

The ability to deduct the costs of charitable donations from taxable income existed in Russian tax law before 2002, but today there are no tax benefits available to corporate donors in Russia. Due to this fact, preferential tax treatment of charitable activities is not popular subject in Russian economic literature and justified irrelevance and effectiveness of tax incentives for charity. Therefore, in our research, we tried to justify the obligatoriness for charitable tax deduction using the developed countries experience. The analyzing the long experience of the charity stimulation



with the tax mechanism can show the way for implementation the same mechanism in Russia.

The objectives of this paper are to study the degree of current participation of commercial entities in the charitable activity, and to evaluate the socio-economic benefits of preferential tax treatment and feasibility of its introduction. The socio-economic benefits of preferential tax treatment of charitable activity expressed in the social consequences of the tax incentives. In this paper we estimate the socio-economic impact of tax benefits by comparing the existing charitable contributions and the contributions that could be expected if the tax benefit would be introduced. This value is called the «potential for larger donations» [2, p. 28], that is the amount by which a particular organization could increase their welfare costs by compensating the effect of the introduction of tax exemptions.

To investigate the effect of preferential taxation for corporation charity we used the commercial banking sector information. The availableness of information sources justified this selection. Commercial organizations donate on the charity their net income and do not obliged to reflect this spendings in their public reports. Therefore, complete and reliable information about the commercial organization's charitable donations is not available for the study. On the other hand, banks are required to report about their charitable contributions to the Central Bank. In addition, the structure of banking sector is not uniform. In this structure we can see large, medium and small banks. This structure also contains banks with foreign capital, the central and regional banks. It makes possible to investigate the influence of preferential tax treatment to charities for different banking groups. We analyzed the current level and structure of banks philanthropy using the information about a charitable contributions, capital and profit of banks. Then we made the comparison of the existing charitable contributions and the contributions that could be expected if the tax benefit was introduced.

### **Literature review**

The deduction subsidizes giving by lowering the price that donors must pay privately to support charitable organizations. This price reduction affects giving in two ways, which economists refer to as income and substitution effects. The income effect is due to the reduced price that effectively makes more income available for all consumption [3]. If people normally give more as income rises, the income effect of price reduction will induce people to increase giving. The substitution effect arises because the reduced price makes giving cheaper relative to other commodities, which will induce people to give more.

The awareness of charitable tax deduction influence on the amount of giving, has grown in recent years, but still remains incomplete. The empirical evidence shows that the amount of giving is at least partly sensitive to the cost of giving. The evidence also suggests that giving is fairly responsive to temporary changes in the cost of giving, though few researchers agree on how sensitive it is to more permanent price changes. But much remains to be learned, especially about charitable giving in the Russian Federation, where charity is not so extensive as in OECD countries [4].

There is an abundant literature on the analysis of charity and the study of economic and non-economic factors affecting its output. For example, in a study conducted by C. Clotfelter on the data for the period of 1936–1980, an undoubted positive effect of preferential taxation in the United States in respect of corporate charity was noted. He also noted the strong role played by private donations in funding the non-profit sector [5, p.41]. Regarding the differences in the value of corporate philanthropy that depend on the area of activity, there was a link between communications with consumers of goods and services of the organization and the work in the field of charity [6; 7, p. 198]. So the largest share in the profit value of charitable contributions was held by the banking sector and trade in foods and other essential commodities. According to C. Clotfelter, this can be explained in terms of the

value that the management and owners of the company attribute to the formation of a positive image. The effect of preferential tax treatment on increasing the volume of charitable activities has been studied by G. Fack and C. Landais [8, p. 137]. According to their findings, the response of a donor to preferential tax treatment depends largely on the volume of donations made earlier. So in their research they came to the conclusion that the more generous donors have tended to respond more rapidly to the increase in the tax credit rate for donations in France after the reform. Therefore, they note that high tax credit rate in France can be economically justified, based on the premise that private foundations are able to perform many tasks more efficiently than the state.

R. Carroll and D. Joulfaian [9] have shown in their article on the role of taxation in the behavior of commercial organizations in the field of charitable activities that the applicable taxes are an important factor in determining the amount of charitable donations. So they came to a conclusion, on the basis of a large amount of surveyed companies, that the value of charitable donations is reduced with an increase in prices for the company's contributions after tax and growing together with the company's income and the amount of advertising costs. It should also be noted that, according to Carroll and Joulfaian, companies with foreign owners donate more. J. R. Boatsman and S. Gupta's research [10, p. 208] based on the data from 212 donor firms over the period of 1984 to 1988, suggests a negative correlation between corporate charitable donations and the amount of income tax rate. Wallace and Fisher [11] express a concern that higher tax rates would discourage private charity. In other words, high tax rates hinder the development of charity. Tax incentives for philanthropists as a means of state support for non-profit organizations have also been considered by the Russian authors O. V Makarenko and B. L Rudnik [12].

Another direction of charitable tax deduction investigation is the price elasticity of giving. Price elasticity of giving is a

measure of how responsive giving is to a change in its cost. It assesses the degree to which donors give more or less depending on how expensive the donations are [13].

As has become obvious from the literature review, there is much uncertainty about how much the cost of giving affects charitable contributions [14, p. 76].

The first generation of statistical studies of private giving, conducted in the 1970s, generally found that the price elasticity of giving was equal to or greater than 1 (in absolute value), in some cases significantly so. The implication was that giving was fairly sensitive to the after-tax cost of giving and that changes in tax rates that raised or lowered the cost of giving could significantly affect the amount of charitable contributions [15].

There were concerns that if private giving were as sensitive to cost as implied by the existing research, lower tax rates would cause private giving to fall by an appreciable amount. The predicted drop in giving, however, did not materialize. With the exception of taxpayers in the highest income tax brackets, charitable giving remained quite stable. The implication was that giving may not be as sensitive to price incentives as indicated by some econometric models.

In the 1980s and 1990s, improved data made it possible to better distinguish between temporary and permanent changes in the cost of giving [16, p. 332; 17, p. 794]. As expected, researchers using these data generally find that annual giving is less responsive to permanent than to temporary tax changes. Indeed, the results of several recent studies suggest that the price elasticity of giving may be less than 1, perhaps closer to -0.40 [18; p. 3].

### **Preferential tax treatment for charitable contribution in the OECD countries and Russian Federation**

Many countries recognize the important and significant role the voluntary sector plays in welfare and economic growth. As a consequence they provide tax incentives or tax relief to those organizations (and their donors) that typically constitute



the voluntary sector: unincorporated community organizations, registered charities (charities) and non-profit corporations.

There is considerable diversity within the OECD countries in the nature of the development of the charitable sector and the way in which charities and donors are treated for tax purposes. The countries' descriptions of the OECD country's tax

benefits for charitable contributions, is provided in table 1.

In the Russian Federation, there are no tax benefits available to corporate donors. An individual can claim a charitable deduction up to 25 % of their taxable income. The ability to deduct the costs of charitable donations from taxable income existed in the Russian tax law before 2002.

Table 1

**The OECD country's tax benefits for charitable contributions**

Country	Tax benefits
Argentina	Deduction from the taxable income (Income Tax), up to 5 % of the total amount of the donor's net income
Austria	Donations for charities which pursue science and research matters reduce the income tax basis up to 10 %
Belgium	For an «individual» donor, the overall deductible amount cannot exceed 10% of the overall net income or € 331 200. For a «corporate» donor, limits are 5 % and € 500 000.
Canada	Donors are rewarded with a tax deduction or credit for gifts made to a registered charity up to 75 % of annual net income.
Chile	Certain types of donations, under specific conditions can be subject of tax credit or an expense allowance
Czech Republic	Donors are entitled to tax reduction up to 10% of their annual net income. Minimum donation is 1 % of net income or 2 000 CZK (€ 81). Such advantage can be obtained only regarding donation on specific purpose.
Denmark	A person/firm that can claim a tax deduction from DKK 500 (€ 167) up to DKK 14 000 (€ 1 800) annually for the registered charity, for some type of charities from DKK 15 000 (€ 2 000) up to 15 % of his annual income.
France	Individual donors are entitled to a tax deduction from their income tax equal to 66% of the donation. Businesses receive a tax deduction from corporate income tax equal to 60% of payments taken from the 5% of sales limit.
Germany	Considerable incentive to encourage the financing of public-benefit, religious and charitable associations by allowing the deduction of donations
Ireland	Tax relief applies to donations which are €250 or greater in one year
Italy	Deduction the amount of the donation up to 2 % of reported income (depending on the nature of the donor).
Netherlands	Tax relief/deductions for charitable donations from 1 % of the taxable income (or at least € 60) but it is limited up to 10% of the taxable income. The threshold in the Corporate Income Tax equals € 227 limited up to 10% of the taxable profit.
Norway	The donation to each charity must exceed NOK 500 (€ 62) annually, and the maximum annual deductible donation per taxpayer is NOK 12 000 (€ 1 500).
Portugal	Donation may be considered as cost or net loss, and may be calculated at 120 %, 130 % and 140 % of the total amount of the donation, according to the entity benefiting from the donation to the maximum threshold of 8/1000 of the entity's turnover
Spain	An individual can claim 25 % of the donation on his/her income tax and a corporation can claim 35% of the donation (with a limit on the amount of the donations of 10% of the taxable profits).
Sweden	There are no tax benefits available to the donors
Turkey	The donors are entitled to a deduction of up to 5% of their annual net income
UK	There is no annual limit on donor tax relief for individuals but corporate donors are limited to relief up to 100% of chargeable profit.
USA	Donors to eligible charities can reduce their own federal income taxes (and usually State income taxes) by a percentage of the amount of their donation (as much as 40 %)

Source: Organisation for Economic Cooperation and Development, Committee on Fiscal Affairs. Report on abuse of charities for money-laundering and tax evasion. France, OECD Publishing, 2008, p. 6.

In accordance with the law «On taxes on profits of enterprises and organizations», passed on 27.12.1991, corporate taxpayers were allowed to deduct the costs of charitable donations up to 5 % (for banks and insurance companies up to 3 %) of the taxable income for the year.

The tax incentives for businesses involved in charitable activities were canceled in 2002, after Chapter 25 of the Tax Code came in effect. According to the Letter of the Russian Ministry of Finance, if the firm provided free services or donated its products, the costs which arose at the same time did not reduce the firm's payments to the budget. In the literature of that period tax incentives for charity were described as an example of negative, inefficient use of tax mechanism. There was an opinion that commercial organizations were rarely motivated to make donations due to the low level of confidence of the tax system.

As the tax deduction can be alternative to direct government programs we suppose that their introduction for corporate donors would stimulate the donations in Russian Federation.

### Theoretical basis

In our opinion, the incentive should not be regarded as a proper economic stimulation to commit expenditure to charity, but rather as a special mechanism of reducing the cost of charitable activities for donors. The charity is part of social responsibility, so the profit from a good business reputation also would stimulate

the charitable expenses growth. Therefore, the company management behavior will be supported by the availability of the possible tax deductions (fig. 1).

So, if we take charity as a resource that can be sold together with other goods, we can talk about the value of the charity as a good. Considering this concept from an economic point of view, we can talk about preferential taxation as a way to reduce the resource cost for the «seller», which will be the benefactor organization.

Therefore, we can talk about the tax deduction as a tool, the ability to increase the amount of the charitable donations by strengthening the motivation to commit more expenditure due to compensation through the provision of incentives.

Due to the fact that at the moment this type of incentive do not exist in the Russian Federation, it is very difficult to assess how great charitable donations would be increased with the introduction of deduction. We can assume two scenarios of further response to its introduction:

1. Commercial organizations (in this study – credit institutions) will reply with growth of the donations. Thus, due to the action of preferential taxation their profits in the model would not change in comparison with the actual profit, but will increase the amount of charitable expenses. The larger volume of expenditures, in its turn, accelerates the achievement of the objectives set by any commercial organization, which is involved in charity in prejudice of net profit.

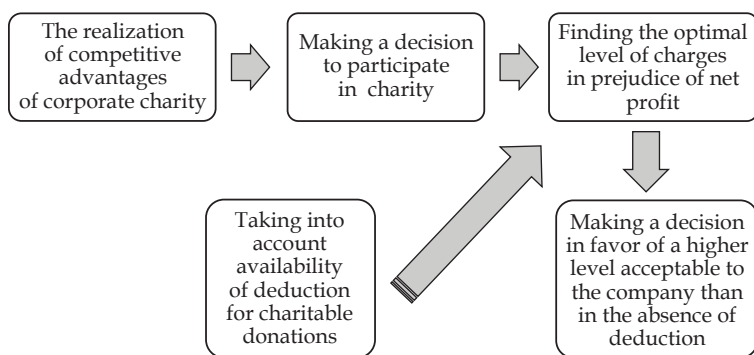


Fig. 1. Influence of tax deduction on the increase of organization charitable donations

2. Commercial organizations who committed costs in the past, will take advantage of tax incentive, but won't decide to change their optimal size, which they could spend without an economic stimulant, upwards. Thus, due to the action of mechanism of preferential taxation their net income in the model will increase compared to the current actual earnings and the amount of the charitable expenditure will not change. Both of these scenarios are equally probable, as the wish of increasing of the amount of charitable expenses should, firstly, be supported by the need in greater volume, for whatever reasons. All aforesaid indicates the need to investigate the minimum amount of charitable expenditure – the value when a link between incentive and cost increases appears.

The factor that will determine the subject's behavior in terms of constructing the model will be the choice of maximizing charitable expenses in response to the

introducing of incentive. As mentioned above, the actual level of expenditure at the moment is considered optimal, so the maximum for possible reduction of net profit, but at least enough minimum to pursue non-economic goals and objectives with the support of charity. We start from the premise that for the commercial organization is not profitable to spend for charity at the expense of its net profit more than the value of the optimum level, which she spends virtually without the preferential taxation support. In this case, we will take for the maximum level for increasing – the break-even level, which will be compensated by the action of the incentive, so that the actual price of the charitable expenditures for the company remained unchanged.

Our model takes into account the possible scenarios based on several factors (fig. 2):

- actual company's charitable expenses without charitable deduction;

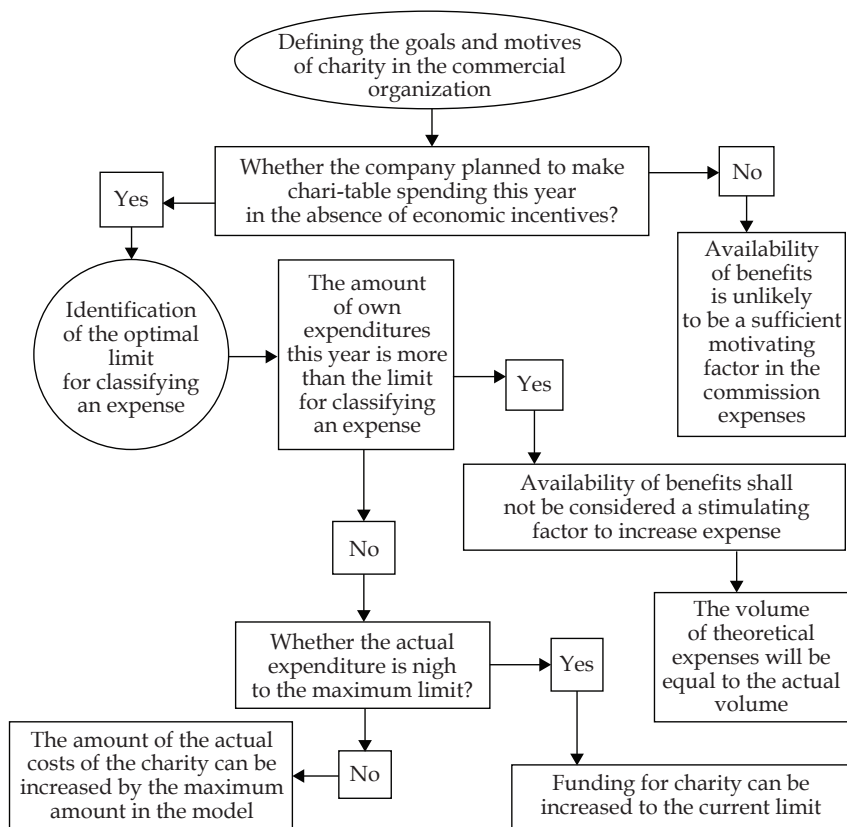


Fig. 2. The algorithm for evaluating the likely behavior of the taxpayer with the introduction of preferential tax charity

- the limit for tax deduction determined as share of the taxable profit;
- expected increase the charitable expenses within prescribed model.

The model does not include the possibility to reduce the company's net profit, as the growth of the charitable expenses in prejudice of net profit is observed in the absence of benefits. Consequently, the potential for growth of charitable expenditure should be limited by a value which will be compensated by a decrease of income tax. When modeling the response of taxpayers, we assume that the profit after taxation in any case cannot be less than actual profits, as in this case we deny the relationship between the increase in costs and action of incentive.

Accordingly, we assume that  $P^{mod} \geq P^{fact}$ , as potentially available resources can be directed either to increase charitable expenditure, or on the maximization of their profits. Thus, the actual profit after taxation could be less or equal then the obtained in the model. Therefore, to make a profit within the framework of the model, we can reduce the actual return on the amount of increased costs when introducing the incentive ( $G^s$ ), but at the same time increase on the value of the incentive on the current income tax rate of 20 %, which will apply not only to actual charitable expenses ( $G^f$ ), but also on the increment value ( $G^s$ ).

In the form of disparity we can represent:  $P^{fact} - G^s + 0,2G^f + 0,2 G^s \geq P^{fact}$ .

Expanding disparity, we obtain:  $0,2G^f \geq 0,8G^s \rightarrow G^s \leq 0,25G^f$ .

In general terms, by steps disparity will have the form:

$$P^{mod} \geq P^{fact} \rightarrow P^{fact} - 0,8G^s + 0,2G^f \geq P^{fact} \rightarrow \\ \rightarrow 0,2G^f \geq 0,8G^s \rightarrow G^s \leq 0,25G^f,$$

where  $P^{mod}$  – modeled net profit;  $P^{fact}$  – actual net profit;  $G^s$  – the amount of increased expenditures in a model;  $G^f$  – the actual amount of expenditures.

Thus, for the maximum amount to increase the charitable expenditures in this model we will take 25 % of the actual costs for charity in the absence of incentive, and for the minimum volume to increase – the value when the «null

hypothesis», which indicates that there is no relationship between the incentive and changes in expenditure, becomes untenable.

### Method and data

In our study, tax deduction means a reduction in the corporate income tax (CIT) base in a certain percentage of the profit. Following method was used to assess the hypothetical value of donations:

Step 1. At this stage, were unloaded banks represented in the Irkutsk Oblast, excluding from the sample those banks that have received comments from the Central Bank in connection with some doubts in their reporting.

The study sample was divided into three groups according to the principle proposed for the evaluation of social responsibility of banks in the United States [20]. According to this principle, the first group included banks with the volume of own funds of less than 10 billion rubles (small banks). The second group included organizations with the volume of capital more than 10 billion but less than 100 billion rubles (medium-size banks), and the third group – with a volume of more than 100 billion rubles (large banks). The sample was grouped according to the amount of capital in accordance with the proposed principle. At the same time, we received initial empirical data for the period of 2011–2014 about the income, the value of charitable expenses, and current income tax.

Step 2: Calculation of the hypothetical limits accounting for charitable expenditure as an expense on the study sample for the respective years.

Step 3: Comparison of actual costs to the value of hypothetical limits.

Step 4. For the banks whose actual costs do not exceed the prescribed limits, calculation of the increase of charitable expenditure to be compensated through the mechanism of preferential tax treatment, the so-called «potential to increase donations».

Step 5. Summation of actual costs and the potential to increase in each test organization for the respective years.

Step 6: Comparison of the amount received with the value of the hypothetical limits.

Step 7. For the banks where the amount exceeds the limit, the full potential of an increase will be equal to the difference between the amount of the limit and the amount of the actual costs and will be considered as fixed at a submaximal level.

Step 8. For the banks where the amount does not exceed a predetermined limit, the full potential will be considered as fixed at the maximum level.

The study has been based on a sample of banks operating in one region of the Russian Federation, Irkutsk Oblast, in 2011–2014 years. In order to improve the quality of the study, the banks which the Central Bank had expressed concerns about or suspected of dubious performance reports, were not taken into account. Thus the survey covered 49 banks represented in Irkutsk Oblast.

To obtain data on the degree of involvement of the investigated banks in corporate philanthropy, we used the information provided on the official websites of credit institutions and the information provided in annual reports.

### **The influence of preferential tax treatment for charitable expenses of commercial organizations**

The calculated data on the value of committed expenditures and the net profit of researched credit institutions broken down by size are presented in table 2. As can be seen from the table, the average value of charity spending committed by

credit institutions grew steadily throughout the study period.

Before moving on to the research on the existing level of charity's support by credit institutions in the form of qualitative and quantitative indicators, it is appropriate to represent primary definition of the range of factors that can influence the investigated index, that is, in this case, the absolute and relative value of charitable expenditures in profit that are made in the situation of economic incentives absence.

Existent level of actual spending might be considered as an acceptable level of support for a particular charitable organization, from which you can later make a start in detecting potential of a commercial organization to increase charitable expenditures in the implementation of preferential taxation of charity. Thus, in conducted correlation analysis of the total number of the factors that may affect the value of charitable expenditures, which credit institution is ready to incur as a loss of its net profit, we can identify factors that have a statistically significant correlation coefficient when the level of significance  $p < 0,05$  (table 3).

Based on detected correlation coefficients, we can conclude that at a significance level of  $p < 0,05$ , that is acceptable for this false positive probability problem solving (the probability to reject the null hypothesis when in fact it is true), not all factors can affect the value of charitable spending. The amount of capital as well as the availability of a sustainable strategy for charitable activities might be considered as statistically significant factor for both absolute and relative value of charitable expenditures.

Table 2

### **Charitable expenses and bank's profit in different groups of the banks in Irkutsk oblast in 2011–2014**

Group of Banks	Growth 2014–2011, %	
	The average value of charitable contribution	The average value of net profit
Total sample (49 Banks)	79,9	1,4
Small banks (the volume of capital less than 10 billion rubles)	8,7	32,3
Medium-sized banks (the volume of capital from 10 billion to 100 billion rubles)	-63,1	-45,8
Large banks (the volume of capital more than 100 billion rubles)	123,5	3,6

Source: Author's calculations on the base of bank's report to the Central Bank.



Table 3

**The identification of the significant factors for the absolute and relative value of charitable expenditures to the amount of profits of credit institutions**

Factors	Ranked ratio of a Spearman correlation			
	Absolute-value	Significance level	Relative value	Significance level
Amount of capital	0,82	0,000 000	0,32	0,024 523
Attribute of the bank to the regional ones	-0,55	0,000 000	-0,23	0,119 320
Presence of the state participation in capital	0,37	0,008 410	0,19	0,191 505
Presence of foreign participation in capital	0,18	0,370 021	0,13	0,370 021
Amount of profit	0,79	0,000 000	0,17	0,239 694
Value of a tax burden	-0,07	0,637 639	-0,35	0,014 461
Availability of a stable strategy of charitable activities	0,6	0,000 004	0,48	0,000 527

*Source:* Author's calculations on the base of bank's report to the Central Bank and bank's websites.

The strongest relationship was observed between the size of the bank and the average value of profit after taxation for the explored period. The resulting correlation coefficients were 0,82 and 0,79 respectively, which can be described as a strong degree of relation.

These factors have a logical explanation. For example, the total amount of profit influences on the value of charitable expenditures that owners and management of a company might spend on charity and avoid negative effect on net income. Thus there is no significant difference between the proportions of welfare expenditure in the more or less profitable banks.

The bank's capital is the basis of its growth and protection against risk, that's why there is a relation between the value of bank's own funds and the value of charity expenditures. The value of the bank's capital affect indirectly on the value of the bank's expenses in the area of charity.

At the same time the impact of the value of capital on the charitable expenditure is much weaker in relative terms and the correlation coefficient here is 0,32. We can say that small, medium-sized and large banks are willing to spend on charity on almost equal measure.

Detected correlation coefficients for all other factors indicate the average degree of influence on the value of the bank's charitable expenditures. So correlation coefficient of -0,55 for the attribute of a bank to the regional ones, indicates that between the value of charitable expenditures and

regional banks there is an inverse correlation. Since in Russia there is no legal definition of the term «regional bank» during the investigation to them were attributed credit institutions registered on the territory of the subject of Russian Federation. At the same time, in relative terms factor of attributing of the bank to regional ones has no statistically significant effect on the profit share that is used for charity.

Factor of a state participation in the bank's capital has a statistically significant impact only on the absolute value of the charitable expenditures. So, we can say that in this case, the correlation coefficient shows the participation of the state mostly in large banks, which spend more in absolute terms, but does not indicate on more significant social orientation of state-owned banks. The hypothesis of a greater social orientation of banks with foreign capital can be regarded as untenable, since the connection between the charitable expenditures in absolute and relative terms is statistically insignificant.

The value of the tax burden may have a reverse effect on the value of charitable expenditures in relative terms, which is expressed in a correlation coefficient of 0,35. So, we can say that the higher is the share of income tax; the lower is the share of charitable expenditures. Thus, the tax burden can be considered as a factor that restrained the growth of expenditures on charity.

The relationship between the presence in the bank's long-term strategy of charitable activities and the amount of ex-

penses in absolute terms was expressed in direct correlation coefficient of 0,6. So we can say that banks, which have a specific strategy for the development of charity, spend more in absolute terms than those whose charitable activities were spontaneous. This can be attributed to the greater responsibility positions in support of the charity in the presence of partner funds or detected lines, which results in a greater value of funds allocated for this purpose. This hypothesis is also supported by a factor of statistically significant impact on the value of philanthropy strategy costs in relative terms. Banks, which had this strategy, spent a larger share of charitable funds as compared to the profit after taxation.

After identifying factors which may affect the value of charitable expenditures in absolute and relative terms, we can continue study of the existing level of charitable activity in the banking sector on the basis of qualitative criteria.

To assess the quality parameters of the banks' participation in charitable activities, the criteria have been used developed by the Czech researchers on the basis of the banking system of the Czech Republic [21, p. 55]. These options were designed to assess the level of corporate social responsibility at the level of banks. In order to evaluate the participation of the banking system in supporting charity, these parameters have been adapted to meet the needs of our study (table 4).

Thus, the main elements of the existing involvement of credit institutions in support of socially important areas for today, according to the authors, will be:

- publication of social reports on the results of the charitable activities;
- provision the open and full information on the types and forms of charitable activities on the company's official website;
- the employees involvement in the charity, and encouragement of voluntary initiatives in the company's team;
- creation and introduction the banking products aimed to the charity;
- the long-term sustainable strategy for the development the charitable activities in the framework of corporate social responsibility.

Table 4  
Evaluation criteria bank's involvement in charity

Criteria in the Management of CSR (Corporate Social Responsibility)	Author's criteria
Appointment of CSR representatives	Information about the forms and directions of charitable activities on the bank's website
Determination of a scope of authority, strategies and objectives of CSR	Strategies and objectives of corporate charity
Documents and records about CSR	Documents and records about corporate charity
Human resource management	Promotion of volunteer initiatives in the team
-	Own charity funds
-	Development of banking products oriented to charity

The study provided data on the prevalence of charitable activities of credit institutions on the basis of selected quality indicators (fig. 3).

Information on the forms and directions of support of charitable activities in the organization can be found on the official websites of 67,3 % of credit institutions. Based on the 95 % confidence intervals, we can speak of 53,8–80,2 % in the total population of banks in the Russian Federation. Reference to long-term partnerships with a particular recipient of donations or prioritized charitable activities was found in 46,9 % of the banks [95 % CI 32,9–60,8]. Promotion of volunteer initiatives in the team, as well as organization of volunteer projects, featured in 28,5 % of the studied organizations [95 % CI 15,8–41,1], and the development of banking products oriented to charity 38,7 % [95 % CI 25,1–52,3].

Regarding the differences investigated involvement of credit institutions, depending on the size of the capital, we can say that most of the indicators significantly hire in the group of large credit institutions than for the others banks involved in philanthropy ( $p < 0,05$ ). Thus, information about the organization's



philanthropy could be found on the official websites of 44 % of small banks [95 % CI 21,2–66,9], 71,4 % medium-sized banks [95 % CI 52,1–90,7], and all the large banks without any exception. Volunteer work in the organization is encouraged by 5,5 % of small banks [95 % CI 5–16,03] and 23,8 % medium-sized banks [95 % CI 5,6–42,01], while 80 % of the large banks in the study group [95 % CI 55,2–104,8] mention projects that involve employees. It should be noted that the study has revealed an interesting trend: while the big banks are much more involved in charitable activities than small banks on all evaluated parameters ( $p < 0,05$ ), the differences between the involvement of medium and large banks have been identified only in terms of reflecting a significant own contribution.

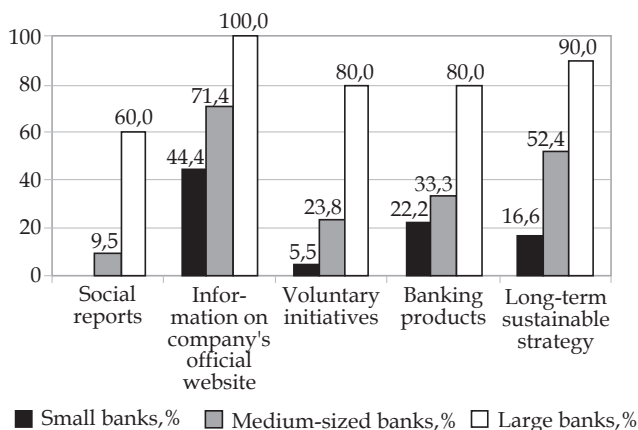
Because of the lack of information about the forms and types of charitable activities on the banks sites, it is difficult to draw conclusions about the differences in the group strategy of charity. However, other indicators for large credit institutions differ from the small and medium-size bank indicators. While some indicators are already close to those of the larger banks, in terms of requiring a significant own contribution, medium-sized banks still differ from the large banks. This may explain the limited available financial and human resources of medium-sized banks. So they are ready to commit spending,

but do not have more opportunities to adequately inform the public about their activities and to support the charity in many forms, not just in the form of direct cash donations.

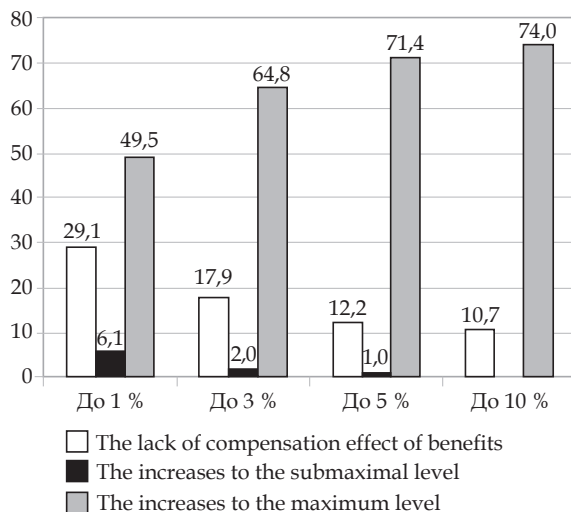
Based on the totality of the credit organizations represented in Irkutsk Oblast, we can conclude that the actual amount of own contributions exceeds the limit of 10 % of taxable profit at the few of banks. Therefore, the proposed model does not make sense to consider options in the amount of more than 10 %. Thus, for this study variations in the amount of 1 %, 3 %, 5 % and 10 % of the taxable income have been reviewed.

Fig. 4 shows the mechanism of action of the preferential taxation, depending on the limit donations account as an expense.

Based on fig. 4, we can conclude that setting any level of charitable donations account for the majority of banks benefit can form the potential to increase charitable expenditure. In addition, for the overwhelming majority of banks have the potential to form the maximum size to be increased in the model. Thus, taking into account contributions as an expense for tax purposes at a rate of up to 1 % of the taxable profit, the number of banks that could increase their donations to the maximum volume amounted to 49,5 % of all the banks operating in Irkutsk Oblast. On the basis of confidence intervals, it



**Fig. 3. Differences in the degree of involvement in support of charity, depending on the size of the bank's capital, %**



**Fig. 4. Impact of the different limit for tax deduction determined as share of the taxable profit**

can be assumed, with a 95 % probability, that in the Russian Federation with the introduction of preferential taxation and setting limits on the size of the accounting of donations amounting to 1 %, the share of banks in which the benefit would form the potential to maximize, would be in the interval from 42,5 % to 56 % of the entire population. In the transition from the lowest level for each subsequent average share of banks in this group is gradually increased from 61,9 % to 80 % of the population.

At the same time, the share of credit institutions, which have not shown an increased spending through the compensation effect of the benefit, is relatively high at 1 % level accounting for tax purposes, ranging from 22,7 % to 35,5 % of all the banks. Changing the number of credit institutions that are attributable to this group is the opposite of the change in the group with the potential to maximize, and would have fallen to a relatively small number of 10,7 % at the maximum limit. The share of banks that did not make donations and, consequently, for their benefit tax profits could not be a motivating factor to an increase in donations, ranged from 3,8 % to 22,8 % and was independent of the level of spending in charity account expenses. There are

banks in the considered sample (2 %) that made charitable spending but ended the year with a negative financial result and, consequently, it was not possible to determine the potential to increase, caused by the action of the benefits due to the lack of base of income tax. The share of banks whose potential to increase charitable donations to a set maximum size limit was close to the limit and, therefore, stopped at sub-maximal level, ranging from 1 % to 6,1 % depending on the set limit, with no bank reaching the limit of 10 % for this group.

### Conclusion

As the review of the literature has shown, over the recent decades the importance of searching for alternative sources of financing for non-profit organizations as providers of public goods and services in relation to the direct subsidies has been growing. One such source that has several advantages over direct financing is a mechanism for preferential tax treatment of charitable activities used in the Western countries.

In conclusion, with regard to the quality indicators expressing support for charity, the study has shown that, in terms of opening up, the majority of banks post

information about their activities on their official websites. Nearly a half had a sustainable charity strategy, which is understood to work with partners of charitable aid over several time periods or selected priority. At the same time, taking advantage of corporate philanthropy by using special forms of charity, it is inherent in the banking sector but developed fairly weakly. The study has also found that, for every limit, taking into account the

charitable expenditure as an expense, the majority of credit organizations have a potential for maximum growth of donations (from 49,5 % to 74 % of the study of credit institutions depending on the limit of the account). These results suggest that the introduction of preferential tax treatment of charitable activities could boost the flow of financial resources for socially important areas of commercial organizations, in this case, the banking sector.

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## **DEVELOPMENT AND DISTINGUISHING FEATURES OF INVESTMENT TAX DEDUCTION IN THE RUSSIAN FEDERATION**

**ABSTRACT.** The paper addresses a new tax deduction (*videlicet*, investment tax deduction), that is effective from 2015. The objective is to study the implementation details of the deduction in the Russian Federation and reveal development prospects. Investment tax deductions are classified into investment tax deductions as tax allowance for long-term holding of securities and investment tax deductions linked to opening individual investment accounts (types A and B). The authors present three schemes of investment tax deductions implementation. Besides, types of investors are identified and financial instruments for each type of investment tax deduction are recommended. It is determined that using tax allowance for long-term holding of securities and individual investment account (type A) implies conservative investment, whereas using individual investment account (type B) is associated with speculative investors. Foreign practice in implementing analogous deductions is summarized. The authors identify bonds as a dominant instrument in the framework of investing in individual investment accounts and present reasons for such considerations. Statistical data regarding opening individual investment accounts is presented from year 2015 and for the period January – May of 2016. The authors conclude that investment companies dominate in this market segment and make optimistic forecasts regarding development of this financial instrument. However, controversial issues related to investment tax deduction legislation are revealed. Lack of information on individual investment accounts, poor awareness of Russian citizens as well as a need for financial advisors are also named as a hindrance to the development of individual investment accounts system.

**KEYWORDS.** Investment tax deduction; individual investment account; individual retirement account; individual savings account; individual investor; Moscow Exchange; bonds; shares; fund units; individual income tax.

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## **ФОРМИРОВАНИЕ И ОСОБЕННОСТИ СИСТЕМЫ ИНВЕСТИЦИОННЫХ НАЛОГОВЫХ ВЫЧЕТОВ В РОССИЙСКОЙ ФЕДЕРАЦИИ**

**АННОТАЦИЯ.** Статья посвящена анализу особенностей предоставления гражданам нового вида налогового вычета по НДФЛ – инвестиционного налогового вычета, действующего с 2015 г. Целью настоящей статьи является анализ особенностей применения инвестиционных налоговых вычетов в РФ, а также выявление перспектив их развития. Авторами представлена классификация инвестиционных налоговых вычетов как инвестиционных налоговых вычетов в виде льготы для долгосрочного владения ценными бумагами и инвестицион-

ных налоговых вычетов, связанных с открытием индивидуальных инвестиционных счетов (типы А и Б). Рассмотрены три схемы получения инвестиционных налоговых вычетов. Для каждого вида инвестиционного налогового вычета авторами определены типы инвесторов и рекомендованы виды финансовых инструментов. Использование льготы для долгосрочного владения ценными бумагами и индивидуального инвестиционного счета типа А подразумевают консервативное инвестирование. Применение индивидуального инвестиционного счета типа Б возможно спекулятивными инвесторами. Авторами также обобщен зарубежный опыт использования аналогичных вычетов. Облигации названы доминирующим инструментом в рамках инвестирования средств на индивидуальных инвестиционных счетах в силу высокой текущей доходности, большого числа надежных эмитентов и значительного числа эмиссий на внутреннем рынке. Приведены статистические данные относительно открытия индивидуальных инвестиционных счетов по итогам 2015 г. и пяти месяцев 2016 г. Сделан вывод о доминировании в данном сегменте рынка инвестиционных компаний. Авторами дан оптимистичный прогноз относительно дальнейшего развития инвестиционных налоговых вычетов. Выявлены спорные вопросы законодательства об инвестиционных налоговых вычетах, преимущественно связанные с ведением индивидуальных инвестиционных счетов. Отмечена слабая информированность населения относительно индивидуальных инвестиционных счетов и необходимость привлечения финансовых консультантов.

**КЛЮЧЕВЫЕ СЛОВА.** Инвестиционный налоговый вычет; индивидуальный инвестиционный счет; индивидуальный пенсионный счет; индивидуальный сберегательный счет; индивидуальный инвестор; Московская биржа; облигации; акции; инвестиционные паи; НДФЛ.

### **Introduction**

In 2015, the Tax Code of the Russian Federation was amended to introduce a new type of tax deduction for individual income tax, that is to say, the investment tax deduction. It entitles to claim a reduction of the tax base in securities transactions. This mechanism is well-established worldwide; however, it remains a completely new and uninvestigated phenomenon for Russian investors, analysts, and tax advisors. This paper seeks to provide a detailed understanding of investment tax deduction schemes available in the framework of Russian legislation, as well as to outline its development. The investment tax deduction is intended to promote long-term investments in Russian securities traded on the established securities market, build an investment culture among Russians, and create a long-term investors segment within the society. In this context, it is obvious that the investment tax deduction is targeted at the middle class individuals with some experience in investing.

The new deduction has not demonstrated any direct evidence of its effectiveness in terms of stimulating the secu-

rities market development (after a year and a half in effect) since its introduction. However, it is apparent that the system of investment tax deductions appeals to investors and requires some modifications, which substantiate this study.

According to the Article 219.1 of the Tax Code of the Russian Federation investment tax deductions are classified into three types. However, from a practical perspective, it is advisory to distinguish the following two groups of investment tax deductions:

- investment tax deductions by way of tax allowance for long-term holding of securities;
- investment tax deductions related to opening individual investment accounts (IIA).

### **Tax allowance for long-term holding of securities**

According to subsection 1, clause 1 of the Article 219.1 of the Tax Code of the Russian Federation, a taxpayer is entitled to claim an investment tax deduction in the amount of the positive financial result obtained by the taxpayer in the tax year from the sale (or redemption) of securities



tradable on the established securities market, provided that the taxpayer has owned the securities for more than three years.

By «securities tradable on the established securities market», we mean securities that are listed on the Russian stock exchanges, as well as open-end mutual funds units under the management of Russian asset management companies. The investigated tax allowance has been effective since 2015; however, it applies to securities purchased after January 1, 2014.

An investment tax deduction is granted in the form of allowance for long-term holding of securities in the event that the following requirements are observed:

1. The maximum amount of the tax income deduction for the tax year is calculated as the product of coefficient  $C_s$  and an amount equal to 3 million rubles.

With this in mind, coefficient  $C_s$  shall be calculated as follows:

$$C_s = \frac{\sum_{i=3}^n I_i \cdot i}{\sum_{i=3}^n I_i}, \quad (1)$$

where  $I_i$  stands for an income from sale (redemption) of all the securities, held for  $i$  number of full years, in the tax year;  $n$  represents a number of holding periods measured in full years, for the securities that have been sold (redeemed) in the tax year, following which a taxpayer is granted the right to receive a tax deduction.

Formula (1) considers taxation in case a taxpayer realizes multiple securities with different holding periods within the same tax period.

2. The holding period of a security for a taxpayer shall be calculated based on the FIFO method.

3. A tax deduction shall be granted to a taxpayer when tax is being calculated and withheld by a tax agent or upon the submission of a tax return.

4. In case tax deduction is granted by multiple tax agents, the aggregate amount thereof exceeds the limit (i.e., 3 million rubles), the taxpayer shall be obliged to submit a tax return and pay the appropriate amount of the tax shortfall.

5. A tax deduction shall not apply in case of sale (redemption) of securities recorded in an IIA<sup>1</sup>.

The investment tax deduction scheme in the form of allowance for long-term holding of securities is presented in Fig. 1.



**Fig. 1. Investment tax deduction scheme in the form of allowance for long-term holding of securities, implemented by an investor**

According to Russian legislation it is necessary to note that tax allowances related to long-term holding of securities were also granted before 2007. Previously, tax deduction applied to the entire amount obtained from sale of securities held for more than three years, however, the new version of the law makes deductible only the positive financial result. The new allowance for long-term holding of securities applies to securities obtained as a result of donation and inheritance.

#### **Investment tax deductions related to individual investment accounts**

A Russian taxpayer is entitled to have two investment tax deductions related to the IIA, and therefore, it is necessary to clarify the concept of IIA and its features.

<sup>1</sup> Tax Code of the Russian Federation (Part II) of August 5, 2000, no. 117-FZ. Available at: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165/](http://www.consultant.ru/document/cons_doc_LAW_28165/).



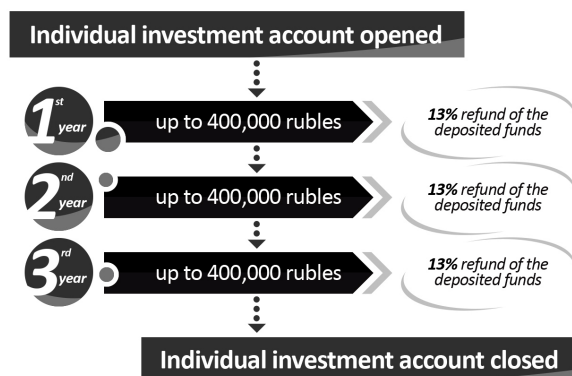


Fig. 2. The investment tax deduction scheme implemented by an investor (Type A)

According to the Article 10.2-1 of the Federal Law «On the Securities Market», individual investment account is an account of internal accounting, intended to keep separate records of monetary funds, securities of the client (the individual), and liabilities under the contracts involving the funds of this client<sup>2</sup>. The IIA can be opened by a broker or an asset administrator under a particular brokerage services agreement or asset management agreement and shall be managed by them.

There are several restrictions concerned with the IIA in the Russian Federation:

- an individual is allowed to sign only one IIA management agreement;
- under the IIA management agreement an individual is permitted to transfer only monetary funds to brokerage firms or asset management companies;
- the amount of money transferred is limited to 400 000 rubles per year;
- the IIA has to be owned by a taxpayer for at least three years.

Thus, the IIA is a regular brokerage account, but with restrictions on replenishment and withdrawal of funds. There are no restrictions related to the nomenclature of securities and other financial investment instruments within the IIA. According to subsections 2 and 3, clause 1 of the Article 219.1 of the Tax Code, a taxpayer is entitled to have two mutually

exclusive investment tax deductions involving the IIA:

- in the amount of monetary funds deposited by a taxpayer during the tax year in the IIA (type A)<sup>3</sup>;
- in the amount equal to income obtained from transactions recoded in the IIA (type B)<sup>4</sup>.

Thus, investors are entitled to choose the type of investment tax deduction (A or B).

The investment tax deduction as per type A is provided under the following conditions:

1. A tax deduction shall be granted to a taxpayer upon submission of a tax return based on the documents that confirm the depositing of monetary funds in the IIA.
2. In the event that the IIA management agreement terminates before the expiry of the 3-year period, the amount of tax not paid by the taxpayer to the budget must be restored and paid to the budget including penalties.

The investment tax deduction scheme as per type A is shown in Fig. 2.

The investment tax deduction as per type B is granted to an individual by the tax authority upon submission of a tax return or when tax is calculated and withheld by a tax agent subject to the presenta-

<sup>3</sup> The terms «Type A» and «Type B» are introduced by the author.

<sup>4</sup> Tax Code of the Russian Federation (Part II) of August 5, 2000, no. 117-FZ. Available at: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165/](http://www.consultant.ru/document/cons_doc_LAW_28165/).

<sup>2</sup> RF Federal Law «On the Securities Market» of April 22, 1996, no. 39-FZ. Available at: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_10148/](http://www.consultant.ru/document/cons_doc_LAW_10148/).

tion of a statement from a tax authority to the effect that:

- taxpayer has not exercised the right to claim a tax deduction as per type A;
- taxpayer has no other IIA management agreements during the term of the IIA management agreement.

The investment tax deduction scheme as per type B is shown in Fig. 3.

The essential differences between the tax allowance for long-term holding of securities and investment tax deductions involving individual investment accounts are as follows:

1. In order to obtain tax allowance for long-term holding of securities, investor has to acquire securities and hold them for at least three years without selling. Thus,

investor’s monetary funds are «frozen» in certain securities.

2. The management of IIA implies «monetary funds’ freezing» not within specific instruments, but in a separate account (within the actual IIA). The restrictions regarding the investment period for the IIA are not regulated. Investment within the IIA is not limited to securities; investors can allocate funds in bank deposits, purchase currency and derivative financial instruments.

**Special aspects of investing using investment tax deduction**

Implementation of a particular type of investment tax deduction has a significant impact on investment strategy (Table 1).

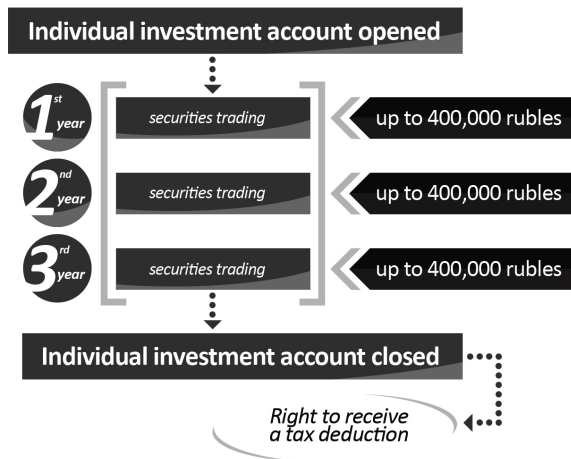


Fig. 3. The investment tax deduction scheme (Type B)

Table 1

**Special aspects of investing using investment tax deductions**

Type of investment tax deduction	Type of investor	Types of financial instruments	Mandatory taxable income in hand
Tax allowance for long-term holding of securities	Long-term Unqualified Passive Non-speculative	Shares (first- or second-tier) Government or corporate bonds Units of open-end mutual stock and bond funds	No
Investment tax deductions with IIA involved (Type A)	Long-term Unqualified Passive Non-speculative	Government or corporate bonds Units of open-end mutual bond funds Deposits in commercial banks Structured products, bond-based	Yes
Investment tax deductions with IIA involved (Type B)	Short-term Qualified Active Speculative	Shares (first- or second-tier) Structured products, stock-based Futures Options ETF units	No

Tax allowance for long-term holding of securities implies a conservative approach to investment, i.e., acquisition of shares, bonds, fund units, which is due to the fact that securities are to be held by a taxpayer for a period of more than three years. The choice of a particular type of securities, as well as of their varieties (first- or second-tier shares, government or corporate bonds) depends on the risk tolerance of a particular investor.

Investors who choose the investment tax deduction with IIA involved (Type A) tend to obtain a guaranteed financial result and maintain a conservative approach. They are likely to focus on fixed-income instruments – primarily, bonds. In this case, an individual tax deduction is granted each year, and the maximum annual tax deduction shall amount to 52 000 rubles (13 % of 400 000 rubles). An investor can expect to return funds that do not exceed the amount of tax already paid and, as relevant, he must have taxable income from another source of payment. Upon closing an account, an investor will have to pay individual income tax on income derived from transactions in the IIA.

In 2015, effective application of the investment tax deduction with IIA involved (Type A) was possible without using securities market instruments. Thus, an investor was able to conclude an IIA management agreement with an asset management company and invest all the funds in a bank deposit, while receiving an investment tax deduction. Since January 1, 2016, this investment option has no longer been available due to the changes to the Federal Law «On the Securities Market». Currently, an asset management company has the right to allocate funds in deposits in credit institutions, but their amount shall not exceed 15 % of the managed funds.

The investment tax deduction with IIA involved (Type B) is of profit to investors who pursue acquisition of shares, derivatives based on shares (structured products), and active speculative trade.

Short selling with IIA is impossible since the margin lending is not available. However, in this case, an investor may demonstrate a similar stance by purchas-

ing futures or put options in the context of using the investment tax deduction with IIA involved (Type B).

What concerns classification of IIA investors, the authors are in line with the classification proposed by M. Shabanov, who divides potential holders of IIA into 3 groups: current customers; investors managing their own assets, but not operating in the stock market; people unfamiliar with investment activities [1, p. 43]. M. Shabanov also presents recommendations for each group of IIA holders.

### **Foreign analogues of individual investment accounts**

Analogues of the IIA are quite common in other countries so its application in Russia is logical, reasonable and expected. Similar accounts have been used in developed countries since the 1970s. For example, there is IRA (Individual Retirement Accounts) in the US; in Australia, Superannuation; in the UK, ISA (Individual Saving Accounts); in Canada, TFSA (Tax-free Savings Accounts); and in Japan, NISA (Nippon Individual Saving Accounts). These accounts have similar preferential tax treatment for individuals. However, they were designed to address different objectives and to have different investment features. In addition, some of them are associated with pension savings, whereas others are not.

The US IRA was introduced in 1974; it was an individual retirement plan designed for people who do not participate in the corporate pension plans. The IRA gives to the US citizens tax advantages for pension savings investment. This type of investment account makes it possible to invest in a wide range of financial instruments, including fund units. There are six types of IRAs in the US: Traditional IRA, Roth IRA, SEP IRA, SIMPLE IRA, Roll-over IRA, Conduit IRA. They differ in the context of investment/taxation terms and conditions. IRA schemes cover about 50 million of the US households [2, p. 39].

The IRA legislation was designed to encourage new saving. Households can replenish IRA using three sources: transferring funds from a previous non-IRA

financial asset balance, transferring funds from a non-IRA savings account, which is implemented even in the absence of IRAs, and through decreased consumption. According to O. P. Attanasio, T. DeLeire (2002) «participation in the IRA program is simply an indicator of a high propensity to save and that participants would have saved the same amount without the tax incentives. If so, these tax incentives merely represent a transfer from taxpayers to savers» [3, p. 505].

Superannuation in Australia, introduced in 1992, is another type of investment retirement account. The superannuation model includes government-funded pensions, compulsory contributory superannuation savings, and voluntary superannuation savings. This superannuation model is designed to partly shift the burden of the senior population away from government and onto individuals, which implies self-funded retirement rather than public pension arrangements. Australian government also benefits from the taxation revenue that is collected from superannuation savings [4].

ISA (earlier – Personal Equity Plan) was introduced in Great Britain much later, in 1999. The ISA, unlike the IRA, is not associated with pension savings and ensures a wide range of investment types, including investment of funds in bank deposits. The ISA is not tax-deductible, and the revenue derived from contributions is not taxable when it is withdrawn. Two types of ISAs are currently available; those are cash, and shares. The cash type has more restrictions than the equity type. The typical ISA holder is male, belongs to the highest-income cohort, and is approaching retirement [5, p. 372].

ISA accounts are protected in the UK by the Deposit Guarantee System, but only partially – to the amount that is less than £85 000. The ISA program is available for young British citizens. Thus, the ISA is intended for individuals who have reached the age of 16. According to I. Krivosheyeva, the UK ISAs have accumulated around £400 billion [2, p. 39].

Canadian TFSA, which was introduced in 2009 as an analogue to the ISA,

is also a non-pension product. It provides a wide range of securities for investment and intended for citizens aged 18 or older. Capital gains and other investment income earned in a TFSA is not taxed, withdrawals are tax-free.

NISA accounts in Japan were designed by analogy with the English ISA and were introduced only recently – in 2014. These accounts are intended to promote the culture of public investment and encourage investment in stock market instruments. Particular emphasis is placed on the Junior NISAs for young people (of 20 years old); they were designed to be similar to the British Junior ISAs. Since the introduction of NISA (i.e. a year and a half period), Japanese citizens have opened more than 9 million accounts and have invested about \$43 billion via these accounts [6]. Japanese government is working on a scope of measures to reform NISA, including the simplification of the account opening procedure and the increase of maximum amount of annual investment up to \$10 000.

Thus, foreign IIA analogues are always concerned with tax allowances and imply either classic investment or pension-related investment. The Russian version of the IIA has comprised some features of the British ISA, including possibility of investing funds in bank deposits, which is due to be introduced in 2016, and some of the features of the Japanese NISA (in terms of the investment culture development). In our view, the UK practices may appear more useful because their ISA accounts have existed for a longer period of time.

### **Bonds as a dominant instrument for investing in individual investment accounts**

The current pressing economic conditions contribute to the increase in the yield of debt instruments and bring bonds to the foreground of investing that involves investment tax deductions. In a context of uncertainty, government bonds, as well as highly-rated corporate bonds, ensure that investors will obtain high and guaranteed returns. The other positive features of bonds include their being a simple and

transparent investment instrument. Consequently, plans for domestic issuance of both the government and corporate bonds in 2016 are extensive.

Government and municipal bonds currently have an advantage over corporate bonds because coupon payments on them are not subject to individual income tax. This advantage will soon (supposedly, from January 1, 2017) be eliminated (the relevant bill is currently being prepared), which is likely to cause a surge of interest in corporate bonds.

The yield of the government bonds index on the Moscow exchange (RGBI) as of January 15, 2016 amounted to 10,59 %, whereas the yield of the corporate bonds index (MICEXBICP) was 11,68 %. The deposit reference rate amounted to 11,2 %<sup>5</sup> in January 2016. Respectively, on July 1, 2016, the rates of similar indices decreased to 8,7 % and 10,35 %, while the deposit reference rate amounted to 10,7 % in July 2016. Thus, the rate of return on bonds is already comparable to returns on deposits. Obviously, it has to be taken into account that the rates of the indices are average values, and investors can purchase certain bonds with return much higher than the index.

The issuance of federal loan bonds with index-based par value (OFZ-IN) and the launch of exchange-traded bond programs that facilitate reissuance are the two major innovations of 2015 on the bond market that are contributing to the bond market development and increasing investors' interest.

If in the short-term investors are more interested in bonds, the expected fall of Russian companies' stock prices can lead to a significant inflow of investors' funds in the «cheap» stock market. The favorable changes such as transparency and predictability in the stock market will only promote this trend. Predominantly, this refers to the assignment of separate record dates to participation in the general meeting of shareholders and dividend payment, as well as the reduction of dividend payment

period, which was described in detail in the author's paper [7, pp. 117–119]. A possible decrease in Russian issuers' stock prices can stimulate the use of tax allowances for long-term holding of securities. Furthermore, it can contribute to increased dividend yield, which is currently low and on average amounted to 3,8 % and 5,3 % at year-end of 2013 and 2014, respectively, as regards Russian «blue chips» [8, p. 41].

### **Statistics related to opening individual investment accounts**

Today, it is impossible to give account of the statistical data regarding the utilization of the allowance for long-term holding of securities since the three-year investment period is still ongoing. However, the data on IIAs opened by brokers and asset management companies are available. It is provided by the Moscow Exchange and has been consolidated by the author in Table 2. Statistics related to opening and managing IIAs at year-end 2006 are presented in the paper [9, pp. 106–107].

The total number of accounts opened by citizens a year after the IIA introduction amounts to 88 907. This figure exceeds expectations of most of the experts and is 10% higher than the estimated figure presented by the author in 2015 [10, pp. 93]. As of June 1, 2016, the number of IIAs opened reaches 123 252. Thus, in 2016, the increase amounts to 38,6 %.

Sberbank, PJSC currently tops the list of trading participants with 24 525 IIAs opened by January 1, 2016 (27,6 % of the total number of IIAs), and 34 344 accounts opened by June 1, 2016 (27,9 % of the total number of IIAs). Sberbank, PJSC is followed closely by Finam, JSC, which leads the list of top investment companies in the IIA market (21 728 IIAs or 24,4 % of the total number of IIAs by January 1, 2016, 28 382 IIAs or 23 % of the total number of IIAs by June 1, 2016). Finam, JSC is followed by Otkrytiye Broker, JSC (13 752 IIAs or 15,5 % of the total number of IIAs, and 21 502 accounts or 17,4 % as of the corresponding dates) and Kompaniya BKS, LLC (14,315 IIAs or 16,1 % of the total number of IIAs; 18 077 accounts, 14,7 %). Six players in the market (includ-

<sup>5</sup> This refers to yield estimated in rubles for a period exceeding one year (according to the Bank of Russia).



ing the four above-mentioned companies with Aton, LLC and Alfa-Bank, JSC completing the list) «hold» 92,8 % of the entire IIA market. Thus, without regard to Sberbank, investment companies dominate the IIA market.

The second half of 2015 showed an increase in the IIS management agreements concluded. Thus, while in the first half of the year individuals opened 32 460 IIAs (36,5 % of the total number of IIAs opened in 2015), by the end of the second half of 2015, this figure had risen to 56 447. During the first five months of 2016 (January to May) a decline in individuals' investment activity (34 345 new accounts) was observed, which is obviously related to the economic crisis and decreased incomes.

It should be noted that a number of accounts is not active. Certain IIA holders had planned to replenish their accounts by the end of the first year but failed to do that due to the pressing economic conditions. According to the estimates of the Moscow Exchange, securities transactions

are recorded in 45 % of the IIAs and 75 % of the IIAs have monetary funds. G. Baranov provides similar data [11, p. 30]. A statistical of the IIA market at year-end 2015 was presented by the Bank of Russia. According to this review, the average account size (zero-balance accounts included) is approximately 57 000 rubles [12]. Thus, the current total assets of IIA market can be roughly estimated at 7,2 billion rubles. By the end of 2016, this indicator is expected to reach 12 billion rubles.

Further growth in the number and size of residual IIA balances can be assumed based on a vast amount of funds currently held in citizens' bank deposits (23 trillion rubles as of April 1, 2016).

#### Information support of individual investment accounts

IIAs are strongly supported by IIA market participants and the Moscow Exchange. There are several websites and information resources dedicated to IIAs, in particular:

Table 2

#### Moscow Exchange trading participants' ranking based on registered IIAs

Rank	Name of Trading Participant	Number of IIAs registered as of July 1, 2015	Number of IIAs registered as of January 1, 2016	Number of IIAs registered as of June 1, 2016
1	Sberbank, PAO	8 418	24 525	34 344
2	Finam, JSC	7 329	21 728	28 382
3	Otkrytiye Broker, JSC	7 699	13 752	21 502
4	Kompaniya BKS, LLC	3 072	14 315	18 077
5	Aton, LLC	2 103	4 963	6 236
6	Alfa-Bank, JSC	2 043	4 117	5 352
7	VTB 24, PAO	-	562	2 641
8	ALOR Plus Corporation, LLC	184	864	1 206
9	Promsvyazbank, PAO	231	823	1 171
10	IC ZERICH Capital Management, OJSC	273	610	825
11	KIT Finance Holding, LLC	225	526	763
12	Gazprombank, JSC	135	375	503
13	Surgutneftegazbank, CJSC	-	227	336
14	Investment Company IInvest, JSC	-	177	226
15	SOLID Asset Management Company, CJSC	103	144	153
	Other participants	645	1 199	1 535
	Total number of IIAs	32 460	88 907	123 252

This table is compiled by the author based on the data of the Moscow Exchange. Source: *Moscow Exchange. Ranking of trading participants according to the number of registered individual investment accounts*. Available at: <http://moex.com/ru/spot/members-rating.aspx?rid=125>.



- *инвестicum.pф* is website that provides general information on the IIS;

- *Catalogue of individual investment account providers in Russia* is an information catalog published by the *Securities Market journal*;

- detailed information on the IIS is provided on the Moscow Exchange website, on websites of the majority of investment companies, on *FinGramota.org* and other resources.

### Legislative innovations

Improvement of the IIS is currently being addressed at the level of legislation. The following changes regarding investing within the IIA have come into effect since January 1, 2016:

- an asset management company has the right to place funds in deposits of credit institutions in the amount that is less than 15 % of the managed funds;

- foreign securities can be purchased by the broker or asset administrator, but only on the Russian established securities markets.

These restrictions shall not apply to agreements concluded before January 1, 2016.

Individuals are currently able to open IIS remotely and engage in simplified customer identification of non-credit institutions through registration in the ESIA (a universal system for identification and authentication in Russia) and via *Gosuslugi.ru*.

In addition to the already adopted innovations, there is a whole scope of planned measures awaiting approval. This includes the following:

1. An extension of the fund limit of the IIA from 400 000 to 1 000 000 rubles per year. The amount of 400 000 rubles is obviously insufficient to build the initial efficient portfolio both for brokerage IIAs and for the IIA fiduciary management.

2. Establishment of a compensation insurance fund for IIA holders. The Ministry of Finance, the Bank of Russia, and NAUFOR have reached certain interim agreements in this regard. It is planned that the compensation fund will be established by brokerage and asset management companies without government

support. Compensations will be paid only in two cases: in case of withdrawal of customer's assets from accounts of a broker or an asset administrator, or in case a professional participant is not able to return customer's funds.

3. Inclusion of funded insurance on the list of the instruments available for the IIA is also being discussed.

4. Asset management companies are expecting to get a permission to allocate IIA funds in their own mutual funds units.

### Controversies in legislation

There are evident flaws and controversial issues in the legislation related to the system of investment tax deduction. They primarily extend to the IIA:

1. Current legislation specifies different starting dates for the IIA agreement expiry both for asset management companies and for brokers. For brokers, a three-year period starts upon the agreement conclusion, while for asset management companies: upon the receipt of funds, which creates unequal conditions for brokers and asset management companies.

2. Investment tax deductions are defined in the Tax Code without regard to the taxation of certain forms of income derived from securities. In particular, this relates to dividends and bond coupons. According to clause 2 of the Article 210 of the Tax Code, tax base for income derived from equity participation is to be formed separately from other incomes, to which the rate of 13% is applied. However, tax deductions specified in Articles 218–221 of the Tax Code do not apply to income derived from equity participation.

In our opinion, the taxable income on dividend payments and coupon payments should be calculated with regard to the implementation of investment tax deductions.

3. Currently, dividends and coupon payments cannot be charged to the IIA. For investors, it is possible only when using a regular brokerage account, which is irrational. The Central Bank of the Russian Federation has not published any official commentaries on this issue yet.

In our view, the requirement to deposit funds that do not exceed 400 000 ru-

bles applies only to funds transferred by the customer to a brokerage firm or an asset management company under the IIA management agreement. Thus, funds received as a result of income distributions on securities accounted in the IIA should be posted to this account without restrictions. A prerequisite for this is that the IIS is not replenished through customer's account, but through the account of an issuer, a depository or an agent.

4. The expedience of investing of the IIA funds in bank deposits is also debatable. We believe that there is no need to stimulate citizens' investments in bank deposits, and this opportunity should be eliminated. However, the opportunity to invest in bank deposits should be maintained in case that future IIAs will be involved in pension coverage.

Some flaws related to granting individual tax deductions are expected, predictable, and avoidable, so they can be eliminated, eventually. Foreign practices show that the UK spent more than 10 years improving concessional taxation scheme under the ISA.

There is an evident contradiction in the legislation related to taxation of securities transactions. The system of investment tax deductions, the taxation procedure for coupons on government and corporate bonds, as well as plans to make corporate bond coupons exempt from individual income tax reveal an intention to encourage investing in domestic securities market. However, the individual tax rate on dividends has been raised from 9 % to 13 % since 2015, which is the cause of reduction of the actual dividend yield by 4,4 % [8, p. 43]. In other words, today we are witnessing certain contradictions and inconsistency in promotion of citizens' investing in securities.

#### **Discussion regarding the development and significance of individual investment accounts**

Development of the IIA in Russian market is associated with two questions:

1. Can the IIA change the current brokerage business model?

Currently brokers are focused on customer's sales volume, irrespective of the

market's growth or decline or customer's financial result. There is a point that rapid development of the IIA can cause reorientation of brokers to incomes that depend on the growth of customers' assets. In our view, such scenario is unlikely to occur in the near future, since the number of IIAs, even among the leading brokers, is insignificant (Table 1), and profit on transactions employing IIAs is significantly lower than that on regular brokerage transactions. However, following the market development, we might see such outcome in future.

2. Will the IIA be able to become a popular financial instrument and encourage individuals' investments in Russian securities?

Most authors are cautiously optimistic about the introduction of the IIA in Russia. For instance, Y.V. Lakhno considers that «a significant increase in new active individual investors should not be expected, since people who were waiting for the introduction of this innovation, tried to utilize it right after the law came into force» [13, p. 12]. P. K. Levin believes that «it is too early to expect a massive influx of IIA investors» [14, p. 385]. According to I. Krivosheyeva, «these accounts may act as a major channel for the inflow of private investments into the national economy» [2, p. 38]. M. Vasin states that «introduction of the IIA is definitely a step in the right direction, even though the practical measures were partly undermined by a number of constraints» [15, p. 37]. The Catalogue of individual investment accounts providers in Russia, 2015 calls the first six months of the IIA on the market «moderately optimistic» [16, p. 7].

The authors consider the IIA highly promising and effective from the standpoint of all market participants and deems important to define the mechanism of IIA application in the Russian Federation. If the IIA can ensure that investors increase their gains, this will enable the issuers to have more successful public offerings, as well as the support of the secondary market. Infrastructure entities and intermediaries can also benefit from the growing customers' sales volume.

The estimated amounts of funds in the IIA have reached 7 billion rubles. Given the daily turnover of the Moscow Exchange's stock market of about 1 trillion rubles, the amount of funds in the IIA may contribute to the turnover increase for Russian securities. This can also facilitate the organization of IPOs and new floats of corporate bonds.

### Conclusion

Thus, we can draw a number of conclusions:

1. Inherently, the investment tax deduction appears to be special tax treatment applied to a special (with a number of restrictions) brokerage account.

2. Binding IIAs to non-state pension coverage is unlikely to be accomplished due to uncertainties and controversies in the pension legislation of the Russian Federation.

3. Investment tax deductions are an effective mechanism to encourage citizens to invest in securities and provide investment opportunities for citizens looking for an alternative to deposits, while not having sufficient funds to invest in real estate.

4. Within the framework of the investment tax deductions system, the IIA is the most attractive opportunity, because it enables investors to apply both the conservative and speculative investment strategies.

5. Among all financial instruments, bonds are currently the most attractive instrument for conservative investors with regard to investment tax deductions due to their high yield and a wide range of instruments the bond segment has to offer.

6. The statistics regarding opening IIAs over a period of 2015 and five months of 2016 exceeds experts' expectations and

now gives grounds for optimistic forecast for development.

7. The legislation contains a number of controversies related to investment tax deductions. Elimination of these controversies will enhance the activity of investors and intermediaries.

8. Further development of the investment tax deduction system depends largely on the current geo-political situation and market conditions. Another important factor is the elaboration of government policy, designed to encourage the population to save money, as well as to stimulate involvement of savings in the economic turnover through an open market mechanism.

Lack of awareness among the Russian population regarding the IIA feasibility is another important factor. According to the National Agency for Financial Studies, 27 % of citizens are not aware of IIA's features, while 19 % are willing to give preference to IIA in case the terms become more favorable compared to the deposit<sup>6</sup>.

Investors who use investment tax deductions require qualified assistance, which could be provided by financial advisors. Therefore, the growth of this institution and investigations related to it are likely to follow.

Apparently, the subject of this study provides vast opportunities for further research that could involve the analysis of foreign practices and their effectiveness, assessment of the correlation between the number of opened IIAs and the revitalization of the Russian stock market, estimation of the stimulating effect of the investment tax deductions, and others.

<sup>6</sup> National Agency for Financial Studies. *The Individual investment account: knowledge and attitude*. Available at: <http://nacfin.ru/individualnyj-investicionnyj-schet-znanie-i-otnoshenie/>.

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# Экономико-математические модели налоговых реформ

## Econometric models of tax reforms

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### EVALUATION OF TAX BURDEN ADMISSIBILITY IN THE CRIMEA AND SEVASTOPOL

**ABSTRACT.** This paper deal with problem of formation tax burden at the regional level with the consent terms interests of the budget and taxpayers. The objective of this study is to estimate admissibility level of tax burden for economic entities of Crimea republic and Sevastopol city in transition period. Theoretical and methodological base of the research was the concept of the Laffer curve. Accordance with classification Russian regions by natural-resource potential we developed author's model of evaluation influence of tax burden on gross regional product (GRP). With model based on linear non-uniform production function. Marginal allowable values of tax burden in Crimea, Sevastopol and in the Russian regions with a similar natural-resource potential – the Krasnodar and Kamchatka regions – are calculated through the author's model. Based on received results it has been revealed that the level of tax burden in Crimea republic and Sevastopol during the occurrence of these territories to the Russian Federation a bit more, than in the Russian regions. Also it was found that tax burden in Crimea and Sevastopol in 2015 exceeds marginal allowable value from the perspective of GRP. The determined laws are explained by process of full reorganization economy of the territory of Crimean Federal District during transition under jurisdiction of the Russian Federation and, as a result, obviously low values of taxable base in comparison with the Russian regions. In process of implementation of investment projects in these regions, including integration of their economies in economic space of Russia, tax potential of areas will grow due to expansion of a production activity operating enterprises and the emergence of new enterprises. Therefore, in the long term it is possible to expect that the level of tax burden, which formed in Crimea and Sevastopol in connection with transition to the Russian tax standards, will be feasible for economic entities of these regions.

**KEYWORDS.** Concept of the Laffer curve, permissible tax burden, gross regional product, natural-resource potential, econometric modeling, production functions, fiscal indicators, fiscal eligibility, Free Economic Zone.

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### ОЦЕНКА ДОПУСТИМОСТИ НАЛОГОВОЙ НАГРУЗКИ НА ЭКОНОМИКУ КРЫМА И СЕВАСТОПОЛЯ

**АННОТАЦИЯ.** В статье исследуется проблема формирования налоговой нагрузки на региональном уровне в условиях согласования интересов бюджета и налогоплательщиков. Цель статьи – оценить допустимость сложившегося в переходный период уровня налоговой нагрузки в республике Крым и г. Севастополе для хозяйствующих субъектов. Методологией исследования выступает концепция кривой Лаффера. На основе классификации российских регионов



по природно-ресурсному потенциалу разработана авторская модель оценки влияния налоговой нагрузки на валовой региональный продукт (ВРП), базирующаяся на линейной неоднородной производственной функции. С помощью указанной модели рассчитаны предельно-допустимые значения налоговой нагрузки в республике Крым, г. Севастополе и в российских регионах со схожим природно-ресурсным потенциалом — Краснодарском и Камчатском краях. На базе полученных результатов было выявлено, что уровень налоговой нагрузки в Крыму и г. Севастополе в период присоединения рассматриваемых территорий к Российской Федерации на порядок выше, чем в российских регионах. Также было установлено, что налоговая нагрузка в Крыму и Севастополе в 2015 г. превышает свое предельно-допустимое значение с позиции ВРП. Установленные закономерности объясняются процессом полной перестройки экономики территории Крымского федерального округа в период перехода под юрисдикцию РФ и, как следствие, заведомо низкими значениями налогооблагаемой базы по сравнению с российскими регионами. По мере реализации инвестиционных проектов в рассматриваемых регионах, включая интегрирование их экономик в экономическое пространство России, налоговый потенциал территорий будет расти за счет расширения производственной деятельности действующих и создания новых предприятий. Следовательно, в перспективе можно ожидать, что уровень налоговой нагрузки, сформировавшийся в Крыму и г. Севастополе в связи с переходом к российским налоговым стандартам, окажется посылным для производителей данных регионов.

**КЛЮЧЕВЫЕ СЛОВА.** Концепция кривой Лаффера, допустимая налоговая нагрузка, валовой региональный продукт (ВРП), природно-ресурсный потенциал, эконометрическое моделирование, производственные функции, фискальные индикаторы, фискальная терпимость, свободная экономическая зона.

### Introduction

On March 21, 2014 the President of Russia V. Putin has signed the Federal constitutional law no 6-FCL about inclusion Republic of Crimea and Sevastopol city in structure of the Russian Federation and education on their basis of the 84<sup>th</sup> and 85<sup>th</sup> territorial subjects of federation. In 2014 in these territories was determined the transition period when all tax relations were governed by the regional legislation<sup>1</sup>. The Russian tax law has been enacted since January 1, 2015 according to the Tax Code of the Russian Federation (TC RF)<sup>2</sup>.

Due to the integration of tax systems of these territories in the tax system of

Russian Federation and use of transitional provisions on application of the tax legislation by the Russian option there is a need of evaluation of the level of tax burden in these regions from a position of its acceptability for economic entities.

I. A. Mayburov notes, that it is traditionally approved about high tax burden of the producer, however weight of real tax burden on the consumer isn't considered, but, eventually, upon purchase of production and services he should pay the vast majority of taxes: as indirect taxes, which have initially been addressed to him, and direct taxes, which addressee initially was absolutely other than him [1, p. 19].

We understand the regional tax burden (RTB) as the relation volume of the tax payments, which come to the consolidated budget of the Russian Federation from the territory of the concrete region for the certain period, to GRP of this region made for the same period [2, p. 19]. In this case the taxes and fees paid both the organizations and individuals are among tax payments. GRP, as we know, is also formed not only at the expense of profit of legal entities, but also at the expense of the income of natural persons. Therefore in this research it is

<sup>1</sup> The federal law of the Russian Federation from 29.11.2014 no. 377-FL «About development of the Crimean Federal District and Free Economic Zone in territories of the Republic of Crimea and the Federal City of Sevastopol»: federal law: [it is accepted State Duma RF on 21.11.2014: an edition from 31.12.2014]. Available at: [http://www.consultant.ru/document/cons\\_doc\\_law\\_171495](http://www.consultant.ru/document/cons_doc_law_171495).

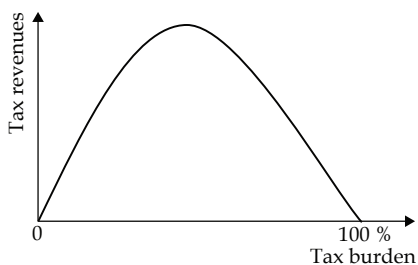
<sup>2</sup> The Tax Code of the Russian Federation: federal law: [it is accepted State Duma RF on 16.07.1998: as of February 2015]. Available at: [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_28165](http://www.consultant.ru/document/cons_doc_LAW_28165).



expediently to speak about admissibility of level of tax burden for all economic entities (producers and consumers).

### The extent of the problem

Methodological base of the research were the concept of the Laffer curve, which shows relationship between the tax revenues and the tax burden (the aggregate average tax rate).



**Fig. 1. The graphic image of the Laffer curve**

Source: [3, p. 189]

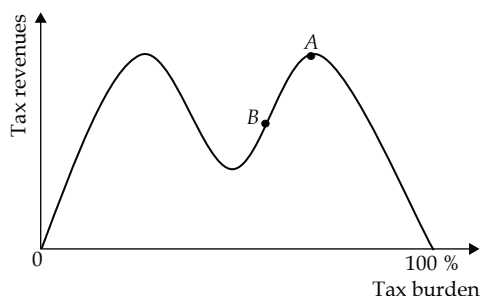
The Figure 1 is a graphic illustration of the concept of the Laffer Curve. At a tax burden of 0 %, however, the government would collect no tax revenues, no matter how large the tax base. Likewise, at a tax burden of 100 %, the government would also collect no tax revenues because no one would be willing to work for an after-tax wage of zero – there would be no tax base. Between these two extremes there are two tax burdens that will collect the same amount of revenue: A high tax burden on a small tax base and a low tax burden on a large tax base. [4, p. 2].

The maximum point of the bell-shaped dependence reflects the amount of the tax burden, whereby tax revenues to the budget maximum.

Currently, the Laffer curve is also widely used to establish the correlation of tax burden and economic growth. It is assumed there is a certain level of tax burden, above which economic growth is replaced by recession.

D. Henderson believes that the Laffer curve has a more complicated form. Tax rate cut would not necessarily cause people to work more. If people use the higher take-home pay that they get as the result of a tax rate cut (from point A to point B

in fig. 2) to have more leisure by working less. Tax base would decrease and tax revenues could fall proportionately more than tax burden.



**Fig. 2. The graphic image of the Laffer curve**

Source: [5, p. 46]

A. Laffer excludes this possibility, arguing that the decrease in government services induced by the tax cut lowers people's real income and thus lowers their demand for leisure exactly as much as the increase in real income raises their demand for leisure. But to make his claim, he must assume, as he admits, that people spend their increased real income on goods that they value neither more nor less than the goods that the government would have bought with their money. On this basis, more complex view of the Laffer curve [5, p. 47].

Russell S. Sobel, Z. Becsi, Hugo Miguel de Oliveira Cruz Pinto de Abreu, A. Trandafir, P. Brezeanu cite various options for the shape of the Laffer [6–9].

Different models of the Laffer curve are represented in the economic literature. The most common of them in domestic practice research proposed by Russian scientists and representatives of the Georgian school of Economics, are given in table 1.

Note that Western scientists are also actively developing and testing the model tools within the concept of the Laffer curve. And, as a result quantity is considered not only total tax revenues but also the tax revenues for certain taxes: income taxes, labor taxes, property taxes, etc. The model includes a large number of factors that represent tools to the broad theoretical possibilities and the most widespread in foreign practice, are presented in table 2.

Table 1

The Laffer curve model, common in the Russian practice

Author	The time of model creation	Model view
V. G. Papava	1996–2001	$Y = -Y_0 \ln T;$ $Q = -TY_0 \ln T,$ where $Y$ – is the output (volume of gross domestic product (GRP)); $Q$ – is the tax revenues; $T$ – is the tax burden
G. G. Loladze	2002	$Y = -Y_0 e^{\gamma t} T^\delta \ln T;$ $Q = -Y_0 e^{\gamma t} T^{\delta+1} \ln T,$ where $t$ – is the time period (year); $\delta$ and $\gamma$ – are the evaluated parameters
Y. S. Ananiashvili	2009	$Y = -Y_{pot} e T^\delta \ln T^\delta;$ $Y/Y_{pot} = 1 - \lambda(u - u^*);$ $Q = -Y_{pot} e T^{\delta+1} \ln T^\delta,$ where $Y_{pot}$ – is the potential GDP; $u$ and $u^*$ – are the actual and natural unemployment rates; $\delta$ and $\lambda$ – are the evaluated parameters
E. V. Balatsky	2011	$Y = mT + nT^2,$ where $n$ и $m$ – are the evaluated parameters

Source: [10, p. 39–40]

Table 2

The Laffer curve model, common in the international practice

Author	The time of model creation	Model view
<i>To calculate the total tax revenue in the budget</i>		
M. Trabandt, H. Uhlig	2011	$T_t = \tau^c c_t + \tau^l w_t n_t + \tau^k (d_t - \delta) k_{t-1},$ where $T$ – is the tax revenues; $\tau^c$ – is the consumption tax rate; $\tau^l$ – is the labor tax rate; $\tau^k$ – is the capital tax rate; $c$ – is the consumption; $w$ – is the household receives wages; $n$ – is the hours worked; $d$ – is the dividends; $k$ – is the capital; $\delta$ – is the annual depreciation rate of capital; $t$ – is the time period (year) [11, p. 307].
	2012	$T = [\tau^c c / y + \tau^l (1 - \theta) / \omega + \tau^k (\theta - \delta k / y + \phi (1 - \theta) (\omega - 1) / \omega)] y,$ where $T$ – is the tax revenues; $\tau^c$ – is the consumption tax rate; $\tau^l$ – is the labor tax rate; $\tau^k$ – is the capital tax rate; $y$ – GDP; $c$ – is the consumption; $k$ – is the capital; $\theta$ – is the capital share in production; $\omega$ – is the gross markup; $\delta$ – is the annual depreciation rate of capital; $\phi$ – is the share of profits subject to capital taxes [12, p. 9].
<i>To calculate the revenues for certain taxes</i>		
Charles L. Ballard, Don Fullerton, John B. Shoven, John Whalley	1985	$\partial T / \partial t = wL[1 + \partial L / \partial \tau^k t / L + \partial w / \partial \tau^k t / w],$ where $T$ – is the gross labor income tax revenue, $t$ – is the gross labor income tax rate, $L$ – is the labor, $w$ – is the wages [3, p. 193]
Hugo Miguel de Oliveira, Cruz Pinto de Abreu i, Elísio Fernando Moreira Brandão ii, Samuel Cruz Alves Pereira	2014	$PTREV = \beta_0 + \beta_1 WPTRATE + \beta_2 PP + \beta_3 UNEMP + \beta_4 REL + \beta_5 AREVAL + \beta_6 YEAR,$ where $PTREV$ – is the property tax revenue; $WPTRATE$ – is the weighted property tax rate; $PP$ – is the purchasing power; $UNEMP$ – is the unemployment rate; $REL$ – is the amount of real estate loans; $AREVAL$ – is the average real estate value; $YEAR$ – is the time period; $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ – are the evaluated parameters [8, p. 15]
P. Yakovlev, K. Nur-Tegin	2015	$CIT = \alpha + CIT_{rate}^2 + CIT_{rate} + GDP + u + v + \varepsilon,$ where $CIT$ – is the corporate income tax revenue; $CIT_{rate}$ – is the corporate income tax rate; $u, v$ – are the fixed effects to control for omitted factors; $\varepsilon$ – random disturbance [13, p. 11]

Despite the variety of models, so far there is no effective assessment tools points of the Laffer for the sub-Federal level, which would take into account the specifics of economic development of Russian regions.

The above suggests us to create an econometric model to assess the permissibility of tax burden in subjects of the Russian Federation.

### Modeling the Impact of Taxes on Economic Growth with Regional Resource Potential

At present the most widely applicable in the Russian practice of economic studies the impact of tax burden on economic growth is the static three-factor model proposed by Balatsky [14, p. 89].

$$Y = \gamma DL^{(a+bT)T} K^{(c+dT)T}; \quad (1)$$

$$Q = \gamma TDL^{(a+bT)T} K^{(c+dT)T}, \quad (2)$$

where  $Y$  – is the output (volume of gross domestic product (GDP)) (million rubles);  $Q$  – is the tax revenues (amount of taxes, fees, and other mandatory payments to the consolidated budget of the Russian Federation) (million rubles);  $K$  – is the capital (volume of fixed assets in the economy) (million rubles);  $L$  – is the labor (number of employed workers in the economy) (thousand persons);  $T$  – is the tax burden (%);  $D$  – is the trend operator (function, time-dependent  $t$ );  $\gamma$ ,  $a$ ,  $b$ ,  $c$  and  $d$  – are the parameters evaluated statistically based on retrospective time series.

However this model has a number of disadvantages revealed by us among which there is a complexity of calculations, lack of the accounting of regional specifics, mathematical inaccuracies and rather small model scope [10, pp. 146–147].

Therefore, in systematizing the most widespread of the production functions in the economic literature and determining the range of application for each of them, we propose to use a non-homogeneous linear three-factor production function as the basis of our model to explain the interaction of the tax burden and GRP.

Using the classification of natural resources by origin of A. A. Mintz, we have

divided regions of Russia into the territories with rich mineral resources, land (soil) resources, forest (wood) resources, water (river) resources and water biological resources [15, p. 777].

In the simulation function of output for each group of regions the factor of a certain type of natural resources is as necessary as the factors of labor and capital.

The impact of the other factors is expressed through the productivity of the three abovementioned resources and remains quite stable for long periods of time.

Therefore for each group of regions the indicator acts as the third factor of model: for the regions rich with mineral resources – the gross value of the mineral resource base, for land regions – the area of agricultural land, for forest regions – the total timber, for water regions – the annual river flow, for the regions most provided with water biological resources – the volume of production of water biological resources.

The Autonomous Republic of Crimea is classified as a land region. Make of the total area of lands of the republic about 71 % is farmlands from which 97 % are the share of agricultural grounds. This fact testifies to the high level of familiarity of lands.

The Federal City of Sevastopol traditionally was the largest center of the fishing and fish processing industry of Ukraine. Within decades Sevastopol for 70 % provided the market of Ukraine with fish resources. Now Sevastopol still remains the leader in volumes of production of water biological resources in the Azov-black sea basin [16].

Thus, our proposed model of the impact of the tax burden on GRP for Republic of Crimea is as follows [10, p. 124]:

$$Y_r = (a + bT_r)T_r L_r + (c + dT_r)T_r K_r + (m + nT_r)T_r G_r + B; \quad (3)$$

$$Q_r = (a + bT_r)T_r^2 L_r + (c + dT_r)T_r^2 K_r + (m + nT_r)T_r^2 G_r + BT_r, \quad (4)$$

where  $Y_r$  – is the output (volume of GRP) (million rubles);  $Q_r$  – is the tax revenues (amount of taxes, fees, and other mandatory payments to the consolidated budget

of the Russian Federation from the territory of a particular region) (million rubles);  $K_r$  – is the capital (volume of fixed assets in the regional economy) (million rubles);  $L_r$  – is the labor (number of employed workers in the regional economy) (thousand persons);  $G_r$  – is the land resources (area of agricultural land) (thousand hectares);  $T_r$  – is the RTB (%);  $a, b, c, d, m, n, B$  – are the parameters evaluated statistically based on retrospective time series.

Author’s model for Sevastopol city is as follows:

$$Y_r = (a + bT_r)T_rL_r + (c + dT_r)T_rK_r + (m + nT_r)T_rBi_r + B; \tag{5}$$

$$Q_r = (a + bT_r)T_r^2L_r + (c + dT_r)T_r^2K_r + (m + nT_r)T_r^2Bi_r + BT_r, \tag{6}$$

where  $Bi_r$  – is the water biological resources (the volume of production of water biological resources).

In assessing the impact of the tax burden on economic growth, our main task is to determine the Laffer points (fiscal indicators).

The Laffer point of the first kind refers to the limit of the tax burden in which the economy doesn’t enter recession, but also isn’t characterized by growth. This point is considered marginal permissible tax burden in relation to GRP.

The formula for calculating the Laffer point of the first kind of Function (3) has the form [10, p. 125]:

$$T^* = \frac{aL_r + cK_r + G_r}{2(bL_r + dK_r + nG_r)}. \tag{7}$$

The Laffer point of the second kind indicates the amount of the tax burden, beyond which not only volume of GRP, but also the value of tax revenue begins to decline. This fiscal indicator Function (4) is determined by the following formula [10, p. 126]:

$$T^{**} = \pm \frac{\sqrt{(aL_r + cK_r + mG_r)^2 - 3(bL_r + dK_r + nG_r)B} - (aL_r + cK_r + mG_r)}{3(bL_r + dK_r + nG_r)}. \tag{8}$$

The Laffer point of the second kind is the maximum point from two fixed points, calculated in accordance with Eq. (8).

Similarly, we determine the Laffer point for the models (5)–(6).

### Evaluation of influence of tax burden on GRP of the Crimea and Sevastopol

Dependence (3)–(4) and (5)–(6), constructed for economies Crimea and Sevastopol on an interval of 2003–2015 are adequate to data as take all main statistical tests.

Dynamics of fiscal indicators in Crimea’s and Sevastopol’s economies for 2003–2015 is shown in Fig. 3–4.

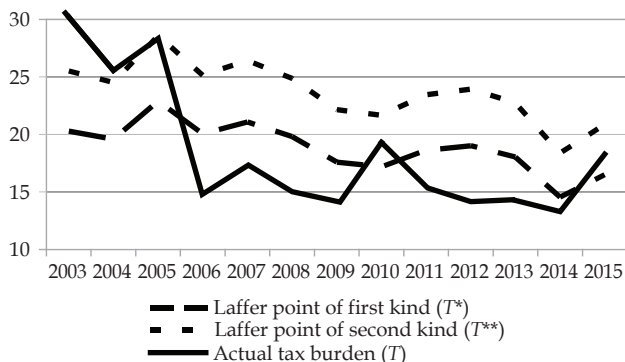
In our opinion, influence of tax burden of economy is shown through four main regularities: the gap size between Laffer points («fiscal gap»); the stability of Laffer points; the dynamics of Laffer points; the relative position of fiscal indicators (Laffer points and actual tax burden).

Table 3

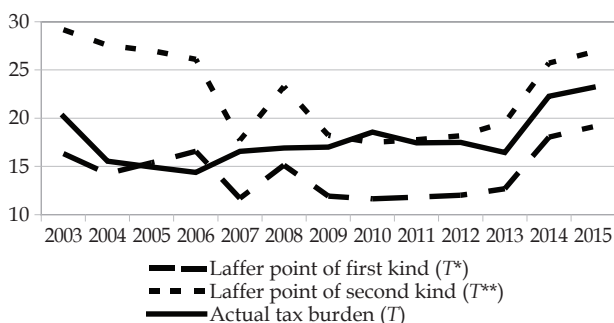
#### Parameters of the econometric models for economies Crimea and Sevastopol on an interval of 2003–2015

Regions	Activities	a	b	c	d	m	n	B
Crimea	Value of a quantity	-386,61	2 326,87	4,58	-19,39	176,72	-961,80	-4 116,22
	t-statistics	-0,69	0,59	1,47	-1,18	0,56	-0,51	-0,26
	Statistical parameters	$R^2 = 0,955; F = 21,90; DW = 1,00; E = 6,31; N = 14$						
Sevastopol	Value of a quantity	508,93	-2 512,44	-1,85	0,77	-0,53	3,08	1 136,39
	t-statistics	2,75	-2,54	-0,38	0,03	-2,92	3,03	0,82
	Statistical parameters	$R^2 = 0,900; F = 9,02; DW = 2,39; E = 2,43; N = 14$						

Calculated by the author based on the data of the Federal tax service of the Russian Federation, the Federal state statistics service of the Russian Federation, the State fiscal service of Ukraine, the Federal state statistics service in the Republic of Crimea.



**Fig. 3. Dynamics of fiscal indicators in Crimea's economy for 2003–2015**



**Fig. 4. Dynamics of fiscal indicators in Sevastopol's economy for 2003–2015**

From results of calculations clear, that «fiscal gap» between Laffer points for economy of Crimea was equal to about 4,85 %, for economy of Sevastopol – 8,31 %, at the same time Laffer point of the second kind all the time was significantly higher than Laffer point of the first kind. Substantially it means that at essential increase of level of tax burden in these regions, undoubtedly, the serious blow to growth rates of GRP will be struck, but the budgetary tax income in a short-term outlook all the same will increase. Reduction of the tax income of the budget will happen after several years.

It should be noted that in the studied regions high instability of Laffer points was observed. So, values of the Laffer point of the first kind, calculated for economy of Crimea, lie in the range 14,55–22,89 % (for economy of Sevastopol – in the range of 11,64–19,10 %), that corresponds to a variation of 8,34 % (for Sevastopol – 7,46 %), and values of

Laffer point of the second kind – in the range of 18,38–28,60 % (for Sevastopol – in the range of 17,49–29,17 %), that corresponds to a variation of 10,22 % (for Sevastopol – 11,68%). At the same time values of the actual tax burden covered wider area – 13,29–30,22 % (for Sevastopol – 14,38–23,20 %), that corresponds to a variation of 16,93 % (for Sevastopol – 8,82 %). From here the habitual construction of an economic mechanism follows: the state at implementation of a tax policy is guided by behavior of economic entities.

For economy of Crimea Republic is well looked through a tendency of a gradual reduction of Laffer points (on average for 4 %). It demonstrates decrease in fiscal eligibility of economic entities of the region against simultaneous reduction of «reliability» of tax revenues from the territory of the Crimea. Laffer points calculated for Sevastopol's economy have no stable dynamics.



The fiscal eligibility in this paper is understood as the level of tax withdrawals expected by economic entities and feasible for them now.

It is necessary to pay attention, that a relative position of fiscal indicators in Crimea Republic during the analyzed period was different. So, for example, in 2003–2004 the actual tax burden exceeded Laffer point of the second kind, reducing the tax income of the consolidated budget of the country. In 2005, 2010, 2015 the actual tax burden settled down between Laffer points, containing growth of GRP. In the rest of the time the actual tax burden was placed below Laffer point of the first kind, exerting the stimulating impact on production in the region.

The actual tax burden in Sevastopol had the general tendency to increase and during almost all studied time interval settled down between Laffer points, exerting negative impact on business activity of economic subjects.

In Fig. 1 and 2 it is visible, that the tax burden of Crimea Republic and Sevastopol City significantly has increased and has exceeded the marginal permissible tax burden in relation to GRP (Laffer point of the first kind) by 2015.

### **Interpretation of the received results**

As A. I. Pogorletsky notes, the level of tax burden in Russia corresponds to the average for the Organization for Economic Cooperation and Development (OECD) countries or is even lower, except the taxation of raw material sectors of the economy. In addition, Russian practice of tax administration is most remarkable for its simplicity, benevolence to taxpayers, and efficiency from the point of view of the guarantee of tax revenues to the budgets of different levels [17, p. 22].

Therefore, we have bases to hope for rather painless and rapid adaptation of economic subjects of the Crimea and Sevastopol to the Russian tax climate.

However the results of calculations presented in Fig. 1–2 show us that the taxpayers of the peninsula rather hardly is given transition to tax standards of Russia. Despite all difficulties and variety of the

held events for integration into the Russian tax system, from the territory of the Crimean Federal District (CFD) in 2014–2015 receipts of taxes and fees in regional and local budgets in the planned volumes with average rates of a gain about 30 % a year have been provided.

So, in 2015 receipts on the main budget forming payments have made: on personal income tax (PIT) – 8 billion 693 million rubles, on excises – 2 billion 416 million rubles, on income tax of the organizations – 1 billion 412 million rubles [18, p. 61].

It once again confirms our conclusions as tax burden in this regions doesn't exceed Laffer point of the second kind in 2015, tax revenues in the consolidated budget continue to increase.

According to the Federal law of the Russian Federation from 11.09.2014 no. 377-FL in the territory of CFD has been created the Free Economic Zone (FEZ) assuming the preferential mode of implementation of business and other activity, and also application of a customs procedure of a free customs area.

So, the entrepreneurs wishing to base business in the Crimea or Sevastopol will have the next 25 years an opportunity to use a wide range of advantages of the special tax modes. The status of the peninsula «Free Economic Zone» will last till 2040.

According to the legislation of Russia for the CFD are provided two types of tax and fee benefits: the benefits provided to participants of a free zone and the general benefits for all commercial economic subjects which are carrying out activity in the territory of FEZ.

The preferential mode of the taxation within FEZ for all economic entities assumes: reduction of a tax rate for patent system of the taxation to the level of 1 % at simultaneous change of the sizes of the potentially possible income (PPI) for calculation of cost of the patent; fixing of a rate for uniform agricultural tax (UAT) at the level of 0,5 %; decrease of a rates for the simplified system of the taxation (SST) to 3 % at application of object of the taxation «income» and to 7% at application of object of the taxation «the income reduced by expenses» [19, p. 2].



In addition, taxpayers of the Crimea are exempted from sanctions for violation of an order of registration of the control and cash equipment (CCE) in 2014.

The lowered rates of income tax of the organizations for participants of FEZ are also established: in the federal budget – 0 percent, in the regional budget – 2 percent – within 3 years, 6 percent – with 4th on the 8th year, 13,5 percent – since the 9th year; side tax benefits on the property tax of the organizations are entered. Besides, transport tax, land tax and property tax of natural persons taxpayers of the Republic of Crimea and Sevastopol will pay for the first time only in 2016 [19, p. 3].

Tax benefits for participants of FEZ of the Crimea and Sevastopol are given in Fig. 5.

It should be noted, that the rate on a VAT making in Ukraine 20 % in the Crimea and Sevastopol is replaced with the Russian rate equal of 18 %. A situation with a PIT for taxpayers of the Crimea in general favorable. In Russia the base rate of the PIT makes 13 %, for dividends – 13 %, for prizes and winnings, and also material benefit on loans – 35 %, for nonresidents – 30 %. In Ukraine PIT rates following: 15 % are applied in a case when the income size for reporting month doesn't exceed the tenfold size of

the minimum wage established for the beginning of financial year, 17 % – for the size of the income exceeding tenfold size of the minimum wage a month, 10 % – for certain professions, 5 % – for dividends. For citizens of the Crimea taxes on the income have decreased to the Russian 13 %, but for certain groups of natural persons who got by the Ukrainian legislation under «preferential» taxation to 10%, this rate upon has increased [21, p. 113–114].

However, despite the preferential mode of the taxation, taxpayers should give as taxes more so far, than they are capable to earn.

Most likely, unfeasible for economic entities tax burden in the Crimea, first of all, is connected with process of full reorganization of economies of the territory during transition under jurisdiction of the Russian Federation. The settled business connections have collapsed here quickly while the new relations are created slowly and hard. The first the Ukrainian and foreign banks, the IT companies, branches of international firms began to leave the Crimea. Have stopped or reduced to a minimum of investment from many countries of the world. Because of sanctions on the peninsula work of the international payment service providers, services of the Internet has stopped.

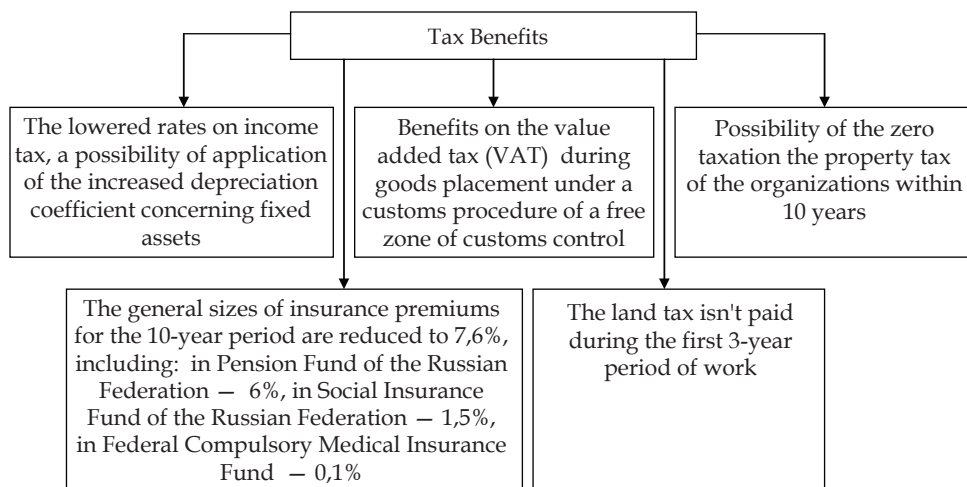


Fig. 5. Tax benefits for participants of FEZ of the Crimea and Sevastopol

Source: [20, p. 339]

Because of risk of blocking of trucks the Ukrainian food began to replace with the Russian analogs. Today the share of the Ukrainian production on counters of shops of the Crimea doesn't exceed 30 %.

Transfer of freights in the Sevastopol port has fallen to a minimum. Following the results of 2013 the Sevastopol port has processed 4,8 million tons of freights. For the first half of 2015 – about 100 thousand tons.

For the sphere of tourism also not the best times now. The number of tourists are much less, than at the time of the Ukrainian jurisdiction. It is caused by absence of through transport connection with Russia [22].

Increase of level of tax burden in the analyzed regions, in our opinion, is connected as well with effective work of tax authorities. Now in the territory of CFD the regional tax authorities which administer of earlier operating taxpayers and tax authorities of the Federal Tax Service (FTS) of Russia which according to the Tax Code of the Russian Federation exercise control of taxpayers, records about whom are entered in the Unified State Register of Legal Entities (USRLE) and the Unified State Register of Individual Entrepreneurs (USRIE), in parallel function [23, p. 8].

In addition, from 2015 in the territory of Crimea and Sevastopol were introduced new taxes, which in the tax laws of these territories didn't exist before, namely in the mineral extraction

tax (MET), special tax modes (unified imputed income tax (UIIT), the patent system of taxation), transport tax, tax on gambling (completely absent in Ukraine since 2009), property tax of the organizations.

**The comparative analysis  
of admissibility of level of tax burden  
in the Crimea and Sevastopol  
and in the Russian regions  
with a similar natural-resource potential**

We carried out the comparative analysis of level of tax burden in the considered subjects with tax burden of the Russian regions having similar natural -resource potential.

So, Krasnodar region is a largest producer of agricultural production in the Russian Federation. The most part of the territory of the region – 4708,1 thousand hectares (63,0 %) in 2015 occupy farmlands. Proceeding from it, it is expedient to make an assessment of tax burden in these territorial on the basis of model (3)–(4).

Kamchatka region during 7 years is the leader in production of water biological resources not only in the Far East, but also in the Russian Federation. Moreover, the region is the leader on production of fish production. In 2015 about 982 thousand tons of water biological resources have been caught and more than 850 thousand tons of fish production has been made. Therefore for evaluation of tax burden it is correct to use model (5)–(6).

Table 4

**Parameters of the econometric models for economies  
Krasnodar and Kamchatka regions on an interval of 2003–2015**

Regions	Activities	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>m</i>	<i>n</i>	<i>B</i>
Krasnodar region	Value of a quantity	-1 573,59	9 515,85	1,43	3,33	1 006,07	-6 645,53	117 613,19
	<i>t</i> -statistics	-0,48	0,53	0,37	0,11	0,60	-0,68	0,70
	Statistical parameters	$R^2 = 0,960; F = 23,81; DW = 2,06; E = 4,46; N = 14$						
Kamchatka region	Value of a quantity	-60 371,36	349 344,08	350,08	-1 765,12	3 712,75	-19 573,15	-257 987,09
	<i>t</i> -statistics	-3,30	3,91	3,87	-3,80	1,30	-1,06	-0,69
	Statistical parameters	$R^2 = 0,947; F = 17,75; DW = 2,31; E = 12,95; N = 14$						

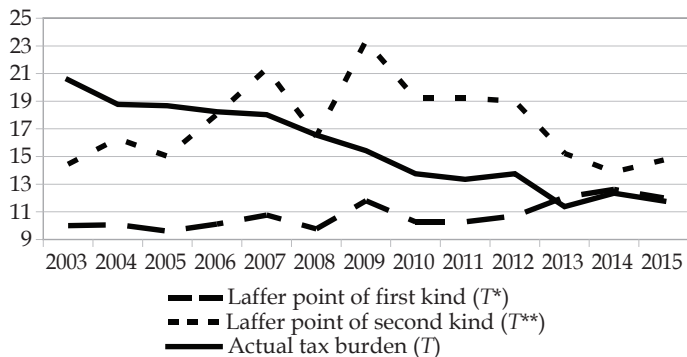


Fig. 6. Dynamics of fiscal indicators in economy of Krasnodar region for 2003–2015

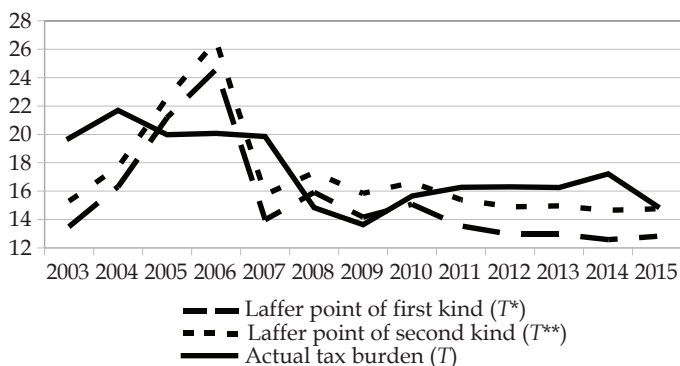


Fig. 7. Dynamics of fiscal indicators in economy of Kamchatka region for 2003–2015

The constructed dependences (3)–(4) and (5)–(6) for economies of the Krasnodar and Kamchatka regions on an interval of 2003–2015 are adequate to data as take all main statistical tests.

Dynamics of fiscal indicators in Krasnodar and Kamchatka regions for 2003–2015 is shown in Fig. 6–7.

Table 5

Values of fiscal indicators of the analyzed regions in 2015

Regions	Actual tax burden, %	Laffer point of the first kind, %
Crimea	18,29	16,50
Sevastopol	23,10	19,10
Krasnodar region	11,78	12,01
Kamchatka region	14,93	12,83

Based on comparison of values of the fiscal indicators in 2015 presented

in table 3 we have drawn the following conclusions:

First, values of the actual tax burden in Crimea and Sevastopol is much more , than in the Krasnodar and Kamchatka regions.

Secondly, in Krasnodar region the level of tax burden quite favorable for development of economy (the actual tax burden is slightly lower than Laffer point of the first kind). Liberal taxation here is connected with the agricultural orientation of economy of the region and numerous tax benefits established for agricultural producers.

Thirdly, the level of tax burden in Kamchatka region and Crimea Republic attracts reduction of GRP (the actual tax burden here exceeds Laffer point of the first kind approximately for 2 %).

Fourthly, the level of tax burden in Sevastopol City of 4 % exceeds marginal

allowable value that indicates huge pressure on economic entities from tax authorities.

High values of tax burden in new territorial subjects of the Russian Federation in comparison with values of this indicator in the Krasnodar and Kamchatka regions are explained by lack of tax potential of these territories.

So, for example, on some branches of economy on a share of the profitable organizations the economy of the peninsula of Crimea lags behind from the average Russian indicators. It belongs, first of all, to the industry, including processing branches, production and distribution of the electric power, gas and water, and also a hotel and restaurant complex of the Crimea. In this connection values of potential tax base on income tax of the organizations in comparison with other regions of the Russian Federation are low [24, p. 26].

It is necessary to pay special attention that in the Republic of Crimea and Sevastopol City lag on salary level from the average Russian level approximately by one and a half times is observed. The size of the average monthly nominal added salary in 2015 in the Republic of Crimea has made 22 464 rubles, and in Sevastopol – 24 187 rubles at the average level of a salary across the Russian Federation – 34 012 rubles. Besides, in labor market of the peninsula the part-time employment is observed: at 110 enterprises of the studied territory (the number of staff – 22 462 people), 5 491 persons (24,4 %) work in the mode of a part-time employment, from them there are 313 people (1,4 %) in holiday without preservation of a salary. Therefore the size of potential tax base on PIT in the Crimea and Sevastopol obviously below, than in other Russian regions.

For many years dominations of the Ukrainian power infrastructure, industrial, recreational and tourist complexes of the Crimea or fell into decay, or were implemented extensively without any exact strategy. Thus, at this moment the condition of economies of new subjects of the Russian Federation cardinally differs

from the all-Russian level, and elimination of this imbalance will demand a lot of work.

In addition, general structure of tax income of the budget of Crimea differs from other regions of the Russian Federation markedly. The main tax revenues are the PIT making 55 % of all income, excises – 15 % and the property tax of the organizations – 14 %. In revenues of the budget of Crimea income tax of the organizations makes only 9 % whereas in other regions it is the main profitable source of budgets [18, p. 64].

Also you shouldn't forget that tax burden in the price of goods in Ukraine traditionally was lower, than in Russia. Yu. B. Ivanov explains it with the level of social and economic development of society. So, during the periods of crises transposition of taxes on end users is complicated, and the taxpayer evades from payment by leaving in a shadow. During crisis manufacturing taxpayers of Ukraine choose alternative option – leaving in a shadow because of impossibility of transposition of the most part of taxes on consumers owing to their low purchasing power and falling of a standard of living [25, p. 81; 26]. Respectively, for many years a certain fiscal eligibility at economic entities of Ukraine was created. This level of fiscal eligibility obviously lower, than at the Russian taxpayers. Therefore during this period of time it is rather difficult for them to adapt to the new level of tax burden.

#### **Perspective Development Directions within FEZ in the Republic of Crimea and Sevastopol City**

The main sectors of the Republic of Crimea and Sevastopol are industry, agriculture and tourism. Opportunities of special economic zone lie in the development and enhancing the competitiveness of traditional industries, as well as in the emergence of new ones.

Quite promising is the development of enterprises of food industry. The emergence of vast domestic market due to accession of the peninsula is a stimulus for development of wine production. At the

same time due to remoteness of the region from the rest of Russia and the associated logistics costs, the possibility of the development of the food industry on a number of products is temporarily restricted by the internal needs of Crimea. Agriculture is a promising direction for residents of the special economic zone, as a source of raw materials for the food industry and one of the key export sectors. Chemical industry (inorganic chemistry accounts for 11 % of Crimean exports) and engineering (mainly shipbuilding – 12,5 % of exports) are rather perspective [27, p. 28].

Regarding innovative industries, the opportunities of Crimea are very low. Lack of necessary staff, educational institutions, and remoteness from the rest of the country make investments in these sectors highly risky and with long payback. Development of cargo ports is also unpromising due to lack of proper volumes of freight traffic, presence of major ports on the «mainland».

By virtue of natural and geographical conditions, touristic and recreational sector is one of the most perspectives in Crimea. In the peninsula there are many sanatoriums and hotels, but the service remained at low level. Solving geopolitical problems will help to attract not only Russian, but also foreign tourists.

In the territory of the Crimea there are great opportunities for development of networks of restaurants, amusement parks. In addition, passenger transportations by the motor transport will be in demand (taxi, bus). In view of risks of termination of air transportation to Crimea, due to possible sanctions, as well as high tickets prices, emergence of local air carrier is quite reasonable.

FEZ creation is intended to mitigate the effects of negative factors, such as reduction of volumes of domestic and foreign trade, reduction of a flow of tourists, increase in prices for food, deterioration in level of banking services and difficulties in attraction of credit resources, and also idle times in production owing to need of a re-registration of the organizations.

## **Conclusion**

In work the main features of tax burden in the Crimea and Sevastopol during adaptation to the Russian tax system are shown. In general it is possible to claim that the level of tax burden in the analyzed subjects above marginal allowable value. Despite the preferential mode of the taxation, the enterprises of regions lack means for continuation and furthermore for expansion of the activity. The share of the earned income of economic entities which is subject to withdrawal in a type of tax for them is so high now.

It is a consequence of reorganization of Crimea's economy during transition to structure of the Russian Federation, introduction of new taxes according to the TC RF, effective administration of taxes by federal and territorial tax authorities.

In comparison with the Russian regions having the similar resource potential and, as a result, a similar main orientation of economy, the level of tax burden here is higher on average for 7–8 % here.

This divergence is connected with the insignificant tax potential of the Republic of Crimea and Sevastopol City, features of structure of the tax revenues of their budgets, and also with the level of fiscal eligibility of economic subjects, lower in comparison with the Russian regions.

Summing up the result of the conducted research, we will note that as further development of economy of the Crimea and Sevastopol and their transformation from subsidized regions into regions – donors of the federal budget is planned, public authorities need to think of the provision of economic subjects of these territories already now and to aim at creations of new productions and workplaces, at attraction of investments. Besides, it is necessary to accustom the Crimean taxpayers to pay taxes, i.e. to form tax culture among businessmen and the population. It will allow regions to acquire the tax potential and to increase a share of own sources of financing besides the help from the federal center. Thus, the strong base for implementation of tax contributions to budgets of all levels will be built.



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1. Статья, представляемая для публикации, должна обладать новизной, быть самостоятельным, завершенным, характеризующимся внутренним единством исследованием актуальной проблемы, связанной с налоговыми реформами на международном и национальном уровнях.

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- актуальность темы исследования;
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- не используйте слишком сложные слова (словосочетания, в которых приводится больше трех слов, чаще всего можно разбить на несколько ключевых слов (обработка и анализ данных — обработка данных, анализ данных)); слова в кавычках (ОАО «Иркутскэнерго» — Иркутскэнерго); слова с запятыми (факторы, определяющие качество — факторы качества, определение качества);

- каждое ключевое слово — это самостоятельный элемент. Ключевые слова должны иметь собственное значение (человеческий капитал, его оценка — человеческий капитал, оценка человеческого капитала).

**Рекомендации по оформлению ссылок на использованную литературу**

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2. Ссылки на использованную литературу приводятся в тексте в квадратных скобках с указанием в них номера источника по Списку использованной литературы и страницы цитируемого фрагмента, напр.: [5, с. 115].

3. В оригинальной научной статье необходимо упоминание не менее 20–30 источников, имеющих автора, в научном обзоре — 50–80, в том числе не менее 50 % источников на иностранном языке. Редакционная коллегия рекомендует цитировать статьи из журналов, которые индексируются в международных базах данных (Scopus, Web of Science).

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**2. Статьи из сборников научных трудов и материалов конференции:**

Быков С. С. Противодействие уклонению от уплаты налогов: функция, принцип и вектор развития системы российского налогового права / С. С. Быков // Влияние финансово-правовых и иных публично-правовых институтов на инновационное развитие России : материалы Всерос. науч.-практ. конф., г. Иркутск, 20–21 сент. 2013 г. / отв. ред. : Н. В. Васильева, С. В. Праскова. — Иркутск : Ин-т законодательства и правовой информации им. М. М. Сперанского, 2014. — С. 58–87.

**3. Монографии, учебники, учебные пособия:**

Варналий З. С. Экономическая безопасность Украины: проблемы и приоритеты укрепления / З. С. Варналий, Д. Д. Буркальцева, А. С. Саенко. — Киев : Знание Украины, 2011. — 299 с.

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4. Диссертации, авторефераты диссертаций:

Киреенко А. П. Трансформация налоговой системы в условиях усиления взаимодействия с предпринимательской средой: теория и практика : дис. ... д-ра экон. наук : 08.00.10 / А. П. Киреенко. — Иркутск, 2005. — 329 с.

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Асанкин Р. ФНС впервые дотянулась до бенефициаров офшоров в Голландии [Электронный ресурс] / Р. Асанкин, А. Штыкина. — Режим доступа : <http://top.rbc.ru/business/19/12/2014/549302429a79476f5cfde7b3> (дата обращения: 14.02.2015).

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УДК 351.71:004

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**ДИНАМИКА РАЗВИТИЯ НАЛОГОВОЙ СИСТЕМЫ  
И НАЛОГОВОГО АДМИНИСТРИРОВАНИЯ  
В РОССИЙСКОЙ ФЕДЕРАЦИИ**

**АННОТАЦИЯ.** В условиях глобализации национальных экономик использование информационно-коммуникационных технологий в государственном менеджменте является одним из наиболее важных элементов эффективного государственного управления, механизмом реализации которого выступает электронное правительство. В настоящее время требуется углубленный анализ существенных характеристик электронного правительства и входящего в него электронного государственного управления налогообложением (электронного налогообложения) и его прикладных аспектов на основе опыта информационно-развитых стран — поэтому данное исследование является весьма актуальным. В статье проводится анализ развития электронного правительства стран мира на основе наиболее авторитетных международных оценок: технологической зрелости государств в сфере электронного правительства по индексу развития электронного правительства и готовности стран к сетевому будущему по индексу сетевой готовности. Проанализированы данные показатели по странам мира, а также государств на постсоветском пространстве. Отмечена высокая позиция Эстонии в мировом рейтинге и первое место в международном рейтинге по развитию технологии электронного правительства среди бывших республик Советского Союза. Исследовано современное состояние электронного государственного управления налогообложением Эстонии, раскрыта его практическая значимость, обоснованы преимущества использования информационных и коммуникационных технологий в налоговой сфере. Акцентировано, что построение в Эстонии одной из лучших прогрессивных моделей электронного правительства Европы удалось благодаря государственной поддержке и выделению развития информационно-коммуникационных технологий в разряд первоочередных задач правительства и общества. Учитывая существование информационного и телекоммуникационного разрыва между государствами, очевидна необходимость исследования сильных сторон в сфере электронного налогообложения для обоснования налоговой политики и стратегии развития стран.

**КЛЮЧЕВЫЕ СЛОВА.** Электронное правительство; индекс сетевой готовности; электронное налогообложение; информационно-коммуникационные технологии; налогово-таможенный департамент; налоговые услуги.

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**INTRODUCTION OF E-MANAGEMENT INTO PRACTICE  
OF TAX ADMINISTRATION**

**ABSTRACT.** In the context of globalization of national economies the use of information and communication technologies in the state management is one of the key elements of effective state management, where the e-government acts as an implementation mechanism. At present, there is a need of an in-depth analysis of the essential characteristics of the e-government including its electronic state taxation administration (e-taxation) and its applied aspects on the basis of the informationally developed countries' experiences, therefore this study is rather topical. The article analyzes development of the e-government worldwide based on the most authoritative international estimations: technological maturity of the states in the area of the e-government according to the E-Government Development Index and readiness of the states for the networked future in regard of the Networked Readiness Index. It gives an analysis of these

indicators throughout the countries of the world, as well as the countries in the post-Soviet space. Estonia's top position in the world rating and its 1st place in the international rating in e-government technology development among the former states of the Soviet Union has been highlighted. The current state of the e-state management of tax administration in Estonia has been investigated, its practical significance has been revealed, and the benefits of using information and communication technologies in the area of taxation have been substantiated. Attention is drawn to the fact that construction of one of the best models of advanced e-government in Europe took pace in no other country but Estonia due to the government support and inclusion of the ICT developments in the category of the government and society's top priorities. Given the existing information and communication gap between different states, there is a clear need for research of the e-taxation advantages to justify specific tax policies and national development strategies.

**KEYWORDS.** e-government; Networked Readiness Index; e-taxation; information and communication technologies; tax and customs department; tax services.

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<sup>1</sup> The Global Information Technology Report 2012 // World Economic Forum 2012. URL : [http://www3.weforum.org/docs/Global\\_IT\\_Report\\_2012.pdf](http://www3.weforum.org/docs/Global_IT_Report_2012.pdf).

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1. The article submitted for publication must contain novelty, must be an independent, complete and internally united research work on a current issue, related to tax reform at international and national levels.
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  - relevance of the research;
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  - proposed research methods and their originality;
  - analysis of the study findings;
  - main conclusions, the results of the research and further discussion of them, or the problem solution.
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  - indent – 1,25;
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  - abstract in Russian and English;
  - 5–10 key words in Russian and English;
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  - the article should have reference notes given in square brackets provided according to the references.
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An Abstract is a source of information on your paper's content and findings.

1. An Abstract has the following functions:
  - allows readers to identify the basic concept of your paper as well as its relevance and decide if the full text paper is of interest to them;
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  - be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.
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3. In the original scientific paper must be not less than 20–30 references, in the scientific review — 50–80 references. The Editorial Board recommends to cite papers indexing in international databases (Scopus, Web of Science).

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