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- 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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# Administrative and managerial issues of tax reforms

## Административно-управленческие проблемы налоговых реформ

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### ETYMOLOGY OF SOME TERMS IN THE TAX SPHERE: A VARIANT OF SYSTEM PERSPECTIVE

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#### ABSTRACT

The article deals with one of the permanently relevant research problems: the establishment of an integrated conceptual and categorical framework in the subject area. The purpose of the study is to propose a systemic approach to the definition of tax terms in the context of overly dynamic public systems. Research Objectives: review of Russian and foreign literary sources in subject areas (tax administration, pedagogy, IT), study of the basics of etymological analysis; a description of the system benchmark as a basis for terminology structures development; defining some taxation-related and general terms with the use of benchmarks; analysis of the results. The main methods of the study were: system analysis, a combination of historical and logical methods; synthesis. The existing definitions of the terms from different sources were formulated by the authors in the context of the genetic, homeostatic, hierarchical, target-based, functional, organizational, procedural, innovative system representations (the analysis was performed), and then authors' own interpretations were suggested (synthesis). That is, the authors propose a model for the development of specific definitions of a category, as well as its integral definition. This key provides the definitions for tax planning, tax risk, tax management, Web 2.0, and personal learning environment. Thus, the model allows the formation of different definitions based on the researcher's goal. The findings of the study showed that it is necessary to find new approaches and methods for the development of etymology of terms in the context of modern technologies. Namely, the inclusion in the conceptual apparatus of a subject-related scientific area of such definitions such as techno-economic paradigm, technological paradigm, National Technology Initiative

#### KEYWORDS

Etymology, tax planning, tax risk, tax management, Web 2.0, personal learning environment, technological paradigm

#### HIGHLIGHTS

1. The conceptual apparatus of the subject area is influenced by technical/technological changes which are inherent in the information society
2. In today's rapidly changing overly complicated world it is important that the formation of definitions of taxation terms is performed in a systematic manner, with the use of one or another terminological structure
3. The updating of taxation terms which is going on now is due not only to the clarification of the economic and legal nature of tax terms but also to the inclusion into their contents of such aspects as personnel, information and technology

## **ЭТИМОЛОГИЯ НЕКОТОРЫХ ТЕРМИНОВ В СФЕРЕ НАЛОГООБЛОЖЕНИЯ: ВАРИАНТ СИСТЕМНОГО ПОДХОДА**

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### **АННОТАЦИЯ**

В статье рассматривается одна из неизменно актуальных научных проблем – формирование комплексного понятийно-категориального аппарата в предметной области. Цель исследования – предложить один из вариантов системного подхода к определению терминов в сфере налогообложения в условиях сверхдинамичных общественных систем. Задачи исследования: обзор российских и зарубежных литературных источников в предметных областях (управление налогообложением, педагогика, информационные технологии), изучение основ этимологического анализа; описание системного эталона, как базы формирования терминологических конструкций; определение с помощью эталона некоторых налоговых и общих терминов; анализ полученных результатов. Основными методами исследования явились системный анализ, сочетание исторического и логического методов; обобщение. Имеющиеся определения терминов из различных источников структурированы авторами в разрезе системных представлений – генетического, гомеостатического, иерархического, целевого, функционального, организационного, процедурного, инновационного (проведен их анализ), а затем предложены собственные трактовки (осуществлен синтез). Предложена модель конструирования частных определений той или иной категории, а также ее интегральной дефиниции. Даны определения «налогового планирования», «налогового риска», «налогового менеджмента», «Веб 2.0», «персональная учебная среда». Предложенная модель позволяет формировать разноплановые дефиниции с учетом того или иного целеполагания исследователя. Полученные в результате исследования выводы показали необходимость поиска новых подходов и методов к формированию этимологии терминов в контексте развития современных технологий. А именно, включению в понятийный аппарат предметной научной области таких дефиниций, как технико-экономическая парадигма, технологический уклад, национальная технологическая инициатива

### **КЛЮЧЕВЫЕ СЛОВА**

Этимология, налоговое планирование, налоговый риск, налоговый менеджмент, Веб 2.0, персональная учебная среда, технологический уклад

### **ОСНОВНЫЕ ПОЛОЖЕНИЯ**

1. На понятийный аппарат в предметной области влияют изменения технико-технологического характера, присущие информационному обществу
2. В быстроменяющемся сверхсложном мире при формировании налоговых дефиниций важно подходить системно, применяя ту или иную терминологическую конструкцию
3. Актуализация налоговых терминов связана не только с уточнением экономической и правовой природы, но и включением в их содержание таких аспектов как кадры, информация, технологии

### Introduction

Terminological confusion or terminology maze is a topic for constant discussion among scientists in different academic fields. It is accepted that such a discussion is the expression of private views based on the knowledge and experience of a researcher, as well as on their inner world, in respect of a particular term. But another approach to the evolution of the terminology apparatus has become more important nowadays, and that is the need to develop a set of vocabulary structures that define not only the area of knowledge but also the external environment that plays a crucial role for any basic category. The current situation in the world means that information and telecommunication technologies are the priority areas for social development and that they fundamentally change the economic, political, moral and other foundations, the mentality of individuals, groups and society as a whole. Therefore, if we refer to the subject area of this article, i. e., taxation, the valuable outcome is not only the updating of the existing tax terms and the elaboration of new categories, but also their inclusion in the conceptual and categorical system of terminology that characterizes scientific and technological progress in the modern society.

The goal of the research is the development of a structural solution for the formation of both specific definitions in taxation sphere and definitions for related terms which together form the foundation for the understanding of the sphere of taxation in the context of digital economics development. In order to achieve this goal, we perform the following research. First of all, the existing theoretical and practical developments in respect of etymology in tax sphere are analysed. Secondly, a methodological solution developed by the authors is suggested, which is based on system approach and takes into consideration various cross-sections of taxation as a complex system. Thirdly, this solution is tested in the actualization of certain tax terms (tax planning, tax risk, tax management), as well as of such definitions which are important for any sphere, e. g.,

Web 2.0, Personal Learning Environment. Fourthly, conclusions and suggestions are issued in respect of further improvement of the special conceptual framework in the context of the advanced technological paradigm.

### Literature review

It is not only the academics studying economics who examine the issues involved in tax planning, tax risk and tax management, but also practitioners. The first tend to cover tax administration issues at both macro and micro levels (for example, I. A. Mayburov, Yu. B. Ivanov, L. I. Goncharenko, V. G. Panskov, M. R. Pinskaya [1], E. S. Vylkova [2]). These studies, first of all, refer to methodological approaches of systemic nature. Practical aspects are examined in the works by A. V. Bryzgalin [3], D. N. Tikhonov and L. G. Lipnik [4], which deal only with taxpayers and their ability to legally reduce the tax burden, as well as the risks involved. The administration of taxation at the state level is reflected in the studies of F. F. Khanafeyev and O. A. Mironova [1].

Foreign sources of information are mainly focused on tax planning in business. For example, a work in the sphere of accounting [5] shows the impact of the effective tax rate reflected in GAAP on the tax burden of an organization. Tax planning as part of the financial management of an economic entity is described in the study [6]. The problems of managing tax procedures through offshore financial centres are analyzed in other studies [7; 8]. The tax risks in the economic security system of an organization have been quite profoundly analyzed by Ukrainian scholars: their studies present the specificity of this type of risk and outline some approaches to tax burden estimation [9]. Tax planning issues and related risks are the subject of another research [10]. It reflects the specifics of oil industry enterprises.

C. Lavermicocca and J. Buchan showed the impact of reputation risk on tax administration in an organization [11]. And the assessment of the efficiency of tax administration was generally given by other scholars [12].



Due to the fact that any subject matter is related to human resources, their qualitative characteristics and now also to the progressive technologies, we will briefly outline the current state of affairs in these areas. It should be noted that we did not manage to find any studies in this area directly related to taxation. As a rule, they are linked, respectively, to pedagogics and information technology. We will describe some of them. An empirical study of the factors determining the demand for life-long learning from the perspective of the people who would like to learn is given in the work of B. Sabrià-Bernadó., X. Llinàs-Audet and S. Isus [13].

The opportunities of professional communications through the social services of Web 2.0 are shown by J. Rodríguez Terceño, J. E. González Vallés and D. Caldevilla Domínguez [14], S. L. Alam, J. Campbell and R. Lucas [15], and the general trajectory of the transition to artificial intelligence and, accordingly, to Web 3.0 are described by B. Piñeiro Torres and A. García González [16].

It should be noted that the above brief review of literary sources provided an opportunity for the authors to start developing some approaches for the wording of individual definitions of taxes and related nature.

#### **Research methods: etymology system analysis**

In 2004, V. N. Toporov, the renowned Soviet and Russian linguist, RAS academician, wrote: "It is difficult to say to which extent the "traditional principles" of etymology include going to non-linguistic areas... Etymology is based on a theoretical framework which, in the comparative historical linguistics as such, is currently facing fairly serious criticism or is defined in accordance with the new views ... Arguments for replacement of the old method of comparison of individual isolated elements by the comparison of the whole bundles of elements which make up a system are becoming increasingly more persuasive..." [17]. He further highlighted a weekly-structured problem of what etymology will become like in the future, and

tried to outline some ways to answer this question.

He regards etymology as a combination of the analysis tools taken from phonetics, word formation, lexicology and other disciplines in order to solve the problem of the origin of the word, and the combination of these tools does not remain the same in different cases. However, attempts to take into consideration the elements of structural approach result in the determination of the coordinates of different systems (phonological, derivative, lexical, etc.). The intersection of these coordinates creates a word or word formation and defines their subsequent development.

Can etymology be structural, and can it use structural analysis techniques? In his answer to this question, V. N. Toporov shows that structural linguistics continues its expansion to numerous new areas which are very far from its origins [17]. This is why a scholar of etymology must decide on the exact area of the research, determining the configuration of the problems in accordance with the requirements of structural linguistics, as well as the techniques of analysis that should be used. Three findings, important for modern scholars, follow this point:

- structural approach to etymology is fundamentally acceptable, and the reason for its application is that each new word arises at the intersection of a number of systems, as a clot in a particular language field<sup>1</sup>;
- the traditional understanding of the tasks of etymology still disregards, almost completely, the systemic approach to the facts of the language;

<sup>1</sup> The rationale for the structural approach to etymology lies in the fact that a new word arises at the intersection of a number of systems, being something a sort of a hub in a particular language field. Based on one word (phrase), it is difficult to come to a conclusion about the systems that gave rise to that word; it is easier to analyze that if several related words are available. Therefore, in the future, etymology should increasingly focus not on isolated words, but on the arguments that pertain to different systems: semantic, word-formative, lexical, etc. The extent of the structural development of the etymology statements will depend on the progress of the structural methods in each of these areas.

– if etymology at least indirectly deals with facts that reflect systemic relationships, then formalization and the use of precise methods are possible, including for the solution of challenging tasks of simulating real-life phenomena or processes<sup>2</sup>.

With the use of these approaches in the area of taxation, it is practical to present the etymology of terms from systemic positions<sup>3</sup>. It is therefore proposed to examine structural etymological developments as a complex system. Given the characteristics of the overall tax process, it is possible to display such a system in the form of a verbal model ( $M$ ) which outlines the general conceptual framework of taxation:

$$M = \{VS\}, \{[SP], \{OP\}\} = \{af, as, ae, ap\}, \\ \{[pg, py, ps, pd, pf, po, pp, pn], \{OP\}\},$$

where  $VS$  – External environment and its aspects ( $ai$ );  $SP$  – semantic part and its system presentation ( $pi$ );  $OP$  – supporting part (subsystems, scientific and practical tools).

The system is studied in retrospect and in the dynamics, is open, reflexive and polyhierarchical.

The external impact of the system requires the development of a business strategy (doctrine) aimed at adapting to the external environment, and such adaptation is needed to maintain the system's sustainable development within a specified period of time. There are four universally-meaningful aspects characterizing the external environment: philosophical ( $af$ ), social-political ( $as$ ), economic ( $ae$ ), legal ( $ap$ ). The level of their understanding determines the building of the semantic part of the model, i. e., its systemic concepts. We will give only a brief description of them, because a detailed description is present in the research [18].

Genetic ( $pg$ ): formation of fundamental attitudes, judgments and terms ac-

<sup>2</sup> The essence of such models is based on indicating which questions should be answered in order to consider the etymology data on a word necessary and sufficient.

<sup>3</sup> For the purposes of this article, the term "etymology" refers to the method of research used in identifying the history of the origin of words or phrases and the result of such identification.

cepted and shared by the scientific community in the taxation area (paradigm). Target-based ( $pd$ ): goal-setting, development of a doctrine which is primarily aimed at adaptation to the conditions of the external environment. Homeostatic ( $py$ ) – maintenance of the dynamic equilibrium and sustainability of the tax system. Hierarchical ( $ps$ ) – structuring of the tax administration system from different points of view. Functional ( $pf$ ) – a set of features (functions) performed by the participants of the tax relationship. Organizational ( $po$ ) – pooling of resources in order to implement target installations. Procedural ( $pp$ ) – algorithmization, modelling of actions and procedures in accordance with the law. Innovation ( $pn$ ): the use of innovations, generation of new ideas, attitudes and approaches in today's environment. The sequence of theoretical thinking on a complex system is approximately as follows: paradigm – doctrine (goals) – homeostasis – functions – resources – algorithms – innovation – paradigm. The first presentation forms the current paradigm, the next six ones reveal the system's functioning, and the last one closes the whole chain, providing the transition to the new paradigm.

The existing theoretic developments in taxation and related fields, scientific and practical techniques and methods, modern technology and web services all shape the model in the form of subsystems and scientific and practical instruments. The supporting part ( $OP$ ) can be presented as follows:

$$OP = \{OP1, OP2, OP3\} = \\ = \{ob, ko\}, \{no, io, mo, to\}, \{si, pi\},$$

where  $OP1$  – support within genetic representation;  $OP2$  – support for the functioning of the system;  $OP3$  – support in the framework of innovation;  $ob$  – educational resources;  $ko$  – personnel support;  $no$  – legal and regulatory support;  $io$  – information support;  $mo$  – technical support;  $to$  – technology support;  $si$  – scientific theories, methods and techniques of research;  $pi$  – practical tools.

Thus, the proposed structural etymological structure, as a complex system,

makes it possible, through analysis and synthesis techniques, to interpret a definition, propose new structures depending on the objective to be achieved, integrate specific definitions into generic ones, and take into account the importance of some systemic perceptions. The universal nature of this method makes it possible to use it for the formation of a conceptual apparatus to be used for a professional area or in legislative activity. In essence, it is a model for etymological analysis, a system sample (benchmark) for the modelling tax objects and systems.

However, there are currently two interrelated cognitive crises – the crisis of social sciences/economic science and the management crisis [19]. They are related to the description (theory) without solutions and to the availability of recommendations without descriptions (theories). The inconsistencies of the quantitative methods and the quality of the decisions taken lead to a cognitive gap. The situation becomes even more difficult when we are dealing with overly complicated and extremely fast systems. The economic reality is so various and dynamic that the research of this area does not keep up with its development. Therefore, in the future this model requires revision and continuous refinement.

#### **Applied etymology-related aspects in the sphere of taxation**

Etymological study of some terms have been performed by the authors of the article by the traditional methods for simple systems and/or based on the proposed system pattern for complex and overly complex systems<sup>4</sup>. The first group includes the term “tax planning”, while the second includes tax risk, tax administration (tax management), Web 2.0 and personal learning environment.

<sup>4</sup> A *complex system* is a system consisting of many interacting representations (subsystems), and due to this fact it acquires new properties that are not present at the subsystem level and cannot be reduced to the properties of one representation. An *overly complicated system* is a system fully open to technological, economic, social, institutional and other innovations aimed at ensuring its sustainable equilibrium and development in an overly complicated and constantly changing world.

The following are only some general approaches and final results of etymology studies. The method used to conduct each of the studies is presented, in sufficient detail, in the works of the authors [18; 20–22].

**The term “Tax Planning (TP)”**. The TP system is defined as simple and uses etymology methods and models of classical and neoclassical theories. The etymological study of the system is based on the traditional approach: identification and analysis of various definitions of the concept under consideration, the generalization of these definitions, the author’s vision of private interpretations of the term TP, the synthesis of private interpretations and, on its basis, obtaining of the author’s result for the phrase Tax Planning (within the specified scientific theories).

Six of the most distinctive approaches to the definition of “tax planning” have been identified. The following are the results of interpretations of tax planning based on the authors’ understanding.

1. Tax planning is the activity of an economic entity aimed at increasing profits and cash flow.

2. Tax planning at the level of an economic entity is a part of the management of its financial and economic activities within its general strategy.

3. Tax planning is a legitimate way to avoid paying taxes based on the use of statutory benefits and the methods of tax liabilities reduction.

4. Tax planning means active and informed taxpayer actions aimed at reducing tax payments (contributions), with due account for any risks and negative consequences.

5. Tax planning means taxpayer’s active efforts to optimize taxation, taking into account the possible risks and negative consequences.

6. Tax planning is part of the managerial activity of the economic entity as part of its economic development strategy and tactics.

To sum up the above and integrate the generally accepted explanations, the following definition was originally proposed: “Tax planning provides legitimate means of optimizing the taxation of an

economic subject, taking into account the strategy and tactics of its economic development". The definition was further modernized to take into account the technological peculiarities of modern society and has taken the following form:

"Tax planning is the legitimate means of optimizing the taxation of an economic entity with due account for the strategy and tactics of its economic development, with the use of traditional methods and techniques, as well as modern technologies, specialized Internet resources and Web services".

**The term "tax risk (TR)".** The TR system is defined as complex. Its etymological study was performed with the use of the traditional approach combined with the proposed system pattern. The algorithm here is as follows: first, an analysis is made of the existing interpretations of the term under review from the point of view of systemic presentation. Such approaches are then synthesized into new specific definitions, and if no systemic representation is reflected in the existing definitions, the author's insight into the matter is outlined. In conclusion, the authors synthesize the specific definitions into a generic definition which takes into account the relevant systemic representations. In other words, the logic of the work is as follows: first, definitions are synthesized horizontally within each system view (specific, narrow-sense definitions are generated) and then, vertically, based on the results of the previous iteration, an integral broad-sense definition is outlined.

The analysis is summarized in Table 1. As a result of the analysis and synthesis of separate definitions of tax risk, an integral definition is presented: "Tax risk is an indicator of the probability of negative effects? and it is necessary in tax administration for the assessment of the sustainability and equilibrium of its polyhierarchical structure".

It was on the basis of this algorithm that the authors approached the interpretation of the definition of tax management, as well as the terms "Web 2.0" and "personal learning environment". The results of such studies are shown below.

**The term "tax administration (tax management, TM)".** The authors agree with the arguments supporting the identity of the terms "tax administration" and "tax management" in the work [2] and suggest to define them from the standpoint of complex systems. In terms of theory, this has made it possible to focus on different issues: the identification of isomorphism in various fields of scientific knowledge, the possibility of shifting the conceptual framework of management from one area (industry) to another; a study of the mechanism for adapting staff to various factors in the external environment; identification of the emergent effects associated with overlapping systems of different types.

Based on the proposed system approach, as in the case of "tax risk" determination, the generally accepted terminology structures in tax matters are related to one or another systemic view. Now we will describe the specific definitions that we collected.

1. *Genetic representation.* The synthesis of definitions from literature and the authors' vision of the issue suggest the following definition: "Tax administration (tax management) is the process of preparing and making decisions in an open system that regulates the interaction of the participants in a tax relationship, their interests aimed at various goals, in generating the income portion of the budget".

2. *Homeostatic representation.* The following definition is suggested here: "Tax administration (tax management) is prediction of innovation, development and implementation of management actions aimed at maintaining the dynamic equilibrium and sustainability of the open system in accordance with the selected state tax policy".

3. *Hierarchical representation.* Based on the synthesis of the existing definitions, the following definition can be suggested: "Tax administration (tax management) is the activities of entities of a polyhierarchical structure in a non-reflexive system for the implementation of the state tax policy at the macro level and, in accordance with the goals and objectives set, at the level of economic entities".

Table 1

## Tax risk as a differentiated whole: definitions

Representation	Analysis of the available definitions formulated by scholars	Author-suggested definition
Genetic	<p>Tax risk is:</p> <ol style="list-style-type: none"> <li>1. Probability (possibility) of financial loss (D. N. Tikhonov [4], V. G. Panskov [1]).</li> <li>2. The risk of unforeseen alienation of funds (A. G. Ivanyan [23]).</li> <li>3. Possible occurrence of adverse (mainly financial) and other consequences (L. I. Goncharenko [1])</li> </ol>	Tax risk is the probability of adverse financial, as well as non-financial, consequences for all the participants of tax relations
Homeostatic	<p>Tax risks emerge due to the following factors:</p> <ol style="list-style-type: none"> <li>1. Changes in tax policy, tax rates (E. V. Berezhnaya [24]).</li> <li>2. Irrational actions by an official (persons) (N. A. Pavlenko [25]).</li> <li>3. Actions (failure to act) of state authorities (local governments) (A. G. Ivanyan [23]).</li> <li>4. Actions (failure to act) of participants in tax relations (L. I. Goncharenko [1]).</li> <li>5. Disagreements between taxpayers and tax authorities; use of tax minimization methods by taxpayers (M. R. Pinskaya [1])</li> </ol>	Tax risk is an integral indicator of the impact of endogenous and exogenous factors for the performance of operations required to increase the stability and equilibrium of the tax management system
Hierarchical	<p>Subjects of tax risks:</p> <ol style="list-style-type: none"> <li>1. Taxpayers (D. N. Tikhonov [4], A. G. Ivanyan [23]).</li> <li>2. Officials or groups of persons responsible for tax liabilities in a particular organization (N. A. Pavlenko [25]).</li> <li>3. Taxpayers and the state (V. G. Panskov [1])</li> </ol>	Tax risk is the uncertainty of the taxable entity that arises in the process of tax and taxation administration at the macro and micro levels, as well as in terms of territorial and sectoral specificity
Target-based	The purpose of tax risk assessment is to determine the potential for adverse effects (N. A. Pavlenko [25])	Tax risk is a qualitative assessment at different levels of the negative tax effects hierarchy
Functional	Tax risks arise in the area of tax planning at the level of economic entities (E. N. Evstigneev [26])	The tax risk is the possibility of adverse outcome when the subject of tax relations is involved in the forecasting, planning, regulation and control functions
Organizational	No definitions	Tax risk is combining different types of tax risks in accordance with their classification in order to calculate the integral risk indicator
Procedural	<p>The procedures that result in tax risks:</p> <ol style="list-style-type: none"> <li>1. Tax payment and optimization (D. N. Tikhonov [4]),</li> <li>2. Tax audit (M. R. Pinskaya [1])</li> </ol>	Tax risk is the measurement of the probability of various adverse effects that arise in the process of tax assessment and administration
Innovative	No definitions	Tax risk is an integral measure of the probability of negative tax effects which is calculated with the use of modern methods, tools and technologies to develop a tax management model

4. *Target-based representation.* In this systemic context the definition under consideration is interpreted as follows: “Tax administration (tax management) is the process of developing, in a dynamic system, of state tax policies, the doctrines of economic agents relating to the goal-setting, plans for the achievement of those goals and the evaluation of development trajectories”.

5. *Functional representation.* Within the context of this representation, the following definition is proposed: “Tax administration (tax management) is the implementation, in a non-reflexive system, by the participants of fiscal relationship of their functional assignments in order to achieve the targets of the state tax policy and the objectives of the economic agents”.

6. *Organizational representation.* In terms of cybernetics, this is the distribution of tasks, resources and decision-making power in a polyhierarchic structure of tax administration. Therefore, the organizational representation is closely related to hierarchical, target-oriented and functional, so it has to be considered with due account for the dynamic properties of the system. With this in mind, we suggest the following definition: “Tax administration (tax management) is the allocation of tasks, resources and decision-making authority by the subjects of tax relationships in the sections of the polyhierarchic structure of the system, taking into account its dynamic properties”.

7. *Procedural representation.* In terms of the procedural representation of the system, the following definition is proposed, based on the summary of the specific interpretations of TM: “Tax administration (tax management) is the competent application of legal procedures and administrative regulations, the use of modern technologies, economic and mathematical methods and models for the management of tax issues”.

8. *Innovative representation.* It completes a consistent chain of research into the complex system and provides a basis for the formation of the paradigm on a particular section of the timeline. This is where the authors’ view on the problem

arises from: “Tax administration (tax management) is the process of preparation and making of decisions based on the use of all kinds of tax innovations and advances in science and technology through a combination of formal and informal thinking, as well as simulations”.

In the broadest sense, the following integral definition was formulated: “Tax administration (tax management) is the decision-making process in an open, dynamic, non-reflexive tax system aimed at achieving the goals and objectives, harmonizing and regulating the interaction between the participants of tax relations”.

**The term “Web 2.0”.** Web 2.0 system is initially defined as complex (as well as the subsequent system referred to as “Personal Learning Environment”). But in the course of the model study they had to be treated differently, as overly complicated systems.

There are four main paradigms of economic science: 1) Neoclassical, as the basis for the management of simple systems; 2) Institutional one, the distinctive feature of which is that not only economic, but also non-economic factors of socio-economic development are considered (such as rules, traditions, norms); 3) Evolutionary, which, unlike the first two, is based on a dynamic understanding of the structure of the socio-economic environment; 4) The newly emerging systemic one<sup>5</sup>.

According to G. B. Kleiner, “the last stage before the new development of economic theory can be a systemic paradigm that sees the economy as a harmonious combination of all four types of systems” [27]. Thus, it is reasonable to highlight a specific type of systems in this overly

<sup>5</sup> In the emerging paradigm, systemic in nature, socio-economic space (including its dynamic dimension) is seen as a combination of economic systems that include both agents and institutions, as well as genetic mechanisms for the reproduction of agency populations. In this way, multidimensional consideration is given to the clusters that have the characteristics of technological, economic, social, institutional and other systems. Socio-economic systems become the main object of research, and the scope of research is their development based on the interaction of the internal subsystems and the influence of the external environment.

complicated ever-changing world, with a matching nature: open, overly dynamic, non-reflexive. The key object of research here is on socio-economic systems, and the scope of research is the development of these systems based on the effects of the external environment and on the interaction of internal subsystems.

Today, the analysis of complexity is emerging in economic science and practice, because without such an approach it is becoming difficult to explain various phenomena and processes. The potential of the world wide web is enormous, and still it has not yet been sufficiently explored. The phenomenon of social networks is often described as a platform to

support networking, while due attention is not given to the prospects and potential of the use of second and the future generations of Internet technologies for the activities of researchers and taxation practitioners.

To this end, the authors attempted to answer what Web 2.0 is based on the proposed variant of system approach. An analysis of the existing judgments and terms relating to Web 2.0 is discussed in detail in the work [22]. The data in Table 2 illustrate the end result of the etymological modelling of specific definitions.

In a broader sense, the etymology of the term in question is based on the subsequent synthesis of specific definitions which out-

Table 2

### Web 2.0 as a complex system: definitions

Systemic view (systemic context)	Author's vision of the problem
Genetic	<i>Web 2.0</i> is the second generation of organization, implementation, and support of network resources; this is a differentiated whole, a complex (open, overly dynamic, non-reflexive) system consisting of interconnected and inter-related system representations and supporting subsystems
Homeostatic	<i>Web 2.0</i> is a collection of rules and practices for maintaining homeostasis of a system open to the external environment; Internet services support a spontaneous path of community development because they are created by grass-root efforts of many independent members and network users
Hierarchical	<i>Web 2.0</i> is a polyhierarchic structure of a complex system: a technology platform supporting protocols, languages, standards, projects, services, and applications; a platform for social interaction that is oriented towards people, their knowledge and experience; a learning platform; other invariant cross-sections of the non-reflexive system
Target-based	<i>Web 2.0</i> is the foundation where a new smart society can be built, the society in which the use of Internet tools and capabilities leads to qualitative changes, allowing for innovative systemic effects in the research, social, economic, managerial and educational spheres
Functional	<i>Web 2.0</i> is a process of collective creativity performed by professionals, simple participants and network users; this is blogging, network resources sharing, production of collective publications, exchange and collaboration with data, syndicating content, creation of new and effective services and applications
Organizational	<i>Web 2.0</i> is the integration of second-generation Internet projects, applications, networks, and services for breakthrough effects in research, management and education; this is an ever-growing arsenal of applications, software and hybrid services
Procedural	<i>Web 2.0</i> is the system software and technology support (protocols, languages, standards, procedures, blogs, programs, methods, and models), networks, and Internet services that are actively developed and improved by both professionals and users of the network in order to create common content, develop a personal learning environment and/or professional web space
<i>Innovative</i>	<i>Web 2.0</i> involves integration of innovations from other system views, the trajectory of development and the formation of a new smart society; It is the perception and use of the Internet as a means of social communication and collective intelligence, a new understanding of interactivity, an innovative approach to education; this is the ever-increasing potential of smart technology as the basis for building a new paradigm, web 3.0

line the key points characterizing the Internet of the second generation. It is the interaction with the external environment and the networking that makes it possible to place everything new and advanced on the technology platform; consistency with the ongoing changes of the complex and dynamic world to maintain a spontaneous path of development; consideration of the human factor as one of the main functions of social facilities and systems.

In a broad sense, Web 2.0 is described as an overly complicated system: completely open, overly dynamic, non-reflexive. The perspectives and potential of Web 2.0 can be disclosed and understood if we considering this phenomenon in the context of the development of the global technology. This approach provides innovative economic, managerial and research effects in any area of knowledge, including tax matters.

**The term “Personal Learning Environment (PLE)”**. One of the main problems of the present day is education, training and retraining of staff in the context of

overly complicated and constantly changing world, avalanche-like development of science and technology that characterize one or another technological paradigm [28–30]. The economically developed countries are believed to have already completed five paradigms and are now in the process of developing the sixth one. Russia can become one of such countries if it makes a quantum leap and moves to completely new technologies of a progressive nature, including in the educational environment. The logic of transformations here is more or less as follows:

- from Web 1.0 to Web 2.0 & Web 3.0;
- from cloud and mobile technologies to Big Data, Open Data, Block Chain;
- from closed educational courses to massive open online courses (MOOC);
- from discontinuous education to life long learning;
- from traditional education to Smart Education;
- from group learning to the development of personal learning environments (PLE).

Evolution	PLE is a system of cognitive activities of a person in the context of modernization of education and technological advances, which the person creates themselves and which evolves along with their personal and professional growth
Definition of objectives	PLE as the primary tool for implementing lifelong learning, developing knowledge, skills and competencies to address personal and professional tasks
Structuring	PLE is an invariant form for the development of a standard and/or individual educational trajectory with the use of new technologies and approaches
Functionality	PLE is a person's set of actions (functions) in the course of educational activities which involves the use of various means of communication, collective intelligence and a new understanding of interactivity
Organization	PLE is diverse tool (options) for combining knowledge of basic, scientific and vocational levels of education by creating a network of nodes from diverse sources of information: people, organizations, libraries, sites, databases
Procedures	PLE is the technological tools (Web resources and services, algorithms, programs, and models) used by a person in their learning process in order to find, interact with, publish, organize, communicate and manage content
Homeostasis	PLE is the means of maintaining dynamic equilibrium and sustainability of the entity's educational trajectory through international standards for the organization of educational content and distance learning programs, as well as the rules and practices of Web 2.0 & Web 3.0
Innovations	PLE is a system of smart education that directs a person to be constantly ready to meet the challenges of the changing world and comply with the requirements of the new, progressive technological paradigm in the country

**Figure. Personal learning environment as a complex system: definitions**



For the purpose of understanding the definition of PLE and the problems of its development in the society, we provide a structural etymological analysis and the results obtained in eight systemic contexts (representations), which are shown in Figure.

In a broad sense, PLE is an overly complex system, the purpose of which is to find suitable forms of organization for society in the face of contemporary world challenges and constant change, the development of educational strategies and technologies. Such a system is created by the entity itself, in accordance with its goals, and is implemented through the integration of different levels of knowledge through the development of an individual educational trajectory, and evolves along with personal and professional development of the individual.

### Conclusions and suggestions

1. The system model can be seen as a tool for etymology, contributing to the development and improvement of the conceptual apparatus, the justification and rationalization of terminology structures, the formation of other new concepts. The results of the studies of specific terms and definitions show, first and

foremost, the need to classify tax objects and systems. They can be conventionally divided into simple, complex and sophisticated systems. This determines the tools characteristic of a scientific theory (combination of theories) for its application in tax matters.

2. The emergence of the conceptual and categorical framework in the subject area which corresponds to the circumstances of the present day requires not only constant in-depth analysis of one or another word. We believe that it is equally important to include in this apparatus the interrelated terms characterizing the social phenomena that have a direct impact on the system under review.

3. In the field of taxation, the first step is to clarify the following concepts: *techno-economic paradigm*, *technological paradigm*, *National Technology Initiative*. Due to the fact that, tentatively, the Russian tax system should be classified as overly complex, its study should be carried out in the context of the global development trends, the benchmarks outlined in the forecast of scientific and technological development up to 2030 and in other normative legal acts, in order to facilitate Russia's transition into the sixth progressive technological order.

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## LOCAL-CENTRAL INTERGOVERNMENTAL FISCAL RELATIONS OF CHINA

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### ABSTRACT

For a large country like China, handling of intergovernmental fiscal relations must create compatible incentives to central and local governments. China initially created a fiscal management system characterized by tax sharing in 1994, basically meeting the needs of its socialist market economic system. Yet further improvements must be made to the assignment of administrative authority and expenditure responsibilities, revenue allocation and the fiscal transfer payment system. This paper is based on the author's previous research and the recent situation of adjustment in China's intergovernmental fiscal relations. The paper examines the problems of local-central fiscal relations: insufficient alignment between fiscal revenues and administrative authority; uncertainty of sharing the revenue from income tax and value-added tax; imperfect tax rebate and transfer payment system. Concludes that uncertainties of local fiscal resources inevitably affected the behavior of local governments. The paper describes the land sales revenues of local government as the example how the interplay intergovernmental fiscal relations with other systems threatens socio-economic sustainability of China. The following measures in tax reforming are suggested: increasing the share of local governments in VAT distribution; reducing the property tax rates; canceling tax rebates; endowing local governments with certain taxing authority, including legislation and tax rate adjustment. In handling intergovernmental fiscal relations, great attention must be paid to the system's stability to give play to its function of incentives and restraints

### KEYWORDS

Fiscal management, intergovernmental fiscal relations, fiscal system, sharing tax revenue

### HIGHLIGHTS

1. China must create a hierarchical fiscal management system in line with its modern fiscal system and further standardize the division between administrative authority and expenditure responsibilities
2. China should formalize a fiscal transfer payment system, and develop a hierarchical fiscal management system encompassing the sharing of tax, rents and profits

## ПРОБЛЕМЫ МЕЖБЮДЖЕТНЫХ ОТНОШЕНИЙ ЦЕНТРАЛЬНОГО И МЕСТНОГО УРОВНЕЙ ВЛАСТИ В КИТАЕ

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### АННОТАЦИЯ

Межбюджетные отношения в таких крупных странах как Китай должны быть разработаны таким образом, чтобы создавать совместимые стимулы для центральных и местных органов власти. Система фискального управления с распределением налогов, созданная в Китае в 1994 г., в основном удовлетворяла потребности социалистической рыночной экономической системы страны. Тем не менее, существует необходимость совершенствования административ-

ных полномочий и расходных обязательств различных уровней власти, а также внесения изменений в распределение доходов и систему межбюджетных трансфертов. Статья базируется на предыдущих исследованиях автора и учитывает недавнюю корректировку сферы межбюджетных отношений в Китае. В ней рассматриваются такие проблемы фискальных отношений между центральным и местным уровнями власти как недостаточное согласование между налоговыми поступлениями и административными полномочиями; неопределенность распределения доходов от подоходного налога и налога на добавленную стоимость; несовершенство налоговых скидок и межбюджетных трансфертов. Делается вывод, что неопределенность объема доходов местных бюджетов неизбежно влияет на поведение местных органов власти. На примере получения доходов от продажи земли местными органами власти показано, что проблемы межбюджетных отношений во взаимосвязи с другими системами угрожают социально-экономической устойчивости Китая. Предлагаются следующие направления налоговых реформ: увеличение доли налога на добавленную стоимость распределяемого в доходы местных бюджетов; снижение ставок налога на имущество; отмена налоговых скидок; предоставление местным органам власти определенных налоговых полномочий, включая возможность изменять налоговое законодательство и корректировать налоговые ставки. Указывается, что при реформировании межбюджетных отношений необходимо обеспечить стабильность фискальной системы, чтобы усилить ее стимулирующую и регулируемую роль

#### КЛЮЧЕВЫЕ СЛОВА

Фискальный менеджмент, межбюджетные отношения, фискальная система, распределение налоговых доходов

#### ОСНОВНЫЕ ПОЛОЖЕНИЯ

1. В Китае должна быть создана система фискального управления соответствующая современной фискальной системе страны и продолжена стандартизация распределения административных и расходных полномочий различных уровней власти
2. Система межбюджетных трансфертов в Китае должна быть формализована, а иерархическая система финансового управления должна включать распределение между бюджетами налогов, арендной платой и прибылью

#### Introduction

The Third Plenary Session of the 18<sup>th</sup> CPC Central Committee in 2013 set the goal of China's fiscal reform to establish a modern fiscal system. "Establishing a system whereby authority of office matches responsibility of expenditure" is one of the three major priorities. On June 30, 2014, the Political Bureau of the CPC Central Committee deliberated and adopted the *Plan for Deepening Overall Reform of the Fiscal and Tax Systems*, which calls for adjustments to local-central fiscal relations. Specifically, the reform should rationalize the allocation of local-central fiscal revenues in line with expenditure responsibilities.

The recognition of the importance of a well-designed and comprehensive system of intergovernmental fiscal relations has the deep roots in the local government economics and fiscal decentralisation liter-

ature [1–7]. There are numerous academic research in the field of fiscal decentralization in China which reflect the processes, characteristics, and measurements of fiscal decentralization. See for example [8–11].

In adjusting local-central fiscal relations, the ultimate goal is to create a hierarchical fiscal management system [12–14]. China's tax sharing reform in 1994 laid out the basic framework for today's local-central fiscal relations and was carried out in tandem with tax reform and the creation of a tax collection and management system. Over the past two decades, China's fiscal prowess grew to strength steadily, with fiscal revenue as a percentage in GDP up from around 10 % to 22.5 % in 2015<sup>1</sup>. Strong fiscal resources

<sup>1</sup> According to the final accounts of national general public budget revenue, in 2015, China's fiscal revenue amounted to 15.223 trillion yuan and GDP totaled 67.67 trillion yuan.

empowered government regulation in a market-based economy. Nevertheless, the legacy problems under this system must be addressed through further reforms<sup>2</sup>.

### **Problems of local-central fiscal relations**

**Negative incentives from alignment between fiscal revenues and administrative authority.** Before 1994, local-central fiscal relations were subject to the principle of alignment between fiscal power and administrative authority. Under this principle, prosperous regions were incentivized to make most of local fiscal resources. However, in less developed regions, it was difficult for local governments to collect sufficient revenues to finance a wide range of public services. To address this dilemma, the *Report of the 17<sup>th</sup> CPC National Congress* called for “improving the fiscal and taxation systems so that the financial resources of governments are in line with their respective responsibilities” in 2007. By matching fiscal revenues with expenditure responsibilities, the central government ensured adequate fiscal resources for less developed regions, particularly counties and townships. However, due to their unfavorable position in revenue allocation under the new system, prosperous regions were not fully incentivized to explore local fiscal resources essential to the provision of public services.

**Negative Incentives from the Uncertainty of Revenue Sharing.** Policy stability is the foundation for hierarchical fiscal management system. In 1994, personal income tax was a local tax. After the income tax sharing reform in 2002, personal income tax and corporate income tax became shared taxes between local and central governments. The progress is that for many enterprises, payment of income tax is no longer subject to their administrative affiliation to the central or local government. However, a few SOEs under the central government are exempted from the sharing of income tax. Furthermore,

the sharing of income tax is subject to a fixed base. In this sense, reform of the shared corporate income tax is incomplete. Personal income tax, which would be otherwise a central tax and whose amount of revenue was limited, was left to local governments. After personal income tax developed into a major source of tax revenue, turning it into a shared tax inevitably dampened local enthusiasm for tax collection. Business tax, which used to be the most important source of revenue for local governments, is integrated into value-added tax (VAT) with the implementation of the reform of replacing business tax with VAT. Although VAT revenues are shared evenly between central and local governments, the reform took a toll on local fiscal resources. As a result, the central government returned a surplus of 178 billion yuan to local governments to ease local fiscal gaps in 2016. However, the uncertainties of local fiscal resources inevitably affected the behavior of local governments.

**Negative incentives from imperfect tax rebate and transfer payment system.** China’s fiscal reform of 1994 determined the ratio of central-local fiscal revenue to be 6:4, the ratio of central-local fiscal expenditure to be 4:6, and the return of 20 % fiscal revenues from central to local governments. This target has never been achieved. A major proportion of local general public budgetary expenditure has been funded by the central government. Despite a slight decrease in recent years, the tax rebate and transfer payment made by the central government to local governments amounted to 5 509.751 billion yuan, accounting for 36.65 % of the 15.03 trillion yuan local general public budgetary expenditure<sup>3</sup>. Tremendous tax rebates and transfer payments led to inefficiencies and overreliance on the central government.

The unreasonable structure of transfer payments also posed a challenge to the creation of a hierarchical fiscal system. In

<sup>2</sup> Some papers such as the paper by Lou Jiwei also reflected China’s intergovernmental fiscal relations, but the choice of reform options in this paper is much different by comparison [15].

<sup>3</sup> Such data and the fiscal data of 2015 in the following paragraph are from “National Fiscal Final Accounts” formulated by the Ministry of Finance (Available at: <http://yss.mof.gov.cn/2015js/index.html>).

2015, central-local tax rebates amounted to 501.886 billion yuan, general transfer payments reached 2 845.502 billion yuan, and special transfer payments totaled 2 162.363 billion yuan, accounting for 9.11 %, 51.64 % and 39.25 % respectively of the total amount of tax rebates and transfer payments. Initially intended as a temporary arrangement, tax rebates lasted for more than 20 years. General transfer payments, which account for more than 50 % of the total, have many characteristics of special transfer payments. Many items of general transfer payments are associated with specific policy objectives, including transfer payments for remote and less developed regions, tax reform for finished oil products, grassroots public security funding, basic pension, as well as medical insurance.

Many items of balancing transfer payment that have nothing to do with specific local policy objectives also have the nature of special transfer payments. For instance, transfer payments are made to assist ecological function areas, grain-producing counties, county-level basic fiscal security, resource-depleted cities, urban and rural compulsory education, and integrated rural reform. A few items of transfer payments (such as intergovernmental settlement allowance) are legacies of an obsolete system. Due to the lack of transparency in decision-making, the special transfer payment system is also under a great deal of criticism and needs further reform.

**Interplay with other systems threatens socio-economic sustainability.** Intergovernmental fiscal relations are the weathervane of China's socio-economic development. This system laid the foundation for China's socio-economic development over the past two decades. In the meantime, the relative central-local fiscal power changed as well. Compounded by other systems, the inherent defect of this system poses grave challenges to sustainable socio-economic development in the future. Local governments have an insatiable demand for revenues to keep up with growing expenditures. Their ownership of land means that revenues can be earned from selling land to real estate

developers. Thanks to China's booming housing market, land sales revenues account for staggering proportions of local government coffers. However, reliance of fiscal revenue on the sales of government-owned land is unsustainable. Further, it inflates property prices and distorts the ratio of house price to income. The inherent factor of instability in China's real estate market threatens socio-economic sustainability.

### **Standardize assignment of administrative authority vis-a-vis expenditure responsibilities**

**Assignment of administrative authority must be stable and adjusted on a dynamic basis.** Proper assignment of administrative authority vis-a-vis expenditure responsibilities requires the government to transform its functions, which is an ongoing process. So far, progress has already been made in this area and the concept of streamlining government administration and delegating power is well received. Assignment of administrative authority vis-a-vis expenditure responsibilities should be adjusted on a dynamic basis in sync with this process and changing realities. With the wax and wane of industries and technologies and the dynamics of social progress, demand for public services keeps changing and must be reflected in the assignment of administrative authority and expenditure responsibilities. New public services and affairs, which are complicated and take time to discern, must be classified into different categories of administrative authority for different levels of government.

Assignment of administrative authority and expenditure responsibilities is not just a fiscal issue. It relates to the reform of the administrative and even the political system. At the fundamental level, this important matter must only be resolved by law. In the past, regions with fast-growing or strong fiscal revenues were tasked with additional administrative responsibilities, which is justified yet caused negative incentives at the local level. Legislation is the most powerful instrument to ensure the stable and predictable assignment of

administrative authority and expenditure responsibilities. Despite adaptability to changing social conditions, the hierarchy of the current legislation is insufficient to guarantee such stability and predictability. Thus, conditions must be created to formalize the assignment of administrative authority and expenditure responsibilities by law at a higher hierarchy to reduce artificial adjustments. An ideal approach is to formalize the assignment of administrative authority and expenditure responsibilities in line with the Constitution. China must accelerate its development of the rule of law to ensure such stability and predictability.

**Common administrative authority needs to be further specified.** The assignment of administrative authority and expenditure responsibilities is a systematic project. The *Guiding Opinions of the State Council on Reforming Central-Local Fiscal Authority and Expenditure Responsibilities* released in August 2016 marks a good beginning but still focuses on the assignment of “fiscal administrative authority”. Based on whether or not the government invests, administrative authority can be categorized into fiscal authority and non-fiscal authority. For most undertakings, the government should mobilize private resources rather than devote its own financial resources. According to the *Opinions*, China should create more common fiscal responsibilities compared with sophisticated market economies. However, the overlap of central-local responsibilities contributes to confusion and evasion of responsibilities. While such overlap is unavoidable, the key is to create incentives to maximize the enthusiasm of both central and local governments.

For instance, local governments in some western regions in China that suffer a brain drain argue that compulsory education should be funded by the central government. But actually compulsory education has a strong positive spillover effect that also brings about local benefits. Compulsory education promotes the equalization of local income distribution, social benefits and local welfare. In addition, given their understanding of local

realities, it is more appropriate for local governments to provide compulsory education services. This is why a special premium is put on local responsibilities when it comes to compulsory education in major countries across the world. It is not easy to define the fiscal authority and expenditure responsibilities of the central government. Nevertheless, arguments over this question cannot diminish the importance of compulsory education.

Another prominent question is basic pension services. In reality, some local governments have already encountered difficulties of basic pension payment. Yet diverting pension resources across regions may cause more regions to experience pension payment difficulties. Under the current system, local governments should try to overcome the difficulties on their own before resorting to central fiscal assistance. Given China’s unified labor market, a basic pension system requires national pooling. Yet such pooling should put more emphasis on central government responsibilities. A reasonable approach is to divert fiscal resources from elsewhere to help localities with basic pension payment difficulties. Nevertheless, it is by no means easy for central and local governments to determine their respective responsibilities on basic pension security.

**Respect the role of local government initiative.** Incentives must be created for local governments in reforming the assignment of administrative authority and expenditure responsibilities. The key is to bring local initiative into play.

Given China’s reality, it is justified for the central government to determine fiscal authority and the assignment of central-local fiscal powers. However, arrangements must be in place to incentivize local governments. Legislation should take into full account the role of local governments. The central government must collect feedback from localities before making a decision. Given the great regional differences in China, systems inconsistent with local realities will not work. Legislation must respect local situations to achieve the expected outcome.



Performance of administrative authority at the local level must be assured by fiscal power and resources. It is challenging yet necessary for local governments to provide a wide range of public services. In a transition society fraught with contradictions, public security concerns and other problems are not caused by a particular locality in isolation. Local authorities must be empowered with the necessary fiscal power and resources in order to perform their responsibilities. It is also challenging to ensure that localities with different conditions are endowed with sufficient fiscal power and resources under a unitary system. It is important that administrative authority and expenditure responsibilities be divided clearly between central and provincial governments to make it easier for the rights and responsibilities to be assigned to localities below the provincial level. In making this assignment, the "one-size-fits-all" approach must be avoided. Localities should be encouraged to explore systems consistent with their realities.

#### **Standardize government revenue allocation**

**Create a comprehensive payment and revenue allocation system.** In 1994, the allocation of fiscal revenues mainly involved taxation. Yet under integrity considerations, the scope of revenue allocation should also include the rent income of state-owned resources, revenues from state-owned land, government funds, profits from the operation of state-owned capital, etc. For revenues not included under the framework of the tax sharing reform in 1994, any attempt to share them will be inevitably resisted by their existing owners. In overcoming vested interests, China must expedite government reforms and make government budget and final accounts even more transparent. Similar to taxation, the threshold for creating administrative fees and government funds must be raised substantially. The ultimate goal is to create a system of government revenue allocations encompassing taxation, rents and profits.

Given the lion's share of taxation in government revenue, the key to revenue allocation is to form a reasonable local tax system. Currently, local fiscal expenditures are primarily funded by local tax revenues. Hence, central tax and shared tax should be the priorities for the reform of government revenue allocation.

**Increased share of local governments in VAT distribution is justified.** With the pilot implementation of the reform of replacing business tax with VAT, VAT revenues are distributed equally between central and local governments. An increased share of VAT distribution is justified because it will compensate for the reduction of local revenues after tax system standardization and strengthen local fiscal resources. Some argue that a higher share in VAT distribution will induce misconduct by local governments. This paper believes that this view is unfounded. First, the equal distribution of VAT revenues is a temporary measure to make up for local fiscal deficiency without business tax. Adequate tax revenues are essential for local governments to function properly. Second, the so-called misconduct has more to do with market distortions caused by government, which should be addressed by rationalizing the relationship between government and market. A higher share in revenue distribution in favor of local governments will not lead to misconduct as long as proper relations with the market are formalized.

**Revamp consumption tax into a central-local shared tax.** Under the current system, consumption tax is, in theory, a central tax. Yet in reality, consumption tax revenues are subject to rebate and not purely a central tax. After the tax-for-fee reform for finished oil products, the majority of consumption tax converted from road toll is returned to local governments and the nature of consumption tax as a shared tax became evident. The tax sharing scheme can be designed according to the types or total revenues of consumption tax. While the former caters to different types of local taxation, the latter corresponds to the overall adjustment of fiscal power and resources. Currently,

consumption tax is primarily levied on manufacturing and wholesale activities. This paper suggests that consumption tax also be levied on retail business and defined as local tax revenue, thus incentivizing local governments to encourage consumption. The question is the feasibility of collecting consumption tax from retail business. Considering the significant share of tobacco and alcohol in consumption tax, revenue disparities may expand across regions and not all regions may benefit. But if this plan is adopted, the share of VAT for local governments can be somewhat reduced.

**Reform of property tax and land revenue system.** Foreseeably, the significance of property tax to local tax revenue will continue to rise. The imposition of property tax on households is intended to move the tax burden from purchase to possession. In China, the possession of real property is almost tax-free. Yet homeowners have to pay various taxes and fees for the development and purchase of commercial housing. Increasing the tax burden on the possession of real property will only aggravate their tax misery and reduce public welfare<sup>4</sup>. Compared with countries of private land ownership, the property tax rates should be much lower in China. In addition, in view of China's skyrocketing housing prices, households may not be able to afford to pay property tax even if it is introduced<sup>5</sup>.

**Local Governments should be endowed with certain taxing authority, including legislation and tax rate adjustment.** There are some misperceptions about the concept of unitary states. In fact, the tendencies of centralization and decentralization of power for unitary and federalist states have been constantly changing. While unitary states decentralize, federalist states centralize. The argument that unitary states cannot decentralize taxing authority is unfounded. Indeed,

<sup>4</sup> Car parking charges in cities may also become a major source of revenue for local governments.

<sup>5</sup> This is also the reason why property tax cannot become a major source of local tax revenues in China in the short term.

in some small unitary states, local tax revenues account for a minor share. However, this cannot be used as the basis to argue against the creation and improvement of China's local tax system. As a large country, China's optimal intergovernmental fiscal relations must be fine-tuned and optimized on a constant basis. Once property tax is fully rolled out, unless local governments have the authority to adjust the tax rates, their efforts to improve public services may lead to housing price hikes and a higher property tax burden for households<sup>6</sup>. Of course, granting certain taxing authority to local governments does not inhibit formation of a unified national market.

Standardization of government revenue allocation naturally involves the issue of debt financing. Local government financing involves particularly complicated questions. In general, local government expenditure must be funded by tax revenues rather than debts. The debt issuing authority of local governments under a hierarchical fiscal system does not mean that liabilities can be a major source of local fiscal resources<sup>7</sup>. Unchecked financing from public property rights will jeopardize local government sustainability. In fact, financing from public property rights is to blame for China's addiction to land sales. From the perspective of socioeconomic sustainability, financing from public property rights must be conducted with great caution.

### **Standardization of fiscal transfer payment**

**Cancel tax rebates.** Undeniably, tax rebates played a positive role in facilitat-

<sup>6</sup> For instance, after a subway line is put into operation, adjacent land value will increase. However, if local governments are not able to adjust the tax rates, the burden of property tax for homeowners will rise as well. As a result, the subway that is intended to improve people's welfare actually increases their burden. If the tax power is attributed to local governments, tax rates can be lowered at the local level to ease the increased tax burden in case housing prices increase.

<sup>7</sup> Tremendous local liabilities must be resolved through special one-time solutions and will not be elaborated on in this paper.

ing China's tax sharing reform. Without tax rebates, it was impossible for the tax sharing reform to be carried out in the first place. However, while creating incentives for prosperous regions, tax rebates caused a massive flow of funds to developed regions, widened regional fiscal disparities and compromised the equalization of public services. Tax rebates have been in existence for more than two decades and transfer payments have yet to standardize. Obsolete arrangements such as tax rebates and revenues submission (allowance) need to be phased out. Despite the declining share of tax rebates in the transfer payment system, their absolute size remains significant. China must phase out tax rebates to enhance the tax sharing system. To avoid causing major impacts to local fiscal power, tax rebates should be reorganized into general transfer payments.

**Create an integrated vertical and horizontal transfer payment system.** Transfer payments include various patterns such as vertical, horizontal and hybrid transfer payments. Under the vertical model, transfer payments take place between central and local governments. Under the horizontal model, they take place between local governments. A hybrid model features both characteristics. China currently practices a vertical transfer payment system.

Partner assistance exists across various parts of China. Partner assistance and economic cooperation are some of the key features of China's institutional advantage. They promote socio-economic development in less developed regions through targeted assistance. In China, 19 provinces and municipalities are involved in partner assistance to Xinjiang Uygur Autonomous Region; 17 provinces and municipalities are involved in partner assistance to Tibet Autonomous Region. For instance, Beijing provides partner assistance to Xinjiang, Tibet, Qinghai, Badong County of Hubei Province, and Shifang City of Sichuan Province. In addition, other partner assistance programs also exist, including assistance to Qinghai.

Regional cooperation and relief may also take the form of economic coopera-

tion. Regional cooperation schemes include Beijing-Tianjin, Beijing-Hebei, Beijing-Shanxi and Beijing-Inner Mongolia cooperation. Relief and coordination programs include Chifeng and Ulanqab assistance programs and south-north water diversion project coordination<sup>8</sup>.

Partner assistance and economic cooperation must be supported by sufficient fiscal funds. Supporting regions have to use local fiscal resources to assist less developed regions. This system is actually a horizontal transfer payment system and must be formalized. For recipient regions, coordination with the vertical transfer system is also an issue. Optimizing the vertical transfer system also requires a proper linkage between partner assistance and economic cooperation.

In providing partner assistance using local fiscal resources, local governments actually perform the responsibility of public service equalization, which otherwise should be assumed by the central government. Hence, horizontal and vertical transfer payment systems should be brought into overall consideration. Theoretically speaking, the objectives of horizontal transfer payments may also be achieved through vertical transfer payments. However, horizontal transfer payments must be formalized in order to increase the efficiency and scale of assistance.

In vertical transfer payments, this paper suggests that funds be allocated directly to county governments to alleviate the dearth of fiscal resources at the grassroots level. The amount of vertical transfer payments should be determined according to the number and size of central government projects at the local level. These projects will boost local fiscal resources. Their effect on local economic growth needs to be further evaluated.

**Reduce the scale of transfer payments.** Central government boasts the advantage of economies of scale in raising fiscal revenues. For many local governments, their fiscal revenues are dwarfed by expenditure and must be supplement-

<sup>8</sup> See Beijing Partner Assistance and Economic Cooperation Network (Available at: <http://www.bjzyhzb.cn/dkzy/ybgz/>).

ed by transfer payments. Through transfer payments, the central government may also enhance its control on local governments. Given the various costs of fiscal fund transfer, a desirable approach is to reduce the scale of transfer payments as much as possible.

The magnitude of transfer payments is subject to many factors. While current transfer payments aim to satisfy public budget, the amount of future transfer payments must be determined in light of other fiscal resources at the disposal of government. In determining the size of transfer payments, one question must be properly addressed: Should China adopt a centralized transfer payment system or a decentralized one? While centralized transfer payments afford the central government enhanced regulatory capacity, they do not help in increasing the enthusiasm of local governments. The opposite is true for a decentralized transfer payment system. In addition, a significant amount of transfer payments is more likely to be mobilized under a centralized system than a decentralized one. There might be a certain extent of equivalence in the choice of centralized, decentralized or hybrid transfer payment systems but the key is to identify a system of compatible incentives.

**Reshape general and special transfer payments.** General transfer payments are determined by estimating the gap between standard income and standard expenditure with consideration of the fiscal resources factor. General transfer payments entail certain negative incentives and currently only apply to balancing transfer payments. Therefore, the general transfer payment system must be improved by incorporating more incentives in the estimation of standard income and take into account more fiscal endeavors to reduce the negative impacts.

Special transfer payments have clear payment policy objectives but the decision-making process should be open and transparent. In addition, a certain extent of competition should be introduced. There are many pathways to achieve policy objectives. Conditions must be created for local governments to compete for such

funds to minimize the cost for achieving policy targets.

General transfer payments are, at the very least, no less efficient than special transfer payments. In this sense, special transfer payments should be reduced as much as possible. Provided that local governments are able to allocate transfer payment funds, general transfer payments would be more advisable. If the objective of the central government is to raise the level of a certain type of public service nationwide, special transfer payments would be more appropriate. The level of local government budget restraint also affects the choice of transfer payment method. Insufficient restraint may cause the funds to be allocated to inefficient projects, thus affecting the achievement of transfer payment objectives.

Special transfer payments may address many problems that cannot be addressed by general transfer payments, particularly the improvement of certain basic public services such as compulsory education and health care. Transfer payments should also be determined according to the different positioning of main function zones with corresponding standard income and expenditure. With environmental restoration and maintenance responsibilities, regions restricted or prohibited for development must pay a higher price of environmental protection for the development of main function zones.

China's special transfer payment items are complicated, myriad and overlapping. Use of funds is scattered and some projects are designed in disregard of local realities. These items must be classified and rearranged for better management to serve the role that cannot be played by other forms of transfer payments in the improvement of basic public services.

Existing central fiscal transfer payments excessively require local matching funds. As a result, some localities that cannot provide sufficient matching funds fail to receive transfer payments despite their desperate need for support. Sometimes, these localities are forced to resort to data fraud, which affects the achievement of objectives for special transfer payments.

Hence, the requirement of local matching funds must be abandoned in some circumstances.

As local fiscal management is governed by more restraint in the future, special transfer payments can be downsized. China's current tax rebate and balancing transfer payments fall in the category of unconditional transfer payments. In the future, these different forms of transfer payments must be integrated to fashion a unified general transfer payment system where the amount of transfer payments is determined according to the difference between local income and expenditure.

**Create a standardized fiscal transfer payment system.** So far, intergovernmental transfer payments in China are not formalized and often conducted through various "circulars" and "decisions" of the central government. This affects not only the formation of reasonable expectations at the local level but the standardization of intergovernmental fiscal relations as well.

Currently, the creation of an institutional framework for China's transfer payments must be backed by legislation and long-term strategic planning to make transfer payments predictable. A timetable for reform should be specified to create stable expectations for local governments. For instance, the amount of transfer payments should be adjusted with an interval of five years. Explicit requirements are much more positive than *ad hoc* regulations.

China may also consider establishing an intergovernmental transfer payment council to increase the transparency of central fiscal transfer payments, incentivize local governments, and properly balance central-local fiscal relations. The council should be responsible for evaluating the transfer payment plan submitted by the central fiscal appropriation expert committee and submit the plan to China's legislature for review and approval.

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#### VISUAL REPRESENTATION OF LAFFER CURVE FACTORING IN IMPLICATIONS OF CAPITAL OUTFLOW

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##### ABSTRACT

The article examines the problem of Laffer curve visualization. The purpose of the article is to propose a visual representation of the curve that takes into account the effects of capital outflow. The following research methods were used in the course of the research: historical method, comparative and critical analysis, graphical method. The author analyzes existing methods of the graphical representation of the curve drawn upon the interpretation of the original theoretical assumptions used for building a coordinate plane and taking into account additional factors (inflation, underground economy etc.). The author defines conditions for capital outflow and, as a result, for tax migration. The author proposes her own interpretation of the term "tax migration", listing the key reasons for its occurrence. A variant of Laffer curve visualization in different coordinate planes has been developed, factoring in tax migration. The obtained results made it possible to establish a range of permissible changes to tax rates within which government tax revenue increases. The time frame in which tax revenue grows is different, depending on the dynamics of the tax rates

##### KEYWORDS

Laffer curve; tax burden; tax revenue; tax migration; capital outflow; open economy; tax resident; graphical interpretation; income effect; substitution effect; tax "hysteresis"

##### HIGHLIGHTS

1. When carrying out tax reforms in a country, governments must start by empirically calculating a range of recommended changes to the tax burden, in this case tax policy might result in higher tax revenues
2. It is not expedient to reduce the tax burden unless there is a goal to encourage production rather than to earn more revenue for the treasury because in the future the concessions will by no means result in a matching increase in tax revenue
3. In order to use the Laffer curve as a tool of analysis it is necessary to specify the conditions for its application and its graphical representation in each case

#### ВИЗУАЛИЗАЦИЯ КРИВОЙ ЛАФФЕРА С УЧЕТОМ ПОСЛЕДСТВИЙ ОТТОКА КАПИТАЛА ЗА РУБЕЖ

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##### АННОТАЦИЯ

Статья посвящена проблеме визуализации кривой Лаффера. Ее целью является предложение варианта визуализации кривой с учетом последствий оттока капитала за рубеж. В ходе исследования были применены такие методы науч-

ного познания как исторический метод, сравнительный и критический анализ, графический метод. Проведен анализ существующих способов графического изображения кривой в зависимости от трактовки различных исходных теоретических допущений, используемой для построения координатной плоскости, учета в ходе анализа дополнительных факторов (инфляции, теневой экономики и др.). Были определены условия возникновения оттока капитала за рубеж и, как следствие, процесса налоговой «эмиграции». Предложена авторская трактовка понятия «налоговая «эмиграция», содержащая основные причины ее возникновения. Разработан вариант визуализации кривой Лаффера в различных координатных плоскостях с учетом фактора налоговой «эмиграции». Полученные результаты позволили установить интервал допустимых изменений уровня налоговой нагрузки, в пределах которого налоговые поступления в бюджет возрастают. Временной период роста налоговых доходов различается в зависимости от направления изменения налоговых ставок

### КЛЮЧЕВЫЕ СЛОВА

Кривая Лаффера, налоговая нагрузка, налоговые поступления, налоговая «эмиграция», «бегство» капитала, экономика открытого типа, налоговый резидент, визуализация, эффект дохода, эффект замещения, налоговый «гистерезис»

### ОСНОВНЫЕ ПОЛОЖЕНИЯ

1. При осуществлении налоговых преобразований в стране органам государственной власти необходимо предварительно определять интервал рекомендуемых значений изменения уровня налоговой нагрузки на основе эмпирических расчетов, в этом случае можно ожидать увеличения налоговых поступлений в бюджет
2. Снижать уровень налоговой нагрузки имеет смысл только в целях стимулирования производственной активности хозяйствующих субъектов, а не в целях пополнения бюджета страны, поскольку в будущем эти послабления ни при каких условиях не приведут к равноценному росту налоговых доходов
3. При применении в качестве инструмента анализа кривой Лаффера в каждом конкретном случае требуется уточнение условий ее использования и внешнего облика

### Introduction

Can lower tax rates result in higher tax revenue for the government? The question has been repeatedly raised during tax policy debates in the USA and other developed and developing countries.

The relationship between the tax burden and the amount of tax revenue collected by the government is shown by the Laffer curve. Western scholars' interest in the concept has somewhat subsided recently due to its failed application in the course of Ronald Reagan's tax reform. Laffer's concept, however, boasts some success stories, for example, reforms by Presidents Harding and Coolidge and John Kennedy. In Russia, a successful example of the concept implementation was the introduction of a flat tax on individual income in 2001.

The hypothesis by Arthur Laffer about the influence of tax rates on the

amount of the government's tax revenue is typically represented with an inverted U-shaped curve that crosses the horizontal axis at 0 % and 100 %. Well-grounded and scientifically plausible theoretical interpretations of this particular shape of the curve are very scanty in the literature. It is the fragility of the original arguments and the extreme simplification of the justifications behind the curve shape that resulted in the emergence of more complex and modified variants of its graphical representation that take into account specific behavior of economic agents in response to changing tax rates in their domicile.

The task of elaborating the visual representation of the Laffer curve in relation to the current state of the economic system remains highly relevant today against the backdrop of constant societal development.



### Literature review

The current economic literature contains numerous graphical representations of the Laffer curve.

Among Russian scholars who worked on the subject are Iu. Sh. Ananiashvili, Ye. V. Balatsky, P. Yu. Buryak, A. S. Vеткин, V. P. Vishnevsky, V. P. Volobuyev, A. B. Gusev, D. V. Lipnitsky, S. L. Londa, I. A. Mayburov, T. V. Merkulova, S. M. Movshovich, V. G. Papava, V. P. Sinchak, A. V. Smorgonsky, L. Ye. Sokolovsky, S. G. Steshenko, I. Ya. Chugunov.

In the West, J. Buchanan., J. Wanniski, M. Gardner, P. Krugman, D. Lee, J. Malcomson, F. Gahvari, B. Dalamagas, and D. Henderson paid attention to the subject.

All papers on the subject can be divided into two groups: in group one, the shape of the Laffer curve is based on the analysis of its theoretical aspects (initial assumptions); in group 2 it is estimated empirically by constructing economic and mathematical models that set the type of the relationship between tax revenue and the tax burden.

A separate group comprises works by scholars who place the curve in an unconventional system of coordinates: “tax burden – time”, or “tax burden – tax base”.

An overwhelming majority of scholars belong to group two. They typically estimate certain parameters of the Laffer curve for a given economy, tax, time period, specific tax payers etc. by means of economic and mathematical modelling.

Group one is represented by A. Laffer, J. Wanniski, Ye. V. Balatsky, I. A. Maybu-

rov, V. G. Papava who provide substantial theoretical justifications for their graphical interpretation of the curve.

Despite the diversity of studies, none of the above mentioned authors take into account the influence of the international economic factor on the amount of tax revenue. They proceed from the assumption that a given economy exists in complete or partial isolation. In the real world, however, all national economies are involved in a single global economic system, and global economic cooperation has long since become an objective necessity along with steady economic growth.

It is therefore necessary to factor in the process of capital outflow and the resulting tax migration when analyzing the impact that changes to the tax burden have on tax revenue.

The purpose of this article is to develop a graphical interpretation of the Laffer curve that reflects the factor of tax migration.

### Historical analysis of variants of the graphical representation of the Laffer curve

American economist Arthur Laffer originally sketched a curve of a relationship between tax revenue and rates of taxation on a napkin in 1974 (Figure 1a). Famous economist Jude Wanniski coined the name “Laffer curve” for the diagram. Four years later, Jude Wanniski presented what has become the classic depiction of the curve (Figure 1b).

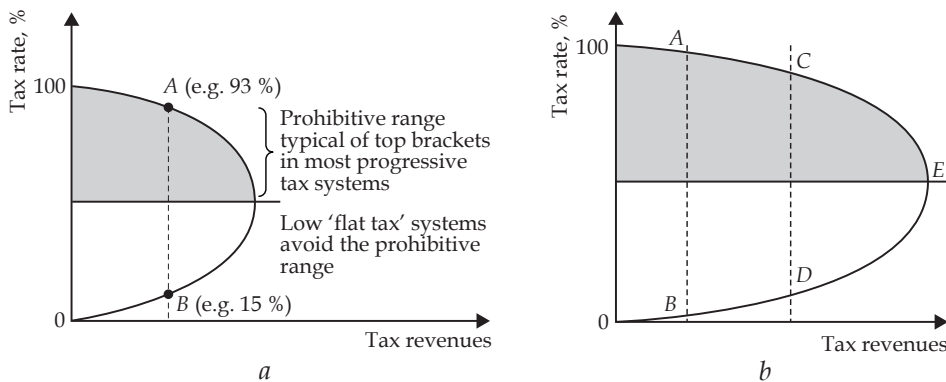
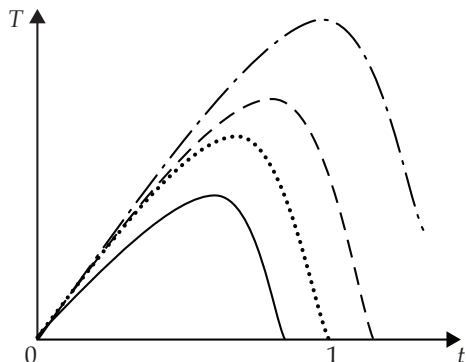


Figure 1. ‘Classic’ look of Laffer curve: a) by A. Laffer [1], b) by J. Wanniski [2]

The features of the curve interpretation by Wanniski and Laffer himself is that it peaks symmetrically and its variables are placed unconventionally, with its independent variable lying on the vertical axis and the dependent variable on the horizontal axis.

Various scientists later proved that the classic Laffer curve was a sufficiently accurate representation of the behavior of economic agents in the case of personal income taxation. When it comes to other taxes, there are problems with establishing the end-points (where the curve crosses the horizontal axis). For example, the end-points for corporate income tax or value added tax will not match the initial assumption. The fact was demonstrated by Movshovich and Sokolovsky [3]. Consequently, the Laffer curve can be drawn as in Figure 2.

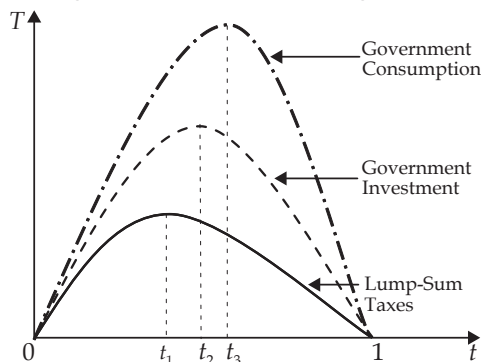


**Figure 2. Graphical representation of Laffer curve considering end-point conditions [4]**

Depending on additional revenue-influencing factors being taking into account, the curve might show more asymmetry in both directions. Peter Gutmann visualized the dependence with the consideration of the underground economy. Gutmann’s variant of the curve is strongly skewed to the right [5]. A large number of skewed bell-shaped curves that reflect the number of economic agents engaged in the economy can be found in the works by Smorgonsky.

Zsolt Besci considers various types of shifts in the Laffer curve depending on expenditure alternatives for the sake of balancing the budget. For example, when

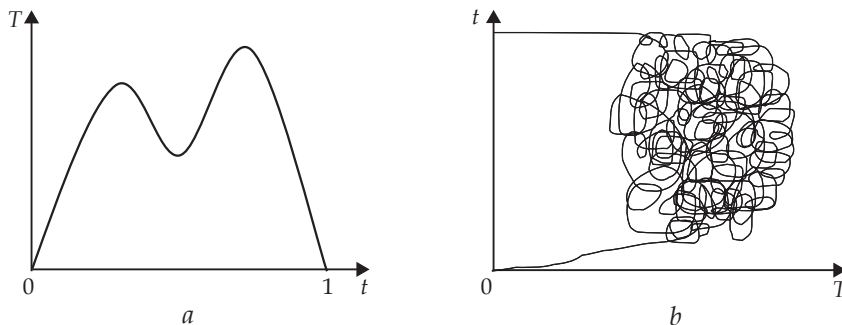
public investment is undertaken in order to balance the budget, the Laffer curve will be above the Laffer curve for private investment. When public consumption is used for balancing the budget, the Laffer curve will lie still further above the Laffer curve for public investment. Consequently, there are three revenue-maximizing tax rates when three alternative spending arrangements are available (Figure 3).



**Figure 3. Laffer Curves under alternative spending arrangements [6]**

The following graphic interpretations of the Laffer curve originate from a premise that it can have more than one inflection point. Henderson was the first one to observe that the amount of tax revenues could vary depending on people’s preferences in case of lower taxes on labor income. Their reactions are not identical and are not predictable: some will work harder and find a side job (the income effect), others will give priority to leisure (the substitution effect). As we showed earlier, the income effect that reflects the stimulatory function of taxes can manifest itself on both the upward and downward sloping portions of the curve [7, p. 29]. People’s preferences are determined by numerous associated factors: job complexity, family status, gender, age, educational background and income level.

Since the income effect and the substitution effect differ in absolute values, signs and the elasticity of taxable income in relation to labor income tax rates, their sum total might change from negative to positive several times in line with the reduction of the tax rate (Figure 4a).



**Figure 4. Graphical representations of Laffer curves with several inflection points: a) Henderson’s version [8], b) Gardner’s version [9]**

Foreign scholars studying the Laffer curve obtained different estimates for the elasticity depending on the combination of factors included in the analysis, the time of the study and the sampling of taxpayers (Table).

Due to the variability of the obtained elasticity estimates, prominent mathematician Gardner suggested that the Laffer curve should be drawn as in Figure 4b.

By contrast to multiple peaks, some papers describe Laffer curves without an

inflection point. Since the end-point condition of the curve – tax revenues becoming zero at the tax rate of 0 % and 100 % – is rarely satisfied, there might be situations when the dependence is described by an ever-ascending function without an optimum. For example, Russian scientist Ye. V. Balatsky attributed the deformation of the Laffer curve to rising inflation in the economy. When there is a strong inflation surge, the Laffer curve is characterized by an infinite growth (Figure 5).

Table

**The results of elasticity of taxable income at income tax rate**

Author	Source data	Summary of Results
Canto Joines, Artur Laffer (1981)	Dependent Variable: Income Tax Revenue Key Independent Variable: Income Tax Rates Years Covered: 1951–1964 Unit of Analysis: Group (all taxpayers in time series data sets)	Through their regression simulation, the authors find that in the years following 1964, decreasing tax rates could raise tax revenue. This points to the presence of the Laffer curve during this time period and implies that the U.S. was on the right side of this curve
Lindsey (1987)	Dependent Variable: Taxable Income Key Independent Variable: Top marginal income tax rate Years Covered: 1980–1984 Unit of Analysis: Group (all taxpayers in cross sectional data sets)	The author obtains elasticity estimates of 1.6 to 1.8 for the elasticity of taxable income with respect to the top marginal tax rate. The greatest responsiveness to tax rate changes in high income earners. The U.S. is on the right side of the Laffer curve during this time period because the tax cuts are associated with an increase in tax revenue
Feldstein (1995)	Dependent Variable: Taxable Income Years Covered: 1985 and 1988 Key Independent Variable: Top marginal income tax rate Unit of Analysis: Group (taxpayers in the specific panel data set)	Creates elasticity estimates of 1.04 to 3.05 for the elasticity of taxable income with respect to the marginal tax rate. Author also finds increased tax rate responsiveness in high income earners. These elasticities show that the U.S. is on the right side of the Laffer curve during this time period. The author predicts that the 1993 tax increases should only marginally increase tax revenue

End of the Table

Author	Source data	Summary of Results
Goolsbee (1999)	Dependent Variable: Taxable Income Key Independent Variable: Top marginal income tax rate Years Covered: 1922-1926, 1931-1938, 1948-1952, 1962-1966 Unit of Analysis: Group (all taxpayers in cross sectional data sets)	Creates elasticity estimates of 0.0 to 0.7 for the elasticity of taxable income with respect to the top marginal tax rate. These findings do not show any evidence of a Laffer curve in the U.S. during these time periods. These elasticities show that the percentage decrease in taxable income after a tax increase will not be as large as a one percent increase in the tax rate. This shows that tax revenue will still increase if tax rates increase. Author discounts the notion that lowering tax rates could increase tax revenue
Saez (2004)	Dependent Variable: Income share of top decile of income earners (multiple groups of income shares were used) Key Independent Variable: Top marginal tax rates, Time trends to control for exogenous factors that affect taxable income Years Covered: 1960-2000 Unit of Analysis: Individual (tax unit)	Produces long-term elasticity estimates of 0.6-0.7 for the elasticity of the top 1% income share with respect to the top marginal tax rate. Author only finds tax rate responsiveness in the top 1% of income earners. These findings also do not show evidence of the Laffer curve because the elasticities are less than one. The elasticities show that the percentage decrease in the top 1% income share after a tax increase will not be as large as a one percent increase in the tax rate. This shows that tax revenue will still increase if tax rates increase. Author does not find evidence that there are negative revenue effects of tax rate increases

Source: [10].

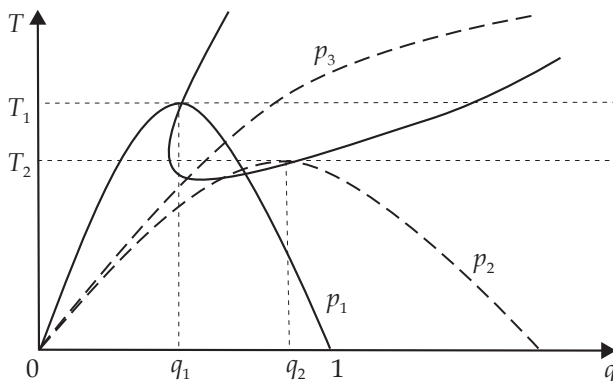


Figure 5. Graphical representation of Laffer curve without an inflection point [11]

A number of Laffer curve representation ideas are built upon research into the effect that changing tax rates have on the size of the tax base. That added an additional coordinate to the diagram – “tax base”.

A substantial difference in the interpretation of the extended graphic representation of the curve by Laffer himself and by Russian scholars lies in the nature of its monotonicity. Laffer’s version of the

curve is inverted, while in the Russian-language literature it is usually drawn as convex (Figure 6).

In addition to the traditional fiscal Laffer curve for taxes, Balatsky also distinguishes the Laffer curve for production that graphically depicts a relationship between the tax burden and the tax base. Balatsky refers to the space between the taxation curve and the production curve as the “area of fiscal controversies” (Figure 7a).

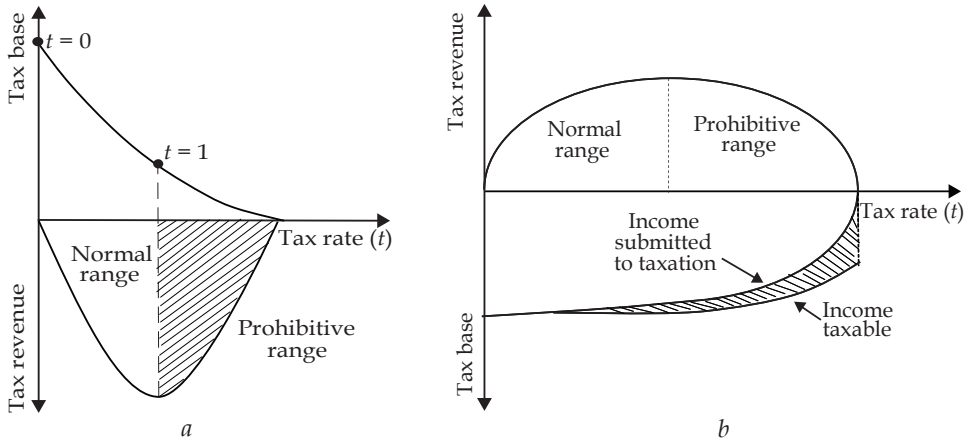


Figure 6. Extended Laffer curve:  
 a) Laffer's version [12], b) Volobuyev's version [13]

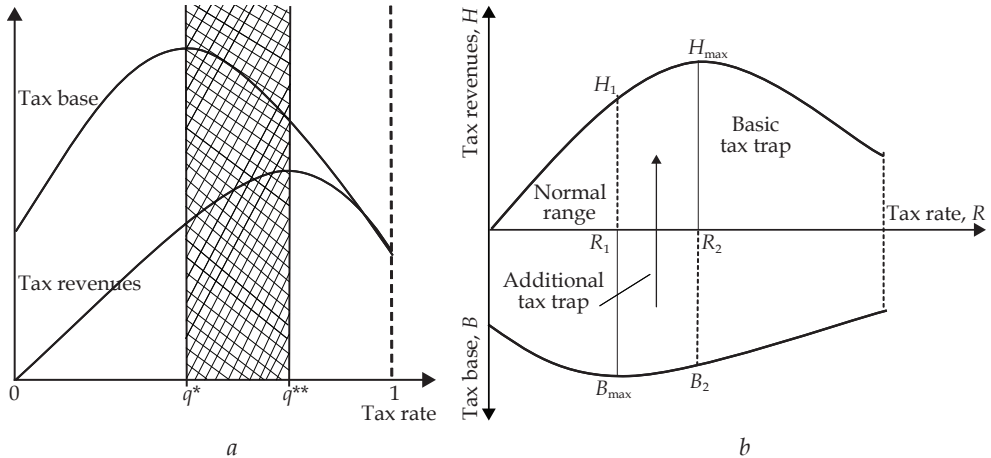


Figure 7. Graphical representation of fiscal and production Laffer curves:  
 a) by Balatsky [14], b) by Mayburov [15]

I. A. Mayburov puts the curves in more conventional coordinates and introduces the concept of basic and additional "tax traps" (Figure 7b).

For the purpose of describing the dynamic processes that occur during the transformation of the tax burden, an attempt was made to draw the Laffer curve in the coordinate system of "tax revenues – time".

The first attempt to factor in time when drawing the Laffer curve was made by J. M. Buchanan and D. R. Lee (Figure 8).

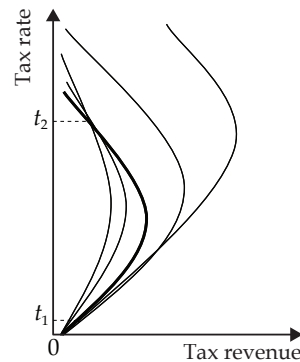


Figure 8. Graphical representation of Laffer curve with time factor [16]

On the basis of their analysis of the enhanced curve the authors come to an important conclusion: higher tax rates will result in an increase in tax revenue in the short run, whereas lower tax rates will also drive up tax revenue, albeit in the long run.

Buryak and Londar also suppose that lower taxes will initially result in a short-term drop in tax revenue, followed by an exponential growth in thanks to expansion of the tax base (Figure 9a).

A similar viewpoint can be found in Vishnevsky and Lipnitsky, one difference being that in some cases revenue shortfalls

will never be replaced, that is, the period of tax revenue recovery is infinite [18].

In 2009, German economists V. G. Papava and Iu. Sh. Ananiashvili suggested drawing the Laffer curve in a three-dimensional coordinate system of “tax burden – tax revenues – time”. When constructing the curve in the three-dimensional space, the authors were guided by works of Balatsky, Vishnevsky and Lipnitsky. The addition of new curves was driven by the need to illustrate the Laffer Effect with fiscal “hysteresis” that characterizes a delay in the start of the growth of tax revenues in the wake of tax reduction (Figure 10).

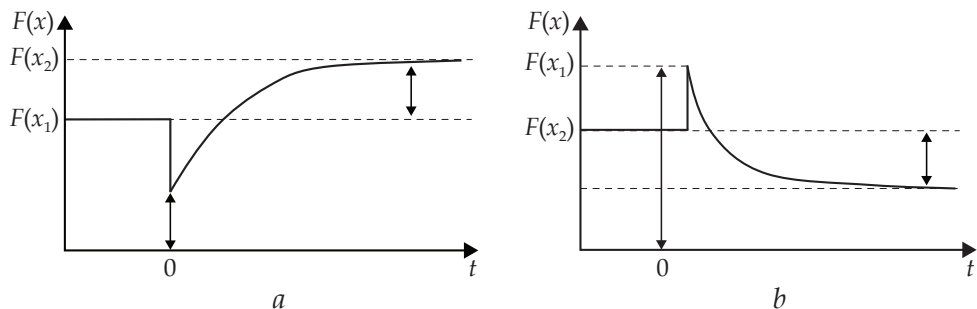


Figure 9. Graphical representation of Laffer curve in “tax revenues – time” coordinates in the case of: a) lower tax rates, b) higher tax rates [17]

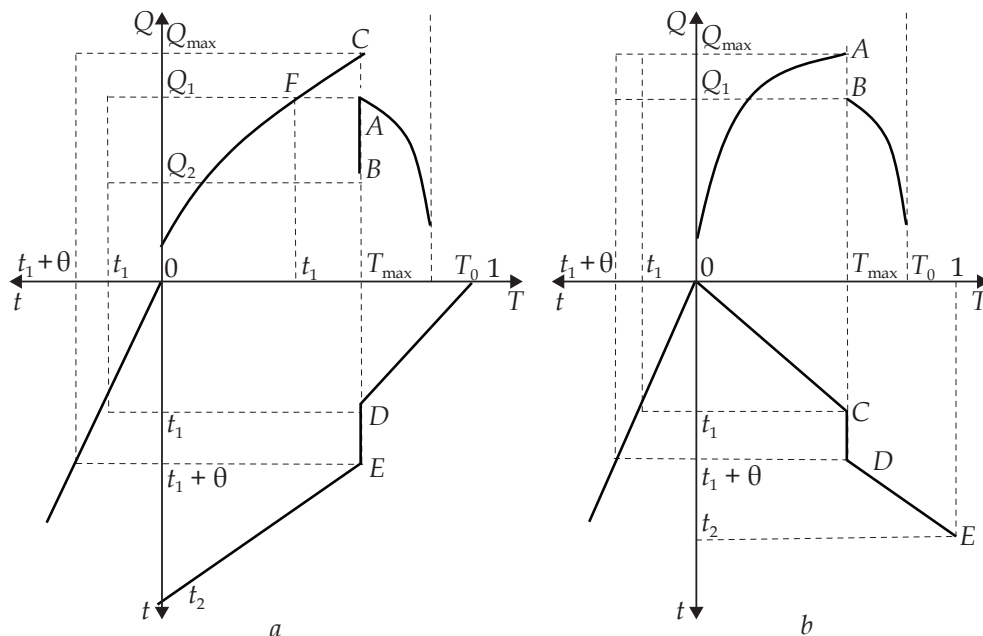


Figure 10. Graphical representation of Laffer curve in three-dimensional system by: a) Balatsky, b) Vishnevsky, Lipnitsky [19]

Apart from the visual representations of the Laffer curve reviewed above, there are plenty of other variants proposed by other scholars.

### **Tax migration and its causes**

It is commonly known that individual income taxes and corporate income taxes are the main sources of tax revenues in a country.

Consumption, saving and investment are the three main ways for economic agents to spend their income and profits [20].

In some cases, the income of citizens and businesses can be used as a resource for paying taxes both domestically and abroad. For example, this happens when:

- final consumption expenditure occurs abroad (individuals buy foodstuffs and non-food products and pay for services when travelling abroad);
- funds are saved abroad (by placing money on deposits in foreign banks);
- money is invested abroad (by buying property and vehicles, shares and bonds issued by foreign companies);
- a Russian organization opens a branch abroad.

When Russian nationals buy goods or services abroad, they pay indirect taxes as the taxes are included in the price.

When opening a savings account in a foreign bank, a Russian national has the right to pay taxes on interest income abroad if there is a double taxation avoidance agreement. A similar situation occurs when an individual receives dividends from shares in foreign companies or interest income from bonds.

Double taxation treaties unambiguously state that property taxes and capital gains from alienation (sale) or use (lease) of a property are to be paid in the country where it is located regardless of the taxpayer's (owner's) country of residence<sup>1</sup>.

Under double taxation treaties, business profits of a Russian company's subsidiaries abroad are taxed in the country where they are situated.

A branch of a Russian company can pay VAT directly to the treasury of the country where it is located if it has taxpayer status. If the branch is not registered as a taxpayer, VAT can be withheld and transferred to the foreign state by a tax agent.

By paying the above taxes abroad, a Russia tax resident does not usually become exempt from paying the missing taxes to the Russian budget.

Eighty-two countries have signed double taxation treaties with Russia.

By signing the treaties, Russia suffers a loss of tax revenue due to tax "migration" to other countries and, as a result, has a certain amount of its financial resources withdrawn for the benefit of foreign economies.

That being said, we suggest that tax migration should be defined as a process whereby individuals and businesses that reside or are headquartered in Russia pay taxes to a foreign country by buying goods and services, securities, opening bank accounts, buying real estate there, leasing it out or establishing an office in the territory of a foreign state.

### **Visual representation of the Laffer curve included tax migration factor**

When reviewing graphical representations of the Laffer curve, we came to a conclusion that the authors usually ignored foreign economic factors, assuming that the Russian economy exists in isolation. When modelling and constructing the curve, it is assumed that all resources of economic agents that become available thanks to lower tax rates will be part of the country's gross domestic product (GDP) and will subsequently be used for increasing the government's tax revenue.

In the real world, though, nearly all national economies are open, so we can observe an increase in the outflow of capital abroad when tax rates go down. In other words, when economic agents see their financial capability expand, they aspire to have holidays abroad, buy foreign-made goods or property abroad. Some of them intend to earn extra income by purchasing

<sup>1</sup> Article 232 of Tax Code of the Russian Federation (as of March 2017 r.). Available at: <http://www.consultant.ru/popular/nalog1/>

foreign securities or conducting business abroad. When they have more cash in the hand, the desire to make money abroad grows stronger.

The Laffer curve that is put in the coordinate system of “tax revenues – time” illustrates the above described reaction of economic agents (Figure 11).

When tax rates have been lowered, government bodies instantly notice a temporary decrease in tax revenues because the tax base remains the same. At a certain time point, tax revenues start to grow upon reaching a certain level ( $T_2$ ) thanks to the expanding tax base, but they will never match the previous level ( $T_1$ ) and will stay far below (at  $T_3$ ) because of capital outflow. The difference between the initial level and the end level ( $T_1-T_3$ ) is the revenue shortfall caused by tax migration (Figure 11).

When the Laffer curve is drawn in the conventional coordinate system of “tax revenues – tax burden”, the effect of tax “outflow” that occurs at lower tax rates can be depicted (Figure 12).

It is assumed that the economy of a country is at point A. Starting at point A, it is possible to move up and down the curve depending on changes to tax rates. The resulting Laffer curve has two rather than one inflection points, the first one indicating a critical level that the tax burden can be lowered to when the tax policy takes a more liberal turn ( $t_2$ ). The second inflection point indicates a critical level beyond which it is inexpedient to increase taxes when the national tax policy becomes tougher ( $t_3$ ). Tax revenues will start to shrink irrevocably outside the corridor marked by the recommended tax rates ( $t_2, t_3$ ) (Figure 12).

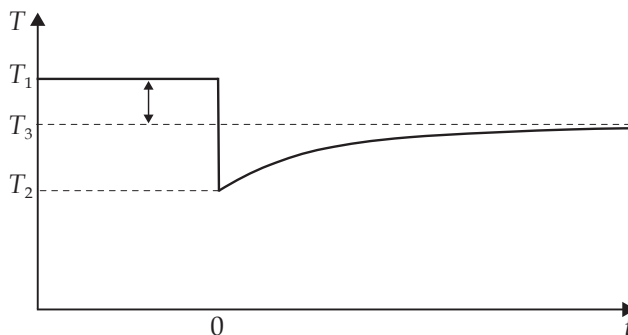


Figure 11. Graphical representation of Laffer curve for lower tax rates in coordinates ‘tax revenues – time’ included tax migration factor

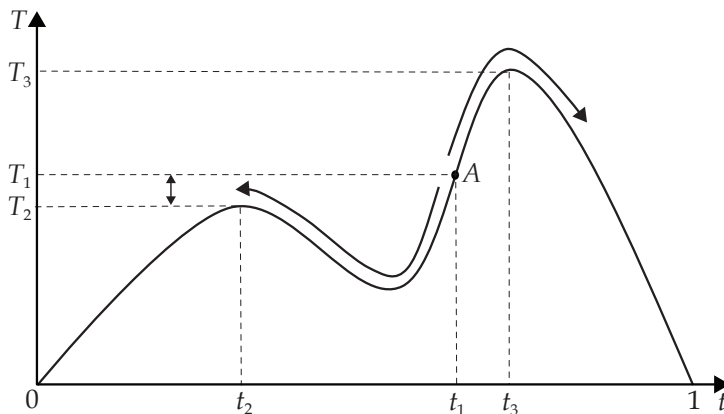


Figure 12. Graphical representation of Laffer curve included tax migration factor



### Conclusion

When carrying out tax reforms in a country, governments must start by empirically calculating a range of recommended changes to the tax burden. A properly implemented tax policy (that implies adjustments to taxation within the established corridor) might result in higher tax revenues: if tax rates are increased, the growth will occur immediately; if tax rates are lowered, the growth will occur after a certain period of time.

The main outcome of this research is a conclusion that lower rates of individual taxes will under no circumstances lead to a

matching increase in tax revenues because of tax residents' compulsion to buy foreign-made goods and to make money abroad. Making the tax climate milder in the hope of recovering revenue shortfalls after a certain number of years will prove unproductive. Introducing taxpayer-friendlier rates only makes sense for the sake of stimulating their business activity, i.e. for the sake of business support rather than more government revenue should be the ultimate goal of undertaking tax liberalization. That might in fact be the answer to the question as to why the application of Laffer's concept in the USA and Europe in various times fell short of fiscal expectations.

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# Actions against tax evasion

## Противодействие уклонению от уплаты налогов

УДК 308.832.23

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### BIBLIOMETRIC ANALYSIS OF THE LITERATURE ON TAX EVASION IN RUSSIA AND FOREIGN COUNTRIES

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#### ABSTRACT

The study of tax evasion generally has common directions in all countries. However, there is also some national specificity, conditioned by the level of development, features of the economy or traditions. The study of this specificity is the subject of this work. This paper continues the bibliometric analyzes of the publications relating to the problem of tax evasion starting in the Journal of Tax Reform in 2016. We set the goal of comparing Russian-language and English-language scientific publications to identify the characteristics of the tax evasion study as a sphere of scientific knowledge using bibliometric methods. This article analyzes the Russian and English language publications relating to the problem of tax evasion published in eLIBRARY.RU, RePEc and SSRN till the end of 2016. The study was conducted by comparing the publication activity by types and the period of publications. In the first stage of the study we did the qualitative content analysis by identification the common themes discussed in the publications. Then, a quantitative analysis was conducted by comparing the publications on a particular topic from each source. We used bibliometric analysis method for the quantitative and bibliographic mapping method to visualize the results of the research. Calculations were performed using the software QDA Miner v.5.0 with WordStat module v.7.1.7. As a result, the study concluded that tax evasion is comprehended mostly as a criminal problem in Russia. It means that scientists and society as a whole are not ready to deal with socio-demographic and moral-ethical issues of tax evasion and to take into consideration institutional environment and market conditions to counteract the phenomenon

#### KEYWORDS

Tax evasion, bibliometrics, bibliometric analysis, content analysis, scientific publications, electronic publications database

#### HIGHLIGHTS

1. Bibliometric analyzes proved the presence of considerable differences in studying of tax evasion in Russian language and English language scientific literature
2. Tax evasion is comprehended mostly as a criminal problem in Russian language literature opposite its reflection as moral-ethical problem in English language literature
3. Russian language scientific literature does not ready to deal with socio-demographic and moral-ethical issues of tax evasion and to take into consideration institutional environment and market conditions of tax evasion counteraction
4. The most promising areas for studying tax evasion in Russia are methodological issues; institutional environment; socio-demographic and moral-ethical aspects of tax evasion

## БИБЛИОМЕТРИЧЕСКИЙ АНАЛИЗ ЛИТЕРАТУРЫ ПО УКЛОНЕНИЮ ОТ УПЛАТЫ НАЛОГОВ В РОССИИ И ЗАРУБЕЖНЫХ СТРАНАХ

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### АННОТАЦИЯ

Изучение уклонения от уплаты налогов в разных странах имеет много общего. Однако, в разных странах изучение данного явления имеет определенную специфику, обусловленную уровнем развития, особенностями экономики или традициями. Исследование такой специфики и является целью данной статьи. Статья продолжает библиометрический анализ проблемы уклонения от уплаты налогов, первые результаты которого были опубликованы в данном журнале в 2016 г. Была поставлена задача сравнения русскоязычных и англоязычных научных публикаций для выявления специфики изучения уклонения от уплаты налогов, как научной проблемы с применением библиометрических методов. Для исследования использованы научные публикации по теме уклонения от уплаты налогов на русском и английском языках, имеющиеся в базах данных eLIBRARY.RU, RePEc и SSRN на конец 2016 г. На первом, качественном этапе исследования проведен контент анализ ключевых слов публикаций для идентификации совместного использования терминов и определения общей тематики для всей выборки текстов. Далее проведен количественный анализ путем сравнения распределения публикаций по отдельным темам. Для визуализации результатов анализа использованы методы библиометрического анализа и картирования. Для анализа текстов использована программа QDA Miner v.5.0 с модулем WordStat v.7.1.7. Исследование показало, что уклонение от уплаты налогов в России, в отличие от англоязычной научной литературы, воспринимается в основном как проблема нарушения закона. Это означает, что научное сообщество в России и российское общество в целом не готовы учитывать социально-демографические и морально-этические аспекты уклонения от уплаты налогов. В русскоязычных научных публикациях совершенствование институциональной среды и развитие рыночных условий не рассматривается как способ противодействия уклонению от уплаты налогов

### КЛЮЧЕВЫЕ СЛОВА

Уклонение от уплаты налогов, библиометрия, библиометрический анализ, контент-анализ, научные публикации, базы данных

### ОСНОВНЫЕ ПОЛОЖЕНИЯ

1. Библиометрический анализ доказал наличие существенных отличий в изучении уклонения от уплаты налогов в русскоязычной и англоязычной научной литературе
2. В русскоязычной научной литературе отражается восприятие уклонения от уплаты налогов как криминологической проблемы в отличие от ее восприятия как морально-этической проблемы в англоязычной научной литературе
3. В русскоязычных научных публикациях не исследуются социально-демографические и морально-этические аспекты уклонения от уплаты налогов, а совершенствование институциональной среды и развитие рыночных условий не рассматриваются как способ противодействия этому явлению
4. Наиболее перспективными для изучения в России являются методологические аспекты уклонения от уплаты налогов, институциональная среда, социально-демографические и морально-этические аспекты уклонения

## **Introduction**

The International Bureau of Fiscal Documentation (IBFD) defines tax evasion as intentional unlawful behavior, or the behavior of a person who intentionally violates tax laws in order to avoid paying taxes, for example, deliberate underreporting of income or overstating tax deductions. In the OECD tax dictionary, tax evasion is defined as illegal actions as a result of which tax liabilities are hidden or ignored.

In the Russian juridical literature, tax evasion is defined as a form of reduction in tax and other mandatory payments, in which the taxpayer intentionally or recklessly avoids paying taxes or reduces the amount of his tax obligations with violation of the norms of the current legislation.

The beginning of modern trends in the study of tax evasion was laid down in the paper "Income tax evasion: a theoretical analysis" by M. Allingham and A. Sandmo [1], who adapted the model of the criminal choice of G. Becker [2] to the economic aspects of tax evasion. In accordance with their model (A-C model), taxpayers can choose two strategies for distributing their income – risky tax evasion or safe tax payment. This model has been widely developed in numerous neoclassical models, supplemented by various factors and assumptions. Some areas of research arouse the particular interest: the study of the relationship between the supply of labor and tax evasion, uncertainty and tax evasion, the shadow economy and tax evasion [3].

The neo-institutional theory, which views tax evasion as deforming tax rules (when state rules are replaced by informal rules that in practice have a form of tax evasion), also contributed to the theory's avoidance of tax payment.

Currently, tax evasion is also being studied in the behavioral and experimental economy. Unlike the neoclassical approach, based on the paradigm of free, rational and unlimited choice of a taxpayer, behavioral economics considers the psychological factors and socio-cultural conditions impact on tax evasion.

In the behavioral economy, two areas of tax evasion can be distinguished: models that use the theory of "un-expected utility" (based on the assumption that taxpayers tend to overestimate the probability of verification) and models that include various aspects of social interaction in the traditional scheme.

The experimental methods used in the behavioral economy makes it possible to determine the dependence of tax evasion on social norms, prestige considerations, psychological factors and group effects.

The study of tax evasion generally has common directions in all countries. However, there is also some national specificity, conditioned by the level of development, features of the economy or traditions. The study of this specificity is the subject of this work.

This paper continues the bibliometric analysis of the publications relating to the problem of tax evasion started in the issue no. 3, vol. 2, 2016 of the Journal of Tax Reform. The previous article explored to what extent the scientific publications on tax evasion correspond to practical issues discussed among the stakeholders in Russia and was conducted by comparing the publication activity by the types and the period of publications. That study shows that the theme of tax evasion is equally popular between scientific community, business community and public authorities in Russia. Thus, bibliometric analysis techniques can be used to research the problem of tax evasion in Russia. In this part of the research we set the goal of comparing Russian-language and English-language scientific publications to identify the characteristics of the study of tax evasion as the sphere of scientific knowledge using bibliometric methods.

## **Method of the study**

Bibliometric methods are used for two main purposes: analysis of the effectiveness of scientific work, and mapping of science. The analysis of the effectiveness of scientific work is aimed at evaluating the results of the research and publications of individuals and organizations. The mapping of science is aimed at identifying the

structure and dynamics of scientific fields. Bibliometric methods are useful for the preparation of review articles, they present quantitative evidence in the subjective evaluation of literature.

A detailed analysis of information about the usage of bibliometric methods in the Russian scientific literature, given in a study by I. Y. Popov, led to the conclusion that bibliometric in the overwhelming majority of Russian studies is used to compare the results of scientific work of individual authors, organizations, scientific fields; and there are very few studies that focus on identifying new areas of knowledge, especially at intersections of different subject areas [4].

From several existing bibliometric methods used for mapping science [5; 6], we selected the analysis of joint usage of words [7] – this is a method of content analysis [8], using the words of publications to identify the structure of the science field. When carrying out such a content-analysis, names, keywords, annotations or full texts of publications can be used. This method directly studies the contents of publications to measure their similarity and build a map of the scientific field.

Based on the stages of bibliometric analysis, identified by W. Glänzel [9, p. 195] and M. A. Akoyev [10, p. 166], our research includes the following consecutive stages: (Table 1).

Table 1

**Structure of the study**

Steps of bibliometric analysis	Research question	Application in the research
Statistical analysis / Profile building	Who?	Subject area: «tax evasion», presented in the selected repositories of scientific papers
Temporal analysis	When?	Analysis the dynamics of publications for all years presented in selected repositories
Geospatial analysis	Where?	The distribution the publications in different journals
Thematic analysis	What?	Content analysis of the keywords indicated in the articles on the studied topic

In this paper, the results of the network analysis are not presented because the problem is narrowly formulated and it is unlikely that the results obtained are of significant research interest. Instead, we present the results of the comparative analysis conducted to reveal the similarities and differences in the aspects of the articles' issues (topics extracted as a result of content analysis) for Russian-language and English-language articles.

In order to conduct the analysis, we selected the works located into repositories (online archives) for academic research.

The domestic source used as a basis for analysis is eLIBRARY.RU. eLIBRARY.RU is the largest electronic scientific publications library in the Russian Federation, it is integrated with the Russian Scientific Citation Index (RSCI) that is a free public tool for measuring the publication activity for scholars and organizations. Currently eLIBRARY.RU users have access to the abstracts and full texts of more than 24 million academic works, including electronic versions of more than 5 300 Russian scientific and technical journals. The total number of registered institutional users (organizations) is more than 2 800. The total number of registered individual users is about 1.7 million (from 125 countries)<sup>1</sup>.

Two international resources were also used for the analysis: RePEc and SSRN (the largest repositories in the field of economics and other social sciences).

Research Papers in Economics (RePEc) is the largest decentralized database of working papers, journal articles and software components. To date more than 1 800 archives from 89 countries have contributed about 2 million research papers from 2 300 journals and 4 300 series of working documents to this database. About 48,000 authors are registered in RePEc<sup>2</sup>.

The Social Science Research Network (SSRN) is the leading repository in the field of social sciences and humanities. It contains more than 718 000 research works

<sup>1</sup> Available at: [http://elibrary.ru/elibrary\\_about.asp](http://elibrary.ru/elibrary_about.asp)

<sup>2</sup> Available at: <http://repec.org/>

by more than 331 000 researchers in 24 disciplines<sup>3</sup>. In July 2012, it was first in the ranking of open access web repositories by Ranking Web of Repositories<sup>4</sup>, and now (after the purchase of SSRN by Elsevier) it is presented in the section “Portals” in this rating, where in January 2017 it took the third place<sup>5</sup>, following Academia.edu and ResearchGate. Since Academia.edu and ResearchGate are social networks for academics, we do not investigate them in the present paper – we chose a repository available for an unlimited number of users. (Although the Academia.edu network can register not only university staff and students but also independent researchers.)

For the purpose of the study we selected articles and other types of research papers from repositories which contain the target word combination (“tax”, “evasion”) in their title from 2013 to 2016. The search was carried out taking into account morphology (in Russian). The results obtained at the end of January 2017 are presented in Table 2. It can be noted, that there are a smaller number of publications about tax evasion in the Russian academic literature, than in international resources.

Table 2

#### Conditions and results of the search in repositories

Conditions of the search in repositories	Quantitative results of the search		
	eLIBRARY.RU	SSRN	RePEc
Title	380	354	1 009
Keywords	455		1 314
Abstract	686		1 853
Title + Keywords	680		
Title + Keywords + Abstract	1 069	1 143	
<i>The Search for a phrase in quotes</i>	-	327	1043

The aspects of the analyzed area are revealed through the content analysis of the publications’ keywords [11–13]. It was implemented by the instrumentality

<sup>3</sup> Available at: <https://www.ssrn.com/en/>

<sup>4</sup> Available at: <http://www.ssrn.com/update/general/awards.html>

<sup>5</sup> Available at: [http://repositories.webometrics.info/en/top\\_portals](http://repositories.webometrics.info/en/top_portals)

of software *QDA Miner v.5.0* with *WordStat module v.7.1.7* which is developed by Provalis Research (Montreal).

#### Results of thematic analysis

The selected sample contains the papers published from 2013 to 2016 which contain words “tax” and “evasion” in their titles. The sample characteristics are shown in Table 3.

Table 3

#### The Number of papers containing the words “tax” and “evasion” in their titles from 2013 to 2016 in the different repositories

Repository	The Number of papers	The Number of papers with a list of keywords
eLIBRARY.RU	164	145
RePEc	200	180
SSRN	113	97

At the first step of the study we created exclusion dictionaries and categorization dictionaries.

Keywords for search (as well as the forms of these words for the Russian-language dictionary) and the words in other languages were excluded from the content analysis.

Words were included in the categorization dictionaries in accordance with the constraints imposed by the purposes of further use for factor analysis. According to the rules of factor analysis, the following quantitative restriction is a prerequisite: the number of observations must be at least twice as large as the number of variables. Suchwise we quantified the maximum possible number of variables in each dictionary (number of words / categories). The words were included in categorization dictionaries according to the following principle: to include the maximum possible number of words, taking into account that all words with one frequency of use should be included. The description of the dictionaries is given in Table 4.

We have tested the composed dictionaries of categories for compliance with Zipf’s law (graphically) [14]. Thus, we checked how “dictionaries” of keywords inherent to the analyzed topic are

“developed” (that is, how much they correspond to the regularities in the frequency distribution of words in a natural language). The result is shown in Figure 1.

The diagram demonstrates the fact that the frequencies of words in categorization dictionaries are distributed according to Zipf’s law.

Table 4

The description of the dictionaries used in the study

Dictionary characteristics	Type of dictionary	
	Russian dictionary (used to analyze articles from eLIBRARY.RU)	English dictionary (used to analyze articles from RePEc and SSRN)
The principles to form the exclusion dictionaries	«tax», «evasion» and forms of this words in Russian; words in all languages, except Russian	«tax», «evasion»; words in all languages, except English
Maximum number of words in the categorization dictionary	145/2 = 72.5 72 words	(180 + 97) / 2 = 138.5 138 words
Number of words included in the categories dictionary (in fact)	66	78
Minimum frequency for word usage for words from the dictionary categories (in fact)	4	6
Coverage of the categorization dictionary		
Total number of words (token)	3 330	2 615
Total number of word forms (type)	516	682
Type/Token Ratio	0,155	0.261
Total words excluded (including words in other languages)	1 945	740
Percentage of words excluded, %	58.4	28.3
Average number of words in a list of keywords to one article	22.8	9.4
Percentage of keyword lists covered by categorization dictionary, %	86.3	76.0

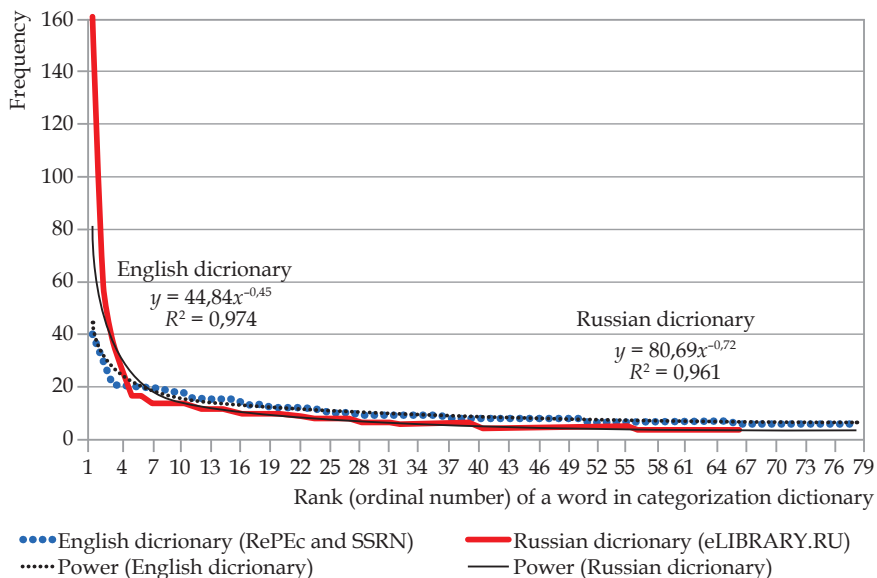


Figure 1. Zipf’s law: the frequencies of words in categorization dictionaries



Comparison of the categorization dictionaries shows the main differences between analyzed aspects in the Russian-language and English-language scientific literature in the considered field. Similar reasoning is the basis to calculate indicator TF-IDF (“term frequency – inverse document frequency”) [15, p. 324]. TF-IDF is a statistical measure used to evaluate the importance of a word in the context of a document that is a part of a collection of documents. The weight of a word is proportional to the number of this word usage in the document, and inversely proportional to the frequency of the word usage in other documents of the collection. Thus, the words used frequently in certain document and rarely in other documents have great weight. Due to the significant differences in the Russian-language and English-language dictionaries for each topic, the results of the analysis are not reported here, but these differences will be reflected at the extraction of the topics of the texts.

At the second stage, we implemented the extraction of the texts’ topics. The extraction of topics is carried out through the factor analysis method. Words or phrases or some categories which are assigned by the researcher can be accepted as variables for the analysis. The factors (hidden variables) are the topics (extracted) which are defined based on the values of variables (i. e. frequency of variable usage) in the unit of analysis [16].

Using the WordStat module is possible to extract topics in two ways: without the inclusion of a categorization dictionary (words are extracted in the forms that are used in texts; phrases are also extracted); and with the inclusion of the dictionary categories. In this way, the problem of extracting topics is connected with the possibility of lemmatization. For the Russian language, this option is not available at the version of the used WordStat, so the ability to change the word form is achieved by setting categories manually. Due to the described limitations, the extracted topics with the option “without the inclusion a categorization dictionary” are used in our content analysis not directly for quantitative analysis of texts, but as reference in-

formation taken into account when filling out the categories dictionary.

As unit of analysis for extracting the topics by usage WordStat module can be taken: a document (i. e. all texts used for analysis); a paragraph; a sentence. Since in our research we identify the dominated topics of publications in the keyword lists, we use paragraphs as a unit of analysis (where a paragraph is a list of keywords for one article).

The factors were extracted by the method of principal component analysis. The rotation of the factors was carried out by the varimax method with Kaiser normalization, i. e. the decision on the factors number was accepted on the basis of eigenvalue criterion as most widely used one [17]. Thus, there were selected factors having eigenvalue equal or greater than one. Factor loads more than 0.4 were taken as significant for interpretations.

The result of extraction (listed topics) reflects the joint occurrences of certain keywords in one list (keywords for one article). Studying extracted topics is of interest in relation to understanding the issues which are most frequently discussed in the context of the study of the shadow economy in academic publications [18]. Words can be repeated among several extracted topics.

The results of content analysis for articles performed in the eLIBRARY.RU repository see in Table 5.

It can be noted that the largest share in the total number of studies is devoted to the issues of responsibility according to criminal law.

The results of the similarity index (Jaccard’s coefficient) analysis among the selected topics are presented on the dendrogram (Figure 2).

The highest values of the similarity index have the following topics:

- “05 public danger” and “08 obligatory payments and fees; practice”;
- “11 unreasonable benefit and optimization of taxes; schemes” and “12 planning and optimization of taxation; law”;
- “04 components of tax offense” and “13 criminal and legal characteristics of crime”.

Table 5

## Extracted topics and keywords (articles from eLIBRARY.RU)

№	Name of the topic (formulated by authors)	Keywords	Frequency	Examples of articles
1	entrepreneur; personal income	entrepreneur; income; physical*; RF; person*; Code; budget; declaration	26	Konovod A. A. Prescribed data concerning the physical person in the investigation of tax evasion and (or) charges [19]
2	expertise; audit; investigation	process; expertise; indicators; audit; economic; investigat*; judicial	17	Ishchenko A. N., Salnikov K. Y., Suslov D. A. Problematic issues of use of results of tax audits at qualification of crimes under the articles of the Criminal Code of the Russian Federation providing responsibility for evasion of taxes and collecting, ways of their decision introduction of the automated systems [20]
3	value added tax; income tax	added; value; profit	10	Dubrovin V. V. Evasion of corporate profit tax and value-added tax: criminal responsibility and arbitration practice [21]
4	components of tax offense	commitment; fees; subject; part	12	Konovod A. A. Way of commission of crime as a component of the criminalistic characteristic of evasion of taxes and (or) collecting from the natural person [22]
5	public danger	danger; public; fees	18	Sereda I. M. Social danger of the crimes stipulated in articles 198, 199 of the Russian Criminal Law (Evasion of taxes and levies) [23]
6	techniques and methods of combating; causes of offenses	techniques; methods; combat*; causes; offense	18	Kalombo M. V. I., Shvetsova A. Problems of tax evasion and methods of their control [24]
7	materials; cases	materials; cases; RF	5	Konovod A. A. Features of definition of occasions and the basis for making decision on initiation of legal proceedings about evasion of taxes and (or) collecting from the natural person [25]
8	obligatory payments and fees; practice	payments; obligator*; practice; fees; jurisprudence	22	Akopdjanova M. O. Disposition of article 199 of the Criminal Code of Russia on responsibility for tax and levy evasion by organizations [26]
9	shadow economy; short-lived firms	firm*; economy; shadow*; short-lived	18	Vachugov I. V. The problem of limiting tax evasion in terms of specificity of terms and concepts [27]
10	responsibility in criminal law	responsibility; criminal*; law; crime*	61	Salkazanov A. E. Criminal liability for evasion of taxes and/or levies in the Russian Federation and foreign states as exemplified by organizational liability [28]
11	unreasonable benefit and optimization of taxes; schemes	benefit; unreasonable*; scheme; optimization	19	Kondratenko Y. V. On the problem of delimitation of the concept of optimization of taxation and tax evasion in the activities of the Russian Interior Ministry units for economic security and fight against corruption [29]
12	planning and optimization of taxation; law	planning; system; taxation*; optimization; law	40	Tegetaeva O. R. Tax mitigation VS tax avoidance [30]
13	criminal and legal characteristics of crime	crimin*; characteristic; crime; commitment	14	Perpelitsyn A. V. Content of the criminal characteristics of tax payment evasion by credit organizations [31]

Summarizing the results of the topics extraction, we got six main sets of topics demonstrating the interest for studying tax evasion in Russian (Table 6).

The largest interest displayed the set of topics, combined with different issues of law enforcement. In general, legal fo-

cus clearly dominate (according to specific gravity).

The issues of studying the shadow economy are also presented in the considered articles on tax evasion, but their share is relatively small in the total number of the articles.

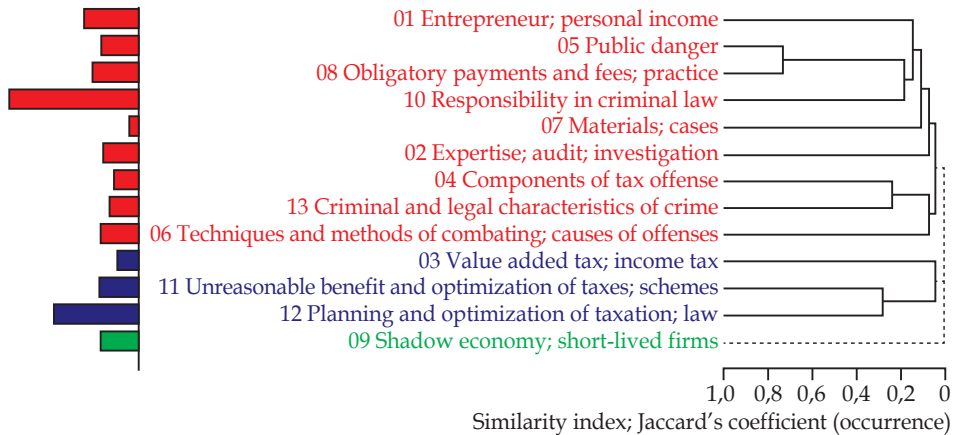


Figure 2. Similarity index for the extracted topics (articles from eLIBRARY.RU)

Table 6

Sets of topics (articles from eLIBRARY.RU)

No	Topic name (formulated by authors)	Keywords	Frequency	%
	<b><i>Criminological issues</i></b>		87	31.1
10	responsibility in criminal law	responsibility; criminal*; law; crime*	61	21.8
13	criminal and legal characteristics of crime	crimin*; characteristic; crime; commitment	14	5.0
4	components of tax offense	commitment; fees; subject; part	12	4.3
	<b><i>Legal and illegal techniques to reduce tax payments</i></b>		59	21.1
11	unreasonable benefit and optimization of taxes; schemes	benefit; unreasonabl*; scheme; optimization	19	6.8
12	planning and optimization of taxation; law	planning; system; taxation*; optimization; law	40	14.3
	<b><i>The public danger of the phenomenon; practice</i></b>		40	14.3
5	public danger	danger; public; fees	18	6.4
8	obligatory payments and fees; practice	payments; obligator*; practice; fees; jurisprudence	22	7.9
	<b><i>Counteraction against tax evasion</i></b>		40	14.3
2	expertise; audit; investigation	process; expertise; indicators; audit; economic; investigat*; judicial	17	6.1
6	techniques and methods of combating; causes of offenses	techniques; methods; combat*; causes; offense	18	6.4
7	materials; cases	materials; cases; RF	5	1.8
	<b><i>Types of taxes</i></b>		36	12.9
1	entrepreneur; personal income	entrepreneur; income; physical*; RF; person*; Code; budget; declaration	26	9.3
3	value added tax; income tax	added; value; profit	10	3.6
	<b><i>Shadow economy</i></b>		18	6.4
9	shadow economy; short-lived	firm*; economy; shadow*; short-lived	18	6.4
	<i>Number of codes mentioned, total</i>		280	100.0

Table 7

## Extracted topics and keywords (articles from RePEc и SSRN)

No	Name of the topic (formulated by authors)	Keywords	Frequency	Examples of articles
1	socio-demographic characteristics	variables; demographic; class; marital; education; competition; religion; study; status; employment; size; government; age; empirical; level	41	Preobragenskaya G., McGee R. W. A demographic study of Russian attitudes toward tax evasion [32]
2	behavioral economics	behavioral; economics; public	36	Hashimzade N., Myles G. D., Tran-Nam B. Applications of behavioural economics to tax evasion [33]
3	stigma; endogenous audit; prospect theory	reference; stigma; endogenous; prospect; audit; theory; level	33	Piolatto A., Rablen M. D. Prospect theory and tax evasion: a reconsideration of the Yitzhaki puzzle [34]
4	labor supply, risk behavior	supply; labor; risk; behavior	25	Doerrenberg P., Duncan D., Zeppenfeld C. Circumstantial risk: Impact of future tax evasion and labor supply opportunities on risk exposure [35]
5	self-reporting; effects	self; effects; reporting; information	22	Paetzold J., Winner H. Taking the high road? Compliance with commuter tax allowances and the role of evasion spillovers [36]
6	agent-based modeling	agent; based	21	Gulyás L., Máhr T., Tóth I. J. Factors to Curb Tax Evasion: Evidences from the TAXSIM Agent-Based Simulation Model [37]
7	economic policy uncertainty	uncertainty; policy; economic	20	Katz B. G., Owen J. Exploring tax evasion in the context of political uncertainty [38]
8	underground economy	economy; underground	20	Cebula R. J. Where Has The Currency Gone? And Why? The Underground Economy And Personal Income Tax Evasion In The US, 1970-2008 [39]
9	tax morale; tax avoidance	moral; avoidance; experiment; law	18	Blaufus K. et al. Does legality matter? The case of tax avoidance and evasion [40]
10	optimal taxation	optimal; consumption; taxes; dynamic; taxation	17	Goerke L. Relative consumption and tax evasion [41]
11	markets; finance	markets; finance; public	16	Ayyagari M., Demirgüç-Kunt A., Maksimovic V. Are innovating firms victims or perpetrators? Tax evasion, bribe payments, and the role of external finance in developing countries [42]
12	informal sector; corporate tax; financial frictions	informal; financial; corporate; frictions	15	Chiarini B., Ferrara M., Marzano E. Investment shocks, tax evasion and the consumption puzzle: a DSGE analysis with financial frictions [43]
13	fiscal fraud; VAT; sales	fraud; fiscal; vat; sales	13	Horga M.-G., Dănilă A. Tax evasion within European Union – VAT fraud [44]
14	ethics; gender	ethics; gender; age	8	Wei W., McGee R.W. Gender and attitude toward the ethics of tax evasion: a comparison of European and Asian views [45]
15	effect; crime	effect; crime	7	Argentiero A., Chiarini B., Marzano E. Tax evasion and economic crime. Empirical evidence for Italy [46]

The results of the analysis papers from RePEc and SSRN see in Table 7.

It can be noted that the largest share in the total number of papers is devoted to optimal taxation and moral issues of tax avoidance (and tax evasion); but so far as the keywords “evasion” and “tax” have been excluded from the content analysis in this study, we cannot extract them using our software for text analysis. However, we detect only this phrase when viewing encoded fragments). It is also possible to single out a separate topic issue of tax evasion for certain types of taxes – income tax and VAT (it is similar to the analysis results for Russian-language articles). There is a

group of topics devoted to the methods of tax evasion study, such as behavioral economics, prospect theory, and agent-based modeling.

The results of the similarity index analysis between selected topics are presented in the dendrogram (Figure 3).

The highest values of the similarity index have the following extracted topics:

- “02 behavioral economics” и “11 markets; finance”;
- “01 socio-demographic characteristics” и “14 ethics; gender”.

Summarizing the results of the topics extraction, we got 6 main groups of topics for studying tax evasion in publications from RePEc и SSRN (Table 8).

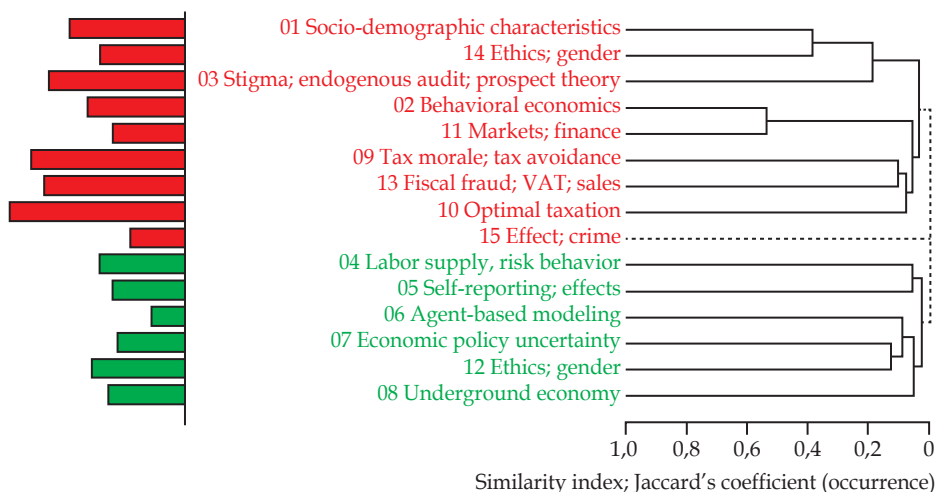


Figure 3. Similarity index for the extracted topics (papers from RePEc и SSRN)

Table 8

Sets of topics (articles from RePEc и SSRN)

№	Topic name (formulated by authors)	Keywords	Frequency	%
	<i>Socio-demographic and moral-ethical issues</i>		77	24.7
1	socio-demographic characteristics	variables; demographic; class; marital; education; competition; religion; study; status; employment; size; government; age; empirical; level	21	6.7
14	ethics; gender	ethics; gender; age	20	6.4
9	tax morale; tax avoidance	moral; avoidance; experiment; law	36	11.5
	<i>Institutional environment and market conditions</i>		65	20.8
7	economic policy uncertainty	uncertainty; policy; economic	16	5.1
12	informal sector; corporate tax; financial frictions	informal; financial; corporate; frictions	22	7.1
11	markets; finance	markets; finance; public	7	2.2
4	labor supply, risk behavior	supply; labor; risk; behavior	20	6.4

End of the Table 8

№	Topic name (formulated by authors)	Keywords	Frequency	%
	<i>Theoretical approaches to studying</i>		48	15.4
2	behavioral economics	behavioral; economics; public	15	4.8
3	stigma; endogenous audit; prospect theory	reference; stigma; endogenous; prospect; audit; theory; level	25	8.0
6	agent-based modeling	agent; based	8	2.6
	<i>Tax evasion as a crime; its types</i>		46	14.7
13	fiscal fraud; VAT; sales	fraud; fiscal; vat; sales	33	10.6
15	effect; crime	effect; crime	13	4.2
	<i>Ways of counteraction</i>		58	18.6
10	optimal taxation	optimal; consumption; taxes; dynamic; taxation	41	13.1
5	self-reporting; effects	self; effects; reporting; information	17	5.4
	<i>Shadow economy</i>		18	5.8
8	underground economy	economy; underground	18	5.8
	<i>Number of codes mentioned, total</i>		312	100.0

The largest shares have sets of topics, which are combined by socio-demographic and moral-ethical issues (in this regard the phenomenon of social stigmatization as a moral and ethical factor of tax violations is also noteworthy).

The issues of studying the shadow economy is also presented in the considering articles on tax evasion, but their share is relatively small in the total number of articles.

### Discussion

We should note that not all lists of keywords for the articles have been coded. The data on the number of non-encoded lists are given in Table 9.

Table 9

#### Number of non-coded lists of keywords

Datebase	eLIBRARY.RU	RePEc	SSRN
Number of articles that have a list of keywords	145	180	97
Number of non-encoded lists of keywords	19	49	20
Non-encoded lists of keywords, % form total number lists of keywords	13	27	21

Based on the analysis results, it is possible to formulate three possible reasons why a keyword list can be non-encoded:

- keywords have been excluded as foreign words;
- keywords have been excluded as “overly general” words;
- keywords are used less frequently than minimum frequency of a word usage from the dictionary.

In the latter case, we can assume that the discussed topics have not been widely popular so far due to the originality of the authors’ approaches. Perhaps some of these non-coded lists refer to the articles the topics of which will be developed later.

Comparing the structure of publications on the subject of “tax evasion”, we found that a significant role in the domestic publications have enforcement issues: disclosure the facts of tax evasion (31,1 + 21,1 = 52,2 %), that is much larger than the scope of consideration of the similar aspect in English-language articles (14,7 %). The issues of counteracting tax evasion and the aspects of the shadow economy are also common in both domestic and English literature. However, there is a noticeable difference in the following: we can say that Russian-language articles are more practically oriented toward the suppression of evasion activity, while in English-language articles the main attention is paid to the study

of the phenomenon itself and its causes (14,7 + 24,7 + 20,8 = 60,2 %). The results of the comparison are presented in Table 10.

Using the results of the conducted study, we can identify the main similarities and differences between English language and Russian scientific literature. The study reveals a certain disparity between the topics discussed in English language and Russian language scientific literature. The topics discussed in the majority of English language papers (socio-demographic and moral-ethical issues of tax evasion, institutional environment and market conditions of tax evasion, theoretical approaches to studying tax evasion) can be found in the publication in Russian much rarer. They focus mainly on criminological issues of tax evasion and matters of legislation.

In Russia, a great deal is written about taxation and tax evasion. But most publications in this field do not refer to scientific ones. The overwhelming number of books and articles are devoted to two topics: "how to pay taxes" or "how not to pay taxes". The first topic includes normative materials on taxation (laws, instructions, explanations, comments, analysis of errors and arbitration practice, answers to questions). The second one concerns the works on tax planning and tax minimization.

In our opinion, this situation is due to several reasons:

1. The tax system is functioning in its current form during an insignificant period, which restricts the study of taxation sphere by the most general issues.

2. There is no demand for the applied research in the field of taxation by the state.

3. There is difficulty in obtaining information for the correspond research.

4. There is traditional silence about the issues related to the effectiveness of attracting and spending budget funds.

5. Many researchers consider that evaluation of taxation effectiveness is impossible, since it is a part of public policy, with all the ensuing political constraints and administrative problems.

The special aspects of studying tax evasion in Russia are also related to the fact that active studying activity of the tax system (and taxes themselves) in the Russian Federation began only in the late 90s of XX century.

This study reflects the fact that tax evasion is comprehended mostly as the criminal problem in Russia. It means that scientists and the society as a whole are not ready to analyze socio-demographic and moral-ethical issues of tax evasion. Besides, they are not ready to take into consideration institutional environment and market conditions to counteract tax evasion.

The results of the thematic analysis afford to determine the vector for further development to the researchers interested

Table 10

**Comparison of the topics groups for articles from eLIBRARY.RU and articles from RePEc and SSRN**

<b>Papers from eLIBRARY.RU</b>	<b>%</b>	<b>Papers from RePEc и SSRN</b>	<b>%</b>
Criminological issues	31.1	Tax evasion as a crime; its types	14.7
Legal and illegal techniques to reduce tax payments	21.1		
Counteraction against tax evasion	14.3	Ways of counteraction	18.6
Shadow economy	6.4	Shadow economy	5.8
		Socio-demographic and moral-ethical issues	24.7
		Institutional environment and market conditions	20.8
The public danger of the phenomenon; practice	14.3		
Types of taxes	12.9		
		Theoretical approaches to studying	15.4
<i>Number of codes mentioned, total</i>	100.0	<i>Number of codes mentioned, total</i>	100.0

in the subject. For example, probably one of the most promising areas for domestic researchers is the development of those aspects of the scientific field which have not been studied on the basis of Russian

practice, however they are actively explored in the English-language literature: methodological issues; institutional environment; socio-demographic and moral-ethical aspects of evasion.

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### TAXATION AWARENESS AND ITS IMPACT ON FINANCIAL LITERACY

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#### ABSTRACT

For Russia to become a socially oriented country its population should be kept well informed about the current tax legislation. The article discusses the concept of tax awareness and its relation to the concept of tax culture. The author describes the measures necessary to raise tax awareness in the Russian society, which involves increasing the population's knowledge about tax legislation and identifying the factors preventing people from paying their taxes on time and in full. Raising tax awareness is also linked to enhancement of financial literacy among various age and gender groups with different tax status. Conceptually, this research is based on the attribution theory, planned behaviour theory and the social learning theory. The author sought to prove the hypothesis that the state is not interested in increasing the population's tax literacy, which is one of the main components of financial literacy, because the government is incapable of answering the questions: how can citizens exercise their right to free education, free health care and social benefits, and who is actually entitled to these services and benefits? Methodologically, the research included a survey of heterogeneous social groups with different age, gender, social and tax status: young people, students, employed population, retirees, tax residents and foreign nationals. The article outlines measures that can keep people informed about tax legislation. Respondents were asked to rank these measures on a scale of one to five according to their importance. The article also describes the factors preventing law abiding citizens from paying taxes to budgets of different levels. These are the factors that tax authorities and the Ministry of Finance should be dealing with in the first place

#### KEYWORDS

Tax awareness, tax literacy, taxpayer, financial literacy, tax culture

#### HIGHLIGHTS

1. The taxpayers should not be forced or bullied into performing their duties but instead they should be treated by the state as equal partners.
2. Tax authorities should conduct a well-organized campaign promoting responsible taxpaying and explaining why it is important
3. It is shown that tax awareness of the population depends on people's tax mentality and tax morality, which constitute tax culture

### ПОНЯТИЕ «НАЛОГОВАЯ ОСВЕДОМЛЕННОСТЬ» И ЕЕ ВЛИЯНИЕ НА УРОВЕНЬ ФИНАНСОВОЙ ГРАМОТНОСТИ ГРАЖДАН

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#### АННОТАЦИЯ

Для того чтобы Россия стала социально-ориентированной страной, ее население должно быть хорошо информировано о действующем налоговом законодательстве. Целью проведенного исследования являлось определение налого-

вой осведомленности российского общества, что необходимо для устранения пробелов в знаниях налогового законодательства, а также повышения уровня финансовой грамотности среди граждан разных возрастных групп и с разным налоговым статусом. В статье аргументировано утверждается, что изучение уровня осведомленности налогоплательщиков целесообразно проводить через теории атрибуции, запланированного поведения и социальной теории обучения. Исследование проводилось методом эксперимента среди различных групп населения неоднородных по своему составу: возрасту, полу, социальному и налоговому статусу (молодежи, студентов, работающих граждан, пенсионеров, налоговых резидентов и нерезидентов). В статье рассмотрено соотношение понятий «налоговая осведомленность» и «налоговая культура». Автор стремился доказать гипотезу, что государство не интересуется увеличением налоговой грамотности населения. Доказательство строилось на том, что правительство неспособно ответить на вопросы о том, как граждане могут реализовать свое право на бесплатное образование, здравоохранение и социальные пособия, а также кто на самом деле наделен правом на эти услуги. Предложены мероприятия, ранжированные по степени важности и значимости по пятибалльной шкале, которые позволяют устранить пробелы в знаниях налогового законодательства. Выявлены преграды, мешающие законопослушным гражданам своевременно и в полном объеме платить налоги в бюджеты соответствующих уровней, на которые нужно обратить первостепенное внимание сотрудникам налоговых органов и Министерству финансов Российской Федерации

#### КЛЮЧЕВЫЕ СЛОВА

Налоговая осведомленность, налоговая грамотность, налогоплательщик, финансовая грамотность, налоговая культура

#### ОСНОВНЫЕ ПОЛОЖЕНИЯ

1. Налогоплательщиков не нужно заставлять или запугивать, их нужно сделать партнерами, а не враждующими сторонами
2. Налоговые органы должны провести хорошо организованную кампанию по продвижению положения «ответственный налогоплательщик» и пояснить всю важность этого процесса
3. Осведомленность налогоплательщиков формируется под влиянием налогового менталитета и налоговой морали, позволяющим получить достаточные знания для формирования налоговой культуры

#### Introduction

To improve financial literacy of the Russian population, the government of the country introduced “The Strategy of Financial Development of the Russian Federation until 2020”. To realize this strategy, in 2011, the federal special-purpose five-year program “Financial Culture and Security of Russian Citizens” was launched. It is important to note, however, that this program is not included in the list of state programs on the web-site “Portal of State Programs of the Russian Federation”<sup>1</sup>.

This program is aimed at enhancing financial literacy of the Russian popula-

tion (especially school and university students and adults with low and middle income), rational financial behaviour and decision-making and responsible budgeting. It is also meant to improve the system of consumer rights protection through the web-site of the Ministry of Finance “Love Your Money”<sup>2</sup>, which was launched at the end of 2016. The project costs are quite high: according to the Ministry of Finance, the government is planning to allocate 113 million dollars, out of which about 88 million will be budget funds, that is, the project will partially be implemented at the expense of taxpayers. Moreover, it is planned to borrow 25 million dollars

<sup>1</sup> Portal of State Programs of the Russian Federation. Available at: <https://programs.gov.ru/Portal/programs/quarterMonitoring?gpId=16> (data of access: 31.01.2017).

<sup>2</sup> Web-Site of the Russian Ministry of Finance “Love Your Money” Available at: <http://minfin.ru/ru/om/fingram/about/targets/#ixzz4XeN2ZIYz> (data of access: 31.01.2017).

from the World Bank with the interest paid from tax revenues – the fact which the government must also keep in mind<sup>3</sup>.

It seems doubtful that people's financial literacy can be significantly improved without addressing the problem of tax illiteracy. "Love Your Money" contains information only about the rights and responsibilities of taxpayers and there is no information about taxes and charges, not to mention the intricacies of taxation, in other sections of this site. In these conditions, how can citizens be expected to conscientiously perform their duties by paying statutory taxes and charges in order "to ensure the prosperity of Russia and fulfil their responsibility for their motherland to the present and future generations", as the Constitution puts it<sup>4</sup>?

Nevertheless, taxpayers can use the official web-site of the Federal Tax Service<sup>5</sup>, which provides extensive information on taxes and charges, their payment procedures and calculations. This site also features a somewhat outdated schedule of educational events for 2015 with a quarterly list of discussion topics. There is no such schedule for 2016 and 2017, and likewise, there is no information about the aims, results and the target audience of such events and, what is more, no information about the current changes in tax legislation and no explanations or relevant examples, no judgements on administrative or court appeals against decisions of tax authorities. The results of nine-month work of the Russian tax authorities in 2016 are quite disappointing: according to just one on-site inspection, the amount of additional charges reached the unprecedented 13 million roubles (!) in 2016 in com-

parison to 9.5 million in 2015. At the same time we can observe a stable positive dynamics in taxpayers' trust. They positively evaluate the work of the Federal Tax Service in such spheres as anti-corruption enforcement (in 2016, 86 % of taxpayers believed that the Federal Tax Service is efficient in fighting corruption in comparison to 83 % in the same period of 2014). The percentage of taxpayers who found the quality of tax authorities' work to be satisfactory was 83.8 % in the nine-month period of 2016 in comparison to 79.3 % in 2014. The declaration, however, does not provide figures for each Russian region<sup>6</sup>. These indicators reflect improvements to the performance of the tax authorities in Russia but to achieve the desired result of 100 % the government should pay attention to detection and prevention of tax crimes and take steps to increase levels of tax awareness among the population and thus raise understanding of tax legislation and of the need to comply with it. In this respect Mayburov's study [1] seems to be particularly interesting and promising: he considers various strategies used by taxpayers to dodge taxes such as natural and induced opportunism as well as economic factors and factors of tax morality that underlie opportunism. Among such factors, he places a special emphasis on the general level of tax culture.

### Literature review

Studies of tax evasion and tax debt in Russia [2–4] generally focus on enhancement of tax culture among the population but ignore tax awareness as well as the fact that there is no generally accepted understanding of the term "tax culture". This term was proposed by one of the leading Russian researchers in this sphere, Igor Mayburov [1], who defined it as the factor that "determines the level of social and state development and the awareness

<sup>3</sup> Web-Site of the Russian Ministry of Finance "Enhancement of the Population's Financial Literacy". Available at: <http://minfin.ru/ru/om/fingram/about/description/#ixzz4XeNRJ75X> (data of access: 01.02.2017).

<sup>4</sup> Constitution of the Russian Federation, Article 57 as of 12.12.1993 (revised version).

<sup>5</sup> Key Indicators of Performance of the Federal Tax Service of Russia. Public Declaration of Objectives and Targets of the Russian Federal Tax Service in Nine Months of 2016. Available at: [https://www.nalog.ru/rn22/related\\_activities/statistics\\_and\\_analytics/effectiveness/](https://www.nalog.ru/rn22/related_activities/statistics_and_analytics/effectiveness/) (data of access: 01.02.2017).

<sup>6</sup> Key Indicators of Performance of the Federal Tax Service of Russia. Public Declaration of Objectives and Targets of the Russian Federal Tax Service in Nine Months of 2016. Available at: [https://www.nalog.ru/rn22/related\\_activities/statistics\\_and\\_analytics/effectiveness/](https://www.nalog.ru/rn22/related_activities/statistics_and_analytics/effectiveness/) (data of access: 01.02.2017).

of their interconnection; it also shapes the way all members of the society understand their rights and the need to conscientiously fulfil their duties in the taxation sphere". Mayburov points out the fact that "taxpayers must not be required to fulfil their duties in good faith if similar requirements are not imposed on other actors of the taxation process (tax officials, judges, bailiffs, deputies, ministers and heads of government services, the prime minister and the president)".

On the contrary, international studies [5; 6] mostly concentrate on demonstrating and quantitatively evaluating the interconnection between tax awareness and tax evasion. These researchers contend that it is necessary to improve the population's financial literacy, which will result in a better understanding of tax legislation and improvements of individual tax behaviour.

According to the report [6], tax awareness has two aspects: awareness that is acquired through general and formal education and develops naturally and awareness that deals specifically with ways and strategies of tax evasion. Taxpayers' educational background is a significant factor that contributes to the overall understanding of taxation, especially its laws and regulations and the ability to abide by them. But how can we raise people's tax awareness and at the same time prevent them from using this knowledge to cheat on their taxes?

To answer this question, we may turn to the experience of Indonesia, which managed to enhance its citizens' tax awareness and thus increase its tax revenues in the last five years. The main source of tax revenues is the income tax, which accounts for over 78 % of the overall state revenue<sup>7</sup>. In Indonesia, taxpayers undergo the registration procedure, calculate and pay their income taxes and afterwards account to the state for the tax that they have paid. What makes Indonesian taxpayers so responsible? The reason might lie in the government's wisely applying various theories in the spheres of psychology, social studies, taxation, civil law and

decision-making to increase the level of individual civic consciousness and collective tax awareness.

Conceptually, our research is based on the attribution theory, planned behaviour theory and the social learning theory. According to the attribution theory [7], a person's behaviour can be attributed to an internal or external cause. Thus, taxpayers' willingness to pay taxes results from internal attribution – they understand that they are doing an important job of providing funds for the state.

The planned behaviour theory [8] deals with taxpayers' intentions, which are supposedly determined by three factors:

- subjective behavioural beliefs;
- normative beliefs, which refer to behavioural expectations of important referent groups or individuals;
- control beliefs, which correspond to the perceived presence of factors that may facilitate or hinder certain behaviour (perceived power).

Thirdly, according to the social learning theory [9], a person can learn through observation and direct experience. This theory can explain taxpayers' behaviour in the following way: some people's observations and experience impel them to perform their tax duties on time, because thus they are demonstrating their agreement to make an individual contribution to the development of the state. Others pay taxes because they want to gain access to state services in exchange for their tax payments. The third group are forced to pay their taxes by tax penalties.

Arum [10] has shown that taxpayers are willing to pay taxes on time and in full if they are sure that it is important for the development of their country.

Tax awareness is also sometimes associated with taxpayers' willingness to pay taxes and charges without being forced to do so by tax authorities. Sometimes people are reluctant to pay taxes because they do not know what they can get in return.

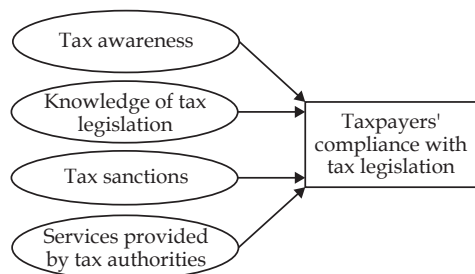
Santi [11] argues that tax awareness has a significant positive impact on taxpayers' behaviour. When a tax inspector imposes a tax lien upon someone's property, they also take into account whether

<sup>7</sup> Available at: <http://www.fiskal.depkeu.go.id>

this person knows or doesn't know taxation laws. People should clearly understand the norms of tax legislation in order to fulfil their tax duties properly. In other words, this knowledge is essential to make people pay their taxes on time and in full.

The knowledge of tax regulations increases people's motivation to pay taxes since they become aware of the purpose of their payments – to meet the needs of their country and their people. Enhancement of tax awareness can minimize the level of corruption and fraud and can be used in combination with tax penalties, which constrain tax evasion [8].

Nurlis [12] identified the factors affecting taxpayers' willingness to pay and comply with the tax legislation. He divides these factors into four groups (Figure 1).



**Figure 1. Factors of taxpayers' compliance with tax legislation**

The studies of Devano Sony, Siti Rahayu Kurnia and Stephen Robbins [13; 14]

show that tax compliance does not depend on technicalities such as methods of tax collection, taxation rates, technical supervision, investigation, tax penalties and provision of taxpayer services. Instead, it correlates with taxpayers' degree of awareness of the tax legislation.

Our research objective is to discuss the concept of tax awareness in the context of the Russian society and to identify the factors preventing the Russian population from paying their taxes on time and in full. These questions are also connected to financial literacy issues among different social groups of various ages, gender and income. We will also try to answer the question about the connection between "tax awareness" and "tax culture".

## Results

We conducted a survey in the city of Ekaterinburg (Russia) among heterogeneous social groups with different age and gender characteristics as well as different social and tax status: young people, students, employed population, retirees, tax residents and foreign nationals. In our research we sought to prove the hypothesis that the Russian state is not interested in enhancing the population's tax literacy and financial literacy in general. Our survey was based on a questionnaire that included four sets of tasks:

1. True/False questions (Table 1).

Table 1

### Questionnaire

Item	Questions	Answer choices		
1	Meaning of the economic category of "tax"	Funding of state authorities	Providing immigrants with financial support	State insurance protection
2	Functions of taxes	Fiscal	Stimulating	Fiscal
3	Taxes paid by individuals	Income tax	Vat	Mineral extraction tax
4	Age of tax liability	18	14	16
5	Income tax rate for foreign persons, %	13	25	30
6	Normative documents regulating tax relations	Tax Officer's Code of Ethics	Tax Code of the Russian Federation	Federal Law "On Tax Authorities"
7	Taxes included in product prices	Tax on profit of organizations	Vat	Mineral extraction tax
8	Taxpayers' rights	Paid consultations	Refunds of overpaid taxes	Filing tax returns
9	Taxation systems	General	Special	International
10	Participants of tax relations	Ministry of Finance	President	Taxpayer

2. Ranking measures that could increase the population’s awareness of tax legislation. The measures had to be ranked on a one to five scale according to their importance, from 0 (least important) to 5 (most important, obligatory).

3. Factors preventing law abiding citizens from paying taxes on time and in full.

4. Understanding of the term “tax awareness” and its connection to “tax culture”.

The survey covered 283 people. The distribution of respondents according to their age, gender and tax status is presented in Table 2.

According to Table 2, the majority of respondents were men (52 %) while women accounted for 48 %. As for the age, most respondents were young people between 20 and 27 years old. 66 % of respondents had the status of tax residents and 34 % were non-residents. The distribution of respondents is graphically represented in Figures 2 and 3.

To assess the respondents’ level of tax awareness we asked them to answer the questions shown in Table 1. The survey results are presented in Figures 4 and 5.

The majority of male respondents gave the maximum number of correct answers to questions 1, 3, 6, 9, and 10, which means that they have sufficient knowledge of such economic categories as tax, taxes paid by individuals, normative documents, participants of tax relations, and the possibility of choosing the taxation system.

Similar to men, women are sufficiently aware of taxes but they also know about the meaning of taxes and their functions.

As for the age distribution, young people aged 20–35 have sufficient knowledge of taxation as well as men aged

Table 2  
Age and gender distribution of the respondents

Age	Men	Women	Tax residents	Foreign persons
20–27	39	28	54	13
28–35	28	25	33	20
36–43	23	18	25	16
44–51	17	15	10	22
52–59	21	19	19	21
60–67	11	20	27	4
68 and above	7	12	18	1

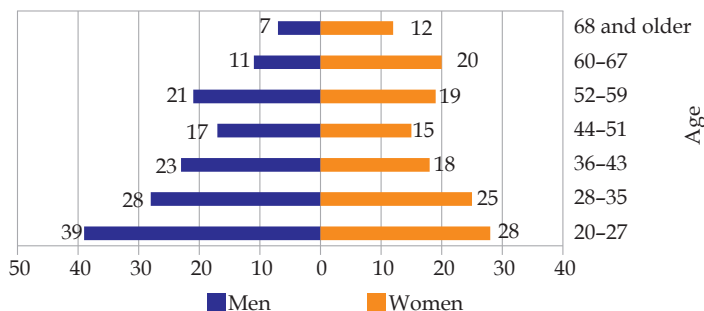


Figure 2. Age and gender distribution of respondents

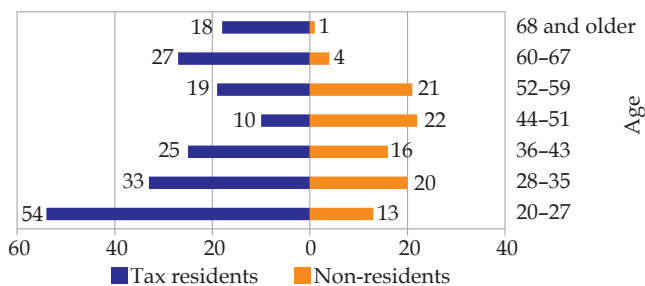


Figure 3. Distribution of respondents according to their tax status



36–43 and women of 20–35 and 52–59, which can be explained by their interest in the designation of tax revenues, professional occupations, and being engaged in housekeeping finances. Older people – men over 60 and women over 67 – apparently have the lowest level of tax awareness.

Both men and women, however, lack knowledge about the age of liability for tax crimes and about the rights of taxpayers, which proves our hypothesis that the lack of knowledge of one’s rights leads to the lack of motivation to realize one’s responsibilities. Therefore, this social category may be considered as potential tax evaders and the government should launch an awareness raising campaign among the young generation and their parents, such as “total dictations” (“total dictations” are popular educational events that are conducted in the form of an open voluntary test of Russian language).

As for the differences in respondents’ income (see Figures 6 and 7), the following conclusions can be made.

Tax residents, in contrast to foreign persons, know the functions of taxes and the taxes which are to be paid by individual citizens and which are included in product prices. On the other hand, non-residents are more aware of the rates for calculating income taxes. Our respondents, however, did not know much about the age of tax liability and taxpayers’ rights, that is, they lacked systemic knowledge of tax laws.

Residents of 20–43 years old demonstrated the best tax awareness and so did the older generation of 60–67 and non-residents – young people between 28 and 35 and middle-aged respondents (44–59). These categories are the most active participants of social relations with the state and it is necessary to teach and inform them.

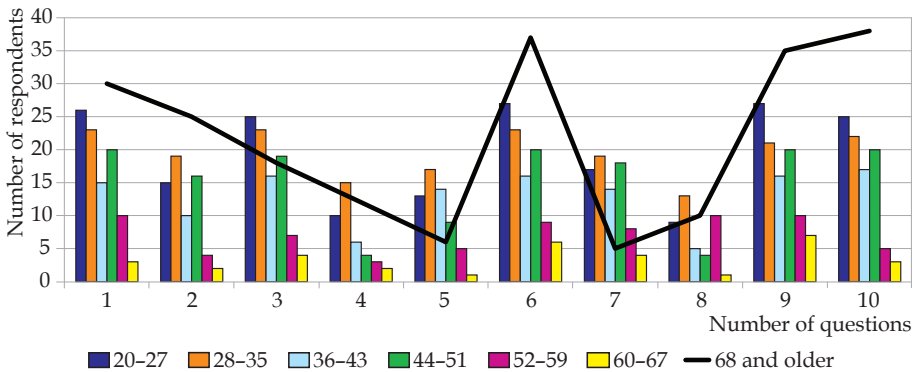


Figure 4. Men’s tax literacy

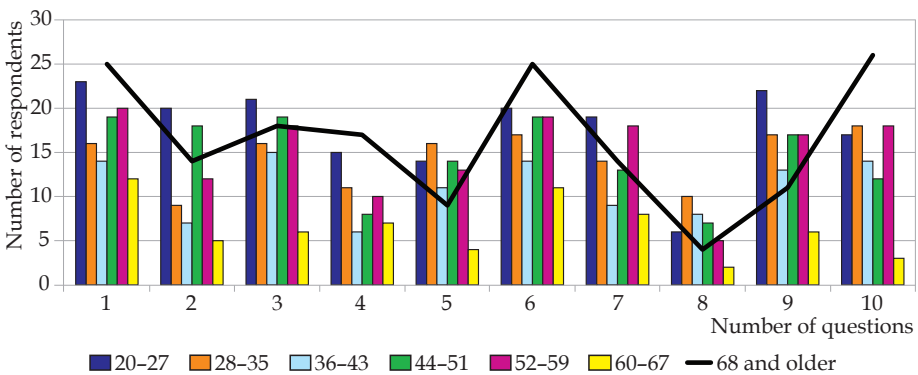


Figure 5. Women’s tax literacy

The experiment's second target was to rank the measures to enhance tax literacy on a one to five scale according to their importance, from 0 (least important) to 5 (most important, obligatory). The ranking is presented in Table 3.

According to Table 3, we can stimulate Russian taxpayers' trust in tax authorities and in the Federal Tax Service in general and, by doing this, also raise people's awareness of taxation. This way we can establish a dialogue between these two

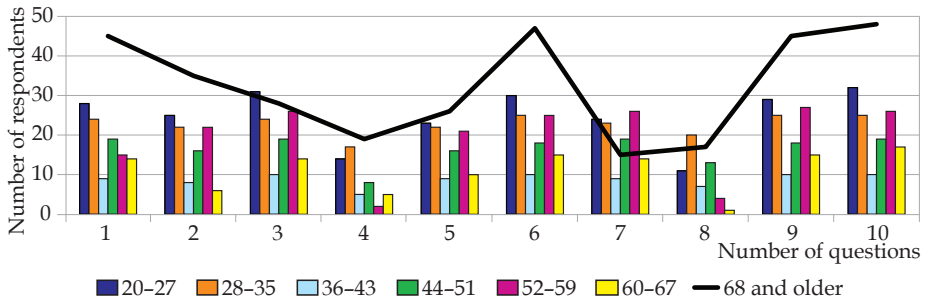


Figure 6. Tax residents' tax literacy

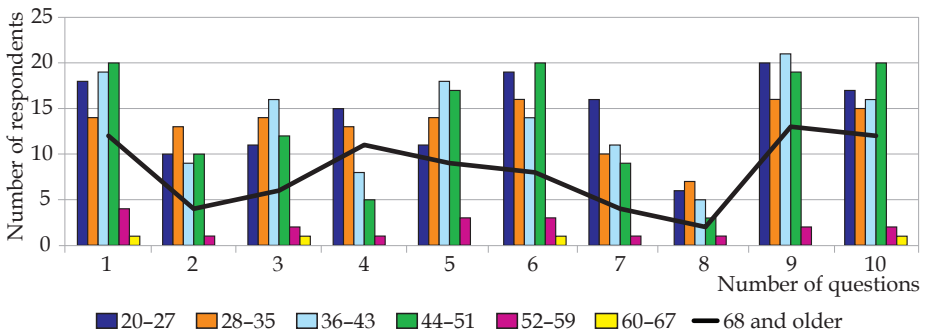


Figure 7. Non-residents' tax literacy

Table 3

Ranking of measures according to their importance for respondents

Measures	5	4	3	2	1	0
The quarterly report of the Federal Tax Service about tax revenues and their uses, the amounts of taxpayers' debts in budgets of different levels	+					
Educational campaign to raise awareness of personal property taxes	+					
Creating a 24-hour "hotline" for taxpayers	+					
Using text messages and e-mails to inform taxpayers about the due dates for their tax payments and filing of tax returns	+					
Conducting anonymous surveys to assess taxpayers' satisfaction	+					
Incentive programs for conscientious taxpayers		+				
Introduction of the subject 'Taxes and Taxation' into the secondary school curriculum for senior grades		+				
Providing on-line counselling on tax legislation (via Skype)		+				
Making cartoons and other promotional materials to raise tax awareness among pre-school and junior school children			+			
Promotion of the campaign "Pay Your Taxes and Sleep Well" in social media				+		
Conducting psychological training with tax officers on how to communicate with taxpayers efficiently					+	

sides “on the opposite sides of the barricades” by pointing out that they actually pursue one common goal – to improve the living standards and the expectancy of life in the country and thus to ensure its future prosperity.

The third goal of our experiment was to find out what makes taxpayers fall behind on their taxes. These factors included the following:

- lack of stability of tax legislation;
- unlawful spending of budget funds and officials using budget money for personal gains;
- undeveloped tax culture;
- imbalance between the level of taxes and the population’s actual level of income;
- the government’s consumerist attitude to taxpayers;
- tax authorities failing to keep taxpayers informed about the amount of property taxes to be paid and payment deadlines;
- centralization of tax revenues in the federal budget;
- funding poor Russia regions through federal taxes and depriving more prosperous regions of the opportunity to use these funds for their own development;
- including indirect taxes in the price of basic consumer goods, which decreases the level of the population’s incomes low as it is;
- replacing a large number of taxes with one tax obligatory for all categories of taxpayers;
- national mentality.

Our survey results show that taxpayers are concerned about matters of tax literacy and that they understand that through paying taxes they contribute to the development of their country, which demonstrates how crucial this question is and supports our hypothesis that tax awareness influences financial literacy of various social groups. Our results have also brought to light the importance of the experiment’s fourth objective: to give the definition of “tax awareness” in the economic context and to find how “tax awareness” and “tax culture” are connected.

We studied the legal documentation for taxation and found that both “tax awareness” and “tax culture” are absent from these sources as well as from the available reference materials (economic and tax reference books and encyclopaedias). It seems that the government have neglected these concepts, which is a deplorable circumstance since tax awareness and tax culture are the essential elements of the Russian taxation system.

Our analysis of the international research literature has demonstrated that tax awareness is considered as citizens’ knowledge and understanding of tax legislation norms which they comply with in exchange for satisfaction of public needs [15].

Respondents were surveyed to find out whether the notion of “tax awareness” fits into the current Russian economic context.

The opinions of our respondents were divided (Table 4 and Figure 8).

Table 4

**Structure of the concept  
«tax awareness»**

Item	Concept structure
1	Information every taxpayer should know to fulfil their tax responsibilities
2	In-depth knowledge of taxes and taxation
3	Knowledge of one’s tax responsibilities
4	Taxpayer’s knowledge of their rights and responsibilities
5	Knowledge of rights and responsibilities of taxpayers and tax officials
6	Tax authorities keeping taxpayers informed about how property taxes are assessed through social advertising
7	Taxpayers’ liability
8	Raising awareness of taxation to reduce tax crime
9	Keeping taxpayers constantly informed about how property taxes are assessed
10	Information provided by tax officials on applicable taxes and charges, taxation schemes, tax relief and preferences
11	Improving the conditions for entrepreneurship development

According to Table 4 and Figure 8, the majority of our respondents (39.2 %) chose the fourth option and believe that tax awareness should be seen as the taxpayer’s knowledge of their rights and responsibilities. 14 % think that tax awareness helps to reduce tax crime, and 11.3 % associate tax awareness with the information provided by tax officials on applicable taxes and charges, taxation schemes, tax relief and preferences.

Tax awareness comprises the following elements:

- the knowledge of tax legislation as the core element;
- participants of tax relationships, that is, taxpayers, tax authorities and the state;
- rights and responsibilities of participants in the taxation sphere;
- the system of taxes and charges;
- liability for failing to pay taxes.

Making no claims to know the ultimate truth, we nonetheless propose to define tax awareness as the system of knowledge about what constitutes taxes, mechanisms of their assessment and payment, choice of the taxation system,

responsibilities and, what is more important, rights of taxpayers that allow them to protect their property from malpractices of tax authorities [16].

Tax culture corresponds to the level of social and state development at which the population has a clear understanding of the strong connection between the state and the society and knowing their rights and responsibilities in the sphere of taxation [1]. Surprisingly, neither Russian nor international studies provide the answer to the question: what comes first – tax awareness or tax culture? These two economic phenomena determine the only acceptable relations between state agencies but how are they connected with each other?

To answer this question we need to refer to the logical scheme proposed by Maybuurov [1], supplementing it with the necessary terms (Figure 9).

Thus, tax awareness is shaped by tax mentality and tax morality, which allow taxpayers to gain enough knowledge of the subject and to develop the tax culture necessary to maintain tax discipline.

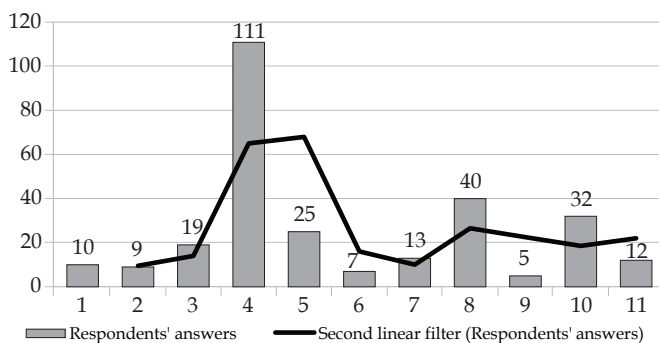


Figure 8. Respondents’ understanding of the “tax awareness” concept

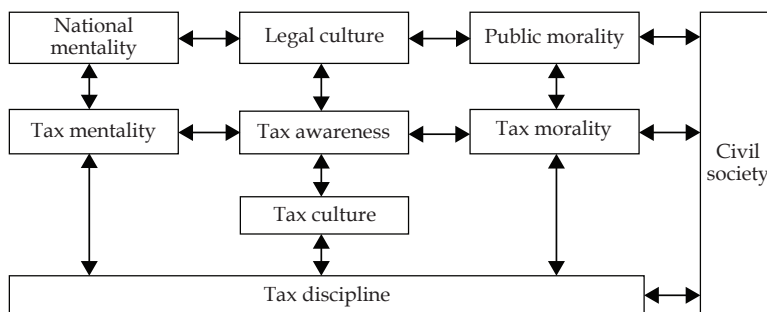


Figure 9. The structure of tax discipline

### Conclusion

Tax awareness is one of the core areas the government should pay special attention to within the framework of the federal program of financial literacy enhancement. This program targets to improve the financial situation of the whole population and in particular low- and middle-income social groups, which are the most vulnerable. The population should become capable of rational financial decision-making, have effective budgeting skills and thus be able to pay their taxes.

Taxpayers should not be forced or bullied into performing their duties but instead they should be treated by the state as equal partners. This is the art that the government needs to master, especially in the regions, where tax offices operate. The country's tax authorities should conduct a well-organized campaign promoting taxpaying and explaining why it is important.

This research may be further developed to produce practical guidelines for enhancement of the population's tax awareness.

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# Требования к статьям, публикуемым в журнале Journal of tax reform

## Требования к структуре и содержанию статьи

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.

2. Текст статьи следует структурно разбивать на разделы с заголовками, отражающие:

- актуальность темы исследования;
- степень изученности и проработанности проблемы;
- предлагаемые методы, подходы и их оригинальность;
- анализ полученных результатов;
- основные выводы, обобщающие полученные научные результаты, а также обозначающие направления дальнейших исследований по проблеме.

3. Статья должна содержать иллюстративный материал, демонстрирующий результаты исследований.

4. Статьи принимаются только на английском языке.

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1. Текст статьи набирается в текстовом редакторе Microsoft Word и сохраняется в формате .docx.

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- формат листа – А4;
- шрифт – Times New Roman; размер основного текста – 14 пт., вспомогательного (аннотация, ключевые слова, таблицы, рисунки, литература) – 12 пт.;
- межстрочный интервал – одинарный;
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- абзацный отступ – 1,25 см;
- поля – 20 мм со всех сторон;
- нумерация – внизу страницы.

3. Объем статьи не менее 18–25 страниц.

4. Статья должна содержать следующие элементы, оформленные в соответствии с требованиями журнала (см. образец оформления статьи):

- индекс УДК;
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- аннотацию на русском и английском языках;
- 5–10 ключевых слов на русском и английском языках;
- основные положения статьи, которые отражают ключевые результаты исследования, основное содержание статьи, изложенные тезисно и оформленные в виде 3–5 пунктов маркированного списка;
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5. Все элементы, перечисленные в п. 4, указываются сначала на английском языке, а затем на русском языке.

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Аннотация является источником информации о содержании статьи и изложенных в ней результатах исследований.

1. Аннотация выполняет следующие функции:

- дает возможность установить основное содержание статьи, определить его релевантность и решить, следует ли обращаться к полному тексту статьи;

- предоставляет информацию о статье и устраняет необходимость чтения полного текста статьи в случае, если статья представляет для читателя второстепенный интерес;

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- результаты работы (описываются предельно точно и информативно. Приводятся основные теоретические и экспериментальные результаты, фактические данные, обнаруженные взаимосвязи и закономерности. При этом отдается предпочтение новым результатам и данным долгосрочного значения, важным открытиям, выводам, которые опровергают существующие теории, а также данным, которые, по мнению автора, имеют практическое значение);

- область применения результатов;

- выводы (могут сопровождаться рекомендациями, оценками, предложениями, гипотезами, описанными в статье).

4. В тексте аннотации следует употреблять синтаксические конструкции, свойственные языку научных и технических документов, избегать сложных грамматических конструкций. Текст должен отличаться четкостью формулировок и содержать только значимую информацию. Сведения, содержащиеся в заглавии статьи, не должны повторяться в тексте аннотации. В ней следует применять значимые слова из текста статьи.

### **Рекомендации по выбору ключевых слов**

1. Ключевые слова выражают основное смысловое содержание статьи, служат ориентиром для читателя и используются для поиска статей в электронных базах, поэтому должны отражать дисциплину (область науки, в рамках которой написана статья), тему, цель и объект исследования.

2. В качестве ключевых слов могут использоваться как одиночные слова, так и словосочетания в единственном числе и именительном падеже. Количество слов внутри ключевой фразы (словосочетания) может быть не более трех.

3. Основные принципы подбора ключевых слов:

- применяйте базовые термины вместе с более сложными (бухгалтерский учет основных средств, бухгалтерский учет, основные средства); повторы и синонимы (грузовые перевозки — транспортная логистика, организация перевозок — логистика);

- 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

1. Нумерация в списке литературы осуществляется по мере цитирования. При повторном цитировании источника ему присваивается номер первоначального цитирования.

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 25–40 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).

4. Электронные ресурсы, в которых не указан автор материала, статистические сборники, нормативно-правовые акты размещаются в постраничных сносках и в список использованной литературы не выносятся.

5. Самоцитирование автора допускается не более 20 % от количества источников в списке. Самоцитирование журнала (ссылки на статьи из данного журнала) не рекомендуется!!!

### Пример оформления библиографических записей

#### 1. Статьи в журналах:

Pimenov N. A. Fiscal risks in the system of tax security of businesses and State. *Nalogy = Taxes*, 2010, no. 4, pp. 10–13. (In Russ.).

Slemrod J. Lessons for Tax Policy in the Great Recession. *National Tax Journal*, 2009, vol. LXII, no. 3, pp. 387–397. Available at: [http://webuser.bus.umich.edu/jslemrod/Great\\_Recession.pdf](http://webuser.bus.umich.edu/jslemrod/Great_Recession.pdf).

Jensen O. W. Transfer Pricing and output decisions: the dynamic interaction. *Decision Sciences*, 1986, vol. 17, pp. 428–436.

Börner K., Klavans R., Patek M., Zoss A. M., Biberstine J. R., Light R. P., Larivière V., Boyack K. W. Design and update of a classification system: The UCSD map of science. *PloS one*, 2012, vol. 7, no. 7, pp. 1–10. DOI:10.1371/journal.pone.0039464.

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

Reingold I. I. The financial policy of NEP. In Sokolnikov G. Ya. (ed.) *Osnovy finansovoi sistemy SSSR* [Fundamentals of the financial system of the USSR]. Moscow, Gosfinizdat Publ., 1930, pp. 56–61. (In Russ.).

Atkinson A. B. Horizontal Equity and the Distribution of Tax Burden. In Aaron H., Boskin M. (eds.) *The Economics of Taxation*. Washington DC, Brookings Institution, 1980, pp. 3–18.

Börner K., Boyack K. W., Milojević S., Morris S. An introduction to modeling science: Basic model types, key definitions, and a general framework for the comparison of process models. In Scharnhorst A., Börner K., & van den Besselaar P. (eds.) *Models of Science Dynamics, Encounters Between Complexity Theory and Information Sciences*. Berlin, Springer, 2012, pp. 3–22.

Val'den P. I. The development of chemistry in Russia. *Dnevnik Vtorogo mende-leevskogo s'ezda po obshchei i prikladnoi khimii i fizike*. Saint

- Petersburg, 21–28 dekabrya 1911 g. [The Diary of Second Mendeleev Congress on General and Applied Chemistry and Physics. Saint Petersburg, December 21–28, 1911]. Saint Petersburg, 2011, no. 1, pp. 124–141. (In Russ.).
3. *Монографии, учебники, учебные пособия:*  
Kormishkina L. A., Koroleva L. P. *Finansovaya bezopasnost* [Financial security]. Saransk, The National research Mordovia State University Publ., 2016, 200 p.  
James S., Sawyer A., Budak T. (eds). *The Complexity of Tax Simplification: Experiences From Around the World*. London, Palgrave Macmillan, 2016. 273 p.  
Taleb Nassim Nicholas. *The Black Swan. The Impact of the Highly Improbable*. Random House, 2007. 400 p. (Russ. ed.: Taleb Nassim Nikolas. *Chernyi lebed'.* Pod znakom nepredskazuemosti. Moscow, KoLibri Publ., 2009. 528 p.).
4. *Диссертации, авторефераты диссертаций:*  
Gombozhapova S. V. *Sovershenstvovanie nalogovogo kontrolya s uchetom istoricheskogo opyta*. Kand. Diss. [Improving tax control in context of historical experience. Cand. Diss.]. Irkutsk, 2012. 241 p.  
Urban I. *Redistributive effects of direct taxes and social benefits in Croatia*. Doct. Diss. Slovenia, 2010. 199 p.
5. *Электронные ресурсы, в которых указан автор материала:*  
Ivanov A. *Krepkii rubl' i deshevyie kredity. Naskol'ko deistvenny predlozheniya Sergeya Glaz'eva* [Strong ruble and cheap loans. How effective are the proposals of Sergei Glazyev]. Available at: <http://svpressa.ru/economy/article/156619/>. (In Russ.).  
Feldstein Martin. *The Case for Fiscal Stimulus*. Available at: <https://www.project-syndicate.org/print/the-case-for-fiscal-stimulus>.

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  - занимаемую должность;
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**Образец оформления статей**

УДК 336.02

**TAX POLICY IN THE CONTEMPORARY WORLD:  
PECULIARITIES AND PROSPECTS, IMPLEMENTATION IN RUSSIA****Alexander I. Pogorletskiy***St. Petersburg State University, St. Petersburg, Russia**ORCID: 0000-0003-4495-5557***ABSTRACT**

The article describes the peculiarities of tax policy implementation in the system of international economic relations under conditions of contemporary development, characterized by turbulence, unpredictability and high speed of changes. The author estimates the influence of modern transformational changes on national tax systems and tax policies of the leading countries of the World, including their adaptation to the so-called “new normality”, the decline of liberalism and the deceleration of globalization, virtualization of economic activity and revival of the idea of national identity. Taking into account the impact of the above factors, the author forecasts a common vector of national tax systems’ development, as well as evaluates inter-state interactions in tax matters and determines perspectives of tax policy improvement in Russia on the eve of presidential elections of 2018. The main conclusions are following: 1) in the modern world the best is such a tax policy, which is focused on the regulating (stimulating), and not on the fiscal role of taxes; 2) the process of intensive international tax cooperation, which started just after beginning of the recent global economic crisis, is developing quite successful and it involves more and more interested countries; 3) modern tax systems at the present time are influenced by a large number of transformational factors, including global turbulent environment, which are reflected accordingly in the national tax policy and not always unequivocally positive; 4) tax policy of the Russian Federation ahead of the presidential elections in 2018 and after them should be continuity to the period of 2000–2017 years, considering appropriate progressive global trends

**KEYWORDS**

International tax cooperation, international tax regulation, Russian tax policy, tax policy, tax regulation, tax system, tax reform, tax administration

**HIGHLIGHTS**

1. The process of intensive international tax cooperation, which started just after beginning of the recent global economic crisis, is developing quite successful and it involves more and more interested countries
2. Modern tax systems at the present time are influenced by a large number of transformational factors, including global turbulent environment, which are reflected accordingly in the national tax policy and not always unequivocally positive
3. Tax policy of the Russian Federation ahead of the presidential elections in 2018 and after them should be continuity to the period of 2000–2017 years, considering appropriate progressive global trends

**НАЛОГОВАЯ ПОЛИТИКА В СОВРЕМЕННОМ МИРЕ:  
ОСОБЕННОСТИ И ПЕРСПЕКТИВЫ, РЕАЛИЗАЦИЯ В РОССИИ****А. И. Погорлецкий***Санкт-Петербургский государственный университет, г. Санкт-Петербург, Россия**ORCID: 0000-0003-4495-5557***АННОТАЦИЯ**

В статье характеризуются особенности реализации налоговой политики в системе мирохозяйственных связей (включая Россию) в условиях повышенной экономической турбулентности, непредсказуемости и быстрых перемен. Оценивается влияние трансформационных изменений современности, включающих приспособление к так называемой «новой нормальности», заката либерализма и торможения глобализации, виртуализации хозяйственной активности и возрождения идей национальной идентичности на национальные налоговые системы и налоговую политику ведущих стран мира. С учетом воздействия приведенных факторов прогнозируется общий вектор развития национальных налоговых систем, а также межгосударственных взаимодействий в налоговой сфере, и определяются перспективы совершенствования налоговой политики России в преддверии президентских выборов 2018 г. В результате исследования сделаны следующие выводы: наилучшей налоговой политикой в

современных условиях развития системы мирохозяйственных связей является политика, ориентированная на регулируемую (стимулирующую), а не на фискальную роль налогов; процесс всеобъемлющего международного налогового сотрудничества, стартовавший после начала глобального экономического кризиса 2008–2009 гг., развивается достаточно успешно, вовлекая в свою орбиту все большее количество заинтересованных стран; современные налоговые системы в настоящее время испытывают на себе влияние большого числа факторов трансформационного характера, включая глобальную экономическую турбулентность в ее различных проявлениях, что соответствующим образом отражается и на национальной налоговой политике, причем не всегда положительно; налоговая политика России до президентских выборов 2018 г. и после них должна соотноситься с политикой 2000–2017 гг., учитывая при этом соответствующие прогрессивные мировые тенденции.

#### **КЛЮЧЕВЫЕ СЛОВА**

Международное налоговое регулирование, международное налоговое сотрудничество, налоговая политика России, налоговая политика, налоговое регулирование, налоговая система, налоговые реформы, налоговое администрирование

#### **ОСНОВНЫЕ ПОЛОЖЕНИЯ**

1. Установлено, что процесс всеобъемлющего международного налогового сотрудничества, который стартовал сразу же после начала глобального экономического кризиса 2008–2009 гг., развивается достаточно успешно, вовлекая в свою орбиту все большее количество заинтересованных стран
2. Определено, что современные налоговые системы в настоящий момент времени испытывают на себе влияние большого числа факторов трансформационного характера, включая глобальную турбулентность в ее различных проявлениях, что соответствующим образом отражается и в национальной налоговой политике, причем не всегда однозначно позитивно.
3. Констатировано, что налоговая политика России в преддверии президентских выборов 2018 г. и после них должна отличаться преемственностью к периоду 2000–2017 гг., при этом учитывая соответствующие прогрессивные мировые тенденции

Text. Text<sup>1</sup>. Text. Text. Text. Text. Text. “Text. Text. Text. Text. Text. Text” [1, p. 389]. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text. Text [2].

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<sup>1</sup> Tax revenues reach new high as the tax mix shifts further towards labour and consumption taxes. OECD, 2016. November, 30. Available at: <http://www.oecd.org/tax/tax-revenues-reach-new-high-as-the-tax-mix-shifts-further-towards-labour-and-consumption-taxes.htm>.

# **Publication requirements for articles submitted to Journal of Tax Reform**

## **The requirements for the structure and content of the article**

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.
2. The article should be structurally divided into sections with headings, reflecting:
  - relevance of the research;
  - background of a problem;
  - 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.
3. The article should contain illustration material, showing the results of the research.

## **Format requirements**

1. The manuscript files in Microsoft Word format should be converted to .docx files
2. Technical format of the article has to comply with the following requirements:
  - the page size – A4;
  - font – Times New Roman; main text – 14-point, supplementary text (abstract, keywords, tables, figures, references) – 12-point;
  - line spacing – 1,0;
  - fit to the width;
  - indent – 1,25;
  - margins – 2.0 cm on all sides;
  - page numbers - at the bottom of the page;
3. Article should be 18–25 pages.
4. The article has to contain the following components drawn up in accordance with the journal's requirements (see the sample):
  - UDC code;
  - title of the article in Russian and English;
  - information about the author given both in Russian and English;
  - abstract in Russian and English;
  - 5–10 key words in Russian and English;
  - the highlights of the article reflecting the key results of the study, theses of the article's main content, in the form of 3-5 items of the bulleted list;
  - the list of references;
  - the article should have reference notes given in square brackets provided according to the references.
5. All the elements listed in Sec. 4, indicated first in original language of the article, then in the subsidiary language (articles in Russian - first in Russian and then in English, and in articles in the English- first in English, and then in Russian).

## **Guidelines for Abstract writing**

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;
  - provides information on your paper and makes it unnecessary to read its full text version if it is of secondary interest to a reader;
  - is used in information (including computerized) search systems to find papers and information.

2. An Abstract should be:
  - informative (no general words);
  - original;
  - relevant (reflects your paper's key content and research findings);
  - structured (follows the logics of results' presentation in the paper and divided into sub-headings: the purpose of the research, methods, results, conclusions);
  - concise (**between 200 and 250 words**).
3. An Abstract should contain the following content aspects:
  - the statement of the object and purpose of your study;
  - research methods/methodology;
  - results observed;
  - the sphere of results application;
  - conclusions drawn from your study.
  - the object, topic and purpose of the research (if they are not clear from the title of the paper);
    - the research methods/methodology if they are original or of interest for this particular research. For papers concerned with experimental work describe your data sources and data process technique;
    - the results of research should be described as precisely and informatively as possible. Include your key theoretical and experimental results, factual information, revealed interconnections and patterns. Give special priority to new results and long-term impact data, important discoveries and verified findings that contradict previous theories as well as data that you think have practical value.
    - the sphere for implementation the results of the research;
    - conclusions could be associated with recommendations, estimations, suggestions, hypotheses described in the paper.
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### **Guidelines for Keywords**

1. Keywords encapsulate the principal topics of the paper. These keywords will be used for indexing purposes as a guide to search the articles in electronic databases, therefore, they should reflect area of science in which the article was written, the subject, the purpose and object of research
2. The keywords can be used as single words and phrases. Key phrase (phrases) should contain no more than three words.
3. Basic principles for keyword selection:
  - avoid general and plural terms and multiple concepts (avoid, for example, "and", "of").
  - be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.
  - each keyword should have its separate meaning.

### **Guidelines for Reference**

1. The list of references should be arranged in the order of the appearance the citations in the text. In case of repeated citation the number is the same.
2. To associate the list of references with the text of the article, you should include a reference as a number (running number of the source from the list) and also the page number in square brackets: [5, c. 115].

3. In the original scientific paper must be not less than 25–40 references, in the scientific review – 50–80 references. The Editorial Board recommends to cite papers indexing in international databases (Scopus, Web of Science).

4. The electronic sources without an author, statistic and regulation materials should not be included in the list of reference, but preferably set as a footnotes at the end of the page.

5. Author's self-citations should not exceed 20 % of the number of sources in the list of references.

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1. The information about the authors in Russian and English indicates the following data:

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- author's e-mail;
- ORCID (Open Researcher and Contributor ID) (if available).

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