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**PRINCIPLES OF FAIR AND EFFICIENT TAXATION IN THE
CONTEXT OF DIGITALIZATION**

Maksim V. Ilichev (a)*, Alexander P. Spornik (b), Sergey A. Malenko (c),
Andrey G. Nekita (d), Rostislav O. Smirnov (e)

*Corresponding author

(a) Saint-Petersburg State University (SPbU), Saint-Petersburg, Russian Federation,
st040997@student.spbu.ru,

(b) Yaroslav-the-Wise Novgorod State University (NovSU), Veliky Novgorod, Russian Federation,
Alexander.Spornik@novsu.ru,

(c) Yaroslav-the-Wise Novgorod State University (NovSU), Velikiy Novgorod (NovSU), Russian Federation,
olenia@mail.ru,

(d) Yaroslav-the-Wise Novgorod State University (NovSU), Velikiy Novgorod (NovSU), Russian Federation,
beresten@mail.ru,

(e) Saint-Petersburg State University (SPbU), Saint-Petersburg, Russian Federation, r.smirnov@spbu.ru

Abstract

In the present article, we consider the problems of the theory of optimal taxation in the digital transformation of modern society, as well as the ways to solve them. The analysis is conducted both through the prism of socio-economic notions of justice and in the context of the biopolitical principle (social trophism). At the beginning of the article, the main aspects and vectors of development of the tax system in the era of digital transformation are disclosed. Further we propose an algorithm for assessing the optimality of a particular tax system and its individual components - individual tax schedules for different types of tax. Optimality in this paper refers to the ability of the tax to simultaneously meet the requirements of the currently dominant socio-economic concepts of equity, and to take into account the interests of the state - the desire to maximize tax revenues. As an example, there is an algorithm of forming the fundamental prerequisites for selecting the type of income tax schedule as the main source of replenishment of the state budget of the Russian Federation. Finally, it is concluded that a progressive income scale can be used as a tool to manage the reproduction of the labor force, and, as a consequence, the formation of the forage base (in terms of biopolitics) for future periods.

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1. Introduction

Today, when the world community has reached the stage of development referred to as the "digital era", the essence of which is the digitalization of all aspects of social life, mankind is faced with new and new questions accompanying this process. The introduction of advanced information technologies has a great (and often even the greatest) impact on the functioning and development (including its vector) of all existing spheres of activity. The tax system is no exception, as evidenced by the increased interest in the topic in the academic environment (Altunbasak, 2018; Birinci, 2019; Tsindeliani et al., 2021).

As recent studies show, there is also interest in the possibility of tax optimization using digital technologies in our country, and, moreover, domestic applications in the above area are already being implemented and yield the first positive results (Kirova et al., 2019).

We identify three fundamental components of the success of tax system reforms aimed at digitizing key processes: technological, organizational and ideological.

On the technological side, the necessary resources are in place to begin the digitalization process, but its successful completion will depend on further development of the existing infrastructure (Gashenko et al., 2019).

In terms of the organization of the process, there are also aspects that deserve particular attention. One such aspect is the problem of corruption affecting the efficiency of tax revenue redistribution. Significant steps towards improving the current situation are the digitalization of interaction processes between state bodies and the population (Vorontsov et al., 2020), as well as the mediatization of anti-corruption policy (in particular, disclosure of the facts of corrupt practices and media participation in the formation of a legal anti-corruption culture) (Rusakova & Gribovod, 2020).

Considering the topic of the ideological basis of the tax system reform, it should be noted that precisely because of the interpenetration and mutual influence of such global areas as politics, economics, law and sociology, the taxation system is very sensitive to any innovations and is in the list of first to digitalize as part of the formation of e-government.

However, the opposite is also true: taxation, being a product of several vital aspects of social life, has a significant impact on their development, affecting the interests of various social institutions. Moreover, the correlation between the current tax system and manifestations of various processes in society in most cases is not unambiguous, but rather represents some non-linear and therefore quite difficult to predict dependence, characterized by many factors, including implicit ones. The manifestation of such a non-linear relationship can be illustrated by the factors affecting the choice of the type and parameters of the income tax schedule.

Thus, the formation of optimal taxation principles (in terms of explicit and implicit functions performed) is a non-trivial task. This is due, first of all, to a number of difficult questions, the answers to which should become the methodological foundation on which the tax theory will be based when forming and reforming the tax system.

2. Problem Statement

The following main issues can be highlighted in the field of study:

2.1. The problem of selecting the fundamental assumptions that will form the basis of the methodology for calculating the tax schedule, as well as the problem of selecting the type of the scale itself. Except for such prerequisites as the basic functions of taxes (fiscal, distributive, regulatory and controlling), their choice depends on the specifics of each particular type of tax. At the same time, discussions about the best type of taxation scale, the main participants of which are supporters of progressive and proportional taxation, do not lose their relevance. There is also regressive taxation, but it does not meet the requirements of the concepts of social justice, except perhaps for the market: regressive tax schedule allegedly encourages people to earn more by increasing the tax burden on the poorer segments of the population. However, such a scale sooner leads to an increase in income stratification of the population, discontent in society and, as practice shows, can cause "tax riots" (Mound, 2020, p. 105).

2.2. The problem of the existence of diametrically opposed views on the social justice of taxation in general. This problem is especially relevant in the age of innovation, the digital revolution and the crisis of liberalism: indeed, if the very idea of taxation is an "atavism" inherent in earlier civilizations, its existence in the digital age is worth questioning. There are radically opposing views on this in science. For example, Smith (1776) wrote that citizens must, through the payment of taxes, participate in maintaining a government that permits the use of a source of income located in the territory of the state governed by that government, while other scholars prefer the term "tax plunder" and believe that taxes are inherently socially evil (Rothbard, 1997). This article also provides an analysis of the problem through the prism of the main modern concepts of social justice.

2.3. The problem of conflict of interests of the taxpayer and the state lies in the fact that the criterion of effectiveness of the tax system for the state is, first of all, the increase in the level of tax revenues to the budget without taking into account the factor of tax burden. The taxpayer, for his part, by lawful and unlawful (tax evasion) ways seeks to reduce the tax burden falling on him, not taking into account the interests of the state.

3. Research Questions

The main questions of this article are based on the issues listed above. Thus, the article addresses the following questions:

- 1) On what principles should the choice of the type of tax schedule be based in order to meet the concepts of social justice?
- 2) How can a scale based on the principles of paragraph 1 simultaneously satisfy the interests of all parties involved in taxation?

4. Purpose of the Study

The purpose of the study is to develop methodological recommendations for the choice of a socially fair tax schedule system that satisfies the interests of the state in the conditions of digital transformation on the example of the income tax schedule.

The choice of the topic of income taxation as an example of implementation of general recommendations is due, on the one hand, to the fact that income tax collections in developed countries

constitute one of the main sources of state budget revenues, and on the other hand - to its social importance due to the global coverage of the population: income tax must be paid by each resident who has a source of income (salary).

The purpose of this paper, as well as the questions presented in Section 3, determined the objectives of the study:

1. To analyze the principles of choosing the type of income tax schedule, including from the perspective of modern concepts of social justice;
2. Justify the optimality of the selected principles of scale formation for the interests of all parties involved in taxation.

5. Research Methods

The methodology of this study is interdisciplinary, based on the analysis of scientific sources on the topics of taxation, digitalization, theories of social justice and biopolitics.

The biopolitical approach is represented in the article by the key provisions of the social trophism theory, which involves extrapolation of biotic trophism principles to social relations (Nekita & Malenko, 2009).

The analysis of the importance of socio-economic provisions and prerequisites for the formation of a fair tax system is conducted through the prism of the author's methodology and mathematical apparatus for the formation of a progressive income tax schedule (Smirnov, 2019).

6. Findings

The following is a description of the study itself, in accordance with the objectives set out in paragraph 5.

1. The inconsistency of the regressive income tax schedule was described in p. 2.1. of the second part. What then is the most appropriate type of tax schedule: proportional or progressive? The proportional scale (with a single range) is a special case of the progressive scale (with at least one range). This implies the fact that proponents of proportional taxation, whether intentionally or not, abandon the analysis of a more flexible and general model of the tax schedule in favor of its particular case.

Also, recent studies of income taxation in developed countries show that a progressive tax schedule is a feature of efficient economies: "it increases overall demand in the country's economy, in parallel with reducing inequality and poverty" (Abuselidze, 2020, p. 289).

Finally, it seems necessary to assess the social justice of the progressive income tax schedule. For this purpose let us turn to 4 main modern concepts of social justice (Smirnov & Chistyakov, 2002).

I) The concept of egalitarianism, the main premise of which is the equal distribution of resources, created and produced goods and individual utility among all members of the society (Moulin, 1991). Aiming at equalizing the welfare of all members of society is ensured to the best extent exactly by a progressive scale (averaging of income by collecting more tax from the rich and less from the poor).

II) Utilitarianism: the concept according to which the welfare of society is the totality of individual utility of all its members (Sushentsova, 2017). In the framework of the concept, the main function of the

tax is redistribution of income in order to maximize the total utility of all citizens, and, as research shows (Pushkaryova, 1996), the value of each unit of income for the poorer strata is significantly higher than for the rich. Consequently, a progressive tax schedule is also consistent with this concept.

III) The concept of Rawls (1971) is a certain development of the concept of egalitarianism (Barbosa-Fohrmann & Araujo, 2020). The main distinction of this concept is the premise that the level of satisfaction of the least satisfied member of society should be maximized. Both of these requirements are met by a progressive tax schedule.

IV) "Market conception", which boils down to the fairness of the existing market distribution of income (Munro, 2018). However, if we consider knowledge, experience and acquired skills as a type of social product, the increased tax rate is just a payment for its greater consumption that leads the individual to economic success (Smirnov & Chistyakov, 2002). Thus, the progressive tax schedule does not contradict this concept either.

However, which of the principles of justice presented prevails over the others? If at some point in time the existing principles of distribution begin to be questioned by most members of society, either the economic system is reformed or the state represses citizens more and more, for which it attracts more and more resources.

In view of all the above, it is the progressive type of tax schedule that seems to be the most effective and flexible, without conflicting with any of the basic socio-economic concepts of justice.

2. To date, methodologies and applied mathematical models of progressive tax schedules for income tax already exist. Some of the approaches they propose, on the one hand, allow increasing the level of state budget revenues, and on the other hand, due to the restrictions they impose, allow increasing the degree of redistribution of the tax burden, thereby leading to an increased level of social justice.

It should also be noted that by reducing the burden on the poorest segments of the population, we provide the conditions for them to reproduce a new workforce, which increases the tax revenues received by the state in the long run. Thus, expressed in terms of social trophism, the choice of a progressive income tax schedule ensures an optimal build-up of "fodder" for the "social extraction" process (Lust & Rakner, 2018, p. 277).

Finally, an increase in the average standard of living in the country could have a positive impact on the inflow of qualified personnel from abroad, and as a result, on the level of economic growth.

7. Conclusion

Income taxation is a key tool that, on the one hand, ensures the inflow of funds to the state budget, and on the other hand, has a direct impact on the living standards of certain social strata of the population. The optimal model, from the point of view of justice, is the progressive income taxation, because it smoothes the social stratification caused by property inequality that exists in the society. The progressive taxation has a peculiar psychological effect, demonstrating "indifference" of the state to the poor strata of the population and readiness to solve vital problems at the expense of greater contribution of the well-to-do citizens.

In addition, choosing one of the many implementations of a progressive tax schedule may never produce a worse result than choosing the particular case of a proportional scale. If the hypothesis that the

proportional tax schedule is effective is confirmed, the progressive scale can also be reduced to it, while the opposite is not true: by the general solution, it is possible to find the partial solution, but not vice versa.

In addition to the above, this type of scale also corresponds to the 3 main socio-economic concepts of justice, without contradicting the fourth one - the market one. The economic success of any individual is not solely his or her own merit, but is only a consequence of the fact that this individual has consumed more of the social product in the form of some knowledge, experience and skills (which is especially relevant in the era of digitalization). Thus, an increase in the tax rate in line with an increase in income (under a progressive tax schedule) can be seen as payment for that very public product. In this case, it would be desirable to classify tax revenues in some way (which, again, is much easier to implement when using digital technologies) and direct that part of them, which is a payment for increased consumption of a public product, to its reproduction. Reproduction of the social product means, first of all, financing of such spheres of economy as science, education, medicine.

Finally, in the long run, progressive taxation provides a steady increase in the "fodder base" for continuous "social extraction". Analogous to this process is the stage in human history when, instead of hunting certain animals, humans decided to breed them, expecting to eventually obtain a permanent and larger source of food with fewer risks. In addition, a progressive income tax schedule, while ensuring social justice, also strengthens public confidence in the government, reducing the cost of relieving social tensions.

Thus, as a starting point for choosing the type of progressive taxation scale, it is recommended to focus on the analysis of progressive scales. A properly chosen progressive scale can meet the principles of social justice, while satisfying both the interests of the state and increasing the level of citizens' trust in it.

The algorithm of assessment of the choice of the progressive income tax schedule presented in the paper can be extrapolated to other types of taxes, taking into account, however, the specifics of a particular area of application.

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