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PERSONAL INCOME TAXES - DUAL TAXATION

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Abstract. *Personal income tax is one of the most important tax forms in the tax systems of modern countries, very generous and flexible. Personal income taxation can be organized as regular, synthetic or mixed taxing. In modern tax legislation there are alternative ways of personal income taxing, such as the double taxation system, proportional tax on income and negative income tax. Fiscal reforms performed in Serbia were often delayed due to numerous, sometimes non-economic reasons. The seriousness and necessity of a dynamic approach to the process of the tax system reforms in our country is still topical. In this respect, the aim of this paper is to highlight the advantages and disadvantages of the double tax system, as well as to point out the need to reform the personal income taxation in Serbia.*

Key words: *double taxation, income tax, tax elements, fiscal reforms, standard and non-standard gains, horizontal and vertical taxing equity.*

INTRODUCTION

Historically, the introduction of personal income tax (PIT) was preceded by specific tax forms, in which the human personality alone was the basis for the introduction of tax obligation. The transition from personal taxes, through individual income taxing, to a synthetic income tax, as its most perfect form, was long and not easy at all. Namely, the tax system in one country does not occur as a result of a predefined plan, based on scientific principles. It is the result of a compromise of different political forces, conditioned by the socio-economic system, the level of economic development, the degree of openness of the economy, historical development and tradition, the need to find new sources for financing public expenditure, tax administration performance, the level of tax ethics and so on. Research on the practices of many countries showed that in taxing personal incomes in the world there is a great diversity of solutions which has significantly increased in recent years, and

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that the real economic and social effects of the application of certain forms of taxation differ significantly from the predictions offered by economic theory. It is therefore necessary, before making decisions on the choice of a particular form of personal income taxation, to analyze in detail the advantages and disadvantages of each of them and to take into consideration not only theoretically expected implications of applying a specific tax form, but also the practical experience of countries that have implemented that model of taxation.

The effects of income taxation are numerous and have to be observed in the light of defined objectives of fiscal policy. Specifically, the following results of introducing the personal income tax are mentioned: the income effect, the substitution effect, the effects of stimulation, stabilization and redistribution. However, the introduction of personal income tax provokes many reactions of the taxpayer as, for example, the effort to avoid or reduce the imposed tax burden. Bearing these facts in mind, it stands to reason that the pronounced trade-off relationship between generosity and efficiency is particularly emphasized in personal income taxation.

The objective of this paper is to give a reasoned estimate of economic effects of the application of the dual model of income taxing in Serbia. In this regard, the study will start with the theoretical approaches to the institute of income taxation arrangements, then the comparative analysis of the effects of using alternative models of personal income taxing will be made, the economic implications of their application will be determined, the existing personal income tax system in Serbia will be analyzed and, finally, some recommendations will be suggested. Pursuant to the objective, the structure of the paper was set.

1. THE POSITION OF PERSONAL INCOME TAX IN THE TAX SYSTEMS OF MODERN STATES AND THE ASSESSMENT CRITERIA OF EFFICIENCY

Personal income tax occupies a significant place in the structure of modern tax systems, given that it collects more than 25% of public revenue on the average. In specific terms, this tax has gained in importance with the tax reforms of the 1960s. Its share in the total revenues ranged slightly above 30% in many countries during the 80s of the XX century, but ten years later its participation percentage was again reduced to 25% to 27%. Observed by individual countries, the share of this tax in total tax revenues exceeds 20% in countries such as Italy, Germany and Norway, it is over 30% in Australia, Belgium, Canada and Iceland, while the absolute record holders are New Zealand with 42% and Denmark with almost 53% (Howell, 2005, p.43). Some countries, like Canada and New Zealand, had significant fluctuations during the year regarding the share of personal income tax in public revenues. This share changed from 22.6% in 1965 to 40.8% in 1990, or 34.6% in 2003 in Canada, while the amplitudes were even more pronounced in New Zealand, ranging from 39.4% in 1965 to 61.6% in 1980. The growth of the importance of personal income tax is the result of: changes in attitude toward indirect taxes, reduction of tax rates on personal income tax which caused positive reactions from the public, widening of the tax base, reducing the number of tax tranches and the abolition of many tax exemptions.

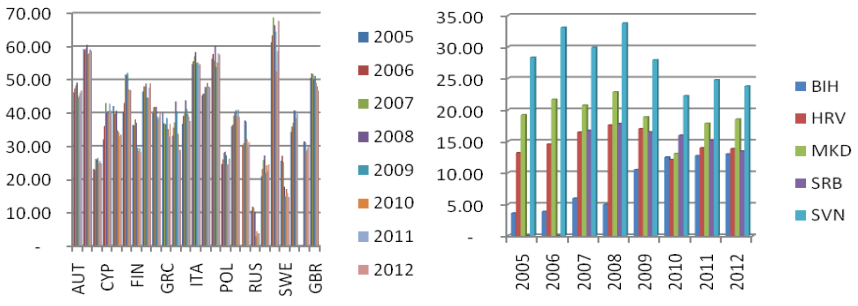
At the beginning of the XXI century, the practice of developed market economies has still contained tax pluralism, which involves the use of a large number of tax forms as a rational combination of various taxes and other public revenues suitable for the achievement of fiscal and extra-fiscal targets (Raičević, 2004, p.164). In this connection, it is easy to understand that the place and role of individual tax forms in an industrially developed country differ from the

taxation systems in developing countries. Thus, when we observe the share of taxes on personal income, corporate profits and capital gains in total tax revenues of Austria, Denmark, France and Germany in the period 2005-2012, we may note that it oscillated between 39% to 50% of total tax revenues, while in Belgium, Norway, Spain and England it ranged from 50% to 60% of total tax revenues (Table 1 and Chart 1). In Moldova, the participation of these taxes in total tax revenue was symbolic and ranged from 1.65% in 2010 to 5.87% of total tax revenue in 2007. In some countries in the Balkans (Bosnia and Herzegovina, Serbia) it was within the interval from 3.6% to 17%. Even in Croatia, as the last country that joined the European Union, the percentage share of these taxes is not much higher as it amounted to 12.10% in 2010 and 17.6% of total tax revenues in 2008.

Table 1 The share of income taxes in the total tax revenues (%) in some countries

Country	code	2005	2006	2007	2008	2009	2010	2011	2012
Austria	AUT	46.12	47.22	48.16	49.00	44.63	45.12	45.99	46.64
Belgium	BEL	59.11	58.88	59.32	60.38	57.75	57.86	59.06	58.59
Czech Republic	CZE	42.01	39.61	40.40	40.61	34.65	34.07	32.94	33.40
Denmark	DNK	40.23	42.98	51.39	51.44	51.95	47.04	46.68	46.85
Finland	FIN	36.40	36.09	38.03	37.00	29 .46	28.50	29.33	28.12
France	FRA	46.40	47.91	47.90	48.78	44.61	44.31	47.55	48.83
Germany	DEU	39.84	41.74	41.58	41.80	38.82	38.03	38.62	40.11
Italy	ITA	54.62	55.52	56.93	58.27	54.88	55.08	54.19	54.57
Luxembourg	LUX	45.18	45.70	45.74	47.78	47.66	48.97	47.81	47.73
Norway	NOR	56.22	57.65	55.65	60.09	53.69	55.07	57.77	57.50
Poland	POL	24.61	26.00	27.99	28.30	27.26	24.53	24.44	26.24
Slovak Republic	SVK	20.87	23.09	25.82	27.19	21.92	24.21	22.45	24.54
Spain	ESP	61.18	63.22	68.68	66.25	64.37	52.48	58.50	67.57
Sweden	SWE	25.59	27.12	25.17	17.74	14.75	17.07	15.82	14.64
Switzerland	CHE	34.23	35.82	36.95	40.70	40.62	38.41	39.70	..
Great Britain	GBR	50.48	51.85	51.49	49.91	51.00	48.97	47.88	46.63
Moldova	MDA	4.34	4.83	5.87	2.36	1.71	1.65	1.72	4.68
Bosnia and Herz.	BIH	3.61	3.86	5.99	4.98	10.50	12.52	12.73	13.01
Croatia	HRV	13.20	14.56	16.48	17.61	17.02	12.10	13.99	13.86
Macedonia	MKD	19.22	21.67	20.75	22.86	18.89	13.05	17.87	18.54
Serbia	SRB	..	..	16.74	17.83	16.51	15.98	15.18	13.47
Slovenia	SVN	28.36	33.13	29.95	33.82	27.96	22.26	24.79	23.81

Source: http://data.worldbank.org/indicator/all



in some European countries in Balkan countries (ex-YU republics)

Chart 1 The share of (incomes taxes) in the total tax revenues in the period of 2005-2012

Positioning of personal income tax in the tax systems can be perceived not only as a participation in tax revenue, but also as its share in gross domestic product (GDP) of the country - tax revenue yield. Viewed from this perspective, personal income tax in the 1960s accounted for only 7% of GDP in the OECD countries. With the increase in the relative share of this tax form in the total tax revenue, its share in GDP increased as well. If we consider the participation of PIT in GDP by groups of countries, we may see that the largest share of this tax in GDP is in the Nordic countries (18%), North American countries have the share of about 12%, while the Asia-Pacific region is in the level of Western European countries. Regarding specific European countries (Table 2, Chart 2), we may notice that in the period of 2005 to 2012 the largest share of tax revenues in GDP was in Cyprus, followed by Denmark, Belgium, Norway, Luxembourg and the United Kingdom.

Table 2 Average % share of personal income tax in GDP in some European countries in the period 2005-2012 (Schneider & Enste, 2003)

Countries	Code	2005	2006	2007	2008	2009	2010	2011	2012
Austria	AUT	19.47	19.13	19.39	19.48	17.94	17.93	17.89	18.27
Belgium	BEL	25.36	25.04	24.37	24.73	23.32	23.89	24.01	24.86
Cyprus	CYP	45.44	47.71	54.14	51.02	25.77	25.87	25.85	25.49
Czech Republic	CZE	14.25	13.47	14.01	13.62	12.45	12.92	13.07	13.45
Denmark	DNK	31.76	30.62	34.88	33.94	33.32	32.89	32.98	33.40
Finland	FIN	21.63	21.22	20.88	20.33	18.68	18.41	19.83	20.00
France	FRA	21.73	21.86	21.22	20.99	19.30	20.68	20.60	21.39
Germany	DEU	10.46	10.67	11.12	11.17	11.49	11.06	11.39	11.52
Italy	ITA	20.34	21.80	22.10	21.60	22.12	21.88	21.63	22.37
Luxembourg	LUX	25.68	24.61	25.04	24.90	25.62	25.23	24.68	25.53
Norway	NOR	28.73	29.40	28.61	28.26	26.29	27.23	27.80	27.29
Poland	POL	16.65	17.27	18.15	18.28	16.12	16.46	16.69	15.98
Slovak Republic	SVK	14.59	13.65	13.88	13.25	12.24	12.21	12.48	12.17
Spain	ESP	12.60	13.16	13.51	10.15	8.34	11.05	9.35	7.08
Sweden	SWE	21.51	22.10	21.26	20.50	20.50	20.21	20.85	20.68
Switzerland	CHE	9.38	9.48	9.31	9.96	9.82	9.63	9.76	..
Great Britain	GBR	25.76	26.46	26.24	27.30	24.45	25.18	25.79	25.29

Source: http://data.worldbank.org/indicator/all

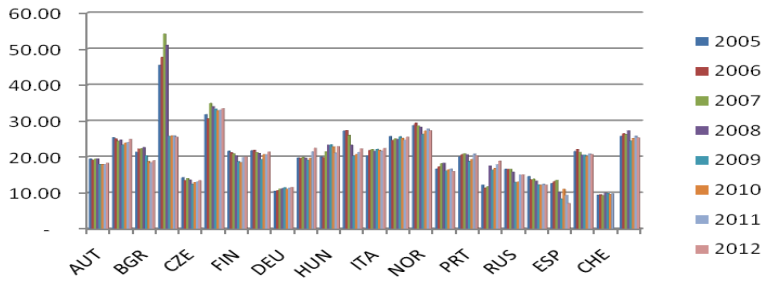


Chart 2 Average % share of personal income tax in GDP in some European countries in the period 2005-2012 [3]

By far the lowest PIT share in GDP belongs to the group of developing countries, or transition countries as they are still called, which is less than 7% of GDP. Thus, for

example, in the period 2005-2012 in the Balkan countries (of Bosnia and Herzegovina, Macedonia, Serbia) the share of tax revenues in GDP was around 20%, while in countries that joined the European Union (Croatia and Slovenia) it was under 20% (Table 3). In the same period, however, the share of personal income taxes in GDP of Serbia ranged from 1.12% in 2013 to 3.10% in 2006 (Table 4 and Chart 2).

Table 3 The share of tax revenues in GDP (%) of former Yugoslav Republics

Country	Code	2005	2006	2007	2008	2009	2010	2011	2012
Bosnia and Herz.	BIH	20.47	22.23	21.86	20.74	19.33	20.07	20.67	20.87
Croatia	HRV	19.78	19.86	19.93	20.01	19.24	19.16	18.47	19.58
Macedonia	MKD	19.26	18.92	19.49	18.67	17.29	16.99	17.16	16.71
Serbia	SRB	.	..	22.83	22.41	21.20	21.44	20.20	19.72
Slovenia	SVN	20.19	20.66	19.32	19.58	17.64	16.75	17.33	17.54

Source: http://data.worldbank.org/indicator/all

Table 4 Personal income tax share in the total income, tax revenue and gross domestic product in Serbia

Year	Total income	Tax revenue	Gross domestic product
2005	11.32%	12.96%	2.89%
2006	12.88%	14.56%	3.10%
2007	10.83%	12.27%	2.66%
2008	11.47%	12.81%	2.72%
2009	10.87%	12.41%	2.48%
2010	10.55%	12.19%	2.45%
2011	9.44%	10.87%	2.06%
2012	5.89%	6.76%	1.30%
2013	5.34%	6.00%	1.12%
2014	5.09%	5.81%	1.16%

The Bulletin Public Finances No. 127 (2015),
the Ministry of Finance of the Republic of Serbia

As most of the revenues from personal income tax makes the tax on wages (about 76%), its movement predominantly influences the total revenue from personal income tax. The movement of tax revenue on earnings depends on changes in earnings and employment trends

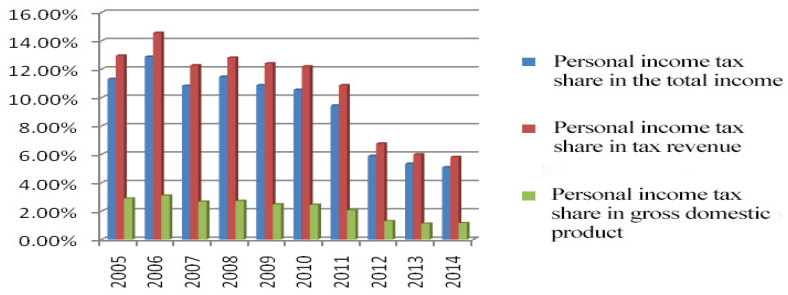


Chart 2 Personal income tax share in some income categories in the Republic of Serbia in the period of 2005-2014

On the lower revenues after 2011. Income tax earnings was mostly influenced by the growth of unemployment, low levels of earnings and changes to tax laws adopted at the end of May 2012, which, among other things, the non-taxable portion (census) raised to 11,000.0 dinars and the rate of tax on profits was reduced from 12% to 10%.

It is widely accepted opinion that the employment rate is the most important macroeconomic factor affecting the yield of personal income taxation, while the influence of the value of property generating taxable income on the revenue yield is smaller. The list of factors affecting the revenue yield of personal income taxation is not exhausted by this. Consequently, it is not possible to neglect the impacts of tax parameters such as: the height of tax rates, the level on which progression starts and the intensity of progression (if any), the level of non-taxable income, the number and extent of tax exemptions, etc. This is, also, the meaning of basic messages of the Laffer curve (Schneider & Enste, 2003):

There is one tax rate that maximizes the amount of tax revenue,

Any lower level of tax revenues can be achieved by using two different tax rates,

High tax rates create a large tax wedge which discourages working efforts and savings, and hence investment.

Research conducted in Sweden in 1981 showed that "revenue"-optimizing income tax rate amounts to 81%, while in the US it is in the range of 32.67% to 35.21%. [Fullerton, (1980) & Hsing, 1996) The research conducted in twelve countries of the OECD showed that eleven of the countries are located in the "normal" segment of the Laffer curve when it comes to the income tax rate. In other words, the current marginal income tax rate in these countries is much lower (on average by 17 percentage points) than the revenue-optimal rate that is 57%, which suggests that the increase in tax revenues can be achieved by increasing the marginal tax rate. According to the same research, only Sweden had the current marginal income tax rate higher by 7 percentage points compared to revenue-optimal tax rate [Heijman & Van Ophem 2005). Also, in certain studies the shape of the Laffer curve and the amount of optimal income tax rate are defined as the function of the willingness of taxpayers to pay taxes, i.e. their tax ethics (Heijman & Van Ophem 2005, p. 717). In this respect, the tax rate that provides maximum tax revenue can be represented by the following equation

$$\tau = \left(\frac{1}{1+\alpha} \right)^{\frac{1}{\alpha}} \tag{1}$$

τ - tax rate that rejects maximum tax revenue;
α – willingness of the taxpayer to pay the tax, i.e. the level of tax ethics

The validity of these results is limited by the assumptions on which the research has been conceived.

Equally important criteria for evaluating the income tax system are horizontal and vertical equity, economic efficiency, implementation costs, and international competitiveness. Horizontal equity implies that all citizens who earn the same income during the year, regardless of the source of its origin, pay the same taxes, and it can be achieved when the effective tax rates on all forms of income are equal. Vertical equity means that citizens earning higher incomes allocate a higher percentage of their income to pay taxes, which is achieved by applying progressive rates in personal income taxation. But the number of tax rates that are

applied in a number of countries is extremely high. According to available data of the World Bank, in the period 2005-2014 Bosnia and Herzegovina applied 40 to 55 different tax rates, Albania had 34 to 45, Romania 14 to 113. The smallest number of tax rates in the same period was recorded in Norway - 4, Sweden had 6, Spain and Portugal applied 8 rates. Way back in the 1990s, the World Bank argued in its recommendations that a good income taxing is based on a small number of taxation classes, no more than three (Kesner&Škreb, 2004, p. 142). Nevertheless, there is a relatively high level of agreement on the horizontal fairness of personal income tax system, while the accordance about the vertical equity is much lower.

A system of taxation is efficient if the introduction or increase of taxes does not lead to a decrease in the overall social welfare. Therefore, it may be stated that the tax fulfills the prerequisite of economic efficiency if it does not change relative prices in the economy. Otherwise, by causing changes in relative prices, it induces changes in the behavior of taxpayers (willingness of people to work, save, invest and take risks). In other words, the taxes in this way lead to a situation where limited resources are used less productively, that is, by affecting the amount of net income of natural persons or the amount of the total cost of the production factor unit involvement, the income tax influences the supply of production factors and their demand, causing a sub-optimal allocation of resources. Moreover, the existence of different effective tax rates for different types of personal income means that taxes affect the profitability of different activities aimed at income generation. Economists argue that taxes should be allocatively neutral as much as possible.

The implementation of any taxation results in the emergence of costs related to the tax administration, as well as to taxpayers. The rule is that the costs of applying a tax are higher as the tax form is more complicated (complexity is a function of the application of a larger number of tax rates and the existence of numerous exemptions and deductions). Therefore, when choosing between different variants of taxation, advantage should be given to the form whose application costs are lower.

In the conditions of high international capital mobility, tax competition leads to a gradual convergence of tax rates and to the need to conduct harmonization of tax rules. However, there is no substantiated analysis of the actual effects of tax competition on capital inflows. Some empirical studies have even shown that there is no strong correlation between public spending, taxation and capital mobility (Ranđelović S., (2012) *Analiza alternativnih modela poreza na dohodak fizičkih lica-efekti primene u Srbiji.* Ph.D. Thesis, Ekonomski fakultet, Beograd). In addition, efforts to harmonize income taxation, even within the European Union, have proved to be an "impossible mission", because income taxing impinges upon national sovereignty. Therefore, a proposal for a directive which would apply only to the harmonization of taxes on personal income was submitted to the European Community Council at the end of 1979, and the same was withdrawn in 1980. The Commission tried again in 1993/94 to undertake certain steps in this field, but the agreement was reduced to three principles and recommendations on tax treatment of non-residents. (Ilić & Popov, 2004, p. 118, p. 142-143).

The consequence of the existence of a significant number of criteria by which financial system, and thereby personal income tax as well, are evaluated reflects in the absence of one form of taxation that is "superior", i.e. Pareto optimal (better from all the others by at least one criterion, while not being worse under any of the criteria). The lack of a "superior" form of personal income taxation has resulted in a relatively high diversity of ways of taxing that income, from country to country, and in their continuous challenging and questioning, which has led to occasional, more or less radical changes in the method of personal income taxation.

2. COMPARATIVE PRESENTATION OF ALTERNATIVE APPROACHES TO TAXING PERSONAL INCOMES AND THE SIGNIFICANCE OF DOUBLE TAXATION

Modern tax legal theory distinguishes between three concepts of personal income taxation. However, an unmitigated theoretical model can rarely be found in practice. A system dominated by the features of one model is the most frequent. The emergence of alternative approaches to the personal income taxation may be explained in this sense (dual income tax, flat tax on income and negative income tax).

Dual income tax was created in order to mitigate the distortive impact of synthetic income taxing on savings and investment, to improve economic efficiency and retain the positive effects of taxation on income redistribution. The characteristics of dual income tax are disaggregation of the total income of a natural person to labor income and income from capital and their different tax treatment. The taxpayer realizes capital gain, as a funded income, on the basis of investing capital in certain funds or profitable ventures, while not actively participating in their creation and developments. It is, in fact, a special type of income to which taxpayers come by investing their capital in various forms of savings, through business activities of third persons without their work engagement, or by leasing. These revenues include interest, dividends, other forms of participation in the corporate capital gains and others. Labor income, which taxpayers realize through their work efforts without the involvement of their own capital, as an income realized in cash and kind from employment, part of the revenue from self-employment, is unfunded income. The tax treatment of these revenues has been long debated in financial theory and practice. The view that funded income should be taxed more sharply than unfunded income has resulted from the mentioned characteristics. Under the influence of the economics of supply, the tax laws of most countries equalized these two types of income and gave them the same tax treatment. In contemporary conditions, the attitude about funded and unfunded revenues was again changed, so that legislations today provide privileged tax treatment to funded income. Thus, for example, Denmark, Sweden, Finland, Norway, Germany, France, the USA, Hungary, Austria, Slovenia, Belgium and other countries have introduced certain elements of proportional in their synthetic income taxation. In particular, capital gains are taxed at a single proportional rate, which is in some cases equal to the lowest marginal tax rate on labor income or equal to the profit tax rate. Income from employment is taxed at progressive rates. The tax on funded income is paid after deduction, and the final tax liability is determined in the end. However, from the aspect of horizontal equity, all sources of income should be equal and have the same tax rate.

Scandinavian countries were the first to carry out the dualization of personal income tax system in the late eighties and early nineties of the twentieth century. However, available data suggest that even in these countries this theoretical model is not fully implemented in practice. Norway, as a country that was closest to this model, already exhibits certain deviations. Finland and Sweden, ignoring relatively minor differences between rates (caused by differences in local taxes), more or less conform to the basic requirements of the model, as shown in the Table 5 (Blažić, 2006 & Blažić, 2010).

Contrary to the pro-dualization arguments, the opponents of this concept state critical arguments - disadvantages, such as: lack of horizontal equity, allocative bias and stimulating impact on other types of tax arbitrage, lack of a pure form of dual taxation in any country, the problem of dividing the income of self-employed and the income of active owners of small corporations to the component of capital gain and the component of labor income.

Table 5 Dual income taxation in Scandinavian countries in 2010

Elements	Norway	Finland	Sweden
Income tax %:			
Capital gain	28	28	30
Labor income	28-40	22,55-27,5)–(46,25-51)	31,52.56,52
Profit tax rate	28	26	26,3
Alleviation/abolition of double taxation of dividends	abolition for the normal % of profit	quoted companies - alleviation; unquoted - mainly abolition	NO classical structure
Alleviation/abolition of double taxation of capital gains from shares	abolition for the normal % of profit	NO	NO
Non-standard deductions of income tax	extensive	extensive	limited

The negative impact of high, rising marginal tax rates on economic efficiency, as well as the increasing mobility of the workforce and the growing inclination of taxpayers toward tax evasion in the conditions of sharp direct progression in taxing, brought about the creation of a system of income taxation with a unique tax rate (so-called flat income tax). In particular, the idea of a flat tax on income emerged in the tax theory primarily in order to reduce/ eliminate the double taxation of capital income. It is, in fact, the concept of expenditure tax, which occurs in two forms - standard and alternative. The standard model of the expenditure concept implies taxing of only that part of income that is spent, allowing income tax to become equivalent to the consumption tax, and the alternative model of the expenditure concept includes only exemptions from capital income taxation. The standard model of the expenditure concept of income tax is not applied in any country, but many countries apply as an alternative some kind of consumption tax parallel to the income tax. Therefore, in modern tax theory the flat income tax implies some form of an alternative expenditure concept. In this matter, there are large numbers of different models of taxation that are called flat tax, and that have two common denominators - the application of a unique marginal tax rate and the elimination of almost all the deductions and tax credits other than personal deduction and possibly the deduction for dependent family members.

Advocates of the flat income tax point out, as the advantage of this model, its simplicity that is derived from the definitions of income, elimination of (non) standard deductions and proportional tax scale. In addition, it is considered that the flat income tax reduces the incentive for tax evasion and enhances the economic efficiency, given that the expansion of the tax base offers scope for lowering the tax rate. On the other hand, opponents of the flat income tax emphasize the lack of vertical equity as an important disadvantage of this model of taxation. However, from the very characteristics the flat income tax model, it may be concluded that the advantages and disadvantages cannot be universally related to each variant, but that the performances of the flat income tax depend on its design.

The experiment with flat taxation started in 1994, when Estonia introduced a flat tax rate on the incomes of natural persons and corporations. All incomes were taxed at a uniform rate of 26%, whereas progressive tax rates had been previously used, having ranged from 16-33% for the taxation of income of natural persons, and 35% for legal persons.

The idea of a negative income tax was developed by Milton Friedman. The aim of negative taxation is to increase the income of an individual to the poverty line. Namely, the amount of funds that an individual receives from the state by way of negative taxation depends only on the level of the individual's income. Therefore, a person whose earnings fall below a defined level receives from the state a certain amount of money that should provide

at least the minimum resources necessary to meet basic existential needs. Therefore, the negative tax may be viewed as a tax credit, although it is essentially a kind of tax expense because the funds intended for the budget do not flow into it. It may happen that in communities characterized by low levels of working and overall ethics people would choose to not work in order to get social assistance. Negative taxation is represented in all countries of the world, because it enables reducing poverty and resolving many social problems.

3. THE CHARACTERISTICS OF THE EXISTING SYSTEM OF PERSONAL INCOME TAXING IN SERBIA

Unlike the developed countries, developing countries have also not decided for one of the theoretically pure personal income tax models. They endeavored by modest shaping of one form of taxation to create new and healthier tax system structures that would comply with their "needs". However, the history of the development of their taxation system has shown that these reforms had their "victims" as well.

The model of personal income tax in Serbia is a kind of mixed model of taxation. It is based on a combination of *cedular* and annual personal income taxation. *Cedular* taxation is performed by applying proportional rates, while the annual tax is paid at the end of the year on the total annual income that exceeds the amount prescribed by law, at a progressive rate. Specifically, the base of the annual personal income tax is the difference between the taxable income and personal deductions, which amount to:

- for a taxpayer: 40% of the average annual salary per employee, paid in the Republic;
- for a dependent family member: 15% of the average annual salary per employee paid in the Republic, where the total amount of personal deductions cannot exceed 50% of the taxable income. If two or more family members are bound to pay annual personal income tax, only one taxpayer can realize the right to a deduction for dependents.

The rate of annual personal income tax as the second element is as follows: 10% for the taxable income amounting up to six times average annual salary and 15% for the part of income exceeding six times average annual salary. These data can lead to the conclusion that the limit for tax-free annual income is set relatively high, due to which very small numbers of taxpayers pay annual income tax in Serbia.

It is evident from the legal provisions that, within the *cedular* component of taxation, income from various sources is taxed as incurred - after deduction or upon decision by the tax authority. For this purpose, personal income is classified into six categories (Table 6), whereby each type of income is taxed separately (against separately established rules).

Table 6 Personal income tax rates in Serbia

Income	Statutory tax rate	Standardized costs/deductions
Wages and salaries	10%	11.604 RSD
Revenue from self-employment	10%	-
Revenue from copyrights, rights related to copyright and industrial property rights	20%	34%, 43%, 50%
Revenue from yield on capital	15% exc. 20%	-
Capital gains	15%	-
Other revenues	20%	20%

Source: Individual Income Tax Law, Official Gazette of RS, Nos. 24/01, 80/02, 31/09, 44/09, 18/10, 50/11, 91/11, 108/13, 57/14, 68/14

Given the fact that under the *cedular* component of taxation incomes from different sources are taxed at three different statutory rates, it can be said that the current income tax system does not provide conditions for the realization of horizontal equity in taxation. It can also be said that proportional tax rates applied in *cedular* component of taxation are relatively low, as well as the non-taxable amount of earnings. However, according to available data, 56,300 employees have not received any salary for one year or even longer, 400,000 employees in Serbia receive a minimum wage, which allows the employer to avoid paying taxes and contributions to the state, and about 200,000 employees earn less than the minimum wage. Due to all this, the distribution of earnings is skewed to the left, i.e. it is not symmetrical. Nevertheless, the tax on salaries of employees in the period 2005-2014 represented 49.02% to 87.06% of the total personal income tax in Serbia (Table 7 and Chart 3).

Table 7 The share of taxes on salaries in the tax revenue and in personal income tax in the Republic of Serbia (in MM RSD)

Year	Total tax revenue	Personal income tax	Tax on salaries of employees
2005	390,283.20	50,573.50	44,028.20
2006	437,112.40	63,644.20	54,124.00
2007	511,261.50	62,744.20	48,849.60
2008	582,893.00	74,695.40	57,191.10
2009	574,644.10	71,308.00	58,310.30
2010	616,607.70	75,174.60	59,619.50
2011	646,597.70	70,284.70	53,723.30
2012	686,828.30	46,432.40	25,568.60
2013	723,389.60	43,376.60	23,629.30
2014	770,958.10	44,820.60	21,970.20

Calculated on the basis of data from the Bulletin Public Finances No. 127 (2015), the Ministry of Finance of the Republic of Serbia

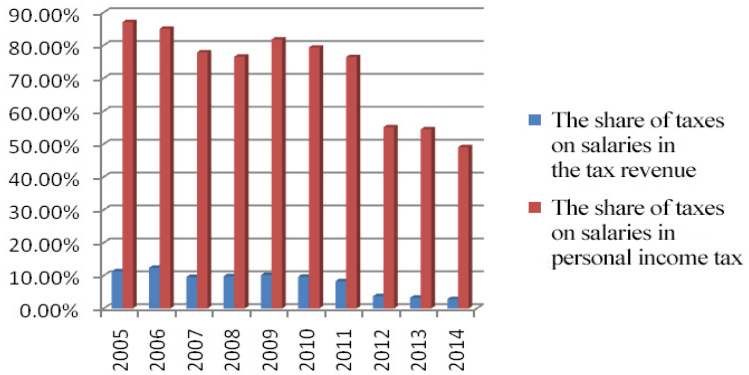


Chart 3 The share of taxes on salaries in the tax revenue and in personal income tax in the Republic of Serbia

Based on the prior statements, it may well be said that the present tax system does not provide conditions for the realization of vertical equity in taxation, either.

The high fiscal burden on labor is the result of high rates of social security contributions, for which reason the total fiscal burden on salaries has a negative impact on the demand for labor. There is an opinion that the expected state of public finances in Serbia would in due course require certain increase rather than reduction in fiscal burden. On the other hand, high unemployment (Table 8) particularly of less skilled workforce implies the existence of the grounds in the reform of income taxes to reduce the fiscal burden on earnings that are significantly below average.

Table 8 Number of unemployed persons in Serbia in the period of 2005-2014

Year	Number of employed	Persons seeking employment	Actively unemployed
2005	2.068.964	990.669	895.697
2006	2.025.627	1.011.139	916.257
2007	2.002.344	850.802	785.099
2008	1.999.476	794.000	727.621
2009	1.889.085	812.350	730.372
2010	1.795.774	802.840	729.520
2011	1.746.138	833.268	745.187
2012	1.727.048	870.186	761.486
2013	1.715.164	888.359	769.546
2014	1.697.686	867.948	741.906

The Bulletin Public Finances No. 127 (2015), the Ministry of Finance of the Republic of Serbia

Although the fiscal burden on labor in Serbia is relatively high, it constitutes neither a competitive advantage nor a disadvantage. As stated in the assessment of the effects of fiscal burden on labor demand - it is estimated that in Serbia there is no scope for increasing competitiveness by reducing the fiscal burden on labor. Reduction of labor costs, aimed at improving international competitiveness, can also be achieved by the slower growth of real salaries as compared to productivity growth, by real depreciation of the national currency, and so on. In the conditions existing in Serbia, it seems that these are more suitable mechanisms of improving competitiveness than the reduction of fiscal burden could be.

The costs of applying personal income tax in Serbia have not been estimated. Based on comparisons with similar systems in the world, the conclusion may be drawn that they are moderate. The low level of costs is affected by the domination of taxes to be paid after deduction, a small number of taxpayers liable to annual taxing, modest relieves. On the other hand, a differentiated approach to different types of income and the existence of a number of exemptions from the general regime of taxation affect the growth of tax implementation costs.

The revenue yield of personal income tax in Serbia is relatively low. As already stated, the participation of income tax in Serbia's GDP is very modest. By the year 2010 it amounted to about 3%, and after 2010 it was slightly above 1%, which is far lower than in the EU member states. Low personal income tax revenue yield is the result of adverse effects of macroeconomic and taxation factors, the degree of collection, as well as the parameters of the tax itself. Still widely spread shadow economy affects the low revenue yield from personal income tax. Complete or partial unreported employment reduces the revenues from labor income taxation, while the use of various creative bookkeeping measures and similar reduces the revenue from taxation of the yield on capital. Some types of income, such as the income from renting business or residential facilities by private individuals - mostly go untaxed.

To confirm or refute the above statements, some tests have been applied. The reliability of results of empirical analysis highly depends on the performances of the model against which the results are obtained and on the starting base. In other words, any economic model is necessarily an abstraction and simplification of reality, which can make empirical results unreliable as a basis for analyzing the effects of the tax reform. According to these findings, as well as the number of selected lags, which is a critical point of Dicky-Fuller test, it was concluded that the time series used for calculating the interdependence of variables that allow to draw conclusions about the Serbian tax system were stationary (Table 9). The author is aware of the fact that the application of other tests (KPSS, PP, ERS and M tests) shows different results for the same variables. The difference is also the consequence of the fact that two series do not have to be correlated in order to be cointegrated. (Krstić et al., 2007 & Mladenović & Nojković, 2012)

Table 9 Dicky-Fuller stationarity test

Variable	Differen-tiation	Coeffici-ent	Coefficient critical value	Significance level (p-value)	Conclusion
Ln(TTR)	0	-4.986	-0.774	0.000	The series is stationary
Ln(TTR)	1	-7.386	-0.744	< 0,0001	The series is stationary
Ln(PIT)	0	-2.281	-0.774	0.421	The series is non-stationary
Ln(PIT)	1	-4.395	-0.744	0.003	The series is stationary
Ln(TW)	0	-2.296	-0.774	0.412	The series is non-stationary
Ln(TW)	1	-3.870	-0.744	0.015	The series is stationary
Ln(PT)	0	-4.187	-0.774	0.006	The series is stationary
Ln(PT)	1	-6.112	-0.744	< 0,0001	The series is stationary
Ln(CIT)	0	-4.085	-0.774	0.008	The series is stationary
Ln(CIT)	1	-6.256	-0.744	< 0,0001	The series is stationary
Ln(ANW)	0	-1.660	-0.774	0.744	The series is non-stationary
Ln(ANW)	1	-8.059	-0.744	< 0,0001	The series is stationary
Ln(PS)	0	-0.927	-0.774	0.932	The series is non-stationary
Ln(PS)	1	-3.729	-0.744	0.021	The series is stationary
Ln(NoE)	0	-0.567	-0.774	0.967	The series is non-stationary
Ln(NoE)	1	-4.957	-0.744	0.000	The series is stationary
Ln(NoU)	0	-4.659	-0.774	0.001	The series is stationary
Ln(NoU)	1	-5.819	-0.744	< 0,0001	The series is stationary

According to this test, the interdependencies of parameters characterizing personal income taxation in Serbia were determined and presented in Table 10 with appropriate conclusions. Similar results were obtained by using Excel functions, too.

Table 10 Interdependence of some categories indicating the state of the tax system of Serbia

PIT-TTR: Personal income tax & Total tax revenue				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	12	1.0939	0.374700	Change of PIT causes no change of TTR
SC	2	8.9959	0.000203	Change of PIT causes change of TTR
PIT-TW: Personal income tax & Tax on wages				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	12	0.6463	0.7973	Change of PIT causes no change of TW
SC	1	10.1872	0.001706	Change of PIT causes change of TW
PT-CIT: Profit tax & Corporate income tax				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	11	0.8044	0.6354	Change of CIT causes no change of PT
SC	2	4.6469	0.01099	Change of CIT causes change of PT
PIT -PT: Personal income tax & Profit tax				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	11	1.3796	0.1946	Change of PIT causes no change of PT
SC	2	18.7701	5.19E-05	Change of PIT causes change of PT
PIT -NoE: Personal income tax & Number of employed				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC SC	2 2	7.4236	0.000839	Change of PIT affects NoE
PIT -NoU: Personal income tax & Number of unemployed				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	12	1.0012	0.4544	Change of PIT does not affect NoU
SC	3	1.8798	0.1356	Change of PIT does not affect NoU
ANW- NoE: Average net wage & Number of employed				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	12	2.194	0.0181	Change of ANW affects NoE
SC	3	5.5707	0.001202	Change of ANW affects NoE
ANW - NoU: Average net wage & Number of unemployed				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	12	1.7302	0.07278	Change of ANW does not affect NoU
SC	11	2.4097	0.01077	Change of ANW affects NoU
PS- PIT: Personal savings & Personal income tax				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC	2	0.33 11	0.7187	Change of PIT does not affect PS
SC	1	0.2949	0.5879	Change of PIT does not affect PS
TW- PS: Tax on wages & Personal savings				
Optimal Lag		Granger causality		
		F-test	p-value	conclusion
AIC SC	1 1	0.6432	0.4238	Change of TW does not affect PS

Pursuant to the results, we can say that the performances of the existing personal income tax system in Serbia indicate the existence of systemic deficiencies that can be remedied only by a fundamental reform of this tax form. Namely, the tax reforms implemented so far in our country were aimed at simplifying the tax system, which was proved wrong in the tax practice.

The transitional processes of the entire socio-economic system still bring "breakdowns" in morality and lifestyle, which has ultimately led to changes in values, attitudes and behavior. Money is, today more than ever, given the role of a measure of value. We have witnessed a great economic stratification in our society, as well. The gap between rich and poor keeps widening. Also, there is no dispute that many of the changes were positive and led to social progress. However, suppression of negative phenomena to acceptable limits is a condition without which the state cannot be recognized as a society governed by the rule of law.

4. Possible Directions for the Reform of Personal Income Taxation

The desired tax system should be designed to ensure undisturbed functioning of the market, fairer distribution of the tax burden in the society and lower costs of taxation, to comply with the tax structure, to create conditions for attracting foreign investments, etc. Cost-benefit ratio should normally provide an adequate solution to reach the desired model of taxation. The fact is that income tax reduces the income of the taxpayer, i.e. increases his budget constraint on factors of production, goods and services. On the other hand, the principle of fiscal strength suggests the use of horizontal and vertical equity of taxpayers. Income is the best measure of fiscal strength, but the problem remains of how to cover the worldwide income of each taxpayer. Each of the known personal income tax models provides an answer that is more or less satisfactory.

Practice has shown that the commitment of a country to a particular model of taxation does not mean that it is implemented in its pure theoretical form. The reality is that most frequently one tax model is chosen as the basis and then various elements of other models are incorporated into it. This attitude can be viewed as a consequence of the awareness that none of the theoretical models is superior with regard to the relevant criteria.

Consequently, if the personal income tax in Serbia, as mixed, is replaced by the synthetic personal income tax, it would enable the application of ability-to-pay principle and, as it avoids a qualitative differentiation of certain revenue categories, it would bring about neutrality, which the *cedular* system lacks. But it opens up a range of questions such as: taxpayer as an individual or a family, to globalize all incomes or not, which progression to apply in taxation, and so on. Also, empirical evidence from developed countries confirms that the synthetic tax does not succeed to achieve in practice its main objectives, such as the progressive taxation of the richest citizens. Implementation of the global system includes the improvement of tax administration with particular emphasis on revenue collection and control. Available data indicate that inspection services in Serbia have increased their efficiency in recent years, but there are still problems such as: insufficient IT equipment, inadequate equipment of inspectors in the field, lack of connection with other inspection services, insufficient number of employees, low salaries of inspectors, inadequate and outdated organization.

Proportional personal income taxation is suitable for countries which do not have a modern and efficient tax administration, where tax ethics are low, but which are trying to attract as much foreign investment as possible by a simple tax system. From the standpoint of economic efficiency, it is most suitable as the income tax. Namely, the existence of a single rate at which labor income is taxed introduces the smallest distortion in market prices. Also, this form of taxation is superior with respect to most economic criteria (allocative neutrality, effects on the labor market, low cost of application, etc.). The introduction of high tax-free wage threshold would ensure its moderate progressiveness.

By confronting the criteria for evaluating personal income tax with the current performances and development priorities of the Serbian economy and the performances of its tax administration, it is estimated that a satisfactory solution for Serbia at this stage of development is the proportional personal income tax, or some variant of synthetic or dual tax.

In support of previous statements, there is the structure and method of taxing personal tax revenues. Thus, the tax base for self-employment income taxation is largely underestimated and more than 50% of taxpayers from this group are taxed at a flat rate. It is necessary to significantly tighten the legally set criteria for approval of lump-sum taxation, especially when it comes to services that create considerable added value.

The income of individual farmers is for the most part covered by a tax on cadastral income, so it is necessary to carry out the innovation of the system of taxing revenues from agriculture through the introduction of a tax on the estimated income of producers.

In order to avoid double taxation of income from capital, one possible solution is subjecting dividends after deduction to the final tax, whose rate would be much lower than the current effective rate.

The level of contributions for compulsory social insurance shows that the cumulative burden on gross wages was considerably reduced in 2012. Bearing in mind the level of the deficit in the Pension and Disability Insurance Fund, but also the fact that, comparatively speaking, it is among the lowest in the region, it seems unrealistic to continue to reduce rates. The solution should be sought in the legalization of the shadow economy, the increase of the level of earnings through productivity improvement and so on.

PIT reform in Serbia is not an easy task, given that this tax is aimed at much more accomplishments.

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POREZ NA DOHODAK – DVOSTRUKO OPOREZOVANJE

Porez na dohodak je jedan od najvažnijih poreskih oblika u poreskim sistemima savremenih zemalja, veoma velikodušan i fleksibilan. Porez na dohodak građana može se organizovati kao redovno, sintetičko ili mešovito oporezivanje. U modernom poreskom zakonodavstvu postoje alternativni načini oporezivanja na dohodak fizičkih lica, kao što su dvostruko oporezivanje sistema, proporcionalno porezu na negativni porez na dohodak prihoda. Fiskalne reforme izvršene u Srbiji su često odložene zbog brojnih, ponekad ne ekonomskih razloga. Ozbiljnost i neophodnost dinamičnog pristupa u procesu reformi poreskog sistema u našoj zemlji je i dalje aktuelan. U tom smislu, cilj ovog rada je da se ukaže na prednosti i nedostatke dvostrukog poreskog sistema, kao i da se ukaže na potrebu da se reformiše porez na dohodak građana u Srbiji.

Ključne reči: *dvostruko oporezivanje, poreza na dohodak, poreski elementi, fiskalne reforme, standard i nestandardni dobici, horizontalno i vertikalno oporezivanja kapitala.*