

## Tax Efficiency vs. Tax Equity – Points of View regarding Tax Optimum

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**Abstract: Objectives.** Starting from the idea that tax equity requirements, administration costs and the tendency towards tax evasion determine the design of tax systems, it is important to identify a satisfactory efficiency/equity deal in order to build a tax system as close to optimum requirements as possible. **Prior Work** Previous studies proved that an optimum tax system is that through which it will be collected a level of tax revenues which will satisfy budgetary demands, while losing only a minimum 'amount' of welfare. In what degree the Romanian tax system meets these requirements? **Approach** We envisage analyzing the possibilities of improving Romanian tax system as to come nearest to optimum requirements. **Results** We can conclude fiscal system can uphold important improvements in what assuring tax equity is concerned, resulting in raising the degree of free conformation in the field of tax payment and, implicitly, the degree of tax efficiency. **Implications** Knowing to what extent it can be acted upon in the direction of finding that satisfactory efficiency/equity deal may allow oneself to identify the blueprint of a tax system in which the loss of welfare is kept down to minimum. **Value** For the Romanian institutions empowered to impose taxes, the knowledge of the possibilities of making the tax system more efficient can be important while aiming at reducing the level of evasion phenomenon.

**Keywords:** horizontal and vertical equity; optimal commodity taxation; optimal income taxation; excess burden; welfare economics; tax evasion

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## 1 Introduction

A problem that is today in the attention of many economists and that should be carefully analyzed by authorities, concerns the design of an optimal tax system or, rather, the improvement of the tax system, to bring it closer to the requirements of optimal taxation.

*Optimal tax theory is the study of how best to design a tax to minimize distortion and inefficiency subject to raising set revenues through distortionary taxation.* (Ljungqvist & Sargent, 2000)

To meet such requirements, modern tax systems should be designed and must function based on commonly accepted requirements. The most important requirements in this respect are the fairness of the tax system and its efficiency.

Efficiency, which is traditionally the purview of economics, and does not involve ethical and normative judgment, considers only how resources are allocated, while equity considers the distribution of resources and required to refer to social norms and value judgment.

As regards the two fundamental requirements of an optimal tax system, there should be noted that, most of the times, meeting the terms of such requirement involves the acceptance of a particular compromise while meeting the conditions of the second one.

According to the opinions of theoretician economists of Romania (Văcărel, 2003), ensuring tax fairness presupposes the fulfillment of four cumulative conditions:

- To determine a minimum tax, applicable to direct taxes on individuals' income;
- General application of taxes and duties by eliminating tax incentives granted to certain categories of taxpayers;
- To determine the tax burden according to the contributive power (vertical equity);
- To determine the same tax burden at the same level of contributive power (horizontal equity).

In terms of tax return or efficiency, theoretician economists of Romania consider that taxes should be collected with minimal expenditure aiming at obtaining a higher amount of revenue to the state budget (Hoanță, 2000). Thus, ensuring the highest possible tax efficiency involves the fulfillment of the following three cumulative conditions:

- To ensure the universality of taxation, namely to levy taxes from all individuals and legal entities and the entire taxable domain;

- To minimize the cost of establishing the taxable domain, calculation and collection of taxes;
- To minimize the opportunities for tax avoidance (legal and illegal means) of part of the taxable domain.

These three conditions regarding the taxation's efficiency are supplemented by the need of ensuring a fair tax treatment, which we consider very important for increasing the willingness to pay taxes and, thus, to ensure the highest efficiency of taxation. In these circumstances, we can say that tax efficiency does not always determine the reduction of tax return but, on the contrary, it may increase its capacity, equity and efficiency becoming, thus, interdependent conditions in creating an optimal tax system.

In the literature, in close contact with the two requirements mentioned above, especially with the tax equity requirement, the tax neutrality requirement is also approached. In accordance with this, taxes should not affect taxpayers' behavior and resource allocation. However, although *a neutral tax avoids distortion and inefficiency completely* (Rothbard, 1970), it remains a theoretical tax as long as, most of the times, tax tools are used by interventionist governments to correct the inefficiency of certain economic operators and, in general, to reach economic, social and political goals, etc.

## 2 Optimal Indirect Taxation

In terms of optimal indirect taxation, in the early twentieth century, the American economist Frank Ramsey outlined a theory of optimal taxation of products and services, advocating for their differential taxation. The question that Ramsey tried to answer concerns the tools a government uses to tax various goods and services so that, given budgetary constraints, the loss of welfare caused by the tax system to be minimal and thus to meet the conditions for taxation efficiency.

The conclusion reached is that, to minimize total excess burden, tax rates should be set so that the tax-induced percentage reduction in the quantity demanded of each commodity is the same (Ramsey, 1927).

In other words, efficient requires that relatively high rates of taxation be levied on relatively inelastic goods (Rosen & Gayen, 2010).

The question is whether such a mode of taxation of goods and services considered effective, is, at the same time, fair.

If in direct taxation, equity can be ensured, as we shall see below, either using proportional taxation, or the progressive one, in terms of indirect taxation, it is recognized as being (at least in the way which is applied today in modern tax

systems) deeply unfair, and that is because these taxes, through their application, weigh heavier on the shoulders of people with lower income. In other words, the tax burden, for such taxes, is decreasing in relation to the income meant for consumption.

To explain this, we consider two persons: P1 and P2, who have the following income available for consumption:  $V_1=1000$  u.m. and  $V_2=10000$  u.m. Both persons buy the same product for which they pay a price of 500 u.m., taxed with 10%. The indirect tax owed by each person is approximately 50 u.m., but the tax pressure borne by P1  $[(50/1000)*100=5\%]$  will be 4.5 p.p. higher than the one borne by P2  $[(50/10000)*100] = 0.5\%$ .

Returning to the efficiency requirement set out by Ramsey, the question is whether consumption can be taxed differently depending on certain characteristics of goods, in this case, the elasticity of their demand.

Excise (special consumption taxes) is an example in this respect, as it is generally applied to those categories of goods that have inelastic demand for consumption, hence the high efficiency of this type of tax.

Can this criterion be applied for general consumption tax?

If, through the application of differential taxation, indirect taxation becomes effective, does it become, at the same time, more equitable?

In general, goods with inelastic demand, are either those for basic necessities (basic food) or those that have no substitutes in consumption. Should they be taxed at higher rates?

For example, if a person with low income allocates most of the revenues to buy basic food (bread, milk, etc.), while another person with high income allocates most of their income to the purchase goods such as: perfumes, fur coats, luxury car fuel and the like, the consumption of the two categories of goods should be taxed at the same rate, as high as possible to ensure greater efficiency? The answer is obviously no. Welfare economics focuses on the usefulness the assets have in use. Therefore, even though the two categories of goods have inelastic demand for consumption, the taxation of necessities should be made in order to ensure a fair taxation based on lower tax rates.

Resuming the example above, if P1 buys only basic goods, in amount of 900 u.m., levied with 10%, this person will bear a tax pressure of 9% while P2 buys goods in amount of 9000 u.m., levied at the same rate, bearing the same tax pressure of 9%. If the goods bought by P2 were differently taxed, depending on their type of category, namely goods in amount of 900 u.m., taxed with 10% and goods in amount of 5000 u.m., taxed with 20%, the tax pressure borne by P2 would be 12.9%, 2.9 p.p. higher than the one borne by P1 and it would be broadly correlated with the contributive power of taxpayers.

Therefore, the application of the value added tax in Romania is highly unfair given that, with few exceptions which usually do not concern basic goods, the taxation rate is the same for the rest of categories of goods and services subject to taxation.

### 3 Optimal Direct Taxation

As regards direct taxation, one of the most important such taxes is the income tax, tax with a substantial contribution to the formation of public financial resources and with important implications for decision of individual taxpayers to use their available time to work or to spend it as free time (leisure).

The way in which income is taxed is one of the most controversial issues in public finance.

One of the models which attempted to analyze the optimal taxation of income is the model devised by Francis Ysidro Edgeworth (Rosen & Gayen, 2010). The model is based on the following assumptions:

- Individuals have utility functions based on their income, such functions increase with the income, but based on decreasing rates;
- Considering budgetary constraints, the optimal tax system is the one which manages to maximize total social welfare  $W$ , as sum of individual utilities ( $U_1, U_2, \dots, U_n$ );
- $W = U_1 + U_2 + \dots + U_n$ , where  $n$  is the number of the persons in the society;
- The total amount of the available income is fixed.

Edgeworth believes that to maximize social welfare, individual utilities must become equal by taxation, but the conditions under which the utility function of people with higher income, has higher values, then such income should be taxed more, namely with higher tax rates. To ensure tax fairness, these rates would apply only to the corresponding utility of income which exceeds the equalized utility for all individuals.

In other words, the model hereby upholds the progressive taxation of income, because, through taxation, the welfare loss will be higher for the rich and lower for the poor, thus their utility functions would equalize.

The main criticism of the model is that the amount of available income in society is fixed, or in circumstances, where, for equalizing the utilities, the marginal tax rate for the highest income would reach 100%, individuals will refrain from activities generating that part of income to be seized, therefore the total amount of available income will be reduced.

Given that the optimal taxation system distorts labor decisions and leads to welfare loss, marginal taxation rate should be lower than 100%. Thus, the theory states that an optimal tax policy should maintain tax pressure within the admissible area of the Laffer curb.

In 1987, Nicholas Stern studied a similar taxation system. He suggested for the income collected from a person to be determined as follows:

*Collected tax income* =  $-\alpha + t * \text{Individual income}$ , where  $t$  is the taxation rate, and  $\alpha$  may be the minimum non-taxable income.

According to this model, when the individual model is 0, individuals should receive subsidies from the government equal to  $\alpha$ . The subsidy to be received is the difference  $\alpha - t * \text{Individual income}$ . Thus, the individuals are tempted to wait for the governmental subsidies and thus labor is not encouraged.

J. Gruber and E. Saez (2002) undertook much more interesting analyses and suggested a taxation system based on the use of progressive rates. The advantage of such a model is that the tax paid in absolute amount, increases along with the income and individuals, having lower tax rates, could manifest an increased demand for employment and to generate taxable income, perhaps with positive consequences as regards tax evasion.

An alternative to income tax, thought to remove the distortions generated by progressive taxation, is taxation on ability, the ability of individuals to generate income. This tax alternative takes into account that progressive taxation may cause people with high capacity of earning large revenue to refrain from certain activities. Moreover, it is also the main criticism by supporters of proportional rate, progressive taxation.

In terms of revenue the state needs, such a solution could be interesting as far as not to create opportunities for tax evasion, but tax authorities find it difficult to identify such abilities and, thus, this variation is still at the stage of hypothesis. Moreover, by applying such a tax system would somehow arrive at some kind of tax "per capita" and certainly, for certain categories of people, it would lead to income confiscation.

The lump-sum tax is another topic approached in related literature. As N.G. Mankiw, M. Weinzierl and D. Yagan (2009) mentioned, in the absence of market imperfections, the optimal tax system is the one that does not make changes of the taxpayer. Given that the tax distorts economic decisions, a loss of wealth is created and therefore a reduction in existing social welfare before tax, the lump-sum tax could be a solution.

Lump-sum taxes can be built with or without taking into account the size of income received. In the first case, they are deeply unfair and create an increase in the

relative tax burden for people with low income. In the second case, given that they still can be called so, lump-sum taxes do not meet the conditions of non-distortion and thus cannot be considered optimal.

Returning to the lump-sum tax in its pure form, established without taking into account the size of income or other criteria, as mentioned above, it fails to comply with tax fairness requirements, namely the establishment of the tax burden on the power of contribution, individuals or families with low income finish bearing the much higher relative value than high-income individuals or families.

Because of the distortions generated in terms of tax fairness, lump-sum taxes are little used by modern tax systems<sup>1</sup>.

The current Romanian tax system uses various forms of lump-sum taxes.

An alternative is the lump-sum tax, in its pure form, found in the case of certain income obtained by various categories of taxpayers from independent activities. The tax, which does not take into account the size of yield, as determined administratively by other criteria such as type of activity, venue, taxpayer age, etc. creates under legal ways, wide possibilities of tax evasion with consequences to ensure equal and fair treatment at the level of taxpayers who receive income from independent activities, but also to other taxpayers subject to income tax.

A second variant of the lump-sum tax, common for all income from self-employment, is where the taxable income is determined by taking into account the expenses set by the fiscal authorities in flat-rate system. In these circumstances, taxpayers who, in fact, record lower expenses than those set out in the lump-sum system will avoid the taxation of a statutory part of the taxable material. But those whose costs exceed the costs set in the lump-sum system will have to bear a higher tax. In reality, this type of tax is optional; the consequences over the state budget may be insignificant.

The third option of lump-sum tax was introduced in Romania in May 2009. It was applied to personal income (profit tax and small enterprise tax), being rather a minimum tax, namely taxpayers pay a profit tax, calculated on the basis of proportionate rate of 16% but not less than the minimum tax revenue set in the previous fiscal year.

Having been established according to the revenue obtained in the previous fiscal year, the tax did not account for the contributive power of the taxpayers, and the moment of its implementation was poorly decided (the economic crisis hit Romania) and led to an unjustified increase of the tax burden for some taxpayers and the decapitalization of others. The tax was abolished in September 2010.

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<sup>1</sup> A variant of this “per capita” of the lump-sum tax led to the resignation of the Margaret Thatcher Government, in 1990.

#### 4. Conclusions

Although tax fairness can sometimes increase the efficiency of tax revenue, in terms of increasing voluntary payment compliance, fairness and efficiency, as the main requirements of an optimal tax system, are difficult to implement in practice, all and at the same time. Therefore, the tax system, as a system of coercion, will never be neither effective nor fair to all taxpayers.

Studies carried out in time in the field of taxation, have tried to bring more fiscal fairness under a given level of efficiency or to maximize social welfare by reducing its costs (excess burden) at a given level of fairness.

However, the optimization of the tax system remains still an open question for both academics and for policymakers when making decisions about shaping the tax system.

Given the analysis hereby, in our opinion, the Romanian tax system can withstand changes in terms of improving its fairness, with consequences over the increase of the payment compliance of taxpayers.

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