How to Achieve Efficiency and Equity in the Tax System?*

PREDRAG BEJAKOVIĆ

Institute of Public Finance Zagreb, Croatia

Review paper UDK: 336.221.4 doi: 10.3935/rsp.v27i2.1675 Received: September 2019

The paper examines the efficiency and equity trade-off in the tax system. While efficiency usually recounts to how well an economy assigns limited resources to meet the needs of consumers, the goal of equity is to analyse the distribution of resources. Thus, it is related to the concepts of fairness and social justice. Efficiency deals with the optimal production and allocation of resources within the available production factors. In the tax system, efficiency means the ability to collect sufficient public revenues by making a tax system as simple as possible. Equity examines how available resources are distributed in the society. Vertical equity deals with the relative income and welfare of the population or with how equitably available resources are distributed. It may imply higher tax rates for citizens with higher incomes. Horizontal equity is based on the belief that earners with the same income should pay taxes at the same tax rate. The aim of the article is to identify those conditions under which there is no conflict between equity and efficiency in the tax system. The tax system is the government's main lever to redistribute income, but there is a potential balance between equity and efficiency. The idea is to determine policy measures which stimulate greater equity, but have no or little effect on efficiency. In other words, our intention is to find out policy actions where equity and efficiency support each other and where tax measures may perhaps even enable a more efficient fiscal system.

Key words: tax system, efficiency, equity, tax power, tax burden.

INTRODUCTION

Equity is the pursuit of long-term prosperity. It includes institutions and policies that support conditions where all citizens have similar possibilities to be economically productive, politically influential, socially active and included. Such conditions contribute to social enhancement, economic growth and sustainable development of a society. Roemer (1998) deems that there are

two possible views of equality of opportunity. The first one, which he defines as the non-discrimination principle, asserts that in the rivalry for positions in society, persons should be valued only on characteristics important for the realisation of the required tasks. There is no need to take into account characteristics such as race or sex. According to the second equal opportunities principle, a society should try to achieve all

^{*} The author would like to to express his gratitude to both anonymous peer-reviewers for their ideas and proposals for improvement.

possible to level the field among persons who rival for desired positions, particularly during their formative years. In that way, all participants who have the required potential characteristics can be considered.

In almost all developed and developing countries in the world, in the conditions of serious public budget limits and the context of globalisation, technological changes, innovation and demographic changes (especially population ageing), a bigger emphasis is being dedicated to enhancing efficiency in providing adequate and accessible public services. This includes tax policy that should collect sufficient revenues for financing public expenditures, but will not represent too heavy a burden for the taxpayers. In such circumstances, there are constant discussions about achieving efficiency and equity in the tax system.

It is relatively simple to define tax efficiency: to collect the maximum amount of public revenues with minimum costs and resistance by the taxpayers. Besides tax efficiency, another respect of the tax system is their fairness or equity. Achieving efficiency and equity in the tax system is highly desirable, but it is often presumed that efficiency and equity goals are reciprocally exclusive. However, there are situations where efficiency and equity in taxation may not be in conflict. Redistributive measures may reduce income inequality and its persistence across the society by moderating the influence of market imperfections. Economists very often take for granted the notion that efficiency and equity cannot be achieved simultaneously. An increase in efficiency must be accompanied by an inevitable loss of equity. Therefore, efficiency and equity - particularly in taxation - are almost often deemed as reciprocally contradictory goals.

The paper examines the equity and efficiency compromise in taxation. The aim is to define those conditions under which

efficiency and equity may not be in conflict. After this introduction, the theoretical framework is given in Section 2. Section 3 deals with the historical development of the trade-off concept on efficiency and equity in tax system. Section 4 is dedicated to the attitude of efficiency and equity in the modern tax systems. The paper finishes with Section 5 that contains conclusions and ideas for the enhancement of tax policies with the goal of achieving efficiency and equity in the tax systems.

THEORETICAL BASICS

In the theory of public finance, efficiency has many possible explanations. Most of them deem that efficiency relates to how well an economy assigns limited resources to satisfy the needs of consumers. Efficiency affirms that all available goods or services are distributed to someone. where an achieved value is the condition for economic efficiency. A change that increases value is an efficient change, while any change that decreases value means an inefficient change. Efficiency in taxation is a topic of enduring importance and continuing investigation (see Auerbach and Hines, 2002), but there is still much that is not well understood about this complex and demanding subject, even in rich countries with long-established and stable tax systems and admirable databases. Efficiency implies that taxation hinders as little as possible in the choice citizens make in the private spending decisions. The tax burden should not motivate entrepreneurs to spend on property instead of investments in research and development. Furthermore, tax measures should not discourage investment or work, as opposed to consumption or leisure. Questions of efficiency come from the fact that the tax system always affects behaviour.

Equity examines how available resources are distributed in the society. It is inexorably related to the idea of fairness and social justice. Once market equilibrium is achieved and it is efficient, it is impossible to reallocate the available good and/or service without imperil someone. Everyone has an opinion about how to answer this question: What is equity in taxation? The equity of a tax system and tax policy concerns whether the tax burden is distributed fairly among the taxpayers. There are two type of equity: horizontal and vertical. Horizontal equity is based on the belief that earners with the same income should pay taxes at the same tax rate. Thus, this type of equity proposes that a married couple should be obliged to pay the equal amount of taxes as a couple that lives together and has the same amount of combined income. Furthermore, the problem of how well-being should be expressed for the purpose of horizontal equity has attracted significant attention. One example is the discussion as to whether well-being should be measured regarding the income or consumption. This includes whether horizontal equity should deal with equal earners or with equal consumers. It is crucial to stress that "horizontal equity is concerned with individuals who are similarly situated, not with those who are identically situated" (Elkins, 2006). Vertical equity deals with the relative income and welfare of the population or with how equitably available resources are distributed. It may imply higher tax rates for people with higher incomes.

Even though on the first glance these objectives seem obvious enough, equity or fairness is very much in the eye of the beholder. There has been always a huge discussion how to judge whether two taxpayers are equally well off. For example, one taxpayer might obtain money from inheritance while another receives the same amount of income from hard work. Al-

though the first taxpayer is obviously better off than the second, there is no accord about how much more taxes should the better-off person pay.

Equity in taxation can be analysed according to the Rawlsian theory of moderate redistribution (Rawls, 1971). This theory is based on a social agreement and the aversion to inequality in outcome. The citizens tacitly conclude the agreement that incorporates an insurance against failure and has a special protection for the worst possible events in life because of the risk and unawareness of the outcome of economic activity. Rawls strained to preserve the free market economy, but also to allow redistribution in favour of the poorest. He underlines that final outcomes may be insufficient and/or adverse because of bad luck, or even because of a person's own faults. The main problem of distributive justice achieved through tax policy is the choice of a social system. Rawls believes that it should be organised so that the consequential distribution is fair regardless of how things turn out. To achieve such aim, it is essential to establish and develop adequate political and legal institutions that can be grouped into executive bodies. One of them is a distribution body whose task is by taxation and the necessary adjustments in the rights of property to preserve fairness in distribution.

It is possible to distinguish two aspects of such a body. First, it levies a number of gift and inheritance taxes and duties, and sets restrictions on the rights of bequest. The primary purpose of such regulations and related levies is not to collect public revenue, but to correct the distribution of wealth and to prevent concentrations of power. The mentioned concentration is very dangerous to the reasonable value of political and economic liberty as well as to an adequate equality of opportunity. According to Rawls, a possible application of the

progressive principle would boost the wide dispersal of assets. That is a necessary precondition, if the society wants to maintain "the fair value of the equal liberties". The second part of the organisational body responsible for distribution is a model of taxation to collect the public revenues that are needed for social justice. The government should collect taxes so that it can finance the provision of public goods and enable the transfer payments required to respect the difference principle, primarily to improve the position of the worst-off.

The burden of taxation should be fairly distributed and should aim at establishing just arrangements. A proportional tax on expenditures may be a model of the best tax system and it is without doubt superior to any kind of an income tax. The reason is that it levies an obligation according to how much a person uses common goods and not towards the fact how much he or she pays, believing that revenues are properly earned. A proportional tax on total consumption can include the typical exemptions for dependents, and it treats all taxpayers in a same way. The progressive rates are acceptable only when they are needed to preserve the fairness of the basic tax system having in mind fair equality of opportunity and the principle of justice.

Rawls explains that if proportional taxes should demonstrate to be more efficient, they should interfere with diverse incentives less. Of course, there is a question of political judgment and that is not a part of a theory of justice. Here he considers a proportional tax as a possible part of a perfect example for a well-ordered society in order to illustrate the trait of the two principles. Having in mind the injustice of current institutions, even more progressive income tax system is not justified when all things are included and examined. In real life, a society has to select between several unjust, or at least the second-best solutions. After

that, there is a need to use a suboptimal theory to find the least unjust scheme. Occasionally this model includes policies and related measures that a theoretical perfectly fair system would not accept. With the goal to assure a fairer distribution of properties and available productive assets, the norm of progressive taxation can be applied to bequests and inheritance (Rawls, 2003). Of course, the development of the concept of efficiency and equity in taxation has been achieved over a long period, what is presented in the further text.

DEVELOPMENT OF THE CONCEPT OF EFFICIENCY AND EQUITY IN TAXATION

Smith (1776, vol. II, p. 310) defined criteria for "good or efficient taxation" in his famous "maxims", the most important of which include convenience of payment, certainty, equality, and economy in collection. Equity or equality was understood along two axes: that contribution should depend on received benefits, and should include the ability to pay - a richer person should pay more. So a long debate has emerged - topical and important even today - over whether the distribution of the tax burden should be proportional or progressive. The doctrine ability to pay is more prone to egalitarian interpretation. In the first of his well-known maxims of taxation, Smith describes tax equity starting with the ability to pay, but later changes more in the course of a benefit rule.

"The subject of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state. The expense of government to the individuals of a great nation, is like the expense of management to the joint tenants of a great

estate, who are all obliged to contribute in proportion to their respective interests in the estate. In the observation or neglect of this maxim consists, what is called the equality or inequality of taxation."

Smith (1776, vol. I, p. 350) excludes subsistence wage income from taxation because such tax would have to be paid by higher-income receivers or by landlords. He shares the common view of his time that the imposition of such a tax would be absurd and destructive. More than 100 years later, Bentham (1902) supports the idea of the exemption of subsistence wages from taxation. On the other side, Smith supports a tax on house rents, even though it would mostly burden the rich, but he believes that such a form of inequality is reasonable and acceptable.

Having in mind the issue of equity, there is a need to describe attitudes toward progression or regression in taxation. Musgrave (1985) reminds that there were differences between the pioneers of economic thought. Namely, Condorcet, Rousseau and Sismondi, among others, favoured progression in taxation, while Robespierre precluded it as an insult to the poor. Although he rejects the benefit rule, John Stuart Mill (Mill, 1848) advocates regression. He notes that the poor are more often in need of protection and would therefore have to pay most. Nonetheless, Mill very unmistakably writes about the main rules of efficient and equitable taxation:

"Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state. A tax may either take out or keep out of the pockets of the people a great deal more than it brings into the public treasury, in the four following ways. First, the levying of it may require a great number of officers, whose salaries may eat up the greater part of the produce of the tax... Secondly, it may divert a portion of the labour and capital of the community from a more to a less productive employment. Thirdly, by the forfeitures and other penalties which those unfortunate individuals incur who attempt unsuccessfully to evade the tax, it may frequently ruin them, and thereby put an end to the benefit which the community might have derived from the employment of their capitals... Fourthly, by subjecting the people to the frequent visits and the odious examination of the tax-gatherers, it may expose them to much unnecessary trouble, vexation, and oppression."

Mill believed that equal treatment ought to be the canon in the matters of taxation as well as in all activities of government. "As a government ought to make no distinction of persons or classes in the strength of their claim on it, whatever sacrifices or claims it requires from them should be made to bear as nearly as possible with the same pressure upon all, which it must be observed, is the mode by which least sacrifice is occasioned on the whole ... means equality of sacrifice" (Mill, 1848). He was against a proportional tax on income because of the adverse disincentives to work, but he supported a sharp progression in inheritance taxation.

Mill opened the problem of equality in terms of equal sacrifice, which was resumed almost a half of the century later by Edgeworth (1897). Edgeworth proposes equal marginal or the least total sacrifice as the optimal solution, not as a principle of distributive justice. He deliberates on two self-interested parties and in the absence of competition, "neither party in the long run can expect to obtain the larger share of the total welfare". The solution for equity in taxation is that "the richer should be taxed for the benefit of the poorer up to the point at which a complete equality of fortunes is attained." He does not explain why the taxpayers should accept such approach, but intuition might have advocated a reasoning of maximization of anticipated utility under the veil of ignorance. Thus, "minimum sacrifice, the direct emanation of pure utilitarianism, is the sovereign principle of taxation". Edgeworth deems that this is just an ideal theoretical idea, which needs to be reshaped or limited in practice.

Going back to benefit taxation, Myrdal has proposed that there is a need to take into account not just marginal, but total received benefit. Taken in this way, benefit taxation could be deemed *efficient* and would enable additional revenue that could then be distributed in different ways (Myrdal, 1953).

The German fiscal expert Adolph Wagner erased again at the end of 19th century the case for progressive taxation (Backhaus, 1997). In accordance with "law of expanding state activity", he differentiated (1) an entirely financial and (2) a social welfare norm of taxation. The previous demands proportional taxation in the collection of public finances, while leaving the distribution of income unchanged. It is then complemented by the second stated norm, which requires progression to lessen inequality in available income (Musgrave, 1985).

The support for ability to pay principle then weakened, but was restarted by Pigou (1920, 1928). In the early 1920s, Pigou observed that before the First World War, economists in the United Kingdom had seen economics from the standpoint of the 19th century. They regarded the Smithian model of natural liberty in taxation as an optimal political economy approach for a pacific social order. Considering that such model was mostly effective, even if not entirely, they searched its structure, circumstances, functioning, and restrictions, but primarily support taxation according to obtained benefit. Later Pigou changed his view, acknowledging the least sacrifice as the most important principle of an optimal tax system. He views it as a complement to the general rule that public policy and related measures should be directed to achievement of a maximizing total welfare. Pigou analysed tax forms relevant to different equity directions and concluded there was no conclusive basis on which to decide on equal absolute and equal proportional sacrifice.

Distributive opinions based on equity also buttressed a toll, which would levy duties only to rich people. The conventional system would tax both the poor and the rich in order to collect sufficient tax revenues to pay off the debt. Critics stated that a tax would not differentiate persons who had participated in the war or economized on expenditures from those who had been exempted from conscription or had pampered life of profligate expenditure during the wartime. Pigou (1918) responded that taxing incomes under the conventional system was plagued by the same inequities. In disputing criticism that a duty unfairly taxed accrued physical wealth, leaving human capital intact, he deliberated a tax on the rewards to human capital – possible future incomes - but determined that they were unimportant. Owners of "material capital" who were mostly older than 45 years old, had not fought in the war. A decision to release from taxing incomes of young men who had participated in the Great War actually corrected a gross injustice. Furthermore, a tax on potential incomes would enable a limited amount of public revenue, making no significant difference in the obtained size of the national debt. If, however, according to fairness principle there is a need to tax these future incomes, Pigou proposed the development of an annual tax on lifetime income, what was equal to the special tax, but paid in instalments (Aslanbeigui and Oakes, 2016).

Musgrave (1985) stresses that the equity approach in the ability to pay tax does not

allow benefit considerations. On the other hand, ability to pay considerations may enter into the benefit doctrine. The truth defined by Adam Smith is still valid: the rich should pay more because they have more expensive cars (in Smith's time carriages) to protect than the poor. Once ability to pay starts to develop, it is obvious that the rich will value the benefit per expensive car (carriage) more highly than will the poor.

In the analysis of the equity in tax system there is also a question: how should taxpayers with differing levels of capacity be taxed. During the history, particular types of assets, such as houses, windows, chimneys, and/or cattle served as indices of property. Then a slow change to a broader view of property occurred: income, where attention is oriented towards the tax base in relations to the recorded flows rather than accumulated stocks. The development of such tax base is related to the upsurge of modern industrial capitalistic system, pecuniary economy and financial society (Schumpeter, 2006). The increasing complexity of economic institutions was reflected in the emerging debates over how to define the particularities of taxation revenues.

Regarding efficiency in a good tax system, there is a need to consider the cost of tax administration as well as compliance costs by taxpayers. Such costs can obstruct the business and the life of citizens, and often produce the burden of penalties and odious examinations. Mill (1948) admits that payment of comparable amounts of revenue under various taxes may impose differences in tax burdens, while Edgeworth (1897) acknowledged least total sacrifice as the utilitarian solution. Musgrave (1985) reminds that Dupuit anticipated the modern formulation of efficiency by analysing the conditions under which a project of public works should be undertaken. He developed the concept of a demand curve, and calculated the net loss from an imposed tax proportional to the square of the tax base.

The norm of least sacrifice requires the deduction of saving from the income tax base. Pigou (1928) argued that inclusion of savings means taxing future consumption at a higher tax rate than present consumption. This endangers efficiency and endangers the norm of least sacrifice, because saving is probably the most elastic use of income and a lower tax rate for it should be applied. Efficiency in taxation demands an expenditure tax, but Pigou deems that a progressive tax on expenditure is impractical. As an equivalent solution he opts for exclusion of investment income. To circumvent unjust wins, he proposes that this exclusion should be limited only to incomes from future investment income. Pigou was fully aware of the difficulty of the issue and stressed that a "more powerful engine of analysis is needed" to construct an optimal system. The model of optimal taxation - with adequate attention to efficiency and equity - was developed at the beginning of 1970s and expanded by Diamond and Merlees (1971). They use particular utility functions in considering implied tax rates of the optimal fiscal model. The search for the optimal tax system still continues today and is further described in the next chapter.

THE CONCEPT OF EFFICIENCY AND EQUITY IN TAXATION IN MODERN FISCAL LITERATURE AND PRACTICE

In modern fiscal thought, there is almost unanimity of support for Bird's (2003) proposals. He states that in the efficient tax system, tax bases should be as broad as possible. Although the broad-based tax on consumption may discourage work effort, selections between taxable and non-taxable products will not be changed, if all of them are taxed. Furthermore, tax rates should be defined at levels needed to finance the

adequate provision of the public good and functions of the government. However, they should be stipulated as low as possible. Finally, from a standpoint of the efficiency, it is principally vital to levy taxes on production with adequate attention because such taxes directly influence the location of businesses activities, change the ways and means in which production is performed, alter the forms in which business is performed, and so forth. Despite the best intention in achieving efficiency in taxation, there is always a deadweight loss associated with taxation.

The situation is not so simple regarding the other phenomenon, equity. Most incongruities about taxation happen because of various (and often opposite) attitudes about what is equitable or fair in taxation. In accordance with the benefits attitude or principle, it is equitable if taxpayers pay their fiscal duties in proportion to the benefits they receive from the government. Entrance fees for some public spaces, like museums, are based on the benefits principle. A person who visits a museum and pays the entrance ticket every week would pay more in total museum revenues than somebody who visits this museum once a year. Most people reflect this just since the person who visits the museum every week probably receives more benefits from it than the visitor who enters the same museum occasionally. Taxes on petrol and diesel are also levied according to the benefits principle. The collected public revenues generated by such taxes are mostly used to finance the building and maintenance of transportation infrastructure, like highways and bridges. People who drive often pay more in fuel taxes (excise duties) during a year than drivers who use cars very rarely. Most people consider this just since people who use cars almost every day and drive a lot receive more benefits from the highways and bridges than drivers who rarely use cars.

However, there are circumstances in which it is problematic to apply the benefits attitude. If the government through welfare system makes additional income available to people who are poor and cannot achieve the usual living standard, there is no sense to require the beneficiaries to pay the taxes to finance these transfer outlays. Taking 100 monetary units from a poor household and using it to provide the same amount of financial aid for that household does not increase their available net income. Therefore, another approach should be applied in the development of many fiscal issues.

Respecting the ability-to-pay-approach, it is just for people to levy their fiscal obligations proportionally to their capacity to manage their financial burden. As mentioned, a progressive tax is a fiscal duty when rich taxpayers pay at larger rates and give higher percentage of their income than low-income taxpayers. Progressive taxes, like the personal income tax system in the majority of countries in the world, use the ability-to-pay approach. Usually in such tax systems, tax base is calculated as income minus legally defined deductions. Therefore, the marginal tax rate - the percentage of tax applied to income for each tax bracket in which taxpayers qualify - increases as income rises.

A proportional tax or flat tax, which is increasingly popular, is a tax for which all taxpayers pay the same percentage of income regardless of their available income. Proportional taxes have been suggested as alternatives to the present broadly accepted personal income tax system. Advocates of proportional taxes state that such taxes cause smaller administrative complications because less information is needed to calculate them in comparison with the progressive personal income tax. For the simplest form of a proportional tax, the only information needed is total income.

As there is almost no (or it is very rare) regressive tax (where high-income and rich taxpayers pay a smaller percentage of their available income than do low-income taxpayers), we will not contemplate more on that issue. However, such characteristic can be hidden in a lump-sum fees for various public services (for example, highway fee), where user pays the same amount regardless of his or her income or assets.

Measuring progressivity or regressivity in a hope to achieve efficiency and equity in a tax system also causes some methodological problems. In today's society, many people are employed on the fixed terms and/ or work on several projects for a particular period. When a taxpayer's or family's income pattern is not stable, current income is an inappropriate indicator of one's standard of living. In most societies and situations, people try to equalise consumption over time. A person who is employed for 8 weeks and who receives monthly salary in 2 weeks, will try to "adjust" for an advance his or her consumption during the period of waiting for the future salary. If this person is questioned for the household consumption survey during the first two weeks before the payment, his or her income will be zero. but that would not reflect his or her real standard of living. This bias causes serious problems for assessing the progressivity of tax system. A person whose current income is low (or non-existing) only at this moment would be incorrectly classified as poor regardless of the fact that his or her income is only temporarily low. He or she can receive a nice salary very soon and, in that way, can maintain current higher levels of consumption. However, the tax burden on such a taxpayer or a family, calculated as the ratio between paid taxes and the reported amount of income, would be very high. Having in mind a current income of zero, it would in fact be calculated as infinite. Thus, in such calculation, the observed tax

system can be wrongly treated as regressive (Coudouel and Paternostro, 2005).

To achieve efficiency and equity as well as sustainable development, there is a need to develop a good tax system. That underlines the dire significance of seeing tax issues within the particular circumstances of each state considering not only the achieved level and structure of its economic and social development, but also its tradition, history, regional, location inequalities, and its political institutions. Acemoglu and Robinson (2012), as well as Alesina and Reich (2013) accentuated the mentioned factors in various ways, because the socio-economic and political development of every society includes context-specific and path-dependent factors. It is inseparably linked not only to many non-economic factors, but also to other critical conditions such as tradition. social norms, values and culture that are even harder to comprehend, assess, analyse and improve in the short-term (Inglehart and Welzel 2010).

Tax reforms in the world are assessed for their fiscal dimension on at least three criteria: allocative efficiency, degree of fiscal accountability and impact on revenues. Another important dimension is their distributional equity. One of the main goals of fiscal reforms is to limit the horizontal inequity that comes from many forms of preferential tax treatment. The fiscal reforms reduce a series of deductions, exemptions, lower rates and exonerations received by various sectors of the economy and different taxpayers. Moreover, the spread of tax rates is also considerably reduced.

Whether taxpayers see the tax system as *equitable* or *just* is not only an issue of redistribution, because "fairness of procedure, fairness with respect to legitimate expectations, and fairness in treating similar people similarly" are also important (Mirrlees et al, 2011). A tax system is more

likely to be generally accepted and to obtain respect if the process that defines tax structures and tax burden levels is grasped to be just. Such fairness of procedure does not only influence the outcome, but also affects if achieved outcome is perceived as fair. Another sort of fairness is related towards legitimate anticipations. The changes in the tax system that cause unexpected and untenable losses relative to previous anticipations can be observed as unjust. Related to the hint of distributional fairness is the mentioned horizontal equity or the concept that the tax system should deal with akin people in similar ways, but various countries determine such approach in different ways.

Mirrlees et al. (2011) remind that it is not necessary that the tax system should treat people with similar income in analogous ways. If one taxpayer can earn 300€ a week in 15 working hours, then he or she is better off than someone else who needs to work 45 hours to earn the same sum. Maybe the first person should pay more tax. People furthermore differ in their needs perhaps because of an unemployed spouse, the number of independent children or different health condition - and tax obligations might reasonably differentiate accordingly. The notion of justice can also be relevant to the numerous economic activities that are liable to taxation. A neutral tax system - one that levies similar activities with a similar tax burden – does not motivate taxpayers to move from high- to low-taxed activities in a method that is complicated and economically costly. It does not discriminate against taxpayers who make diverse (but irrelevant) choices. It is simply unfair and inefficient to tax red cars at a higher rate and consequently with higher tax burden than the same black cars. Briefly, tax neutrality between goods can simultaneously enhance equity as well as improve efficiency.

Tax evasion is a serious problem for most countries, especially having in mind the huge expectation of the population for different kinds of public goods and the limited state capacities for collecting the required public revenues. The situation is further endangered by the low level of trust towards the state which could lead to deterioration in the level of social capital and low participation in civil society. Quite often citizens' opinions and perceptions are poor on the availability, fairness and quality of public goods. For example, the judicial arm of government is considered extremely ineffective and slow. Patients complain about the inefficient provision of medical services, stressing increased costs and expenditures, and are dissatisfied with the quality, accessibility, affordability and speed of the services provided. Furthermore, there is a general lack of confidence in the public pensions system of intergenerational solidarity. Young workers are forced to pay a significant part of their gross income into a public pension system that is on the verge of bankruptcy. They do not believe that the present pension system will provide them with the corresponding amount of material security in their old age. The general public believes that the situation with welfare programs efficiency is particularly unfavourable because of limited availability sources which are mostly not very well targeted towards the most vulnerable groups in society, while relatively well targeted social assistance programmes are small and fragmented. According to Bird, Martinez-Vasquez and Torgler (2008) the "dominant policy ideas in different countries - on the subject of equity and fairness, efficiency, and growth – like the dominant economic and social interests ... and the key institutions - political (democracy, decentralization, budgetary) and economic (free trade, protectionism, macroeconomic policy, market structure) all interact in the formulation and implementation of tax policy", which directly influences tax culture and determines the willingness to pay taxes. All these are likely to reduce opportunities for citizens to influence policies and to demotivate them from paying taxes.

As a mean to improve efficiency and equity of the tax system, Jorgenson and Yun (2013) propose to remove discrepancies in the tax treatment of various categories of income and shift the tax base from income to consumption. To illustrate their methodology, they developed a dynamic general equilibrium model of the economy which includes an intertemporal price system clearing markets for outputs of consumption and investment, and inputs of capital and labour services. Their effective model of efficient taxation of income involves equalizing tax burdens on business and household assets, especially owner-occupied housing.

CONCLUSION AND RECOMMENDATION

From the point of tax efficiency, there is always a need to minimize the negative consequences of the tax system on welfare and economic efficiency. Furthermore, administrative processes and compliance costs should be simple and low as possible. In other words, if all things equal in the tax structure, then a system that costs less to operate is preferable.

We show that there are various forms of equality other than those in the distributional sense - for example, equal treatment in administrative procedures, prevention of discrimination and fairness regarding the reasonable expectations. There is no absolute fairness, and some of these forms can be in conflict. More or less any tax model faces some burden of unfairness viewed from various standpoints. If the procedure is fair and transparent about the statements and confirmation that support the proposed

model, there is a huge possibility that the taxpayers will accept it. Though it may be tempting to conceal the possible losers and gainers of the reform, in the long-term the reasons of a sensible tax change and improvement is best realised by being open and honest about the goals and outcomes of the proposed ideas.

Together with other social and economic policy actions, a well-designed and administered tax system enables suitable possibilities for investment and economic growth, and helps - together with adequately targeted social welfare spending measures - to mend income distribution. In order to achieve an efficient and equitable tax system, the recommendation is to remove exemptions and thus simplify the reform's regulations. Finally, it is also important to ensure the efficient and non-biased tax administration to diminish tax evasion.

REFERENCES

- Acemoglu, D., & Robinson, J. (2012). Why nations fail. New York: Crown.
- Ahmad, E., & Stern, N. (1991). The Theory and practice of tax reform in developing countries. Cambridge: Cambridge University Press.
- Alesina, A., & Reich, B. (2013). Nation-building and education. *NBER Working Paper* 18839. Available at http://www.nber.org/papers/w18839
- Aslanbeigui, N., & Oakes, G. (2016). The Great War and the Genesis of Pigou's A Study in Public Finance. *Œconomia*, 6(4), 487-513. https://doi.org/10.4000/oeconomia.2471
- Auerbach, A. J., & Hines, J. Jr. (2002). Taxation and economic efficiency. In A. J. Auerbach & M. Feldstein (Eds.), *Handbook of Public Economics* (Vol. 3) (pp 1347-1421). Amsterdam: Elsevier Science Publishers.
- Backhaus, J. G. (Ed.). (1997). Essays in social security and taxation. Gustav von Schmoller and Adolph Wagner reconsidered. Marburg: Metropolis.
- Ballard, C. L., Shoven, J. B., & Whalley, J. (1985). The total welfare cost of the United States Tax System: A general equilibrium approach. *National Tax Journal*, *38*(2), 125-140. https://www.jstor.org/stable/41792004

- Bentham, J. (1902). *Principles of the Civil Code*. London: Kegan Paul.
- Bird, R. M. (2003). Taxation in Latin America: Reflections on sustainability and the balance between equity and efficiency. *ITP Paper* 0306. https://doi.org/10.2139/ssrn.1393962
- Bird, R. M., Martinez-Vazquez, J., & Torgle, B. (2008). Tax effort in developing countries and high income countries: The impact of corruption, voice and accountability. *Economic Analysis* and Policy, 38(1), 55-71. https://doi.org/10.1016/ S0313-5926(08)50006-3
- Blank, M., R. (2002). Can equity and efficiency complement each other?. Ann Arbor, MI: University of Michigan. Available at http://www.fordschool. umich.edu/research/papers/PDFfiles/02-001.pdf
- Cogneau, D. (2005). Equality of opportunity and other equity principles in the context of developing countries. Paris: Development, Institutions & Analyses de Long terme (DIAL). Available at https://dial.ird.fr/media/ird-sites-d-unites-de-recherche/dial/documents/publications/doc_trava-il/2005/2005-01
- Coudouel, A., & Paci, P. (2006). Market reforms. In A. Coudouel & S. Paternostro (Eds.), A User's Guide to Poverty and Social Impact Analysis (Vol. 2) (pp. 111-211). Washington, DC: International Bank for Reconstruction and Development (IBRD).
- Coudouel, A., & Paternostro, S. (Eds.). (2005). A User's Guide to Poverty and Social Impact Analysis (Vol. 1). Washington, DC: International Bank for Reconstruction and Development (IBRD).
- Diamond, P. A., & Mirrlees, J. A. (1971a). Optimal taxation and public production I: Production efficiency. *American Economic Review*, 61(1), 8-27. https://www.jstor.org/stable/1910538
- Diamond, P. A., & Mirrlees, J. A. (1971b). Optimal taxation and public production II: Tax rules. *American Economic Review*, 61(3), 261-278. https://www.jstor.org/stable/1813425
- Edgeworth, F. Y. (1897). The pure theory of taxation. The Economic Journal, 7(25), 46-70. https://doi.org/10.2307/2956958
- Elkins, D. (2006). Horizontal equity as a principle of tax theory. *Yale Law & Policy Review*, 24(1), 43-90. Available at https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1515&context=ylpr
- Galor, O., & Zeira, J. (1993). Income distribution and macroeconomics. Review of Economic Studies, 60(1), 35-52. https://doi.org/10.2307/2297811

- Head, J. G. (1993). Tax fairness principles: A conceptual historical and practical review. In A. M. Maslove (Ed.), *Fairness in taxation: Exploring the principles* (pp. 3-62). Toronto: University of Toronto Press.
- Inglehart, R., & Welzel, C. (2010). Changing mass priorities: The link between modernization and democracy. *Perspectives on Politics*, 8(2), 551-567. https://doi.org/10.1017/S1537592710001258
- Jorgenson, D. W., & Yun, K.-Y. (2013). Taxation, efficiency and economic growth. In P. Dixon & D. Jorgenson (Eds.), *Handbook of Computable General Equilibrium Modeling* (Vol. 1) (pp. 659-741). Amsterdam: Elsevier.
- Kaplow, L. (2011). An optimal tax system. NBER Working Paper No. 17214. Cambridge: National Bureau of Economic Research. Available at http://www.nber.org/papers/w17214
- Martinez-Vazquez, J., & Bird, R. M., 2014. Sustainable development requires a good tax system. In R. M. Bird & J. Martinez-Vazquez (Eds.), *Taxation and Development: The Weakest Link? Essays in Honor of Roy Bahl* (pp. 1-24). Cheltenham: Edward Eldar Publishing Limited.
- Mill, J. S. (1848). *Principles of political economy*. London: Longman.
- Minarik, J. J. (2008). *The Concise Encyclopedia of Economics*. Indianapolis: Liberty Fund.
- Mirrlees, J., Adam, S., Besley, T., Blundell, R., Bond, S., Chote, R., Gammie, M., Johnson, P., Myles, G., & Poterba, J. M. (2011). *Tax by design*, Oxford: Oxford University Press. Available at https://www.ifs.org.uk/publications/5353
- Musgrave, R. A. (1985). A brief history of fiscal doctrine. In A. J. Auerbach & M. Feldstein (Eds.), Handbook of Public Economics (Vol. 1) (pp. 1-59). Amsterdam: Elsevier Science Publishers.
- Myrdal, G. (1929). The political element in the development of economic theory. London: Routledge.
- Okun, A. (1975). Equality and efficiency: The big trade-off. Washington, DC: The Brookings Institution.
- Osberg, L. (1993). What's fair? The problem of equity in taxation. In A. M. Maslove (Ed.), *Fairness in taxation: Exploring the principles* (pp. 63-86). Toronto, Ontario: University of Toronto Press.
- Osberg, L. (1995). The equity/efficiency trade-off in retrospect. Keynote address to conference on Economic Growth and Income Inequality, Laurentian University, Sudbury. Available at https://dalspace.library.dal.ca/handle/10222/34134
- Pigou, A. C. (1920). *The economics of welfare*. London: Macmillan.

- Pigou, A. C. (1928). A study in public finance. London: Macmillan.
- Rawls, J. (1971). *Theory of justice*. Cambridge: Harvard University Press.
- Rawls, J. (2003). *Justice as fairness: A restatement*. Cambridge: Harvard University Press.
- Roemer, E. J. (1998). *Equality of opportunity*. Boston: Harvard University Press.
- Schumpeter, J. (1954). *History of economic analysis*. London: Routledge.
- Seshadri, A., & Yuki, K. (2004). Equity and efficiency effects of redistributive policies. *Journal of Monetary Economics*, 51(7), 1415-1447. https://doi.org/10.1016/j.jmoneco.2003.10.006
- Smith, A. (1776). An inquiry into the wealth of nations (E. Cannan, Ed.). New York: Putnam.

Sažetak

KAKO POSTIĆI UČINKOVITOST I PRAVEDNOST U POREZNOM SUSTAVU?

Predrag Bejaković

Institut za javne financije Zagreb, Hrvatska

U ovom radu analizira se ravnoteža između učinkovitosti i pravednosti u poreznom sustavu. Dok se učinkovitost obično odnosi na to koliko se dobro u nekom gospodarstvu dodjeljuju ograničeni resursi da bi se zadovoljile potrebe potrošača, cilj pravednosti je analizirati distribuciju resursa. Stoga je povezan s pojmovima poštenja i socijalne pravde. Učinkovitost se bavi optimalnom proizvodnjom i alokacijom resursa unutar dostupnih čimbenika proizvodnje. U poreznom sustavu učinkovitost znači sposobnost ubiranja dovoljnih javnih prihoda putem najvećeg mogućeg pojednostavljenja poreznog sustava. Pravednost analizira kako se dostupni resursi raspodjeljuju unutar društva. Okomita pravednost bavi se relativnim dohotkom i dobrobiti stanovništva ili time koliko se pravedno raspodjeljuju dostupni resursi. To može značiti više porezne stope za građane s većim primanjima. Vodoravna pravednost temelji se na uvjerenju da bi građani s istim dohotkom trebali plaćati poreze prema istoj poreznoj stopi. Cilj rada je identificirati uvjete pod kojima nema konflikta između pravednosti i učinkovitosti u poreznom sustavu. Porezni sustav je glavni instrument vlade za redistribuciju dohotka, ali postoji potencijalna ravnoteža između pravednosti i učinkovitosti. Ideja je odrediti one mjere koje potiču veću pravednost, ali ne utječu ili vrlo malo utječu na učinkovitost. Drugim riječima, namjera je rada odrediti mjere politike kojima se međusobno podupiru pravednost i učinkovitost i porezne mjere koje možda mogu omogućiti učinkovitiji fiskalni sustav.

Ključne riječi: porezni sustav, učinkovitost, pravednost, porezna moć, porezno opterećenje.