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FROM THE OPTIMAL TAX TO THE OPTIMAL TAX SYSTEM ON INCOME

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ACADEMIC YEAR
2015/2016

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INTRODUCTION

Taxation is central to the existence and functioning of a nation. The American jurist Oliver Wendell Holmes once famously remarked[1]: “Taxes are the price we pay for a civilized society.” Taxing citizens is a method of financing the most essential public sector activities such as the legal system and the national defence. In addition, it provides the means for producing social programs such as public health services, education and welfare. Finally, taxation is one of the most important ways in which wealth redistribution may be attained.

For the past decades, the theory of optimal taxation on income has coincided with the normative approach to taxation. This research shows that the said theory is incomplete because it ignores the issue of taxation as a system of coercively collected revenues from individuals who tend to resist.

The main aim of the paper it to shift the focus from the optimal *taxation* to the optimal *tax system* on income which, given the limitations on government's ability to impose taxes, maximizes the social welfare, i.e. the welfare of the taxpayer and of the government. In view of space constraints, references to the literature is illustrative rather than exhaustive.

The research is divided into two main sections which present respectively the historical background that has lead to the modern income tax theory, and the alternative to the optimal taxation on income, namely the theory of optimal income tax system.

Part I examines the cornerstones propositions of optimal taxation as illustrated by Smith and Ricardo and the two major approaches to taxation discussed by Wicksell and Edgeworth whereas part II outlines different modern income taxes, focusing especially on the flat tax policy, and analyses the impact that the technology of raising taxes has on the whole tax system. The optimal tax systems perspective casts a new light on the choice of tax instruments, the problem of tax evasion, and the appropriate tax treatment of capital income.

Concluding remarks and personal considerations are left to the end of the discussion.

1 Reportedly first said in a speech in 1904, alternately phrased as "Taxes are what we pay for civilized society, including the chance to insure", *Compania General De Tabacos De Filipinas v. Collector of Internal Revenue*, 275 U.S. 87, 100, dissenting; opinion (21 November 1927). The first variation is quoted by the IRS above the entrance to their headquarters at 1111 Constitution Avenue.

PART I

1 HISTORICAL CONSIDERATIONS

> *«Taxation, as we now know it—namely, as a routine, normal and respectable method of providing for the financial needs of government—is a comparatively modern phenomenon. In feudal times, on the other hand, rulers derived their revenues mainly from personal estates, customary tributes and dues paid by their vassals, tolls on strangers and on traffic on roads and rivers, war booty, rapine and piracy, and, in times of special need, from "aids," subventions, donations, etc.»*
> Viner (1978: 104–105)

As highlighted by Viner, taxation is a practice of the modern state. In medieval Europe, indeed, the king relied on revenues from the royal estates. The normal costs of civil administration and defence were supported by levies on the lands of the aristocracy and the clergy and only under unusual circumstances the monarch sought special "aids" from the people, usually to fight wars. A tax in the medieval lexicon meant a slice taken out of wages or an additional charge on a daily commodity such as beer or salt. It was, in short, a payment made out of ordinary income by common people.[2]

The property tax remains one of the last vestiges of this archaic system and survived in the term "real estate," where the word "real" once meant "royal," referring to the idea that the king or queen owned all the land and then leased it out through a hierarchy of retainers to the populace.

But what if we could live in a world without taxation? Is taxation even necessary?

In the 18th century the Physiocrats provided an answer to the question, holding that it was possible to levy a single tax without taxing at all. They saw that the "*impôt unique,*" or unique tax, was in fact not a tax, but a "natural revenue" to the sovereign, who, as a personification of the nation and a symbol of society as a whole, would then use the

2 The American Journal of Economics and Sociology, Oct 2014, Vol 73, Num 4

revenue to cover public expenses. Thus, from this perspective, landowners were charged a fee for benefits conferred.

At the end of the Napoleonic Wars in 1815, the fiscal states of western Europe, north America and Japan still relied heavily on indirect taxes, such as customs and excise duties, for revenues, supplemented with land and inheritance taxes. But things were starting to change for the development of the fiscal state. Forced by the need to raise revenues to finance the war against France, an income tax was introduced in Britain in 1799[3] but then repealed in 1802. The first country in Europe to make the income tax, understood as a tax on earned income, a lasting feature of the tax system, was Britain in 1842. It was soon after followed by the Austrian Empire in 1849, Italy in 1864, and Japan in 1887. The introduction of income taxation was one of the major events in fiscal history that contributed to the growth in government observed during the past 150 years

Nowadays, governments across the world are supported by mass taxation. Yet, since the global financial crisis of 2008, the solvency of governments has been seriously threatened. There is much discussion today about rising inequality. High youth unemployment rate is now the norm in many countries, while living standards are being eroded by "austerity" programs aimed at restoring the fiscal stability of heavily indebted states. At the same time, an increasing stigmatization of tax havens as international rogue states, and popular denunciation of tax avoidance and evasion are being recorded. Unlike tax evasion, which is illegal, tax avoidance implies taking full advantage of the provision of the tax code to reduce one's tax obligation. Tax evasion as well as tax avoidance, loopholes and tax shelters has one negative consequence- the erosion of the confidence in the tax system, because it gives the impression that the system is unfair, with some individuals able to avoid bearing their proper share of tax burden. The following paragraph is fully devoted to discuss the key attributes that a good tax and a good tax system should have.

3 See Daunton (2001, chapters 1 and 4)

2 DESIRABLE CHARACTERISTICS OF TAXES

In the 18th and 19th century, the debate about the optimal taxation was strongly influenced by the eminent figures of Adam Smith and David Ricardo who claimed that a good tax system should satisfy the basic criteria of equality, certainty, convenience and economy analysed hereinafter.

2.1 Equality or Fairness

The common accepted property of "fairness and economic efficiency", which states that a tax system ought to be fair in its *relative* treatment of different individuals, and should not be distortionary nor should it interfere with the efficient allocation of resources, is deeply rooted in the first maxim of taxation of Adam Smith, which reads:

> *«I. The subjects 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. ... In the observation or neglect of this maxim consists what is called the equality or inequality of taxation.»* *V.2.25*

The same concept was recalled later by Ricardo who, with respect to the house tax, wrote:

> *«[I]t would surely be very unjust, to tax exclusively the revenue of any particular class of a community. The burdens of the State should be borne by all in proportion to their means.»*
>
> Works, I: 204

By saying that the burden should be borne "in proportion to one's means", Ricardo was pioneering the modern concepts of horizontal and vertical equity. *Horizontal equity* means that taxpayers in similar financial condition should pay similar amounts in taxes. Thus, a tax system that discriminates on the basis of race, colour, or creed would be viewed to be horizontally inequitable (aswell as unconstitutional). *Vertical equity* implies that taxpayers who are better off should pay at least the same proportion of income in taxes as those who are less well off. This entails two problems: determining who should pay the higher rate and how much more than others that individual should pay.

2.2 Certainty and Convenience or Transparency

The modern principles of transparency and flexibility, viz. the ability of the tax system to respond easily to changes in economic circumstances, are based on the second and third Smithian maxims respectively:

> *«II. The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person... The uncertainty of taxation encourages the insolence and favours the corruption of an order of men who are naturally unpopular, even where they are neither insolent nor corrupt.»* *V.2.26*

> *«III. Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it. ... He [the consumer] pays them by little and little ... As he is at liberty, too, either to buy, or not to buy, as he pleases, it must be his own fault if he ever suffers any considerable inconveniency from such taxes.»* *V.2.27*

Here there is the awareness, probably for the first time, that a non-well defined tax system would ultimately give rise to uncertainty, which is proved to be detrimental to the whole society as it *"encourages the insolence and favours the corruption".* Thus, one of the fundamental pillar of a "good" tax is not only its predictability but also the degree to which the tax can be understood and accepted by the taxpayers. A citizen who's conscious of the social utility of a certain tax will be less incline to avoid its payment than an alike man who has not yet realized the importance and usefulness of the said contribution. In the sense of civic duty, in this concept of citizenship, lies the key of the success of a tax regime.

2.3 Economy or Administrative Ease

Together with equality, certainty and convenience, economy is the other relevant maxim emphasized by Adam Smith. It laid the foundations for the modern attribute of administrative simplicity, scilicet that a tax system should have low cost of administration and compliance.

«IV. 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 ... [Sometimes] taxes are frequently so much more burdensome to the people than they are beneficial to the sovereign.» *V.2.28*

2.4 The Principles of Distribution Neutrality, Price Neutrality and Minimum Taxation

As a complement of the four Smithian maxims of taxation, remarkable observation of David Ricardo about the income tax[4] must be quoted:

«The income tax, were it fairly imposed, would leave every member of the community in the same relative situation in which it found him. Each man's expences must be diminished to the amount of his tax.»

Sraffa, 1951-55, vol. III, p. 241

The quotation illustrates Ricardo's criteria for an ideal tax system. In order for a tax to be ideal it has to: leave the distribution of income unchanged, keep prices unchanged, and be paid from consumption.

The first point is an extension of the concept of 'equality' in taxation, also indicated as the principle of distribution neutrality. The second feature refers to price neutrality; since any distortion in the price system would not only discourage production but also cause inefficiency, taxes that distort the natural-price system hinder the efficient use of resources and therefore are not desirable. Lastly, the third principle shows an evident concern about minimising impediments to capital accumulation through taxation, or in other words, the principle of minimum taxation or the minimum principle. In the taxation chapter of the "Principles", Ricardo achieved the conclusion that an income tax did not fit his criteria and that 'taxation under every form presents but a choice of evils' (Sraffa, 1951-55, vol. 1, p. 167). Indeed, he equated taxation to a national evil or political diseconomy caused by governments.

4 "Reply to Mr. Bosanquet's Practical Observation on the Report of the Bullion Committee", 1811

3 THE ABILITY TO PAY, THE BASIS OF TAXATION AND THE TAX INCIDENCE

Having listed the optimal criteria that a tax should meet, the next question to ask is who should bear the said tax. The issue was firstly addressed by Adam Smith, who developed a concept of "ability to pay" taxes that is quite different from later interpretations of that expression. When he referred to the ability to pay in his first maxim, de facto he meant “ability to bear a tax” *without shifting* it to another party. If the tax is on income, sales, value added, or anything that can be modified to shift the tax, the intermediate effect will be many forms of excess burden that reduce output, productivity, and employment.

In this respect, in his “Plan for a Paper on Taxation in General”, Turgot (1763) stressed the “*necessity of never injuring the sources of wealth*,” and emphasized that only *net* income can bear a tax without being diminished.

Smith regarded surpluses as the best objects of taxation. If surpluses are not taxed, then cost-factors (labor and capital) have to. If revenues were to be collected solely from surpluses, not from costs, the public sector could be financed without anyone feeling the burden of taxation. The Scottish economist argued[5] that taxes upon necessities are like an artificial poverty of soil and a “curse” that only a rich country can afford. The wider the gap between price and cost that a levy creates, the more it becomes an instrument of monopoly and excess burden rather than of revenue.

At variance with Smith but equally aware that they may reduce savings, Ricardo thought that taxes should be paid from unproductive consumption, holding that not only would distortion in the price system discourage production but would also cause inefficiency.

> *«There are no taxes which have not a tendency to lessen the power to accumulate. »* Sraffa, 1951-55

He maintained that *“taxes on raw produce and necessities would raise the prices of the commodity taxed and of all commodities in which raw produce and necessities entered”*. Such taxes would then increase money wages and, as a consequence, would reduce industries profits because raw produce and necessities are consumed by

5 Book V, Ch. II

labourers and used for production, and because real wages are fixed at the subsistence level.

This reasoning gave rise, in the 20^{th} century, to the argument that the effect of taxes is cumulative since taxes "enter in" to the price of the product at every stage. It was only Wicksell who finally emphasized the need of appropriate tools for dealing with the sequence of events, that is, the direction through time of tax effects, their "Fortpflanzenz" to use his expression.

Going back to the previous proposition, it is apparent that taxes on raw produce and necessities violate Ricardo's principle of price neutrality. Besides, they also infringe distribution neutrality, because they fall exclusively on profits: landlords and stockholders carry the burden of the taxes only as consumers.

It is apparent that the debate on the basis of taxation is more topical than ever. Nowadays, income is the most widely used basis of taxation; it is widely viewed by governments and policy makers as a good measure of ability to pay. Those who have higher income have greater ability to pay and should therefore pay more, how much more is a critically debated question. There is a widely held view that those with higher income should not only pay more taxes, but also a higher fraction of their income in taxes -that is taxes should be progressive. Recently, the income tax has become a less important source of revenue as it has been replaced by the value-added tax, which is designed to tax consumption, not saving or investment, and which is typically not progressive. One of the most persuasive argument against income as a fair basis of taxation is that income corresponds to the individuals' contribution to society -the value of their economic output. Wouldn't it be fairer to tax people on the basis of what they take out of society rather than what they contribute?

Income and consumption differ by savings. That is, income (Y) is either consumed (C) or saved (S):

$$Y = C + S \quad \text{or} \quad C = Y - S$$

thus, a major issue is whether savings ought to be exempt from taxation.

A radically different approach was adopted by the libertarians, who expressed the principle that taxes should be levied, where possible, on those who benefit from them: a fee-for-service arrangement. On this view, taxes must be spent to benefit those who pay and can be viewed as simply the "charge" for the provision of public services. Smith had already enunciated a similar idea in "*An Inquiry into the Nature and Causes of the Wealth of Nations"*[6]:

> *«It is unjust that the whole society should contribute towards an expense of which the benefit is confined to a part of the society.»*

However, this makes sense for some government programs, but for many government services everyone benefits whether he or she pays for them or not. In a few circumstances the benefit principle is explicitly adopted as in the case of the fees charged for the use of bridges or toll roads. Nevertheless, for the most part a different approach to taxation is adopted, mainly because it is unrealistic and impossible to quantify the magnitude of the benefits received by different individuals. Moreover, benefit taxes proved to be distortionary and thus are likely to have a negative impact on society. Basing taxes on the use of a public facility as a bridge may discourage people from using it and might lead to an inefficient allocation of resources.

A thorny issues clearly emerges from this analysis: the trade-off between equity and efficiency in levying benefit taxes. Perfect discrimination is impossible, but in the absence of benefit taxes those who do not use the facility but do contribute to finance it are made worse off. This consideration opens the door to the discussion of another milestone of taxation theory: the incidence of taxation.

Economists distinguish between those who bear the burden of a tax from those on whom the tax is levied. A tax burden is the actual economic weight of a tax,, it is the difference between the individual's real income before and after the tax has been imposed, thus wondering what is the incidence of a tax means wondering who really pays. In competitive markets, incidence depends on the the elasticity of demand and supply. The lower the elasticity, the greater the burden. The general principle is that the tax inflicts more loss on those whose supply or demand elasticity is more inelastic, thereby, in the words of Adam Smith,

> *«A tax ... upon the profits of stock employed in any particular branch of trade call never fall finally upon the dealers ... but always upon the consumers:who must be obliged to pay in the price of the goods the tax which the dealer advances».*

6 Book V, Ch. 1, ¶237

Wealth of Nations, Book V, chap II, art. 2

In the discourse of Ricardo:

> *«A tax on the profits of the farmer would raise the price of corn; a tax on the profits of the clothier, the price of cloth »*
>
> Principles, chap. XV, par. 3

and in that of J. S. Mill:

> *«If a tax were laid on the profits of any one branch of productive employment, the tax would be virtually an increase of the cost of production, and the value and price of the article would rise accordingly; by which the tax would be thrown upon the consumers of the commodity, and would not affect profits.»*
>
> Principles, Book Y, chap. III, par. 1

In analysing the incidence of a tax on wages, the classical economists presumed that wages were fixed at the subsistence level. This assumption was justified subject to Malthus's principle of population: if the tax were paid from wages, the labour population would decrease and, consequently, wages would increase.

Ricardo concluded that "the labouring classes cannot materially contribute to the burdens of the State" and that "a tax on necessities, or on wages, will ... be shifted from the poor to the rich"[7]. The whole tax falls ultimately on the rich because the poor, or some of them, cannot pay much of it. This means that at the end the employers -that is capitalists- have to carry the burden of the tax levied on wages. Au contraire, Adam Smith held that, although the individual labourer cannot materially contribute to taxation, yet the number of labourers is such that their total contribution might be considerable.

The general conclusions of classical tax analysis were summarized by Henry George:

> *«Taxation which lessens the reward of the producer ..., which is conditioned upon ... the use of any of the three factors of production, necessarily discourages production. Thus taxation which diminishes the earnings of the labourer or the returns of the capitalist tends to render the one less industrious and intelligent, the other less disposed to save and invest.»*
>
> 1879: BK VIII, Ch. 3, ¶2

7 The Principles of Political Economy and Taxation, Ch XVI.

4 TWO MAJOR APPROACHES

As we have seen, any tax has an an effect on consumption. After all, the purpose of a tax is to transfer purchasing power form the individual to the government. Thus all taxes affect economic behaviour; no matter how individuals adjust, an increase in taxes must make them worse off for two reasons. First, the tax leaves them with less money to spend (income effect), second it makes the taxed goods more expensive thus reducing their consumption (substitution effect).

Owing to its controversial nature, taxation has been at the centre of many debates.There are two broad approaches to the study of taxation, both with an extensive and well-developed literature.

The first one is associated with the work of Wicksell (1896), Lindahl (1919) and Buchanan (e.g., 1968, 1976). The emphasis is on taxation seen as part of an exchange between citizens and their government. Tax payments are made to obtain public goods and services, and to some extent, to contribute to collectively determined redistribution. According to Wicksell, redistribution cannot be achieved directly by fiscal means in view of the fact that political groups could always justify redistribution in their favour under the guise of the "general welfare". Therefore, the ability-to-pay principle, i.e the redistributing of income via the fiscal mechanism, has to be adopted as a means to determine the distribution, but not the total amount of taxes.

As Wicksell held, justice in taxation can be achieved only after removing inequities in the distribution of income, wealth, and political power through the progressive taxation of inheritances.

> *«Justice in taxation presupposes justice in the existing distribution of property and income»*
>
> Wicksell 1967a: 108

The goal of redistributive policies is to improve the social welfare, since "a penny or two more per day in the hands of the workers is of greater advantage than a penny or two in those of the propertied classes".

Drawing from Wicksell, Lindahl agreed "that justice in taxation is inextricably linked with justice in distribution of property, since it would obviously be nonsense to speak of 'a just portion of an unjust whole" (Silvestre, 2003, p. 531).

The fundamental principle of this school of thought is that taxation is based on the equivalence between the contribution made to the government and the benefits received from it (Leistung und Gegenleistung). Seen in this way, thus, the power to "tax" is not simply the power to "take", to appropriate, but the commitment of the government to remunerate taxpayers for the present effort with the due provision of public services in the future, that is:

> *«Each social group, indeed each member of the community, if possible, should be able to feel that his annual tribute is not money wasted but is something which will bring real additional benefit»*
>
> Wicksell in Gardlund 1996: 157

One important but neglected aspect of tax policy is that it should acquire a high legitimacy and broad acceptance among citizens. Seeing this, Wicksell proposed that any change in the tax rate go through a strong 'democracy filter'. The key is to design a parliamentary mechanism that could accomplish fairer treatment.

Concisely, the first approach focuses on collective decision processes and fiscal structures designed to limit coercion. Wicksell emphasized the importance of working through cooperative decision-making processes arguing that "it will always be theoretically possible … to find a distribution of costs such that all parties regard the expenditure as beneficial and may therefore approve it unanimously"[8]. Wicksell was the first to suggest ways to reduce coercion by proposing unanimity, or qualified unanimity, as a budgetary decision criterion. As Buchanan writes in his book "The Power to Tax: Analytical Foundations of a Fiscal Constitution*",* 1980:

> « *One condition necessary to ensure a citizen that the government would never impose injury or damage on him (...) is the requirement that all governmental decisions be made by a rule of unanimity. Knut Wicksell was the first to recognize the importance of the unanimity rule as an idealized benchmark—since it would be necessary to ensure that all governmental actions represented genuine "improvements" (or at least no damage) for all persons (...). There is no other means [besides general agreement] of ensuring that collective action will always be "efficient".*
>
> *(...)In this idealization of political order, "government" possesses no*

8 Wicksell, 1967a [1896], pp. 89-90.

> *genuinely coercive power. In this setting, each and every public activity (...) proceeds only when unanimous consent is reached. No individual can be coerced in such a setting, either by some entity called the "government" or by some coalition of other individuals in the electorate. Each activity publicly approved necessarily represents the outcome of a complete multilateral trade from which net benefits are received by all parties. The Wicksellian approach is rightly termed the voluntary-exchange theory of the public economy.»*

This rule is designed to protect minority interests and requires that members of parliament vote on expenditure-tax proposals until one obtains unanimous approval. Until the 19th century, economic analysis of tax policy had follow a macro approach in which the state was the focal point and the individual taxpayer was marginalised. Wicksell reverted the approach by placing the individual taxpayer at the centre of the analysis. He argued that individualism was the basis of the success of the unanimity rule as "no one can complain if he secures a benefit which he himself considers to be (greater or at least) as great as the price he has to pay" (Wicksell, 1967a [1896], p. 79). If no tax scheme achieved universal consensus, then the proposal would not have been enforced. Unanimity therefore guaranteed justice in that the minority was always protected from the majority.

Per contra, Wicksell was also aware of the difficulty of achieving a unanimous outcome, therefore he proposed an approximate unanimity as a more practical standard for policy reasoning that the objective of economic policy should be "the greatest possible sum of happiness," and not the "greatest possible happiness for the greatest possible number of individuals". Thus, unanimity was not meant to be a standard of decision making for society in general.

Wicksell was among those few who recognised that a tax system is made up of a number of alternative ways of raising money and that the most important task for the economist is not the evaluation of the *absolute* effect of any particular financial policy, so much as the *relative effects*, and of changes in the total pressure, as a result of changes in particular parts of the system.

The second approach to taxation adopts a rather different perspective; it sees taxation as the coercive taking of resources to finance unspecified government activities. It has its origins in the work of Edgeworth (1925), Ramsay (1927) and Pigou (1952) and has been developed with great analytical sophistication by Mirrlees (1971). The focal point becomes the general presumption against governmental action, the danger that taxation extended beyond its proper objects will be abused. Ricardo saw taxation under every form as a choice of evils, equal to a 'national evil' or a 'political diseconomy' caused by governments and the security of property (Sraffa, 1951-55).

In this literature, the emphasis is shifted to the identification and measurement of welfare losses, and to the design of tax systems that maximize social welfare, given the assumed analytical framework. The starting position is similar to Mill's, namely, "That the State should use the instrument of taxation as a means of mitigating the inequalities of wealth" [Book V, ch II, 14]. Because with progressive tax it would not be in the interest of the taxpayer to increase his fortune by saving or working above certain amount, a more efficient way to redistribute would be to move to a flat tax rate system, in which marginal tax rates are constant across the income distribution. The concept of marginal tax rate, i.e. the extra tax that an individual must pay as result of earning an extra dollar of income, is related to the taxes which depend on output as stressed by Edgeworth:

> *«The taxation considered varies with the quantities of articles exchanges (including money, as in the case of an ad valorem tax), and so may be described as a tax on margin; or it does not vary (as in the case of a tax on profits), and so may be described as a tax on surplus.»*
>
> Economic Journal, 1897

According to Edgeworth, the science of taxation comprises two subjects: the principle of equal sacrifice and the laws of incidence. He casted a new light on what he called *the sovereign principle of taxation*, that is the minimum sacrifice, which he admitted to be limited in practice. The principle of minimum sacrifice assumes that utility does not increase proportionately to means. However, some confusion is caused by the conflict between the two forms of equal sacrifice: equal in a proper sense and proportional. In his own words:

> *«Besides the principle of minimum sacrifice (...) there are the principle of equal and of proportional sacrifice: that each taxpayer should sacrifice an equal amount of utility, or an equal proportion of the total utility which he derives from material resources. The former species is the commonest in England; the latter flourishes in Holland.»*

Upon this basis, the principle of equal sacrifice yields proportional taxation whilst the second gives progressive taxation.

The laws of incidence, on the other hand, determines who ultimately bears the burden of taxation.

II PART

5 THE OPTIMAL INCOME TAX IN THE REAL WORLD

As anticipated in the previous chapter, taxation can be classified as regressive, progressive or proportional in line with the behaviour of the tax as the taxable base changes.

Regressive taxes affect more low-income individuals and entities than higher-income earners. As the income increases, the percent of income paid in taxes falls. By contrast, with progressive taxes, higher-income earners and businesses bear the brunt of taxation. Progressive taxes can be thought of as taxes whose marginal tax rate is higher than the average tax rate. Proportional taxes, also referred to as flat taxes, impact low-, middle-, and higher-income earners relatively equally and can be regarded as taxes whose marginal and average tax rate are the same. As income goes up, the percent of income paid in taxes doesn't change.

The standard theory of optimal taxation posits that a tax system should be chosen to maximize a social welfare function subject to a set of constraints. The said function is typically assumed to be based on the utilities of individuals in the society. Hence, the social planner's goal is to choose the tax system that maximizes the welfare of a *representative* consumer. While the convenient assumption of homogeneity bypasses the thorny issue of interpersonal comparison of welfare, in the real word the social planner does deal with heterogeneity in taxpayers' ability to pay. Personal income taxes are regarded as flexible enough that the average tax rate may vary by individual (although not without cost). Clearly, if the government cannot discriminate, the more able individuals have no incentive to reveal their type as they know that, by doing so, they will actually be worse off. Thus, in its choice of tax structure, the government has to acknowledge the limitations on its information and act accordingly.

Mirrlees himself, in his formulation on how progressive an income tax should be, had to rule out a progressive tax on ability on the grounds that the government lacks the capacity to observe and monitor the characteristics of the taxpayers. In the Mirrlees framework, the optimal tax problem is a game of imperfect information between taxpayers and the social planner. Even though the social planner intends to tax those of high ability and give transfers to those of low ability, he needs to make sure that the tax system does not induce those of high ability to hide their type by pretending to belong to the low-ability group. When a tax gap emerges between individuals' preferred tax rate and the actual tax rate, the strategic game begins and leads to a discrepancy between government tax claims and the taxpayers willingness to pay. Taxpayers will then both engage in various activities to lower their effective income tax rate and opt for measures that shrink the tax gap, such as evasion and elusion. Apparently, this disparity increases the cost of raising taxes (which issue will be addressed in the subsequent paragraphs, for the time being let us focus on the design of the optimal income tax).

Mirrless major merit was the recognition of the incentive effects associated with taxation, a significant advance over Edgeworth's earlier work. As shown formerly, Edgeworth's reasoning implied that utilitarianism entailed progressivity. Edgeworth's rational was straightforward: he postulated that all individuals had the same utility of income function, and that they exhibited diminishing marginal utility. Since social welfare was the sum of the utility functions of all individuals, it immediately followed that the decrease in social welfare from taking a dollar away from a rich person was less than the decrease in social welfare from taking a dollar away from a poor person. In his framework, however, Edgeworth had ignored the trade-off between equity and efficiency considerations.

A balanced tax must both treat individuals fairly (*equity*) and minimize the total excess burden of raising revenues (*efficiency*). On the one hand, conforming to the equity principle, income taxes should be higher on those with greater income and the marginal tax rate should be lower the larger the fraction of the population at a given income level that pays that marginal tax rate. The intuition behind this is very simple, avoiding the imposition of large distortions where there are many people; in Jean-Baptiste Colbert's words "The art of taxation consists in so plucking the goose as to obtain the largest amount of feathers with the least possible amount of hissing". Under some special conditions, income taxes should be chosen to equalize after-tax incomes, thereby implying marginal tax rates of 100 percent. On the other hand, on *efficiency* grounds, marginal tax rates should be lower the more responsive are individuals in their labor decisions, the smaller is the spread in the skills of the individuals, the less concerned with equality is society, and the lower is the amount of revenue that government must collect. Indeed, the marginal tax rate on the single richest individual should be zero, a very unpopular decision, though. Thus, an explicit trade-off between equity *via* the social welfare function and efficiency *via* an array of individual and firm behavioural effects is inherent in the choice of tax policies (James Alm, 1996).

Along with the trade off, a distortion associated with redistributing any significant amount of resources from the more able to the less able arises. As illustrated above, in the real economy, the social planner does not have perfect information about the ability of his taxpayers, therefore he can choose between two kind of tax structures: a pooling or self-selection equilibrium. In the former case, the government is unable to distinguish (ex post or ex ante) among individuals whereas in the latter, the more able and less able can be identified ex post in consonance with the actions undertaken, i.e. their actions reveal who they are. The self selection mechanism is the cause of the said distortionary effect. Modern Mirrleesian analysis try to lessen the problem by relying on the "revelation principle" according to which individuals voluntarily reveal their types in response to the incentives provided. Nevertheless, the principal weakness of the Mirrlees approach, namely its high level of complexity, persists. Mirrlees' calculations provided less support for the advocates of progressivity than they had hoped. With what seemed reasonable hypotheses concerning individual utility functions, the optimal tax schedule looks close to linear.

Mirrlees pioneered this approach in his 1971 article. Assuming a utilitarian social welfare function, he calculated that the optimal tax structure is approximately linear (that is, it has constant marginal tax rate and an exemption level below which tax liability is negative) and has marginal tax rates which were quite low by then current standards, usually between 20 and 30 percent and almost always less than 40 percent. Subsequent work showed that widening the distribution of skills increased the optimal marginal tax rate (Slemrod, 1989). An optimal system would combine a flat marginal tax rate with a lump-sum grant to all individuals, which reduces the incentive to engage in tax shifting schemes, so that the average tax rate rises with income even if the marginal tax rate does not. In addition, constant rates would cut compliance cost and, for related reasons, administrative costs.

In his article of 1996, James Alm argued that constant marginal tax rates should be "imposed on broadly defined tax bases above some level of income". Because broadly defined tax bases allow lower marginal tax rates to generate a given level of revenue, Alm maintained that they would reduce the distorting effects of taxes on behaviour, including noncompliance. He also advocated the collection of income taxes by source withholding, as he was convinced that this would further help lower compliance and administrative costs.

Evidence have suggested that non-linear tax schedules open up large opportunities for tax arbitrage and its inequities and inefficiencies. One of the major advantages of a flat tax rate, instead, is that it enables income to be taxed at source, thus reducing considerably the cost of levying the income tax. Moreover, if a flat marginal tax schedule has benefits outside the model, such as administrative simplicity, enforceability, and transparency, it is even better.

6 GENESIS OF THE FLAT TAX

The problems we have just been discussing can also be viewed as information problems. The underlying complication in the analysis of income taxation is the asymmetry of information: if the government could perfectly tell who is of what ability, it could impose lump sum redistributive taxes. But the government can only make inferences about who is of what ability by the income they receive. It cannot perfectly and costlessly observe the income or consumption of each individual; if it could, there would be no compliance or administrative costs associated with running a non-linear tax system. Therefore, despite the fact that fiscal literature has not conclusively answered the question of how far from flat is the optimal tax policy, policymakers seem to have agreed that flatter is better.

The first advocate of the flat tax was the Nobel prize winner Milton Friedman, intellectual leader of the Chicago School and adviser to President Ronald Reagan and Prime Minister Margaret Thatcher. Friedman was convinced that the Keynesian fiscal model did not necessarily trigger an expansionary effect. As he wrote in his book "Capitalism and Freedom" (1962), "A rise in government expenditures relative to income is not expansionary in any relevant sense. It may add to money income but all of this addition is absorbed by government expenditures. Private expenditures are unchanged. Since prices are likely to rise in the process, or fall less than they otherwise would, the effect is to leave private expenditures smaller in real terms." In brief, a rise in government expenditures generates a never ending spiralling boost of public expenditures which eventually increases taxation.

Following Friedman's intuition, at the beginning of the 20th century, Robert E. Hall and Alvin Rabushka, elaborated a general simplified model of a proportional tax system with a fixed tax rate of 19%. The two American economists stressed four advantages of the flat tax, viz. its *flexibility,* which allows the policymakers to adjust the tax rate according to the desired tax revenue, its *fiscal neutrality* as the imposition of a flat tax does not prevent the government from levying other taxes on consumption, its *efficiency* due to the projected reduction in the distortions associated with fiscal arbitrage, and its *simplicity*, clearness and certitude of outcomes.

The flat tax is based on the economic principle of the supply-side[9], especially on individual incentives. When the social planner taxes income in the attempt to tax those of high ability, individuals are discouraged from exerting much effort to earn that income. The psychological reactions to income tax may cause less investment to take place. High tax rated discourage people form working, saving, and investing because the State is perceived as embezzling a portion of individuals' income. By contrast, a proportional fiscal system encourages people to work, save, and invest more since individuals can keep a larger fraction of their income. One of the main theoretical constructs of the supply-side is the Laffer curve which shows the relationship between tax rates and the corresponding level of government revenues. One implication of the model is that increasing tax rates beyond a certain point is counter-productive for raising further tax revenue, therefore a reduction in tax rate may determine, under certain circumstances, an economic expansion and thus an increase in tax revenues.

9 Supply-side economics is a macroeconomic theory born in USA in 1970. In contrast with the Keynesian approach, it argues that economic growth can be most effectively created by investing in capital, and by lowering barriers on the production of goods and services. In this respect reduction in taxation and market deregulation are viewed as essential reforms.

7 APPLICATION OF THE FLAT TAX AROUND THE WORLD

The proportional tax regime has proven to be particularly successful in politically unstable regions where it facilitates and ease the process of levying taxes and boost economic growth. Estonia (26%) and Lithuania (33%) were the first countries to adopt the fiscal tax in 1994, followed by Latvia (25%) in 1995, , Serbia (14%) in 2003, Ukraine (15%) and Slovak Republic (19%) in 2004, and Romania (16%) and Georgia (12%) in 2005. Recently, the Republic of Macedonia (10%) together with Albania (10%) and Bulgaria (10%) recognised the flat tax as the their best opportunity to reach equilibrium between taxation and economic growth. But the flat tax brought great prosperity even in larger countries such as Russia (whose population is twice as great as Italy's) where a uniform tax rate of 13% was adopted in 2001; over the years 2001-2006, inflation-adjusted income tax revenue in Russia have almost tripled.

Vice versa, some of the Countries with a solid and sound financial system, whose fiscal policy is the result of a complex historical process, are more reluctant to open to such an innovation in the tax sector because the enactment of a proportional tax is believed to alter the current equilibrium mechanisms based on a progressive taxation and to have a negative impact on the tax revenues, which would inevitably be affected by the downward pressure due to a flat income tax rate, which may ultimately compromise the government budget. However, as we have seen, Russia's experience disproved this fear.

With regard to our immediate neighbours, while France has never been interested in introducing the flat tax, the German Chancellor Merkel did mention a fiscal reform in her political program in 2005 but without follow-up. In the UK, the Independence Party had included a flat tax it its general election manifesto, however, since the number of low-income taxpayers exempt from taxation would have been too large (10million) with huge losses for the Treasury (£ 50 billion), the proposal was turned down.

8 THE ITALIAN EXPERIENCE

In Italy, except for the unsuccessful attempt to endorse IRE with the Finance Act 2005, the tax system has always been progressive. Unbelievably, the main opponent of the flat tax seems to be the Constitution itself. Indeed, the primary source of tax law in the Italian judicial system is the Constitution, which at article 53, comma 2, reads "The system of taxation shall be based on criteria of progression". The legal framework lays down that the the choice between proportional and progressive taxes derives from the acknowledgment of a political principle. The constitutional Chart, in fact, lists the rules concerning taxation in the section "political rights" and not "economic relations". Thus, it is apparent that a straight application the flat tax without the necessary corrections would contradict the article 53 of the Constitution. Nonetheless, as explained by the President Luigi Einaudi[10], the so called modern finance, the finance of the progressive taxation, is based on the principle of maximum happiness and satisfaction of the largest possible number of members of the community. If the said finance does not satisfy these principles, then its application makes no sense. Thus, the adoption of a flat tax would be legitimised in this respect.

The first attempt to reform the tax system was made by Forza Italia in 1994 when, under the guidance of Antonio Martino (eminent exponent of the Chicago School and student of Friedman), the political party included the then disruptive concept of a flat tax in its election manifesto but the tax was never adopted due to the opposition of many centre-right statists.

In recent times, the idea has been brought back in the spotlight by another right-wing party, the Lega Nord, which cooperated with Alvin Rabushka. On June 2015 a new Tax Bill was presented to the Parliament Assembly[11]. The legislative proposal discusses the introduction of a 15% flat tax. The constitutional obstacle is here overcome by the establishment of a no-tax area, that is a floor below which no income is taxed. Thanks to this adjustment the principle of progressivity would not be violated. In addition, in order to compensate for the lower forecasted tax revenues, the signatories of the have planned to increase the taxable base gradually and impose a "una tantum" tax. The latter is designed to relieve from the burden of debt those taxpayers who have an outstanding

10 Miti e paradossi della giustizia tributaria – Torino, 1967

11 Proposta di Legge n 3170, 15 Giugno 2015

debt with Equitalia spa and the Agenzia delle Entrate (the equivalent of the American IRS). The debtor would be able to settle his or her pending debt via a form of payment denominated “saldo e stralcio” (lit. settlement and liquidation) by which he or she pays a smaller fraction of the total amount due (ranging from 6% to 25% depending on each case). Thus, the State would agree to receive a lower but certain sum, which would not be collected at all otherwise. This operation would have the double effect of swell the State coffers and restore dignity to more than 1.600.000 taxpayers who, once free from the onus, would become new taxable person.

To paraphrase the comment of the jurist Francesco Gallo about the tax reform advanced in the legislative decree of 2003[12], those who promote the enactment of a neo-liberal tax system shall focus

on freeing individuals from the fiscal oppression of “the big government” and on lessening the redistributive and intrusive role of the State.

Whether or not the Tax Bill will approved an will produce the desired effects, only time will tell.

The data ISTAT relative to a European comparative analysis of “The structural characteristics of the Italian economy” conducted in 2006[13] indicate that the taxation of personal income is about 10,4% of the Italian GDP, the highest figure registered among France, Germany and United Kingdom moreover, as concerns indirect taxes, despite the relatively highest tax rate, Italy gains the lowest tax revenues from VAT. Hence, empirical evidence suggest that the low productivity level of the tax system is inherent to the current fiscal policy and has a negative impact on tax revenues, not to mention the burden of the black economy and tax evasion, which represent a parallel economic system deeply ingrained in our economy.

12 Legge Delega n. 80 April 7, 2003, in G.U. n. 91 April 18, 2003.

13 http://www3.istat.it/istat/audizioni/180706/dossier_4.pdf, Table 5, page 6

9 FROM OPTIMAL INCOME *TAX* TO OPTIMAL INCOME TAX *SYSTEM*

The standard approach to optimal taxation is based on several methodological assumptions: the government has perfect information, the social planner's purpose is to maximize the social welfare function, and individuals and firms face no cost to pay their taxes.

As a matter of fact, these assumptions are far from being realistic; in recent times a number of scientific works derived the actual magnitudes of the tax compliance. Blumenthal and Slemrod (1992) estimated that the compliance cost of the individual income tax in the United States may approach about 7% of its revenues.

The spirit of the optimal tax literature is that the efficiency costs of taxation are potentially large, and therefore it is worthwhile to focus attention on how to minimize these costs. In the simplest model, minimizing efficiency costs is the only objective while in more sophisticated models tax systems are also evaluated by how they affect the distribution of welfare and the efficiency costs must be balanced against the distributional implications (Slemrod, 1989).

The standard optimal tax theory assumes that individuals and firms voluntarily pay all of their tax liabilities. This hypotheses is wildly inaccurate, though. Tax expenditure implyes that the government has an incontestable a priori claim to citizens' income and as long as taxation is perceived as a coercive taking of resources, individuals will keep pursuing many illegal avenues to reduce their payments (underreporting incomes, overstating deductions and exemptions, or failing to file returns).

In this paper I argue that the theory of optimal taxation is incomplete because it does not come to terms with taxation as a system of coercively collecting revenues from individuals who tend to resist. The coercive nature of collecting taxes implies that the resource cost of implementing a tax system is large. Administrative problems are often at the heart of why optimal taxation are not implemented, opening the way for taxes which interfere with production efficiency.

An alternative to optimal taxation is what Slemrod called "optimal tax *system*". This theory embraces the insights of optimal taxation and the technology of raising taxes along with the constraints placed upon tax policy by that technology.

An optimal tax system must not only consider the distortion in the lifetime consumption pattern but also how it affects the intergenerational distribution of welfare. Optimal taxation in dynamic economies requires interactions between different types of taxation, such as taxes on capital and labor, and depends on the income histories of individuals. As explained by Mankiw, Weinzierl, and Yagan (2009), the most powerful way for taxation to respond to the challenges of a dynamic environment is to make an individual's taxes in any given year a function of that individual's income history. History dependence allows the tax system to do two things. First, it can treat an individual's evolving path of income, in combination with that individual's place in the life-cycle, as a signal of the individual's place in the ability distribution. Second, it can design sophisticated taxes that include interdependence among sources of income. For example, two individuals with similar current ability may have very different levels of savings, and optimal tax system take that into account. Moreover, individuals respond to taxes not only in the period during which those taxes are levied, but also in preceding and subsequent periods. If tax policy is to efficiently redistribute in a dynamic environment, it must be both backward- and forward-looking.

10 TAX EVASION

Contributions to support public services need to be compulsory because of the free rider problem: unless taxes are made compulsory, no one will have any incentive to contribute. One crucial aspect of tax policy is that it should acquire wide legitimacy and broad acceptance among citizens. Seeing this, Wicksell proposed that the implementation of taxes should imitate market transaction, that is taxes should correspond to user fees (we have already addressed the matter in the first section of the paper). However, until taxation will not be treated with more civil consciousness, tax evasion will continue to represent a serious threat. Its presence has serious implications for the efficiency, equity, and collection cost of alternative tax systems. Firstly, it affects the efficiency of the tax system by misallocating resources as agents alter their behaviour -and incur costs or noncompliance costs- to cheat on their taxes. Secondly, evasion also has equity effects because it alters the distribution of income in unpredictable ways. To begin with, it causes the government to expend resources and increase enforcement costs to reduce its magnitude; in addition, it reduces the taxes that individuals pay; then, it affects the tax rates that compliant taxpayers face and the public services that all citizens receive. Hence, it is impossible to understand the true impact of taxation without recognizing the existence of evasion. Clearly, the design of an optimal tax system has to take into appropriate consideration not only tax evasion and its effects on individuals and on government but also how tax rules are enforced.

In the absence of enforcement, only particularly dutiful individuals would forward the taxes to the government as all taxpayers have the incentive to misrepresent their activities which have tax implications to reduce or eliminate their tax liability. Draconian increases in penalty and audit rates could substantially eliminate evasion. Nonetheless, inferring that individuals pay taxes only because of the fear of detection and punishment, and that an increase in the fine increases compliance would be definitely inaccurate. Besides, extreme measures are unlikely to be implemented because of the principle that "the punishment should fit the crime". Moreover, although higher penalties generate benefits, they also entail costs, both to the government that must use resources to implement them, and to the individuals who suffer a loss in utility from greater enforcement. Optimal enforcement shall equate the marginal costs of enforcement with the marginal benefits, where not only do these benefits include the added revenues but also reflect the impact of greater induced honesty and the loss in individual expected utility. We can interpret observed tax systems as equilibrium outcomes of economic and political processes and forces.

Thus, the central pivotal issue is always the same -the civic virtue and the degree to which a tax is understood and accepted by the public. When a tax is easy to comprehend, taxpayers are more inclined to recognize taxation as justifiable and just and, by consequence, are assumably less prone to elusion and evasion.

11 OPTIMAL TAX SYSTEMS AND THE TECHNOLOGY OF TAX COLLECTION AND ADMINISTRATION

The spirit of optimal taxation theory is that tax-induced inefficiencies are potentially large and must be considered in the design of policy. Yet, many of the critical issues lie outside the usual domain of optimal taxation theory. Optimal taxation typically ignores a range of considerations reflecting fiscal and societal institutions, particularly the equity and efficiency effects that arise because taxes must be collected. Therefore, in many cases, optimal taxation theory cannot address the principal questions.

One reason that the theory of optimal taxation is incomplete as a guide to action is that its stylized model excludes important real-world features such as imperfect competition, increasing returns to scale, and unemployment. Moreover, its critical problem is the failure to consider the technology of collecting taxes.

The leap from the blackboard to the real world is a large one when it comes to taxation.

Tax codes which are based on unobservable and practically unmeasurable quantities (such as an ability tax) often look desirable on paper, but the choice among real tax systems must confront the fact that some taxes can be administered more easily than others. Integrating the issue of administrative ease into optimal tax theory requires a shift of emphasis away from the structure of preferences, which has been the principal focus of optimal tax theory, toward the technology of tax collection.

Future research in normative theory of tax systems ought to shift its focus from optimal tax *rate* structure to optimal tax *systems* and, above all, from the structure of consumer preferences to the technology of collecting taxes and those aspects of the economy which affect tax collection. While preferences are relatively stable over time, technology is not as durable. Changing technology implies that what is an optimal tax system today is not likely to be optimal twenty years from now. Compared to 20 years ago, the Agenzia delle Entrate has tremendously improved its capacity to match information reports of parties to transactions to information reported on tax returns. On the other hand, it is also true that taxpayers deal with an immensely more sophisticated financial system that has drastically reduced the transaction costs of hiding income (Slemrod, 1989).

The noticeable feature emerged from the reasoning above is that the kinds of behavioural responses to taxation that matter in the real world have little to do with the structure of utility functions, but with the availability of financial strategies that circumvent the intent of the tax laws issues.

Moreover, considerations as the respect for the privacy of taxpayers, in terms of both confidentiality of the information the administration obtains from them and in the procedures employed, the reduction of the administrative burden, especially for those taxpayers who produce correct returns, by an efficient selection of taxpayers to be audited and the rigour and effectiveness vis-a-vis tax evaders, should be of equal concern for the government. Tax register, self-assessments, annual returns, and notices are all instrument which help solve the problem. Tax register identifies taxpayers by their fiscal identification number. Self-assessment aims at registering payments made by taxpayers. Notices, cover such items as incomplete returns, requests for further information, full notices (in which all self-assessments that have not been submitted for any tax and for any period are demanded), and notices for annual returns. sent out when the taxpayer declares self-assessments or has been submitted to withholding but fails to submit a return.

It cannot be claimed that these instruments are the best, however it is apparent that business intelligence tools can provide the needed functionality to manage and report on all the tax operations. Information and communication technology (ICT) increases services to taxpayers (for example, by providing a range of e-services) so that the process of filing returns and paying taxes becomes simpler, faster and easier to understand. However, If ICT infrastructure is limited then implementing new ICT will most likely be unsuccessful. Power cuts, slow network speeds or system failures must all be addressed to make sure ICT does not compound the challenge of securing customer compliance. E-services are useless if customers cannot access them, or if they lack credibility due to poor performance, and as a result, the taxpayers will not want anymore to access the services available. Where internet services are immature or unable to meet demand, authorities have to consider additional solutions such as mobile technology to provide services. Whether governments are ready for technology is a pivotal question. Having adequate ICT support, and employees who have the right skills and are able to adapt to new ICT is fundamental.

An intensely automated system assures more accurate reporting, strengthen control, mitigate risk, reduce compliance costs and facilitate transparency. The implementation of tax-related technologies help ease the process of tax collection and administration providing many capabilities among which the determination of who should file tax returns and of who did not file yet, and of those who did not pay their full liability; the identification of incorrect submissions; and assistance in tracking and resolution of disputes. Therefore effective communication of the change and benefits ICT will deliver is critical.

CONCLUSION

Evolution is, by definition, a process of progressive change. Sometimes, to understand the magnitude of the transformation we have to take a step back and see the whole picture. Only then the pattern formed by a series of small imperceptible advances will exhibit clearly the great striking effect of each single change.

At this point, the difference between the efficient and the optimal income tax should be clear; the former refers to the best income tax in absolute value while the latter is related to the best *possible* income tax given the societal and technical constraints.

Modern tax structure development has been characterized by a shift from excise, customs, and property taxes to corporate and individual income taxes. This shift has been mainly due to the expansion of the market and the concentration of employment in larger establishments. The design of the optimal fiscal policy, however, is still an open question. There are too many details that must be known but that are unknowable to implement fully the prescriptions of optimal tax theory recalled in the first section – equality, certainty, convenience and economy.

Recently, the research for simplicity, clarity, and efficiency together with the innovation in tax technology have pushed some countries away from progressive income taxes toward more proportional tax structures.

The proportional tax may be reasonably defined a disruptive innovation since it is not only an alternative way of funding the State but also a revolutionary new way of thinking about taxation. The income of the wealthy is here taxed exactly as much as that of any other taxpayer (after the necessary adjustments and deductions are made). Taxation is not seen anymore as a punitive instrument conceived to hit those who earn more but a motivational stimulus to produce more, thus it becomes an incentive to entrepreneurship and economic growth. On this ground, East European countries have launched a fiscal competition via the adoption of exceptionally low tax rates. As Ronald Reagan predicted when he triggered America's economic boom with lower tax rates 20 years ago, people are willing to produce more and pay their taxes when the system if fair and tax rates are low. By concerning corporations and individuals, fiscal competition may lead to a significant flight of capital toward those countries which offer more tax benefit, and when funds evade taxation by crossing borders, countries

can nothing but rely on origin-based taxes such as the value-added tax.
Nonetheless, what matters more, as stressed repeatedly in the second section of the thesis, is not the income tax per se but the tax system as a whole, that is the infrastructure of technology of tax collection, the legislative instruments apt to punish criminals and the set of economic tools enacted to contrast evasion and elusion. In this regard, a fundamental role is played by the technological advance which can help speed and lubricate the machinery of government.

As stated above, an optimal income tax by its own is not sufficient -and never will be- to maximize the tax revenue and minimize the social harm. An arrow will never hit the target if the archer is a clumsy child. Likewise, an architect does not renovate a crumbling apartment simply by hanging pictures on walls; if the flat is gloomy and dreary and the furniture is shabby, a mere portrait is not enough to rescue the situation. Not even the Mona Lisa, the most appreciated piece of art, could help. The floor, the ceiling, the windows and the wiring all combine to make an accommodation valuable. Similarly, a social planner cannot think to improve the fiscal system solely with a new tax, no matter how promising the tax is.
Tax design must always consider the particular circumstances at hand and the trade-offs involved, but this should not discourage the search for time- and space-specific tax design guidelines. Governments should not only focus on the optimal tax rate but also, and above all, on the architecture of the income tax system as a whole. As we have seen, the entire composition is what turns potential energy into actual energy.

This thesis wants to stress the importance of the single components and the disruptive relevance of their combination. By far, most countries have focused their research on the optimal income tax, but the implementation of an efficient income tax system is way more effective than the pure adoption of an efficient income tax. As Aristotle pointed out in the IV century BC “the whole is greater than the sum of its parts” .
To conclude, taxes have such an important economic and social impact that politicians should not be given sole responsibility to levy them. Left to their own devices and counsel, elected officials and the appointed bureaucrats seek new ways to spend

taxpayers' money. But they are never as imaginative when it comes to finding ways to save money or cut spending.

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