



ΙΔΡΥΜΑ ΟΙΚΟΝΟΜΙΚΩΝ & ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΡΕΥΝΩΝ
FOUNDATION FOR ECONOMIC & INDUSTRIAL RESEARCH

FLAT INCOME TAX RATES:

A Fresh Start?

Nicholas E. Karavitis

IOBE

July 2013

A 2013 study by IOBE commissioned by the BHCC



**ΙΔΡΥΜΑ ΟΙΚΟΝΟΜΙΚΩΝ & ΒΙΟΜΗΧΑΝΙΚΩΝ ΕΡΕΥΝΩΝ
FOUNDATION FOR ECONOMIC & INDUSTRIAL RESEARCH**

Τσάμη Καρατάσου 11, 117 42 Αθήνα. Τηλ.: 210 92 11 200-10, Fax: 210 92 33 977, www.iobe.gr
11, Tsami Karatassou Str., 117 42 Athens, Greece. Tel.: +30 210-9211 200-10, Fax: +30210-9233 977

*“Nor should the argument seem strange
that taxation may be so high as to defeat its object”*

John Maynard Keynes

The Collected Writings of John Maynard Keynes
(London: Macmillan, Cambridge University Press, 1972)

Table of contents

1. Introduction	9
2. Functions, Forms and Effects of Taxation	11
2.1 Types and Functions of Taxes.....	11
2.2 Forms of Taxation.....	12
2.3 Effects of Taxation.....	12
3. Features of the Greek Tax System.....	18
3.1 Adequacy of Revenues	18
3.2 Structure of taxation	20
3.2.1 <i>Structure by type of tax</i>	20
3.2.2 <i>Structure by economic function of tax</i>	23
3.3 The Greek Income Tax System: Rates, Modalities and Specificities	29
3.4 Distributive aspects of PIT	32
3.5 The 2013 income tax reform in Greece	36
4. What is a Flat Tax?	36
4.1 Enter the Flat Tax	36
4.2 How should the tax burden be allocated?	39
4.3 How does the income tax reform relate to the flat tax?	42
4.3.1 <i>Flat taxes in Europe</i>	42
4.3.2 <i>The 2013 income tax reform revisited</i>	44
4.4 What can the future look like?	47
5. Concluding remarks	52
6. ANNEX.....	55
7. REFERENCES	2

Graphs

<i>Graph 2-1 Effects of taxation</i>	<i>12</i>
<i>Graph 2-2 Dependence of Tax Revenues on the Corporate Income Tax (2010).....</i>	<i>16</i>
<i>Graph 3-1 Tax Revenues in the EU (2011, % of GDP)</i>	<i>18</i>
<i>Graph 3-2 Tax Revenues Adequacy in the EU (2011)</i>	<i>19</i>
<i>Graph 3-3 Tax Revenues Dependency in the EU (2011).....</i>	<i>19</i>
<i>Graph 3-4 Tax Revenues (% of GDP) in Greece and the Euro area (1995- 2011).....</i>	<i>20</i>
<i>Graph 3-5 Structure of Tax Revenues in Greece and the Euro area (2011)</i>	<i>20</i>
<i>Graph 3-6 Indirect Taxation in Greece and the Euro area (% of total-2011)</i>	<i>21</i>
<i>Graph 3-7 Direct Tax Revenues in Greece and the E. U. (% of GDP, 2011).....</i>	<i>21</i>
<i>Graph 3-8 Personal Income Tax in Greece and the E. U. (% of GDP, 2011).....</i>	<i>22</i>
<i>Graph 3-9 Corporate Income Tax in Greece and the E. U. (% of GDP, 2011).....</i>	<i>22</i>
<i>Graph 3-10 Social Security Contributions in Greece and the E. U. (% of GDP, 2011)</i>	<i>23</i>
<i>Graph 3-11 Structure of Taxation by Economic Function (2010).....</i>	<i>24</i>
<i>Graph 3-12 Consumption Taxation in Greece and the E. U. (ITR and % of GDP-2010).....</i>	<i>25</i>
<i>Graph 3-13 Consumption in Greece and the E. U. (% of GDP-2011).....</i>	<i>25</i>

Graph 3-14 Labour Taxation in Greece and the E. U. (ITR and % of GDP-2010) 25

Graph 3-15 Ratio of Salaried to Non-Salaried Income in Greece and the E. U. (2010)..... 26

Graph 3-16 Capital Incomes Taxation in Greece and the E.U. (2010) 27

Graph 3-17 Corporate ITR and Statutory Rates in Greece and the E.U. (2012)..... 29

Graph 3-18 Corporate Statutory Rates in Greece and the EA-17..... 29

Graph 3-19 Theoretical average PIT rates for indicative income levels..... 31

Graph 3-20 Actual average PIT rates for indicative income levels..... 32

Graph 3-21 Improvement in the Gini coefficient after PIT 33

Graph 3-22 The effectiveness of social transfers (2011) 34

Graph 3-23 The distribution of incomes and taxes of households (2011) 34

Graph 4-1 Tax=Monetary Income Foregone. How Much? 41

EXECUTIVE SUMMARY

This paper is intended to contribute to the discussion concerning flat income tax rates. Following the wave of such reforms in previously non-market economies, it is useful to examine whether any lessons are to be learnt. In the light of the recent and still under way income tax reform in Greece, we attempt to detect whether there is room for further improvements and, moreover, to which direction these improvements lie.

We certainly recognize the historic, institutional, social and economic differences between Greece and the former eastern bloc states, yet there are also similarities, such as the propensity to tax evade, shortage of public revenue and income distribution that cannot be ignored. The theological discussion between small-state advocates and supporters of Western European-type, extensive-social-policy states is taken into account, but such discourses should be set aside in order to examine the facts.

In this context, taxation is treated as the fiscal instrument whose main objective is to collect revenues in the most possibly neutral way regarding its impact on the allocation of resources. On the other hand, while taxes admittedly affect the distribution of income, we maintain that redistributive and social policy objectives should be best left to public spending. The level of revenues to finance public expenditure is also left to public and political choice. Therefore, our main concern is to maximize the potential of the tax system to raise any given level of revenues.

The Greek income tax system has been plagued by a low ability to collect adequate revenues, standing significantly below its European counterparts. This deficiency is observed mainly in the personal income taxation, where the difference in the amount of revenues stands at about 4% of GDP from the Euro area average. Moreover, it seems that this poor performance owes to the narrow tax base rather than low tax rates. Wage incomes in Greece form only a small part of the value added in the economy; in fact, they are about 30% lower than non-wage incomes compared to 25% higher in the European Union. Apart from the structural problem, this is a clear indication of tax shifting and, most importantly, tax evasion. This situation feeds on the complexity and the loopholes of the tax system.

Until the recent reform, non-corporate incomes were taxed the same, wage and non-wage alike. Since non-wage incomes are easier to underreport, they found refuge to the tax shelters initially designed for salary-earners and pensioners, thus benefiting from low effective tax rates on whatever incomes presented in their tax returns! As a result, about 8% of the population, accounting for a little less than 30% of incomes, paid almost 70% of income taxes. At the same time, the after-tax distribution of income did not change much, especially for the non-salaried. On the other hand, social spending seemed to be quite

inefficient, judging from the small change in the poverty rate after social transfers, less than half of the reduction at the E.U. level.

Corporate taxation presents similar characteristics, with high statutory rates being eroded by complex tax avoidance-friendly legislation and numerous tax credits. Tax evasion pays in terms of opportunity costs, while administrative costs for businesses, including backhanders, run quite high.

This inefficient and unfair income tax system has become infamous as a synonym to complexity, non-transparency and corruption. As a result, tax compliance is quite low, generating another round in the vicious circle of high tax rates-low revenue yield. Greece seems to be a country with a Western Europe-type of tax burden on an economy that presents structural deficiencies of a non-Western Europe country.

The recent tax reform seems to tackle to some extent the issue of tax avoidance. However, further improvement is needed, especially in the inherent to the system possibilities of tax shifting. Moreover, radical simplification of the tax legislation is required together with the full restructuring of tax administration. Only a simpler tax system can work to this end, promoting tax compliance and generating more revenues through the widening of the tax base. In this fashion, tax rates may be lowered and/or financing public spending may be easier.

A flat tax system is a generic term to describe the application of proportional taxation across a range of incomes from different sources. The versions we encounter around the world, from Hong Kong to the Channel Islands and from Russia to the Balkans or the Baltic states, differ significantly. There seems to be no fixed model, but rather adjustments to some basic concepts, in order to accommodate for national specificities and political pursuits. The fundamental principles of flat taxation summarize in fairness and simplicity.

Fairness is a rather obscure idea, but in a flat tax world it means equality of treatment of all types of incomes (horizontal equity). Vertical equity is more or less set aside on the grounds of the arguable principle that proportional taxation is fair since it takes more *in absolute terms* from the richer. Simplicity, the other main attraction, is certainly better supported within a flat tax system, without, however, requiring it as a precondition.

The status of the Greek tax system requires a boost both in efficiency and fairness. The recent tax reform seems to adopt certain principles of flat taxation, such as equal treatment of all sources of income. This is done incompletely, since it is restricted within the domain of business income, while labour income is still taxed at higher marginal rates than business or other capital income. In addition, any improvement in tax administration will be thoroughly facilitated by the simplification of legislation and procedures which a flat tax would bring about by definition.

The view of this paper is that, given the current direction of the tax reform, the next step can only be towards a "flatter" system. This could cure the deficiencies of the tax reform and restore allocative inefficiencies. We present the evolution of the current system, which advances to complete equalization of the marginal tax rates between labour and capital incomes. In the context of fiscally neutral changes, it provides for some progressiveness in the taxation of salaries and pensions in a way that low incomes are supported without punishing higher incomes. Furthermore, all other remaining tax credits and allowances are abolished and it is proposed that they are reviewed and substituted with direct public spending where necessary. The tax scheme presented sets the central rate at 20% for all incomes. A 10% rate is foreseen for low rents, salaries and pensions (with a tax credit up to €700 for the latter, up to a threshold of €20,000 per annum). In practice this means that business taxation is reduced, low and high incomes from salaries and pensions are relieved, while taxpayers with middle incomes will have to pay slightly higher taxes. This poses political problems regarding the median voter, but they could be faced through restructuring of public spending, or even gains from the increased efficiency of the system (such as less tax evasion, improved ability to collect etc) that have not been quantified. There remains an open issue regarding the taxation of interest that in the Hall-Rabushka model should be abolished. This seems to be a complicated question that requires further studying.

The role of tax administration should not be underestimated, since costs to the taxpayers and the State may be reduced, while revenues from increased tax compliance, deriving from more efficient methods and better allocation of administrative resources, may be increased. A flatter system may be neither a sufficient nor a necessary condition for this, but it cannot be denied that it serves such objectives well.

The proposed system is intended to serve as food for thought about the fiscal future of the country. We certainly understand both the technical and political limitations that prohibit a genuine tax revolution to happen. The fiscal constraint still imposed by the ghosts of the previous, "traditional" tax system, but mainly the amount of work that has to be done in order to rectify all deficiencies in tax administration not actually related to the tax schedule, dictate that careful steps have to be made. The new system should be left to sink in and, given time and thorough studying, move towards a flatter, more efficient and equitable tax system, when Greece starts planning its future without the burden of the current crisis.

1. Introduction

In late 2012 the Greek government took action for a comprehensive income tax reform. The driving force behind it allegedly was the need to raise sufficient amounts of revenues, so that the fiscal adjustment process, which since 2010 had almost exclusively relied on expenditure cuts and indirect and property taxation, become more balanced. At the same time this seemed like an opportune time to realign the income tax system, which showed clear evidence of decay.

Over the past decades, governments and pressure groups built a highly complicated and non-transparent system, which coalesced a variety of social, political and business interests in a haphazard way. A voluminous, yet fragmented, legal framework supported a tax structure on a thin base, which, combined with low ability to collect assessed taxes, produced a significant fiscal failure. The attack of the economic crisis in 2008 brought to the surface all the inadequacies of the tax system, yet the issues were not to be addressed but several years later: we may identify them in short as tax avoidance, tax evasion and non-collection of revenues. These problems, in turn, have accentuated more general problems, such as allocative distortions in production, insufficient redistribution of income and fiscal stringency.

The income tax reform was planned in two stages. At the first stage, legislated in early 2013, the systemic parameters of income taxation were set. The tax base was broadened and its constituent parts became more discernible, while new tax schedules were introduced. It remains to be seen whether the main objectives of tackling tax avoidance and restoring fairness will be met. The second stage of the income tax reform was launched almost in parallel with the first stage. With a view to effectively combat tax evasion and boost the efficiency of the tax system, the main theme has been the codification and simplification of the legislation, as well as the revision and the redesigning of procedures regarding audits, penalties and tax collection,.

Since we notice a turn towards simplification of the tax system and a will to broaden the tax base, it is worthwhile to ask ourselves, should such an approach prove successful, whether it could be a stepping-stone to an even simpler and more integrated tax system in the future. Or, in other words, will the current tax system be the procreator of its successor? Should this be the case, it is only natural that the flat rate tax system is the first thing to come to mind. Supporters of this system never fail to stress that its perceived advantages lie in its simplicity, fairness and efficiency. However, the constant theme in introducing flat income tax rates has been the lowering of the tax burden in the economy, as a means of promoting growth and efficiency. Therefore, taxing at flat rates has been a favoured field of contention between advocates of economic effectiveness with a small state sector, on the one hand, and supporters of a larger public sector with a strong redistributive character, on the other.

Equity and efficiency are not mutually exclusive by definition and it would be interesting to see whether the two may be combined in the simpler universe of flat tax rates. The politics behind economic policy certainly do not make the issue less complicated. If labour and capital are to be taxed at the same marginal rates, then a serious question is raised. If the pace is set by the need to alleviate capital taxation and promote the investment process, a low tax rate is due. This, however, would signify a low level of revenue from the wide labour tax base and, consequently, a low level of spending. On the other hand, the higher the flat tax rate is, the higher the disincentive to invest becomes and the less attractive a country becomes to capital. The OECD has eloquently put it: *"Given the governments' revenue needs, having a flat tax on capital and labour income might require a rather high tax rate, which might raise problems because of the international mobility of the tax bases. On the other hand, implementing a rather low flat tax rate would undermine the benefit system in many OECD countries and would undermine income redistribution".*¹

Since the 1970's the tax burden presented a marked increase in the European Union. Europe opted for a larger state sector and although this move was not uniform, it clearly reflected a political choice that became more evident in the "catch-up" countries, such as Greece, to converge their fiscal deficits by pushing the tax burden up, rather than their spending down². The tax burden seemed to settle after the fiscal consolidation effort of the last decade of the previous century and even slightly decrease. This development was affected by the financial crisis of 2008, which affected the buoyancy of tax revenues. The tax burden was only slightly and temporarily reduced, given the need for budget consolidation in most countries³. However, the "European model" of a strong state supported by high taxation seems not to be uniform, since the new member states form a class of their own with low taxation. Some of these countries have even adopted flat rate tax systems, opting for fast growth rather than establishing lofty social states. This has revived the discussion about flat tax rate tax systems.

Although the fiscal pressure put on the EU member states, especially by their social security systems, is quite apparent, it is worthwhile to investigate whether there are lessons to be learnt by alternative approaches, such as flat rates. For the distressed Greek economy whose fiscal state of affairs may potentially compromise any sustainable growth efforts, this inquiry becomes much more relevant in the process of finding its pace and exiting the crisis.

In Section 2 we describe the types and forms of taxation, so that the reader has the basics of the structure a modern tax system. On this basis we show what the main economic functions

¹ OECD (2006) **Reforming Personal Income Tax** Policy Brief, March 2006.

² Carone, G., G. Nicodème and J. Schmidt (2007) **Tax revenues in the European Union: Recent trends and challenges ahead** European Economy-Economic Papers 280, European Commission.

³ Eurostat (2012) **Taxation trends in the European Union**.

of taxation are and how taxation forms part of the overall fiscal policy. At this point we put in context some basic issues and address the equity vs. efficiency question.

We continue with a description of the Greek tax system in comparison with the respective European systems in Section 3. We examine the structure of tax revenues, by type and economic function of taxes and we analyze the tax burden in terms of statutory and implicit tax rates. Then follows an analysis of the main features of the Greek income tax system and its specificities.

In Section 4, we present the flat tax rate system and its variants, followed by a discussion on the distributive effects of taxation, which leads us to the presentation of the European versions of flat taxation. Finally, we discuss whether a type of flat taxation could be an evolution of the currently under reform Greek income tax system, its features and potential strengths and weaknesses. We close with some conclusions that may be drawn from the study.

2. Functions, Forms and Effects of Taxation

2.1 Types and Functions of Taxes

In modern economies taxes are imposed on products at the stage of production, importation or consumption, incomes from labour, entrepreneurship and capital (financial or non-financial assets) and capital assets as such. As can be seen in Table 1 of the Annex, taxes in national accounting terms are classified in four major categories: taxes on products and production (D.21 and D.29), which include VAT and consumption taxes, taxes on all forms of income (D.51 and D.59), taxes on capital (D.91) and social security contributions (D.61)⁴.

Taxes cover all levels of government (central, federal, local and social security funds). Moreover, Eurostat classifies each individual tax according to its tax base so that we may distinguish between taxes on labour incomes (paid by employers, employees and the non-employed, pensioners or unemployed), taxation on capital incomes of corporations, households or the self-employed and capital taxation on stocks of wealth. The detailed classification is shown in Table 2 of the Annex. These classifications make easier to examine the various facets of taxation, especially its impact on the allocation of resources. Demand and supply factors are constantly affected by taxation in a variety of ways. The relative prices of the factors of production, the relative prices of goods and services, the choice between work and leisure or the net yield of competing saving instruments are cases where taxation plays an important role in the allocation of real or monetary resources.

⁴ See "Detailed tax and social contribution receipts by type of tax and social contribution and receiving sub-sector" of the ESA95 transmission programme - Annex B of Council Regulation (EC) N° 2223/96 of 25 June 1996 as amended by the European Parliament and Council Regulation (EC) No 1392/2007.

2.2 Forms of Taxation

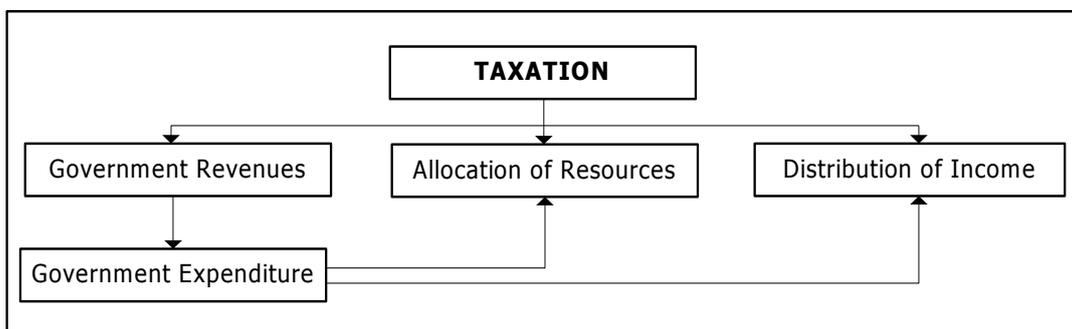
Taxation on the tax bases that were described earlier is imposed in various forms. Usually, in consumption we encounter proportional *ad valorem* taxes and certain taxes per unit of product (specific taxation), while taxation on labour or capital most commonly comes in the form of proportional or progressive taxation, although social security contributions may have a regressive character due to caps at high incomes. However, it is both the statutory rate and its respective tax base, including possible tax exemptions or deductions, which determine the final or effective tax burden. Therefore, it is understood that tax legislation plays an important role to the extent that it provides for exemptions, deductions, rebates etc.

The effective tax burden is finally determined not only by the statutory rates but by the combined effect of the legislation on the tax base and the tax obligation. The expansion of the regulatory framework along such lines usually tends to make the system more complicated and less transparent. These features of the tax system, i.e. its degree of progressivity and coverage, may play a major role in stabilizing the economy and exerting counter cyclical forces. While it seems reasonable to assume that the more progressive the tax system is, the stronger its counter-cyclical character is, it is argued that a flat rate tax system may actually reinforce automatic stabilizers⁵.

2.3 Effects of Taxation

As presented below (Graph 2-1), taxation plays three major roles in the economy: it provides revenue to the government in order to perform its functions, it affects the allocation of resources in various ways (between factors of production, geographical areas, sectors and industries of the economy etc) and it (re)distributes income and wealth. An ideal tax system would raise adequate revenues with minimum distortions (i.e. undesirable deviations from market equilibria) in the allocation of resources, bringing about whatever is considered as a fairer distribution of income.

Graph 2-1 Effects of taxation



Yet, one has to bear in mind that taxation is only part of the overall fiscal policy. Government spending also affects allocation of resources and distribution of both monetary and non-

⁵ Keen *et al* (2006).

monetary income⁶. This implies that the end-results of the fiscal policy should be assessed *in toto* after the whole cycle of its effects has been completed. In this sense, personal income taxation, for example, may not redistribute income extensively and, yet, the best part of the revenues it generates may be transfer payments to low-income households. This, of course, might operate the other way around. Therefore, spending and taxation policies should be judged as a whole.

If we keep the above in mind, tax policies should then be judged both individually, as well as within the overall tax system. In order to assess tax policies one has to use sound criteria that make sense. The criteria applied herewith are not new in the literature; they are well established and widely used indicators, simple enough for policy makers to understand without compromising their effectiveness. Hence, the main indicators used are as follows:

(1) Revenue Adequacy. An obvious choice is the ratio of the amount of revenues to Gross Domestic Product (GDP). The higher the ratio, the easier the financing of public spending. Alternatively, one may use the tax revenues to government spending ratio showing the share of government expenditure financed by taxes. The ratio of tax revenues to total revenues may also give us information on the adequacy of tax revenues, in the sense that it is also an indicator for the dependence of financing on taxes. Complementary indicators are also available, such as the Implicit Tax Rate (ITR) and the share of a particular taxation to total tax revenues.

ITRs, constructed and used, among others, by the European Commission, are simply the ratios of tax revenues to their tax base (e.g. revenue from consumption taxes over consumption). ITRs combined with information such as statutory tax rates may provide insight as to the effectiveness in collecting revenues, i.e. to what extent there are inadequacies or loopholes in the system allowing for non-collection of revenues or providing room for tax exemptions etc.

(2) Allocation of resources. Statutory rates and tax legislation in general, as well as ITRs, may provide useful information as to the (relative) magnitude of the tax burden between factors of production (chiefly labour and capital), industries or regions. However, the use of such indicators presupposes a rule as to the "proper" relationship between the various tax rates. Since no such rule can be predefined and taking into account that deviations from the notional market equilibria may be either desirable or the consequence of purposeful government policies, it would be quite arbitrary to use any measure of optimal after-tax allocation of resources. A simple rule would be to assume that equal marginal rates would not disturb market decisions, although the efficiency of market solutions would remain to be proven.

⁶ Public goods and other services provided by the public sector affect the welfare of the economic units and in essence complement incomes generated in the private sector.

(3) Income Distribution. There are quite a few indicators in the literature providing information on the distribution of income, such as the Gini coefficient, the S80/S20 ratio, the "at-risk-of-poverty" ratios etc. What is important in this case is the comparison of "before" and "after" indicators so that the redistributive impact of tax or spending policies can be assessed.

At this point, special reference should be made to two significant aspects of taxation. Most notably, these have to do with the allocation of resources and its impact on growth.

a) The "crowding-out" effect. The first facet pertains to the allocation of resources between the private and the public sector and the well-known "crowding-out" effect. It is usually expressed as a complaint that tax burden hinders investment. For the layman's sake the problem may be put in simple terms: let us assume a closed economy with no public sector. It is a model perfect-competition economy where some invest their capital assets, some supply their labour and everybody consumes. If each labourer were to receive less income than each entrepreneur and the labourers form the majority of the population, then the distribution of income is not equal. Please note: the distribution of income may not be **equal** but we, the observers, do not have the foggiest whether it is **fair** or not. However, the populace has its own views on equality.

Let us now accept that in the elections the voters decide that all should share the national income equally, they form a government and they mandate it to tax the "capitalists" out of their excess income, which is to be transferred and distributed to the "labourers" so that everybody now enjoys exactly the same income. Thus we have a group of the population with less income than it used to have (as a group) and a group that has additional income (not worked for). The lower income of the first group will signify no investment for next year and, therefore, production, profits for the entrepreneurs, employment and remuneration for the labourers will stagnate. In the meanwhile the current year's extra income for labourers has pushed up prices, thus lowering everybody's real income. The stagnant next year will find the government unable to cope with the problem, since resources that would have gone to investment, hence growth, have now been moved to higher demand for consumption that cannot be met.

The cognisant reader may easily shrug off the problem; the investment required will not be financed by the entrepreneurs' profits but by the saving of the extra income of the labourers (remember, this is a closed economy, so that there is no risk that extra demand for consumption is met through imports). A share of future profits will befall them in the form of interest on the capital they effectively lent to the entrepreneurs for investment, while any other excess profits will be redistributed by the government.

The catch is that nobody may guarantee that the labourers will save enough or that the entrepreneurs will be willing to undertake the risks of an investment whose potential profits will be redistributed away from them. Taking into account that modern real economies are open and far more complex than the one described here and putting in the picture the possibility to redistribute income away from high productivity, high-income labourers (thus affecting the supply of labour and productivity)⁷, we may all understand that the growth process is shrouded in the uncertainties of redistributive policies⁸.

b) Tax competition vs. tax harmonization. Tax competition has been a point of friction between champions of small government and supporters of larger public sectors. The issue appears to be even more important in the European Union, where the integration of the tax systems (and especially those of direct taxation) across member states is still an eluding construct. Conceptually, the higher the degree of tax harmonization, the lower tax competition is. As a result, mobility of tax bases, such as capital, is expected to contract, or, more accurately, to increasingly depend on other factors of competition. Therefore, tax harmonization is envisaged to remove taxation as a distorting factor of competition. In this sense, a weak tax competition environment makes it less likely that capital flight will suppress growth in a country. On the other hand, the advocates of less state would assert that tax harmonization could only be effective if it is directed downwards. If tax harmonization were set at high tax levels, it would practically signify the imposition of large government sectors. This, in turn, would generate the “crowding-out” effect described earlier. Moreover, established governments would not accept smaller states, since this would imply less fiscal, hence political, influence over the electorate.

In general, tax harmonization has received the anathema of the ultra free-market proponents. However, harsh criticism, such as “... *international bureaucracies are obstacles to tax reform, both because they are ideologically opposed to the flat tax and because they represent the interests of high-tax nations that want tax harmonization rather than tax competition*”⁹, may be impressive, yet its justification remains to be proven. The OECD and the European Union have been quite careful to focus on the “unethical” aspects of tax competition. In this vein, while fiscal sovereignty is respected (therefore, low taxation is not discouraged in principle), equal treatment (e.g. of residents and non-residents), transparency of rules and transactions, as well as combating tax avoidance and tax evasion are brought forward as major problems that must be tackled in order to avert “harmful tax competition”¹⁰.

⁷ Progressive taxation does not redistribute income only between different tax bases but among taxpayers of the same tax base, salary earners in this case.

⁸ For a discussion of the issue see Bergström, F. and R. Gidehag (2004).

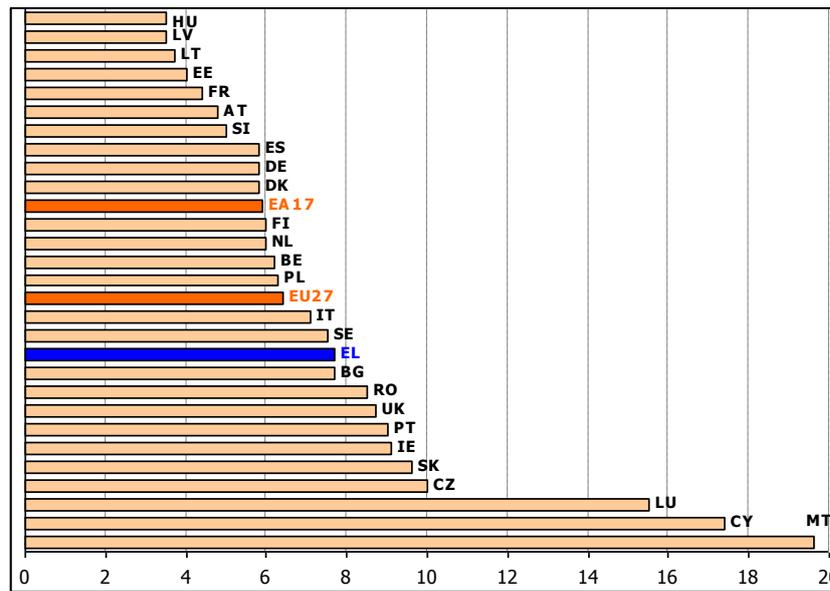
⁹ D. J. Mitchell (2007).

¹⁰ The general guidelines of the European Union policies may be traced back to the 1997 ECOFIN Council Conclusions, putting in place a Code of Conduct on taxation policy (OJ 98/C 2/01). The kick-off in the OECD area was given by “Harmful Tax Competition: An Emerging Global Issue” (OECD, 1998). It is quite interesting to note that

The anti-tax competition project seems to focus more on tax havens (e.g. of the Caribbean type) and less on “genuine” low tax countries. Moreover, one has to keep in mind that this particular discussion usually refers to taxation of profits (at the corporate and personal income tax levels). Tax harmonization, however, is a much wider concept and, therefore, we must keep it in its right proportions.

Corporate profits usually make up a rather small part of the overall tax base. In the EU-27 corporate income tax revenues comprise 6.4% of total tax revenues and in all cases, with the exception of Malta, Cyprus and Luxembourg, they range from 3.5% to up to 10% (Graph 2-2). As will be seen later, Cyprus is a country with a low statutory corporate tax rate, while

the other
present
high rates.
However,
information
available on
respective
effective
rates
(ITRs).



two
rather

no
is
their

tax

Graph 2-2

Dependence of Tax Revenues on the Corporate Income Tax (2010)

Luxembourg and Switzerland declared outright that the recommendations issued by the international bodies are by no means binding. They supported their positions mainly on the grounds of the partial approaches adopted (not encompassing all aspects of taxation) and the information discharge requirements (especially on banking transactions).

At this point we should also stress the fact that the corporate income tax rates general regime is not the whole story. Although this seems to be understandably very important to multinational and very large enterprises, other facets of the tax system, such as preferential treatment of certain industries or the personal income tax regime may play their role in removing significant chunks of economic activity away from more solid, organized tax structures¹¹.

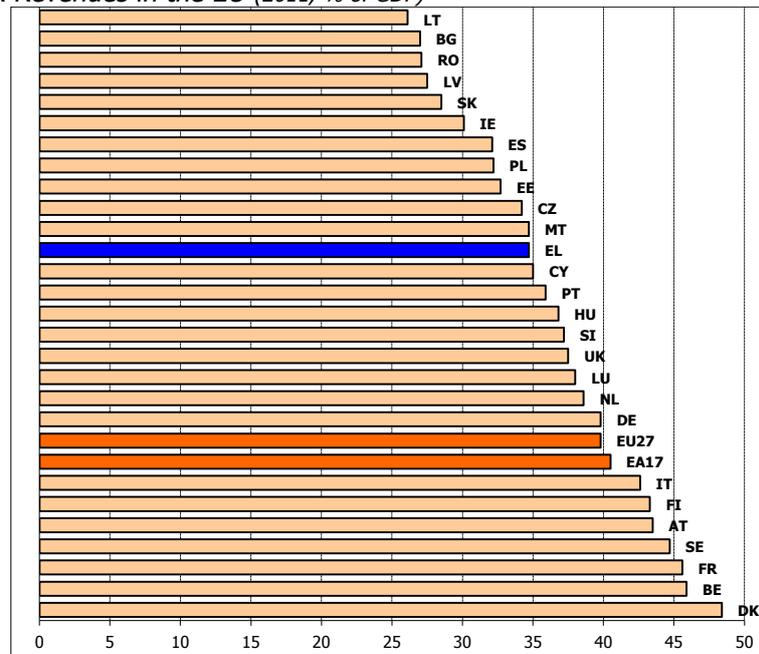
¹¹ Elschner and Vanborren (2009).

3. Features of the Greek Tax System

3.1 Adequacy of Revenues

As can be seen in Graph 3-1, tax revenues in the EU range from a little above 25% to almost 50% of GDP. Greece belongs to the group of countries with tax revenues below 35% of GDP, in the same group with other member states of the South and several of the newly acceded countries.

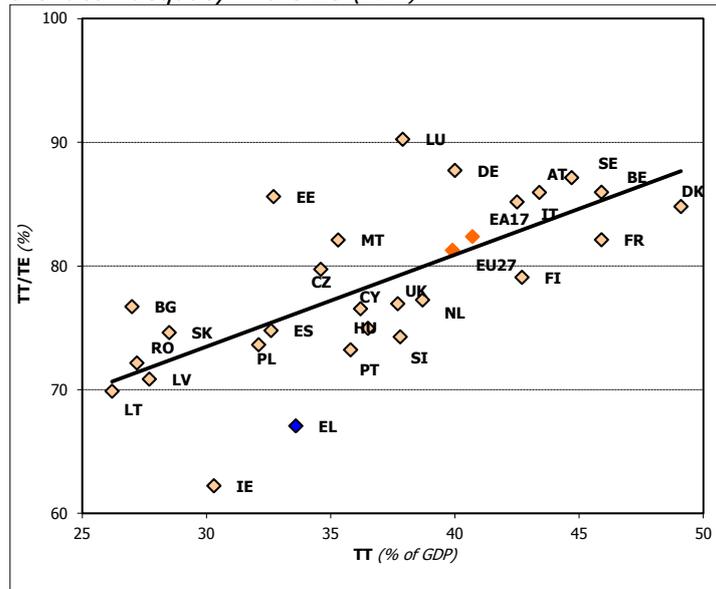
Graph 3-1 Tax Revenues in the EU (2011, % of GDP)



According to the detailed data of Table 3 of the Annex, the distance of Greece from the Euro area average has been almost six percentage points of GDP, the best part of the difference (about 90%) identified in direct taxation and social security contributions. This represents quite a substantial amount of taxes, which would have sufficed to bring the Greek deficit well below the reference value of 3% and would have averted the current fiscal crisis.

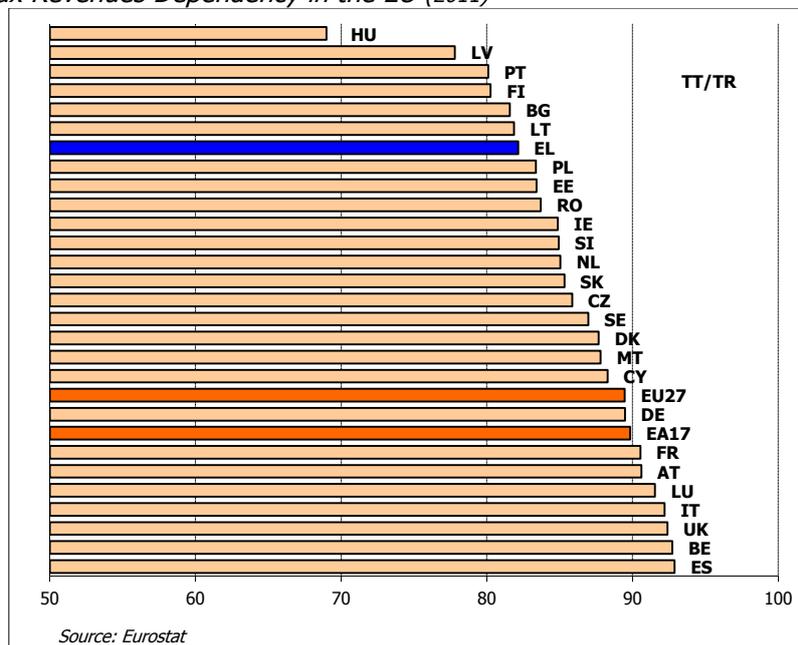
The inadequacy of tax revenues becomes apparent, when we examine the proportion of public spending that tax revenues finance, as well as the share of tax revenues in total general government revenues. Tax revenues in Greece finance 67.1% of government spending, as opposed to 82.4% which is the Euro area average. As we can observe in Graph 3-2, whereas the overall tax burden (TT: the ratio of general government tax revenues to GDP) in the economy is plotted against the adequacy of financing public spending (TE: the ratio of general government spending to GDP), Greece is located in the southwest quartile registering a very poor record. While there seems to exist a positive relationship between tax revenues and financing of spending, Greece is located well below the trend line indicating a clear problem in TT and/or TE.

Graph 3-2 Tax Revenues Adequacy in the EU (2011)



Similarly, tax revenues in Greece account for a significantly smaller share of total revenues (82.2% against 89.8% for the Euro area). This is also a potential factor of high volatility of the overall government revenues (in the sense that they may be affected by changes other than those in economic activity).

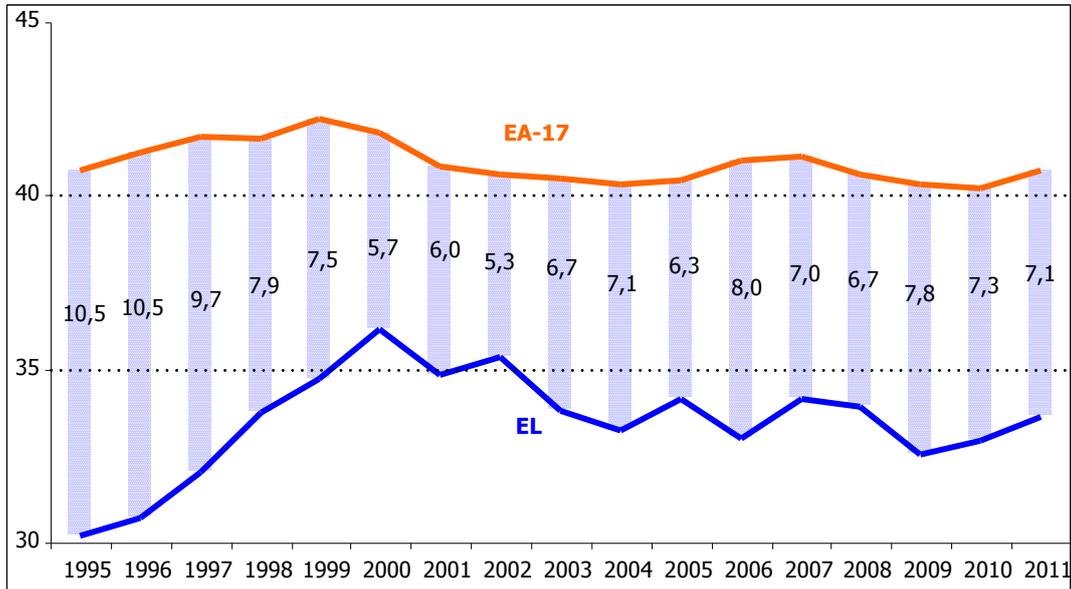
Graph 3-3 Tax Revenues Dependency in the EU (2011)



To dismiss any possible considerations that the wretched performance of tax revenues in Greece may be a transitory phenomenon owing to cyclical effects, Graph 3-3 clearly shows that during the convergence period, Greece practically halved the gap from the Euro area average from 10.5 p.u. of GDP to 5.7 p.u. However, in 2001, the distance started growing again, reaching a maximum of 8 p.u. in 2006, just before the recession, and remained at

levels over 7 p.u., despite the Programme of Economic Adjustment that has been in progress since 2010.

Graph 3-4 Tax Revenues (% of GDP) in Greece and the Euro area (1995- 2011)

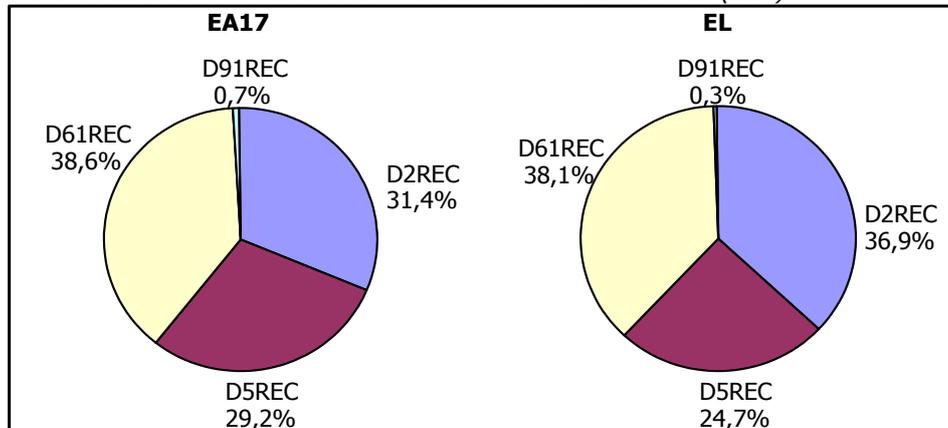


3.2 Structure of taxation

3.2.1 Structure by type of tax

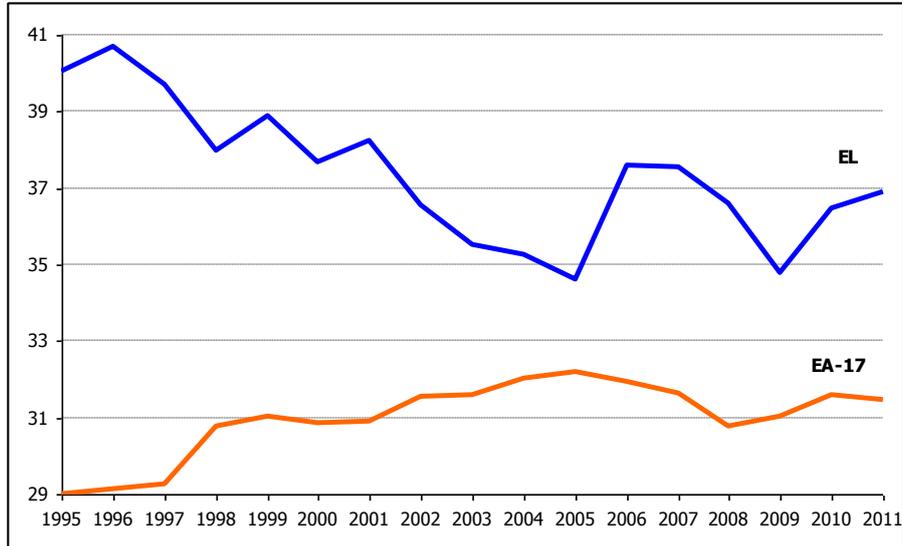
Tax revenues in Greece present a distinctly different pattern, compared to the Euro area average. As can be seen in Graph 3-5, while social security contributions (D61) chip in about the same in both economies (a little over 38%), Greek tax revenues have rested more on indirect rather than direct taxation. Direct taxation (D5) in Greece contributes a little less than a quarter of total taxes (24.7%), compared to 29.2% for the Euro area, while indirect taxes account for 36.9%, significantly more than the respective share of 31.4% in the Euro area. Apparently, this feature is a product of the heavy reliance of the Greek economy on consumption.

Graph 3-5 Structure of Tax Revenues in Greece and the Euro area (2011)



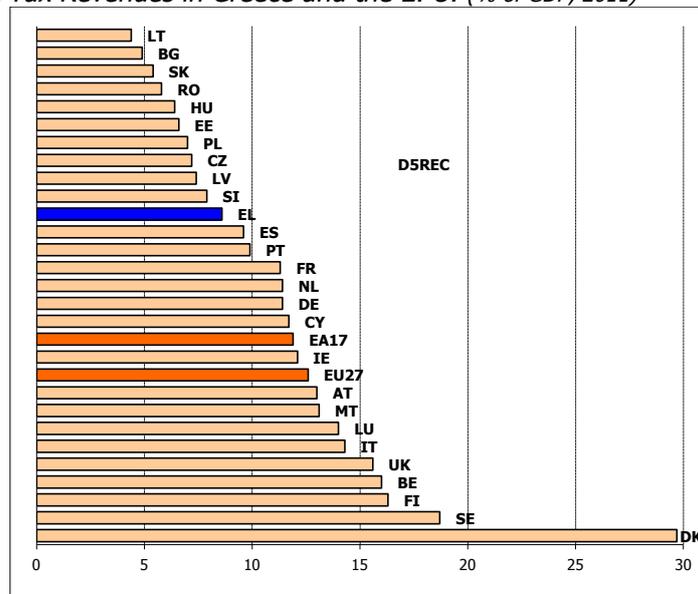
The reliance of the Greek tax system on indirect taxation has been a systemic feature for decades. Admittedly, the share of indirect taxation has been cut down since the 1990's, in contrast to the Euro area trend. However, the distance still remains (Graph 3-6).

Graph 3-6 Indirect Taxation in Greece and the Euro area (% of total-2011)



Direct taxation in Greece, on the other hand, has been well below the European average, as can be seen in Graph 3-7. Direct taxation accounts for 8.6% of GDP, about 30% or 3.3 p.u. lower than EA-17¹². Since personal and corporate income taxes are the main components of direct taxation (leaving out social security contributions), it would be interesting to try to locate the source of this discrepancy.

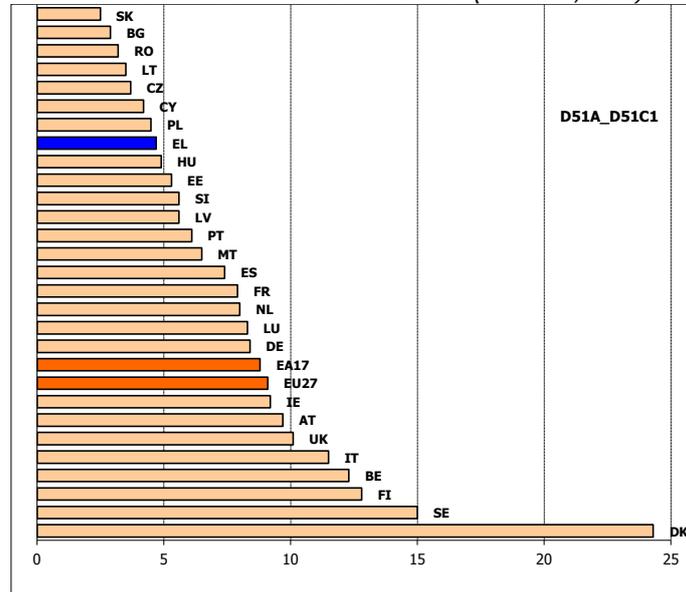
Graph 3-7 Direct Tax Revenues in Greece and the E. U. (% of GDP, 2011)



¹² Denmark appears as an outlier because social security contributions are part of income taxation.

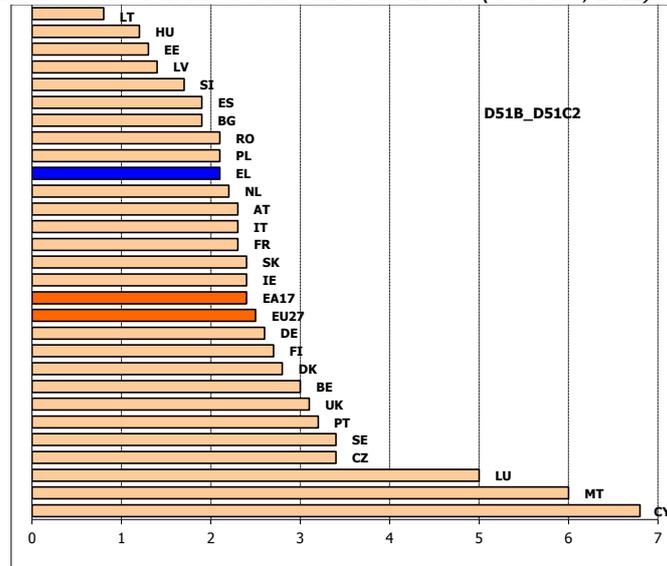
As can be seen in Graph 3-8, Greece lags significantly in personal income tax revenues (taxes on individual or household income, including holding gains) with a difference of just over 4 p.u. of GDP (4.7% against 8.8%).

Graph 3-8 Personal Income Tax in Greece and the E. U. (% of GDP, 2011)



On the other hand, corporate taxation (taxes on the income or profits of corporations, including holding gains) in Greece stands at 2.1% of GDP against 2.4% for the Euro area, with Luxembourg, Malta and Cyprus being the “outliers” with shares over and above twice the European average (Graph 3-9).

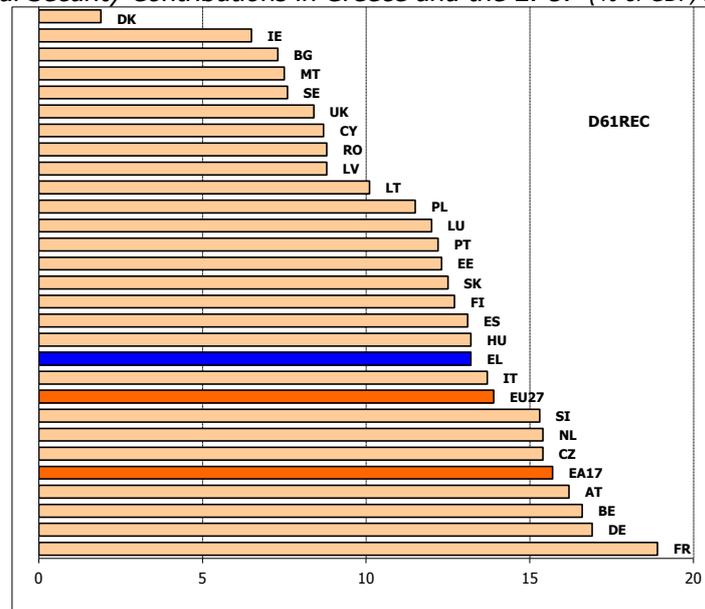
Graph 3-9 Corporate Income Tax in Greece and the E. U. (% of GDP, 2011)



Finally, Greece collects 13.2% of GDP from social security contributions, which is only marginally on the low side of the Euro area average of 15.7% of GDP (Graph 3-10).

Therefore, Greece is placed in the “central” group of countries with respect to social security contributions.

Graph 3-10 Social Security Contributions in Greece and the E. U. (% of GDP, 2011)



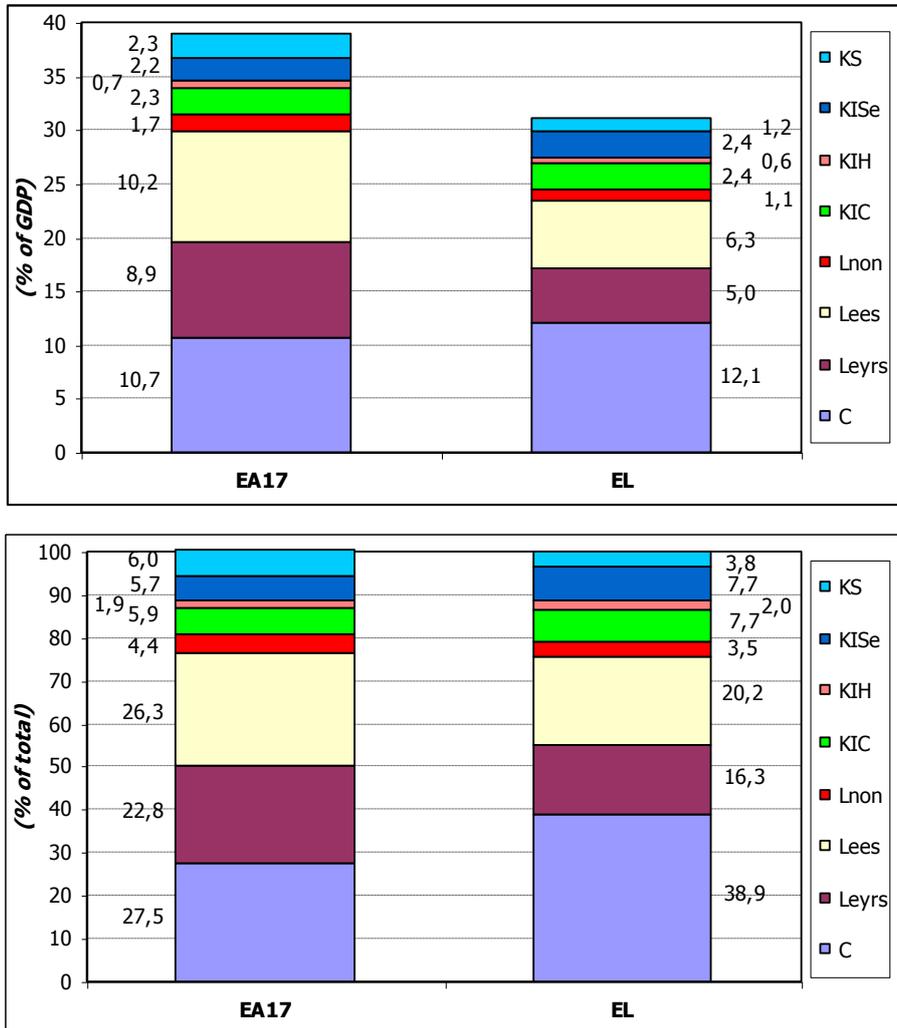
3.2.2 Structure by economic function of tax

Turning to the examination of taxation by economic function, which refers to the tax base the tax is imposed on, Graph 3-11 reveals that in Greece consumption taxes generate revenues equal to 12.1% of GDP compared to 10.7% in the Euro area. This, in effect, means that consumption taxes account for almost 39% of total tax revenues, way above 27.5% of the Euro area.

In contrast, taxation on labour incomes renders a meek 12.4% of GDP, 40% lower than the EA-17 average of 20.8%. Therefore, although labour taxation is the most important element in Greek tax revenues, it is not as crucial as in EA-17, where it accounts for 53.5% of tax revenues. The difference in labour taxes is equally distributed between employers and employees.

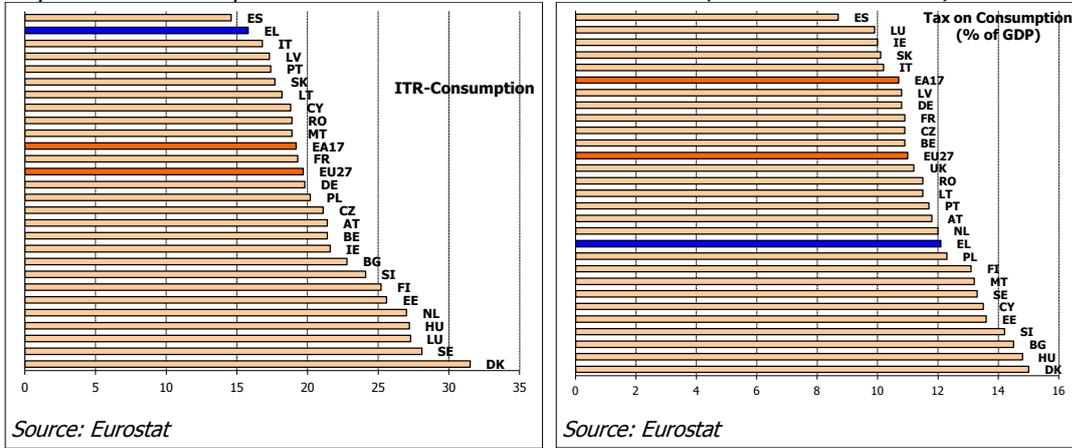
Capital taxation in Greece yields 6.6% of GDP compared to 7.5% in the Euro area, contributing 21.1% and 19.5% to total tax revenues, respectively. However, the picture changes significantly if we distinguish between taxation of capital incomes and taxes on capital assets. In particular, taxes on corporate, household and self-employment capital incomes in practice generate similar amounts of revenues in terms of GDP (2.4%, 0.6% and 2.4% in Greece, compared to 2.3%, 0.7% and 2.2% in EA-17, respectively). On the other hand, taxation of capital assets (stock of wealth) in Greece yields 1.2% of GDP, almost half of the respective ratio in EA-17 (2.3%).

Graph 3-11 Structure of Taxation by Economic Function (2010)

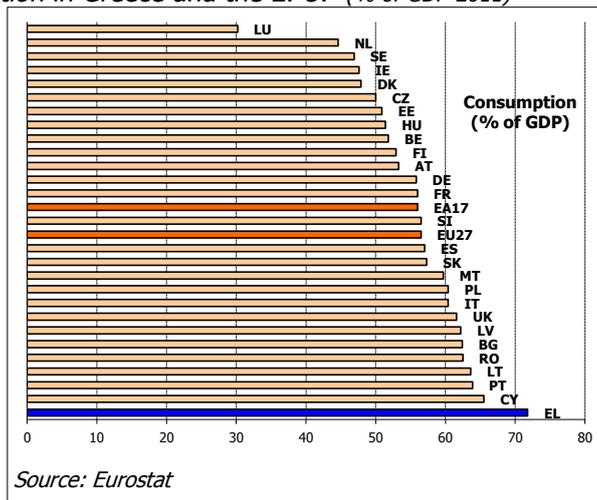


A high rate of taxation is the first "suspect" that comes to mind for the high contribution of consumption taxes to total revenues. However, as can be seen in Graph 3-12, Greece has the second lowest consumption Implicit Tax Rate (ITR) in EA-17, while it is significantly above average with regard to the respective revenues to GDP ratio. In particular, Greece has an ITR of 15.8% (19.2% for EA-17), which yields revenues equal to 12.1% (10.7% for EA-17). This should be attributed to the very large tax base in Greece, whereas consumption accounts for 71.8% of GDP, compared to 56% for EA-17 (Graph 3-13). Actually, in Greece consumption presents the highest share of GDP in the Euro area. Greece stands out as an outlier (Luxembourg being also an outlier at the other end of the scale). This, combined with high levels of imports, has consistently been pointed out as a major indication of structural weaknesses of the Greek economy.

Graph 3-12 Consumption Taxation in Greece and the E. U. (ITR and % of GDP-2010)

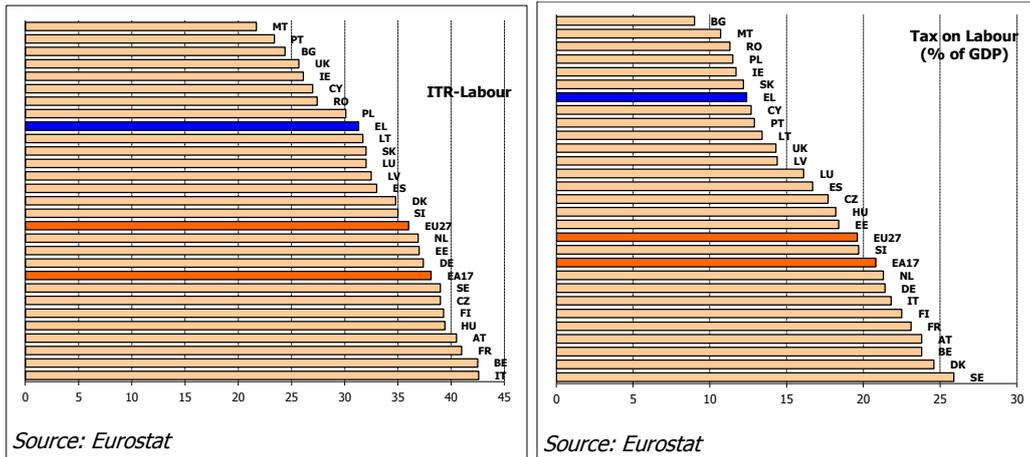


Graph 3-13 Consumption in Greece and the E. U. (% of GDP-2011)



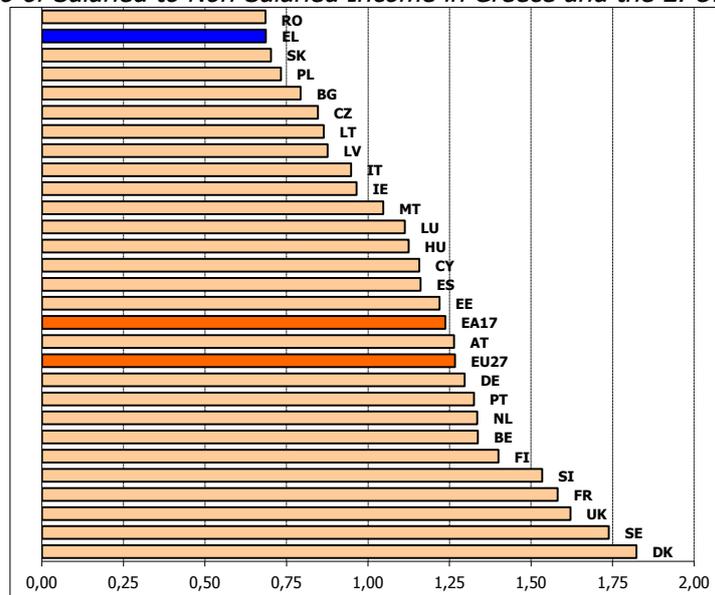
Similar problems appear when we examine labour taxation. As can be seen in Graph 3-13, the implicit tax rate on labour in Greece stands at 31.3%, compared to 38.1% for the Euro area. Although this is a considerable difference, it can account for the huge deviation from European average with respect to revenues, shown in the second part of Graph 3-13.

Graph 3-14 Labour Taxation in Greece and the E. U. (ITR and % of GDP-2010)



In Greece, tax receipts from labour stand at about 60% of the Euro area average. Revenues amount to 12.4% of GDP, one of the poorest performances against the Euro area average of 20.8%. One may argue that this is not necessarily a defect and such an argument would be quite valid if the low yield of the tax owed to low tax rates. However, it is the narrow tax base that accounts for low revenues rather than the low tax rates. In Graph 3-14 we present the ratios of compensation of employees to gross operating surplus and gross mixed income, in order to show the extension of salaried employment in the economy. Greece presents the second lowest ratio in EU-27 and the lowest in the Euro area. This is a serious sign of some structural malformation, which, among other things, deprives the state of resources that will have to be replenished by the relatively extensive capital income activities.

Graph 3-15 Ratio of Salaried to Non-Salaried Income in Greece and the E. U. (2010)



In addition, we should notice that Greece is in the group of the EU-15 countries, which traditionally present high statutory Personal Income Tax rates (Table 1). A high top rate for Greece, however, is combined with the lowest ITR on labour. This may imply that top rates apply only to a very small part of the taxpaying population, which in turn could be an

indication of tax evasion. Moreover, high top rates may potentially put a pressure on skilled labour supply.

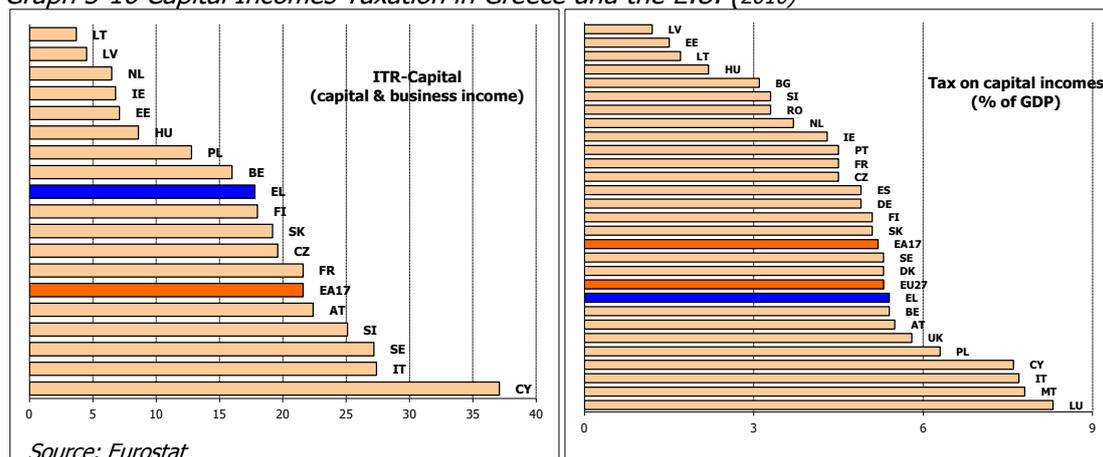
Table 1 Top PIT Rates in Europe

Rate	Progressive	Flat
1–10%	Albania, Bosnia-Herzegovina, Bulgaria	Bulgaria, FYROM
11–20%	Isle of Man, Serbia, Ukraine	Belarus, Czech Republic, Guernsey, Hungary, Jersey, Lithuania, Romania, Russia, Slovakia
21–30%	Estonia	Latvia
31–40%	Croatia, Gibraltar, Malta, Poland, Switzerland	
41–50%	Austria, Belgium, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Norway, Portugal, U.K.	
51%+	Denmark, Netherlands, Spain, Sweden	

Source: KPMG International "Individual Income Tax and Social Security Rate Survey", 2012

With labour incomes underperforming in the Greek economy, let us turn to capital incomes to examine whether they compensate, at least with respect to revenues. In Graph 3-16 we notice that the overall ITR of capital and business income stands at 17.8% compared to 21.6% for the Euro area.

Graph 3-16 Capital Incomes Taxation in Greece and the E.U. (2010)



On the other hand, revenues amount to 5.4% of GDP, compared to 5.2% for EU-17. The revenue performance seems disproportionately high compared to the ITR, but one has to bear in mind the relative size of the sector generating these incomes. In fact, a breakdown of this category reveals that Greece, in terms of corporate, self-employed and household capital and business income receives revenues slightly higher than the EU-17 average for the first two categories and slightly less for the last one (households) (see Table 4 in the Annex).

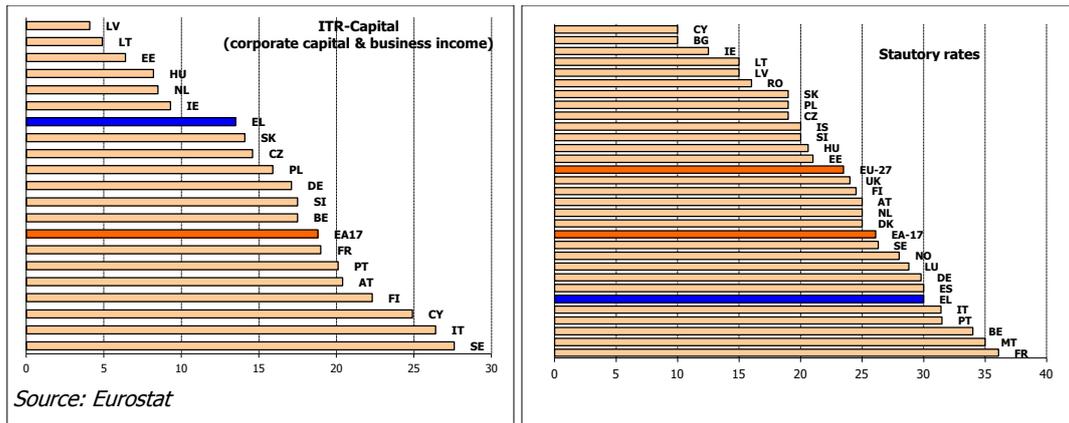
In any case, these figures should be interpreted with caution, given the discrepancies between statutory rates and ITRs. These discrepancies result from the tax bases that are used for the calculation of ITRs, as well as the catholicity of the application of statutory rates in full. As can be seen in Graph 3-17, statutory rates may differ widely from the ITRs of Graph 3-16, reflecting the implementation specificities in each country¹³. Moreover, it seems

¹³ Eurostat and the OECD quote quite different statutory rates due to different methodologies.

that over time, ITRs were reduced less than statutory rates, but the difference cannot be explained satisfactorily by changes in the tax base¹⁴. In the case of Greece, the statutory rate stood at 30%, much higher than the 13.5% of the estimated ITR. A similar albeit smaller difference is observed in the Euro area (ITR at 18.8% against a statutory rate of 26.1%). However, it should be noticed that the “old” EU-15 countries present in general higher rates than the newly acceded countries, although there are exceptions (see Table 5 in the Annex).

¹⁴ See Elschner and Vanborren (2009).

Graph 3-17 **Corporate ITR and Statutory Rates in Greece and the E.U. (2012)**

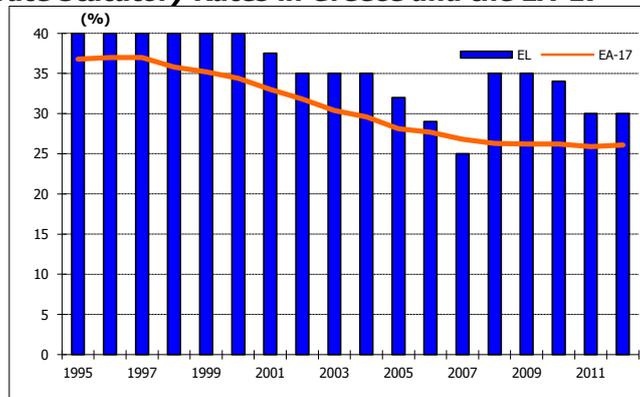


3.3 The Greek Income Tax System: Rates, Modalities and Specificities

Income tax in Greece has been admittedly highly fragmented and nontransparent and is characterized by high volatility, as statutory rates in personal and corporate income taxation change frequently. Moreover, it is evident that the tax base had been eroded by a large number of tax allowances and credits. The ongoing income tax reform aims at significantly improving the situation. Before the reform income taxation was structured around the concept of taxing entities. The tax base was determined in combination with who was to be taxed. In this sense, income taxation was split in personal and corporate taxation, usually having different treatment depending on the nature of the entity.

Corporate income taxation (CIT) is quite complex due to the many different types of legal entities, the complicated legislation for determining the tax base and the large number of tax expenditures. According to the 2013 State Budget Report, there are 193 cases of tax expenditure, relating to different sectoral or geographical conditions, investment laws, treatment of financial transactions etc. CIT rates have demonstrated a marked decline since the 1990's, in the aftermath of the fiscal convergence effort (Graph 3-18), following more or less the mainstream of European trends. This was reversed in 2008, when rates jumped from 25% to 35 %, but despite the crisis they returned to a downward trend, higher but close to the EA-17 average.

Graph 3-18 **Corporate Statutory Rates in Greece and the EA-17**



Until 2013, personal income taxation included seven sources of income: rents, sole proprietorships, agricultural proprietorships, salaries/pensions, and liberal professionals. Incomes from these sources would be added and taxed separately for each individual taxpayer. Except from these incomes, a number of incomes were taxed autonomously at different rates. Moreover, imputed taxation has been imposed on personal incomes, inferring incomes from assets or standards of living and leading to a minimum income that should be declared. In addition, some incomes (e.g. rents) have been subject to additional taxation, depending on the source. The tax base was established after a basic allowance was subtracted, as well as further specific allowances for dependent members of the family, for handicapped people, rents, housing loans interest etc. Overall, the 2013 Budget Report records 224 cases of PIT tax expenditures. The resulting tax obligation was then reduced after a number of tax credits were accounted for. The final amount due was estimated after the difference between tax advances, as well as other surcharges, stamp duties etc were also taken into account.

The tax rates, as we saw earlier, followed the mainstream of the Euro zone countries, at least as far as the top rates are concerned. As shown in Table 2, the top rate in the last ten years (2003-2012) was increased from 40% (2003-2009) to 45% (2010-2012)¹⁵. The number of the income brackets/rates has changed three times, while bracket incomes have been readjusted four times. For the best part of the decade the number of tax rates were three (four accounting for the 0% rate that established the basic tax allowance) with the top rate set at 40%. In 2010, the number of rates rose to eight (nine), apparently in an effort to smoothen out the progressivity rate. At the same time, the marginal rates were reduced for incomes up to €22,000, while higher incomes were taxed more and the top rate reached 45%. In the following years, until the 2013 reform, the number of the rates was reduced by one.

Table 2 PIT tax rates 2003-2013

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Rate (%)	0	0	0	0	0	0	0	0	0	0	22
Threshold	10.000	10.000	11.000	11.000	12.000	12.000	12.000	12.000	5.000	5.000	25.000
Rate (%)	15	15	15	15	29	27	25	18	10	10	32
Threshold	13.400	13.400	13.000	13.000	30.000	30.000	30.000	16.000	12.000	12.000	42.000
Rate (%)	30	30	30	30	39	37	35	24	18	18	42
Threshold	23.400	23.400	23.000	23.000	75.000	75.000	75.000	22.000	16.000	16.000	...
Rate (%)	40	40	40	40	40	40	40	26	25	25	
Threshold	...	...	...	...	...	...	...	26.000	26.000	26.000	
Rate (%)								32	35	35	
Threshold								32.000	40.000	40.000	
Rate (%)								36	38	38	
Threshold								40.000	60.000	60.000	
Rate (%)								38	40	40	
Threshold								60.000	100.000	100.000	
Rate (%)								40	45	45	
Threshold								100.000	...	...
Rate (%)								45			
Threshold								...			

¹⁵ Rates refer to incomes of the previous year. 2013 is not comparable due to the introduction of a tax credit.

Until 2010, there had been a rather generous basic personal allowance of ten to twelve thousand Euros, available to all taxpayers. In 2011, the basic allowance was significantly reduced to five thousand and remained there in the next year before it was revised in the context of the income tax reform. It is reminded that in 2013 the introduction of a tax credit is equivalent to a tax allowance of almost €9.500.

In general, the tax burden, in terms of the theoretical average tax rates estimated on the basis of statutory rates (Graph 3-19), seems to have declined systematically for all incomes until 2009. For incomes up to €50,000 the decline continued in 2010 and then there was an increase for all incomes, although the tax burden returned to the 2003 levels only for incomes of €40,000 or more.

Graph 3-19 Theoretical average PIT rates for indicative income levels

This situation is quite different if we examine the actual average rates (Graph 3-20), i.e. the effects of tax allowances and credits are included, where we discover that the decline of the tax burden was slightly reversed just in 2012 and that only for middle incomes.

Graph 3-20 Actual average PIT rates for indicative income levels

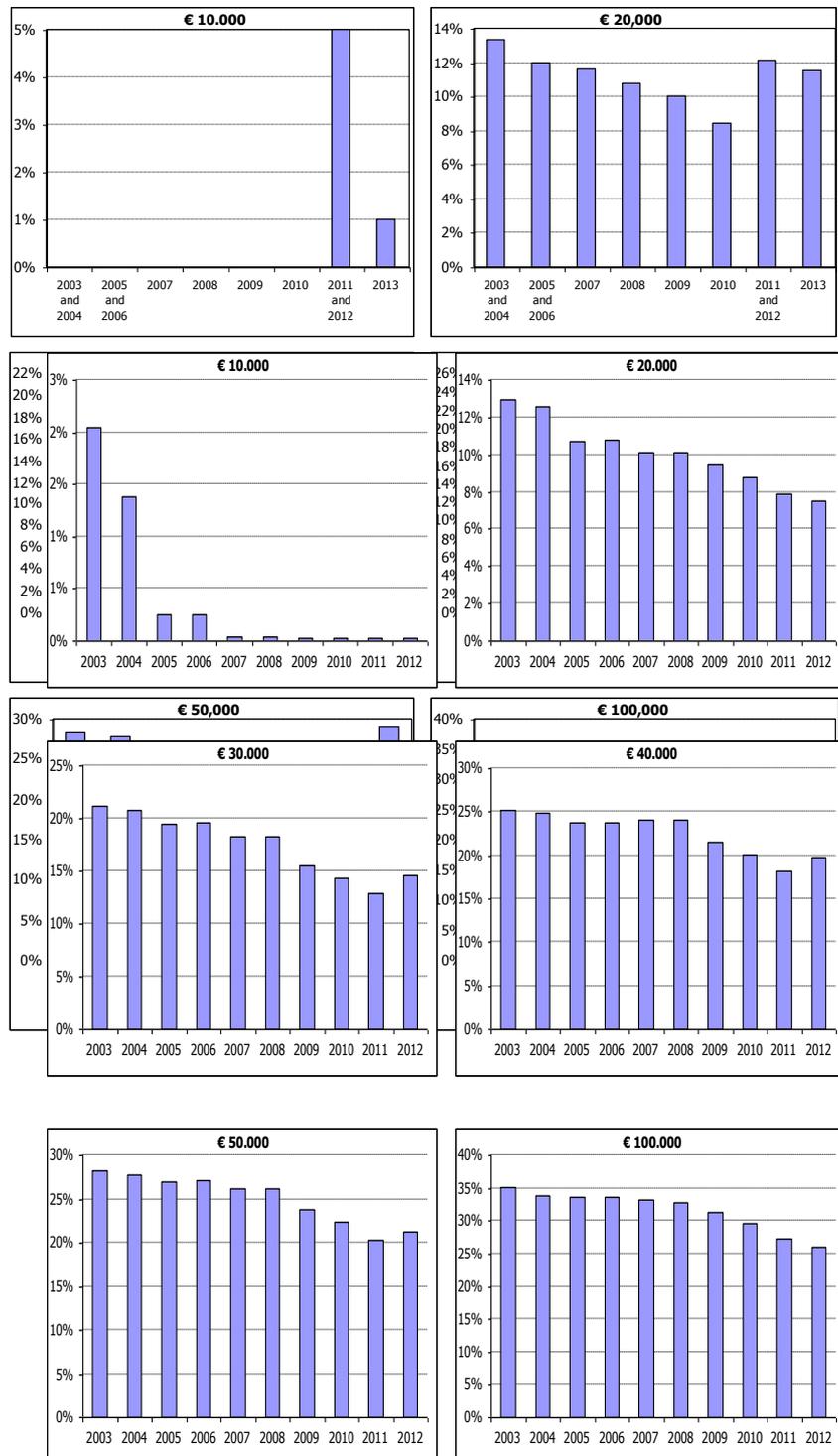
If theoretical average rates are an indication of the tax policy maker's intentions, then we may have a possible conflict between intentions and outcomes, or how tax rates are eroded by tax expenditures. This may also be a possible indication of ineffective redistribution of income through taxation.

3.4 Distributive aspects of PIT

It is quite risky to assess income distribution through tax data mainly for two reasons: first, the coverage of PIT tax returns is not all inclusive for incomes (by law not necessary to declare)

second, returns

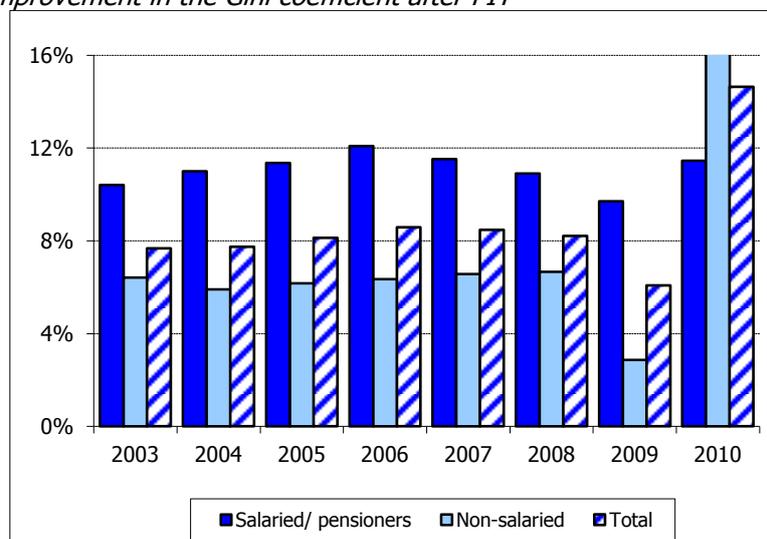
and tax heavily



underreport incomes, especially those of sole and farming proprietorships and liberal professionals (non-salaried activities). As can be seen in Table 6 of the Annex the Gini coefficients estimated using tax returns data differ significantly from those reported through the SILC survey of Eurostat¹⁶. It must be stressed that after-tax Gini coefficients for salaried employees and pensioners are quite close to the SILC estimates, but there is a huge difference for non-salaried people. This might indicate either a bias of the survey or poor tax data. However, we can still make use of tax data if we assume that whatever errors are consistent throughout the time period.

In Graph 3-21 we have estimated the change in Gini coefficients for salaried and non-salaried individuals, as well as for the total population of taxpayers. More impressive than the small improvement of the after-tax Gini coefficients (well below 10%), is the fact that there is a marked increase of redistributive ineffectiveness in 2008 and 2009, while in 2010, when the general basic allowance was reduced we notice a marked improvement in the after-tax distribution, owing mainly to the non-salaried population. With the exception of 2010, we note a much smaller improvement for non-salaried persons and this may be due to their consistent concentration in the lower income brackets. Also, for 2009 and 2010, the years of the crisis, the Gini coefficients practically show no change in the distribution of income¹⁷.

Graph 3-21 Improvement in the Gini coefficient after PIT



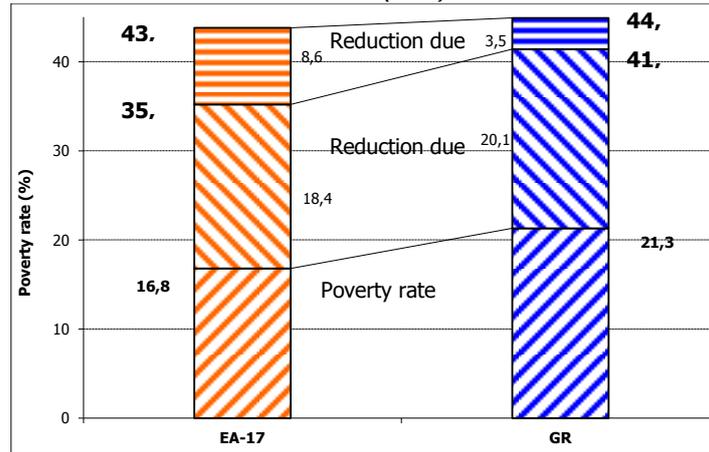
If income redistribution through taxation is limited, one might expect that public spending would compensate for this. However, as can be seen in Graph 3-21, while monetary poverty in Greece is only marginally higher than that of EA-17 and although pensions play a significant role in moderating it, when it comes to social transfers the poverty rate is reduced

¹⁶ Frangos and Filios (2004), using tax data but for a different time period, also report higher Gini coefficients.

¹⁷ These finds are more or less in agreement with Matsaganis and Leventi (2007).

by less than 8% (3.5 p.u.), less than half of the EA-17 average¹⁸. This is a serious indication of the ineffectiveness of public spending in redistributing income.

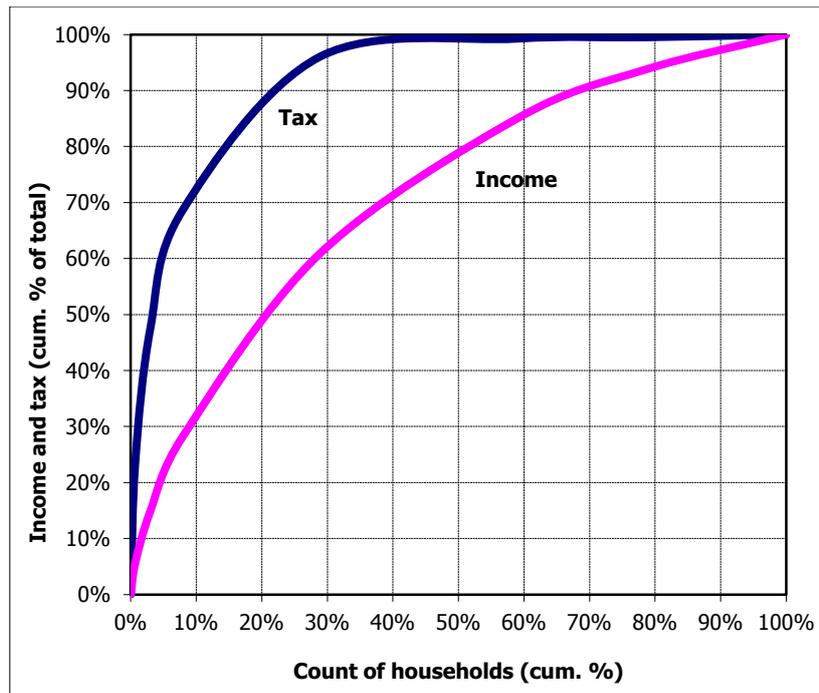
Graph 3-22 The effectiveness of social transfers (2011)



According to the 2011 PIT data (incomes of 2010), total income declared amounted to €97.9 bn., which was raised to €103.7 bn. through imputed taxation (i.e. by €5.8 bn.). Tax allowances amounted to €6.7 bn. Tax credits cost €1.6 bn. (against claims of €2.2 bn.), after which total tax assessed added up to €7.3 bn. This calculates to an average tax rate (tax over income declared) of just 7.5%. How was this tax burden distributed? High incomes, i.e. households with over €42,000 p.a. (excluding social security contributions), account for 28.2% of total incomes declared. These incomes, belonging to just 7.9% of the total number of households, pay 68.6% of total taxes.

Graph 3-23 The distribution of incomes and taxes of households (2011)

¹⁸ Despite the fact that social expenditure is very close to the European average (see Table 7 in the Annex).



If we move up to households exceeding €100,000 p.a., then we find out that they are just 0.7% of the total, their income is 5.6% and they pay 23.5% of the taxes, more than four times what their proportion to total income would suggest. Whether this situation, depicted in Graph 3-23, could be characterized as “fair”, is more a less a matter of value judgment and something we shall discuss in the next sections. Whether it contributes to the adequacy of revenues, a simple calculation would reveal the following. If the state needed an extra billion and decided to collect it from the wealthy households alone, say over €60,000, it would have to charge on average an extra €5,904 p.a. (with the average rate moving up from 18.3% to 28.6%, which would require a marginal rate of about 55% above €60,000).

A crucial feature of the Greek PIT system is its dependency on salaries and pensions. Employees and pensioners form 64% of the PIT population, they declare 82% of total income and they pay 78% of the tax (2011 data). The average income declared by this category is €15,215, much higher than the €5,771 that the rest declare. It is striking that from the non-salaried category 62% declare incomes up to €5,000 (the basic tax allowance) and only 7% declare incomes over €10,000. This compares to employees and pensioners who declare over €10,000 at a percentage of 37%. The explanation, of course, can be simple. Tax evasion in the non-salaried activities is encouraged by the high marginal tax rates and at the same time it can find refuge to the low rates normally reserved for low-income salary earners and pensioners. Moreover, the tax system seems to have supported in this way the structural distortion of low value added by salaried employment, as we saw earlier.

3.5 The 2013 income tax reform in Greece

In late 2012 the government undertook an effort to reform the income tax system. The first phase of this effort was concluded in January 2013 with Law 4110/13, which introduced major changes to income taxation. In short, these changes were the following:

- a) PIT focuses on incomes rather than persons.
- b) Transfer of the entrepreneurial part of the tax base from PIT to CIT.
- c) Introduction of a three-bracket PIT schedule and substitution of the basic tax allowance by a tax credit.
- d) Abolition of most tax allowances and tax credits, most notably that for children, which was replaced by means-tested grants.
- e) The introduction of a single rate for all incomes subject to CIT, irrespective of the legal form of the firm (with an exception for sole proprietorships and liberal professionals who are subject to a two-rate scale).
- f) Simplification of certain CIT elements, such as depreciation rates.

The second phase of the tax reform includes the simplification of all legislation and procedures regarding income taxation.

Without going into detail about the features of the new system, it is worth examining the direction the new system has taken. Is it more flat tax-like, or is it a simple parametric modification of the existing system? Is it more effective in collecting revenues? Is it friendlier to investment and growth? In general, how does it compare to the previous system and to the flat tax system? To answer these questions we must first introduce the flat tax rate system.

4. What is a Flat Tax?

4.1 Enter the Flat Tax

A flat tax rate system is a generic term for applying a proportional rate to a tax base. It includes quite a few versions that may differ significantly between them. There is the "*pure flat tax*", which is applied across the economy with no allowances or credits. When deductions are allowed for what we actually have is a "*marginal flat tax*", which in effect is a progressive tax with a single rate. The more and the higher the deductions, the more progressive the tax system becomes. In the "*X-tax*" of Princeton's Prof. Bradford¹⁹, progressive rates are allowed for salary earners. Milton Friedman's "*negative income tax*" is an advanced version of the marginal flat tax, whereas deductions exceeding income entitle the taxpayer to a refund equal to their difference times the tax rate. A "*capped flat tax*"

¹⁹ Bradford (2004).

would apply up to a threshold after which income would go untaxed or would be taxed at a lower than the basic rate. This, in fact, is a regressive tax. The many variants of these basic versions show that flat tax is a lively theme of research, policy analysis and dispute.

The modern versions of a flat tax are traced back in the seminal work of Hall and Rabushka of the Hoover Institute in the early 1980s²⁰. The authors accused the USA income tax system of a number of inefficiencies and dysfunctions: profoundly complex and incomprehensive, overly costly in administration and compliance, conducive to tax avoidance and evasion and unfriendly to productive business, the system presented major drawbacks that had to be rectified. The main issue in the debate about a flat tax has been that of the trade-off between efficiency and equity. Hall and Rabushka dismiss this trade-off suggesting that a flat tax can be both efficient and fair. This is so, because it is actually a consumption tax, whereas taxpayers are charged according to what they take out of the economy and not what they put in.

The proposed system envisaged integrating the personal and corporate income tax by effectively abolishing all tax allowances, credits, exemptions and any such distortionary schedules and introducing a (low) universal proportional rate²¹ that would be applied only once to the taxable income. This would lead to an extremely simple system with very low compliance costs that could promote efficiency and equity and boost investment and growth.

In particular, Hall and Rabushka envisaged a system that would

- Tax incomes not saved. The functioning of the system actually refunds indirectly whatever tax is paid on income saved/invested.
- Tax incomes only once and as close to the source as possible, thus avoiding double taxation, e.g. at the company level (profits tax) and the personal level (tax on dividends),
- Tax incomes from different sources at the same rate, thus avoiding tax shifting,
- Tax incomes of the same source at the same rate, thus equalizing marginal rates and removing disincentives in labour and capital demand and supply.

The uniform rate allows incomes to be taxed at the source and not the destination, as a progressive tax would demand. This, in turn, simplifies things to a great extent, since it makes tax shifting meaningless and removes all complexities from tax assessment and audits.

Incomes are distinguished in two categories: wages, salaries and pensions is one class and the other is business income, including income from personal businesses, corporate income,

²⁰ The development of a flat tax system was initiated at the Hoover Institute and a complete analysis may be found in Hall, R. and A.E. Rabushka (1995).

²¹ Hall and Rabushka set it at 19%.

earnings of executives, fringe benefits, rents, royalties and income from financial sources and capital gains. This distinction is made for practical purposes, since each category will file its own tax return with different items used for the transition from total to taxable income. Tax returns will become so simple that the proponents of this system refer to a tax return no bigger than a postcard. The simplicity of the system combined with low tax rates is expected to maximize tax compliance and minimize operational costs.

In the flat tax rate world, personal income tax is in fact tax on wages, salaries and pensions alone. Any other income is deemed as business income. Personal incomes are provided with an income allowance, which depends on family status. This is the only tax benefit foreseen in the system. All other income allowances and tax credits are considered to contribute to the complexity of the system, introducing undesirable inefficiencies. Similarly, any other incomes are not dealt with in this tax return. Instead they are picked up by the business tax return.

Business tax encompasses all entrepreneurial activities, corporate and non-corporate alike. Taxable income is simply the difference between gross revenues and production/sales expenses. The latter include only personnel remunerations (but not fringe benefits), purchases of goods and services and expenditure on other means of production, i.e. land, buildings and equipment. Big chunks of the business legislation are done away with, since, for example, depreciation of capital assets is set at 100% (in the year of acquisition) and losses are carried forward indefinitely. Hall and Rabushka give particular emphasis on business taxation and have found ample support from those who consider that corporate taxation has unfairly been a politically convenient target, due to tax invisibility and the "easy" money that can be collected (Edwards, 2003).

A characteristic lineament of the Hall and Rabushka proposal is the total elimination of interest, both as a deductible (for the borrower) and a taxable (for the lender) item. This applies as much to households as to firms. Since one principle of the flat tax system is taxing only once, a household (firm) would not deduct any interest payments on a housing (business) loan and would receive full interest from interest paying assets. Therefore, interest is taxed only once when it does not appear in the expense account of the borrower. This would result to an increase in the income of lenders and a decrease to that of borrowers, which should be equal to the tax imputed in each case. In this vein, the borrowing bank would not reduce profits by interest payments it would make, but neither would it report interest received as taxable income. The problem here is that financial income is a bank's main line of business. Hall and Rabushka tackle this glitch that appears in the system in a way that seems to depart from the simplicity of the system. In particular, they require that banks (and all financial institutions, for that matter, such as insurance companies) report the profit margin that we normally find embodied in the borrowing and lending interest rates (for what they call "bundle of banking services"). In practice, to determine the "real" market

interest rate and compare it to the respective nominal borrowing or lending rate is no easy task and, certainly and can be a point of contention with the financial sector. We shall return to this point later on. In general, there is a whole line of arguments about the treatment of financial transactions and the issue may be considered to remain open²².

Another significant feature of the flat tax is that Hall and Rabushka explicitly require that all incomes generated within the country be taxed. The object of the tax would be the value of domestic sales and exports minus the value of domestically purchased inputs and imports. This rule combined with the exclusion of interest from the expense account of firms certainly seems to curb the problem of capital transfers in the form of loans from affiliated firms abroad so that the domestic firms benefit from incredibly high interest payments. Moreover, it seems that low flat tax rates weaken the incentive for transfer pricing, thus reducing significantly a serious problem in today's globalized business world. In fact the problem is transferred to the countries with high tax rates and this brings us back to the competition vs. harmonization issue. The flat tax system implicitly seems to favour harmonization at low rates.

A point of harsh criticism of a flat tax has been its lack of fairness. To many analysts and laymen alike, lack of (a high degree of) progressivity means lack of fairness, even lack of democracy. Could it be so? In the following section we shall try to clarify things and dispel possible misconceptions.

4.2 How should the tax burden be allocated?

The prevailing principle in modern societies follows Mill's general doctrine that "*Equality of taxation, (...), as a maxim of politics, means equality of sacrifice*". Equity, therefore, enters as a political decision and this leaves "equality of sacrifice" to be defined. Such a line of thinking would, therefore, exclude options such as everyone paying exactly the same amount of taxes, despite everyone consuming by definition the same amount of public good. Such an approach would lead to a lump-sum tax in the economy and, in effect, to regressive taxation.

In simple terms the analysis goes as follows: The crucial variables are the marginal utility of public consumption and the marginal disutility of income foregone in the form of taxes. If the poorer enjoy higher utility from public consumption relative to the richer, then they should sacrifice more. This is an assumption that cannot be supported by fact, since welfare cannot be measured. One may argue that the poor enjoy consumption of publicly provided goods more than the rich, since they would not be able to consume them otherwise. However, in the case of pure public goods such as defence or justice, there is no good reason why this would be so. On the contrary, the argument turns the other way around, since the richer could lose more in the absence of such goods.

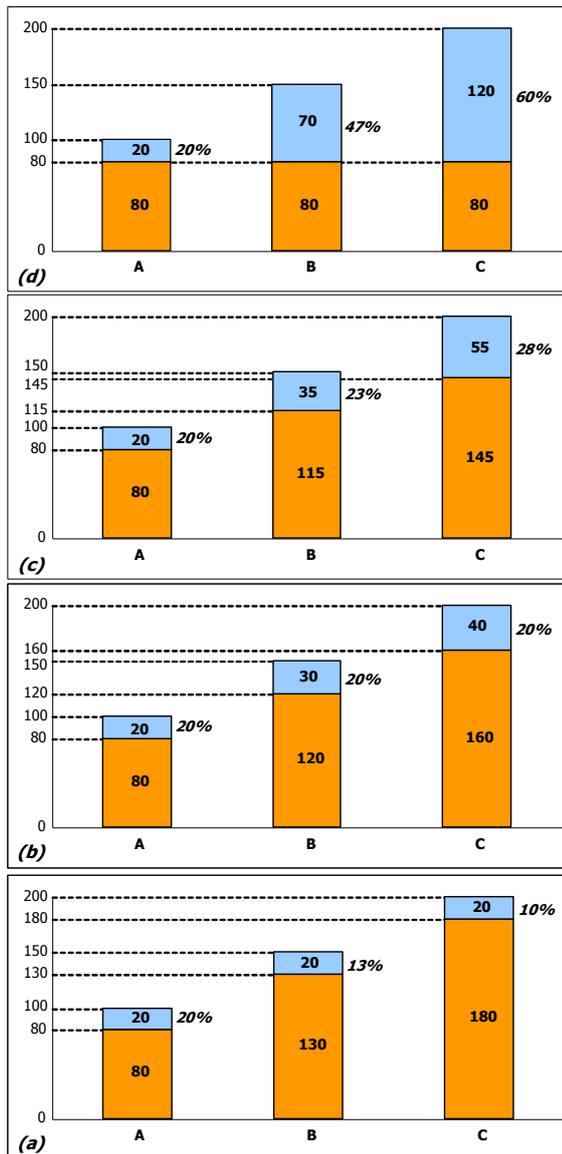
²² For a useful discussion see Bankman and Schler (2005).

Referring to the marginal disutility of taxes, the question boils down to this: Do the rich value each additional euro more, the same or less than the poor? Common sense dictates that the case is that it is the poor who value each additional unit of income more than the rich. However, we are not in a position to know exactly how much more. The above lead us to the conclusion that the poor may or may not enjoy higher marginal utility from publicly provided goods. If the case is that they do, then they should sacrifice more utility through taxes, which, however, by no means implies that they should sacrifice more monetary income. It is evident that the analysis is inconclusive. Whichever decision has to be made in political terms and this, of course, tells us nothing about the efficiency or the fairness of the decision.

The benefit principle has no practical value in a world where public goods consumption and tax payment are obligatory. The ability-to-pay principle satisfies the horizontal equity principle, which dictates that individuals under similar circumstances should bear equal tax burdens. However, ability to pay rests not only on preferences generated by the level of income, but on factors such as family status, health condition et al. All these may be taken into account, not necessarily through the tax system. If horizontal equity is extended to, or complemented by, vertical equity, in order to accommodate for people with the same income but facing different conditions, then it is possible to move to even higher tax rates for the wealthier. A flat tax would satisfy horizontal equity but a progressive tax would be necessary to meet vertical equity considerations. Under a flat tax the richer would have to pay more than the poor in proportion to their incomes. Under a progressive tax the poor would have to pay a smaller share of their incomes for taxes. In this case the tendency is to equalize incomes (utilities after tax) and not utilities sacrificed. As we saw earlier, however, there is no reason to believe that this is the "fair" treatment, unless we accept specific assumptions: lower incomes enjoy an additional unit of publicly provided goods no more than the rich and an additional unit of income foregone in tax payment means more to the poor than the rich.

In general, we could expect that individuals may be subjected to a) the same loss of income in absolute terms (welfare losses probably higher for the poorer), b) a proportional to their incomes loss of incomes (welfare losses lower, the same or higher for the richer, depending on the relationship between income and utility), or c) increasing losses of income for the richer (welfare losses probably higher for the richer). Let us not forget that whatever welfare losses from taxation must be netted out by welfare gains from consumption of publicly provided goods. The tax schedules that result from the above analysis are illustrated in Graph 4-1 below.

Graph 4-1 Tax=Monetary Income Foregone. How Much?



As can be seen in Graph 4-1(a), taxpayers A, B and C, with incomes of 100, 150 and 200 respectively, are subjected to a tax of 20 units. Each taxpayer pays a tax equal to 20, which represents decreasing shares of their incomes, 20%, 13% and 10%, respectively. This tax is clearly regressive, unless the marginal utility of income is increasing. In the second case, (b), we have a flat tax rate of 20%, which results in paying increasing sums of tax. Foregone utility, more probably than not, is either equal or higher, the higher the income. If utility decreases sharply when income rises then we have case (c), whereas not only tax in absolute terms increases with income, but also its proportion to income (from 20% to 28%). This is the case of progressive taxation, which may be extended to an ultra progressive regime (in part (d)), whereas taxation increases rapidly enough to leave everybody with the same after-tax income (and presumably equal utilities, although welfare losses for the richer are higher).

4.3 How does the income tax reform relate to the flat tax?

4.3.1 Flat taxes in Europe

The flat tax system has never been popular around the world, with a few territories and even fewer countries having adopted some form of it before the 1990's²³. It was after the independence of ex-Soviet states and the transition of many European countries to market economy that brought the flat tax system in the limelight. Estonia was the first to lead the way in 1994, with other countries and most notably Russia following suit. Of the nineteen European states currently applying flat rates, only eight belong to the European Union and only one to the Euro zone. There are no of the "old" EU-15 countries (Table 3).

Table 3 Flat rates in the European countries

Albania	10%
Andorra	10%
Belarus	12%
Bosnia & Herzegovina	10%
Bulgaria	10%
Estonia	21%
Guernsey	20%
Hungary	16%
Jersey	20%
Latvia	25%
Lithuania	15%
FYROM	10%
Montenegro	9%
Romania	16%
Russia	13%
Serbia	12%
Ukraine	15%
CzechRepublic	15%
Slovakia	19%

Bulgaria applies a flat rate of 10% on personal and corporate income (with a different regime for sole proprietors), while interest and dividends are tax exempt. The Czech Republic presents a flat tax rate of 15% for all personal incomes, interest and dividends. An additional PIT rate of 22% for higher incomes was introduced in 2013. Estonia applies a flat rate of 21% on all types of incomes (including dividends, but excluding retained profits). Hungary's flat rate of 16% applies to all personal incomes (including interest and dividends) below a certain threshold. After that threshold the tax rate is applied to employers' social security contributions, thus increasing the effective rate to 20.3%. The corporate tax rate stands at 19%. In Latvia there is a flat rate of 25% on all types of personal income (including dividends and interest), with a 15% corporate rate (9% on turnover for small businesses). In Lithuania all incomes, including corporate income, are taxed at 15% (20% for dividends, 10% for small businesses). In Romania all incomes, personal and corporate are taxed at 16% (dividends are

²³ Jersey, Guernsey and Hong Kong since the 1940's (although for the latter there is ambiguity as to whether the tax system is really flat). Jamaica and Bolivia since the 1980's. (see Carone et al, 2007). Also various States of the USA and Canada.

exempt). Slovakia applies a 19% flat rate on all personal and corporate incomes. The corporate rate was raised to 23% in 2013 on the grounds of deficit reduction, while an additional personal tax rate of 25% was introduced for higher incomes. All countries applying flat tax rates also apply various kinds of tax allowances or credits of varying generosity.

This brief account of European flat tax countries demonstrates that the situation is far from uniform and a closer study of these systems would reveal that some of them are even on the verge of getting out of the club. We are far from witnessing a "global flat tax revolution"²⁴, let alone a "European flat tax revolution". Simply not enough countries, especially of some economic weight, are there, in order for the flat tax to reach a critical mass. However, there may be enough activity to start gaining momentum. Actual and simulated evidence from tax reforms in Europe is mixed²⁵. In general, it seems that labour supply is improved, while good growth performance in quite a few cases is impossible to attribute solely to the introduction of flat tax. On the other hand, there is evidence that high and increasing marginal rates have a negative impact on economic growth²⁶.

Flat tax reforms seem to have had adverse effects on income distribution, increasing the tax burden for the middle-classes. In this respect, Carone et al (2007) refer openly to "*fears of a failure to finance social model(s)*". This might explain why it has not been popular with the old EU-15 club, although Paulus and Pichl (2008) suggest that for this reason flat taxation might be desirable in the Mediterranean countries, where polarization of incomes is more pronounced. Of course, we must keep in mind that tax-induced deterioration of the income distribution may and should be reversed through reallocation of social spending, especially in countries like Greece, where it has been quite ineffective so far and there is considerable room for improvement. Furthermore, it is far from apparent which index of income distribution and to which degree it should be improved; as has been shown, monetary poverty indices pose serious problems. In a time of crisis, such as the one Greece has been experiencing, it might be understandable that high-income classes should carry most of the fiscal burden (in relative or absolute terms?). On the other hand, in the upswing matters become more complicated: if there is a trade-off between equality and growth, would it be preferable to have low and middle incomes move to a higher but less equitable level, or to reduce high incomes so that distribution is more equal but at a lower level for everybody? Even so, it is argued that in a grown-up, western-Europe type of democracy a flat tax rate would only bring about limited efficiency gains and a problematic redistribution of income (Fuest *et al*, 2008).

²⁴ See Mitchell (2007) and Evans (2006, 2008).

²⁵ For a review of studies see Paulus and Pichl (2008).

²⁶ See Emes *et al* (2001).

According to OECD (2011), while tax policy and, more importantly, means-tested benefits play a major role, it is the generation of well-paid jobs that could ultimately solve the problem of inequality. In this sense, growth and investment in human capital should be used to reverse income losses, especially at the lower end.

4.3.2 The 2013 income tax reform revisited

The Greek income tax system presents all the anomalies brought forward by Hall and Rabushka, in some cases in their most hideous form. The whole system rests on a complex of laws, presidential decrees and ministerial decisions and guidelines, which are further deciphered by private publications of manuals and software and implemented through organized offices or individual lawyers and accountants or their counterparts in the legal and tax departments of firms. The income tax legislation provides for over four hundred exemptions, allowances and credits with at least two hundred cross-referenced laws, which have accommodated for the pressures of numerous lobbies and pressure groups over the years²⁷.

Keeping of books and records has never been a simple job in Greece, although, somehow, not all professionals have been taxed according to them²⁸. At the same time, audits, settlements, penalties, court procedures, processing of returns and collection of revenues usually involve lengthy routines, which are often quite non-transparent. One must add to this the continual revisions of tax legislation, rules and procedures, of which the taxpayer has to be kept informed. This situation imposes an excessive waste of time and effort and a sizeable burden to the taxpayer. This is a superb environment to nurture tax avoidance, tax evasion and corruption. The end-result is that the allocative and distributive functions of taxation are heavily distorted, taxpayers always feel attacked by the tax system and the state never collects adequate revenues. Who gets to benefit, then, from such a system? Most certainly, rightfully or not privileged groups of taxpayers, along with tax evaders and corrupt state officials, plus all those who make a living from the complexity of the system.

If simplification and transparency are the objectives, is a flat tax the means to achieve them? Although a flat tax could work to this end, it is certainly not the only way to get there. One might successfully argue that simplification of the tax legislation can be attained without demolishing the progressive rate regime. However, we must make clear what exactly we mean by "progressive". Progressiveness may be introduced in the tax system in a number of ways. An obvious approach is marginal rates. A basic allowance is another option. But when additional allowances and tax credits creep in, then progressiveness becomes tailor-made for groups of taxpayers, hence almost impossible to measure; transparency is significantly

²⁷ As predicated by a mere reading of the 2013 State Budget Report on tax expenditure.

²⁸ With farmers being the shining example of how somebody may keep books and records and at the same time be taxed according to a different tax system which requires another set of accounts.

reduced and simplification is just not there, since for each tax expenditure there must be special legislation and implementing mechanisms. Moreover, if tax expenditures are not targeted, the redistributive aspect of progressive taxation is annulled.

At this point it must be also reminded that the progressive system has not been generating enough revenue because of the high concentration of taxpayers at the low end of the scale. This is not a fault of progressive taxation as such, except for the fact that high marginal rates may actually encourage income underreporting. For progressive taxation to be revenue efficient, the necessary precondition is that sizeable shares of total income are taxed at higher rates. The smaller these shares are, as in the Greek case, the higher tax rates must be in order to collect the necessary revenues and the higher the cost of moving to the upper rates becomes. This is clearly a vicious circle.

The new income tax system is supposed to rectify quite a few of the shortcomings of its predecessor and it gives the impression that it is a move towards a "flatter" tax system that did not quite get there. Let us elaborate on this.

The new income tax system focuses on incomes rather than tax paying units. In this sense it makes a step towards the Hall and Rabushka schema. Moreover, PIT now pertains to incomes from salaries and pensions alone, which is another clear approach to a flat tax. The number of tax rates is reduced to three²⁹, while the basic tax allowance is replaced by an elaborate tax credit schedule³⁰. A flat tax would survive more than one tax rates for PIT in the spirit of the "X-tax", although it is doubtful whether the intricate tax credit system would fit in the "postcard tax return". In the spirit of a flat tax we also notice a generalized abolition of other tax allowances and credits with the exception of extra tax allowances for handicapped people and tax credits for medical expenses, families in remote areas, alimonies and donations. The most significant tax allowance abolished is that for children. In fact, compared to the previous system, the allowance has been implicitly retained for a two-child family through the extension of the basic allowance, but only for low and middle incomes³¹. On the other hand, imputed income taxation remains in force.

Sole proprietorships and liberal professions are viewed as entrepreneurial activities in the new system and are taxed as such. Their tax schedule presents limited progressivity³², while their

²⁹ 22% for incomes up to €25,000, 32% for the part of incomes between €25,000 and €42,000 and 42% thereof.

³⁰ A tax credit is reserved only for incomes up to €42,000. A full credit of €2,100 is granted to incomes up to €21,000 after that point gradually fading to zero. This is an element of reinforcing progressivity, since incomes over the threshold get no benefit, unlike the Hall-Rabushka proposal. Also note that this tax credit is equivalent to a tax allowance of $(2,100:22\%=)$ €9,545, much more generous than the previous system. However, to get the full benefit the taxpayer has to collect a certain amount of retail receipts.

³¹ Simultaneously there was a long awaited move of the child support system away from taxation to means-tested social transfers.

³² The tax rate is 26% up to €50,000 and 33% for excessive amounts. For corporate firms, the tax rate is 26% on profits before distribution, plus another 10% on dividends, which would add up to an effective rate of 33%, when all profits are distributed.

marginal rate is lower than the top rate for salaried employees. This is clearly a distortion in the expense of highly skilled labour and will probably lead to income shifting. Partnerships are treated in the same manner as sole proprietorships, which is befitting, while corporations are taxed with 26% at the firm level and dividends are taxed with another 10%. Therefore, there is a clear bias in the system in favour of capital income.

At this point we should raise the point of double taxation for firms. There are two views on the subject: the first one argues that if a firm is taxed on its profits, it is inappropriate to tax dividends. Since profits always end up to persons, partners or shareholders, this mode of taxation clearly constitutes double taxation and profits should be taxed at either but not both levels. On the other hand, the second view contends that a firm is an economic unit on its own right and its economic behaviour can and must be singled out. Both views make their points quite persuasively and it seems that the more (less) ownership and control coincide, the less (more) firm and individual are discernible. The problem seems to demand a middle-of-the-road-solution, such as taxing non-distributed profits for everyone and distributed profits at the shareholder level of a corporate firm only; that is, when participation in the ownership of a firm is made for a financial profit (as an alternative to depositing your money or buying bonds) and not for direct production purposes. Even so, there would be problems of definition but at any rate, the double taxation issue does not actually relate to the substance of a flat tax (all tax systems would like to avoid double taxation).

Returning to the taxation of entrepreneurial incomes under the reformed system, it should be pointed out that there is a clear distortion in the system in the way agricultural incomes are treated³³. The distortion is two-fold; first, the lower tax rate constitutes a clear disincentive for small agricultural holdings to turn to more formal forms of firm organization and expand. Second, the lower tax rate provides a strong incentive for fragmentation and income shifting. Also, personal incomes from rents are taxed separately with two rates, a low rate for low incomes up to €12,000 and the full rate of 33% thereof. The progressive nature of the system promotes tax shifting from legal entities to individuals³⁴.

Another aspect of the taxation of entrepreneurial activities is that the core of the legislation regarding the assessment of gross revenue and expenses has not really changed but in certain aspects only (mainly by certain transactions less attractive through the tax rates). As mentioned earlier, the depreciation system is now simpler and various expenses have been limited, while fringe benefits and stock options are taxed at a prohibitive 40%.

Financial income and capital gains were also subject to the tax reform. In particular, dividends are taxed at 10%, interest on deposits 15%, income from securities 15%, life

³³ Personal businesses in the agricultural sector are taxed at a flat 13%. In the previous regime they were taxed with the PIT schedule. Now they form a separate category.

³⁴ Rental incomes up to €40,000 have a lower average tax rate than the 26% rate for firms.

insurance contracts 10% for amounts up to €40,000 and 20% thereof (15% for periodic payments), capital gains from property and buildings 15% (depending on the age the construction) and royalties etc 15%, as well. However, capital income and gains taxation still remains an area where there exists a great number of exemptions, exceptions etc, which affect the tax base, regarding the origin or the legal status of the taxpayer, various objective or subjective factors et al.

Although comparisons for the distribution of income are not possible with the available data (the previous tax schedule includes tax on other incomes of salaried employees in their overall tax obligation), estimates indicate that there is slight improvement of 0.01 in the Gini coefficient.

4.4 What can the future look like?

In view of all the above we may conclude that the new tax system could have moved more boldly to features deriving from the flat tax. As we saw, there are some signs, such as focusing on incomes instead entities or fewer tax rates, which imply potential roots of some sort of a flat tax in the economy. A flat tax system should not be an objective *per se*. It could be, however, the vehicle to take us closest to where our real objectives are. As we saw in the beginning of this study, these are allocative efficiency, revenue adequacy and where, possible, redistributive fairness (let us remember that redistribution may take place more efficiently through spending). Now, many may disagree with the last statement, but if government spending is a more efficient way for social engineering, then let us use just that. Using the tax system, especially as non-transparent and inefficient as the Greek tax system is, actually means that you spend revenues before you even collect them (actually you never do) in ways that are either inefficient and/or unfair and certainly beyond thorough democratic control.

Although many agree that a flat tax system has the potential to improve efficiency, equity, and simplicity, they readily submit that the details of planning and implementing play a crucial role, while the system is not immune to the compromises and pressures of the more traditional tax systems³⁵.

The question we pose is "to which direction should the present system evolve?" Since continuity and stability of the system is a much sought-after quality, our first proposal is to let the new tax system reveal its strengths and weaknesses before moving on. In its present form, it should go on for, say, five years. After that it will have completed its much-needed second phase of reforming and improving dramatically tax procedures.

The second proposal is that a tax reform should not have a revenue maximizing character and, therefore, the best time to occur is when the economy starts picking up. This, however,

³⁵ See Gale, W.G. (1999).

does not mean that income tax revenues should fall. On the contrary, the system must be at least fiscally neutral. In fact, it is desirable that revenues increase through the broadening of the tax base rather than raising the tax rates. Whether this revenue increase will signify the reduction of other taxations and/or the public debt or will be used to finance further spending is a political choice that will not be touched upon in this study.

The third proposal is that the new system must put on an equal footing income from capital and labour. Allocative distortions will then be avoided as much as possible. In this context it must be carefully studied whether income from financial and non-financial transactions must be treated uniformly. As the name suggests, financial transactions generate income in the course of financing the economy, that is produce savings thus investment. In the same context, the social security system must be reviewed in parallel. Although it is beyond the scope of this work, social security contributions are an integral part of income taxation. The effort for simplification and efficiency boost must include both the tax and the social security system.

The fourth proposal concerns the "fairness" of the income tax system. This has two faces: First, income taxation should be used primarily to raise revenues, not to fulfill social needs. This is best done through direct spending. Spending can be directed with relative ease and can be transparently subjected to democratic control than tax revenues. Second, raising revenues must be done in a "fair" manner. Proportional taxation can be considered as fair, but extreme income conditions may elude it. Therefore, some progressiveness in the system may be desirable. A tax credit may provide a satisfactory progressive character to the system. A high degree of progressivity, on the other hand, is an extreme that may bring about socially and economically unjustified results, not forgetting that it introduces a strong incentive for tax avoidance and tax evasion; mild progressiveness seems to be the key³⁶.

The future income tax system may look like this: The new PIT system is more or less in place and will probably work fine. What might be required are parametric adjustments. Either the top marginal rate for entrepreneurial activities will go up or the PIT top rate will come down. Therefore, one may consider a system where both domains share a common top rate. It would be desirable to set this rate at a low rather than high level as an incentive for investment and employment. However, there is always the budget constraint that should not be ignored. We shall return to this issue presently.

The tax base should be further integrated. This means that all entrepreneurial incomes must share the same top rate, which if it is low enough, it can be the only tax rate. It also means

³⁶ Let us not forget that only PIT is truly progressive. CIT is proportional, as well as other capital income and gains taxes. If this can be justified, it would be hard to overlook the regressive character of the social security contributions system (actually a "capped flat tax").

that the remaining tax allowances, credits, exceptions etc must go³⁷. For example, tax benefits for medical and hospital expenses are received by some two million taxpayers and cost about €100 m. It is doubtful whether all two million taxpayers appreciate the same the average €50 p.a. they receive. Moreover, there is evidence from the tax data that the amount refunded to taxpayers increases with incomes. The poor simply do not pay such amounts in taxes as to make use of the tax credit. Another example is donations; not just to the church, but also to what Hall and Rabushka call "institutions serving the absolute economic and social elite" (museums, opera houses, galleries, universities etc). Although the tax cost is rather small (below €6m.), they will not be sorely missed since these tax benefits pertain almost exclusively to the wealthy (yes, lower incomes also make donations, but their incomes are too low to benefit from the tax credit). The lowering of the rates will leave enough income to the wealthy to continue if not increase their grants. This, of course, applies to CIT, as well.

In the same sense, all similar preferential provisions in the CIT should be abolished altogether. There is no sense in providing tax benefits, for example to an investment, if such assistance can be provided much more effectively and transparently through direct grants (including interest rate subsidies). Autonomous taxations must also be revoked. Whether they pertain to special groups (e.g. merchant marine crewmembers) or special conditions (e.g. periodic payments to artists, writers etc), it makes no sense why they should be treated differently. Abolishing high top rates makes this discrimination unnecessary. Finally, provisions, such as collection of receipts and imputed taxation, must also be abolished. These measures are but evidence of the inability of the state to collect taxes properly. Until the new system comes into place, tax procedures must be such that audits, crosschecking and other procedures will be able to compensate for whichever yield of these provisions. At the same time, a large part of legislation and procedures should be abolished, thus providing resources to the tax authorities that can be put in better use (not to mention the potential contribution to building-up compliance).

At this point, a crucial question is the treatment of income from financial transactions. The Hall-Rabushka idea of taxing at the source, not the destination, is admittedly attractive in its simplicity. However, if one were to examine the proposition more closely, one would discover potential flaws. Hall and Rabushka are not quite clear how interest on lending capital should be treated. Were it not recorded as income, then bank profits would practically disappear, even if the revenue from services provided were to be estimated (which is rather impractical, if not impossible). Banks would consistently show negligible profits and taxes would be shifted to borrowing firms. The issue requires further study in how to discriminate between "general" financial income and "proper" financial income that is the actual content of the

³⁷ With the exception of social security contributions of the self-employed and sole proprietors. The tax reform justly acknowledged that first- and second-pillar contributions must be equally deductible for everybody.

activity of a financial intermediary. Our inclination would be to devise a system where interest and dividends are treated as yields of financial instruments (i.e. of monies invested) and as such they could go tax-free at the personal level. This could be made possible only in a flat tax rate world. Capital gains may be taxed at the firm level and not at the personal level, where possible, as proposed by Hall and Rabushka. It is important, however, that there is a single tax rate, preferably equal to that of corporate taxation.

Can such a system be fiscally viable? Let us extend the present system into the future along the lines proposed above. Our estimates are made on *ceteris paribus* basis, using real data for the 2012 income tax (2011 incomes)³⁸. What is most striking is the fact that about 40% of the PIT revenues that correspond to the mere application of the tax rates are foregone, presumably in the form of tax allowances and tax credits³⁹. These tax benefits are directed practically to all and not just to the low-end incomes. Therefore, full abolition of all exemptions could generate enough revenue for redistribution to low incomes (in a fiscally neutral way).

Concerning the newly introduced system, it is left to the reader to judge whether the basic tax allowance of €9,450 is high or not. Personally, we find it hard to justify the fact that, say, a couple with a combined annual income of almost €19,000 is not asked to contribute at all to the collective needs of the country. This signifies a higher tax rate for the rest of the taxpayers, especially given the concentration at the low end of the tax scale. Therefore, the tax system should present lower rates combined with a less generous basic tax allowance. A starting rate of 10% and a tax credit of €700 (phasing off slower at €50 per €1,000 of income up to €20,000) would imply a basic allowance of €7,000. The tax burden for monthly incomes between €580 (roughly the employment benefit) and €1,250 would increase from €4 to €30 (the highest increase occurring at a monthly income of around €800. On the other hand, incomes above the €20,000 threshold would benefit, in some cases quite significantly. This poses the question of fairness, which would be hard to answer: is this system unfair to middle incomes, or was it its predecessor that was unfair to low and high incomes? Knowing that high salary earners are only but a handful in Greece⁴⁰, the political answer would obviously be in favour of the median taxpayer/voter, since about one third of the taxpayers in this category will experience some increase in their tax burden. This still does not say much about "fairness". At any rate, given the imperfections of the data, it is estimated that the Gini coefficient for salary earners and pensioners would worsen negligibly by 0.01.

³⁸ GSIS data.

³⁹ The overall amount is estimated at around €5bn. and intuitively is higher because of the extra revenues from imputed taxation.

⁴⁰ Only 15% of the tax payers who are salaried employees or pensioners have declared incomes (from all sources) higher than €20,000.

The top tax rate is set at 20% and it applies to all salaries and pensions over €20,000, to entrepreneurial net incomes (including agricultural incomes) and to corporate profits, with zero tax on distributed profits⁴¹. The same rate, however, will apply to all rents⁴² (with a starting rate of 10% and a full rate of 20% after €20,000), capital gains, as well as interest earned. There seems to be no need to move to the one-off depreciation of fixed assets in the Hall-Rabushka fashion, since the new system has already introduced a much simpler version of depreciation costs. Cross-firm lending seems to have been addressed by the new Income Tax Code and the success of the new provisions remains to be proven.

The overall arrangement described above would be fiscally neutral compared to the traditional system, albeit of lower yield compared to the new system. It produces about €1.5 bn. less and, therefore, it would be quite risky and premature to introduce it at this phase of fiscal adjustment, before significant broadening of the tax base and effective curbing of the tax evasion are realised.

In the not so far future, the income tax system may take another step ahead, more or less curing the maladies that we have described so far. This is a simpler system whereas

- No imputed taxation, collection of receipts and invoices, or complicated tax exemptions and other provisions exist.
- The same marginal top tax rate applies to all incomes across the board, therefore completely removing the risks of tax-shifting and saving the taxpayer a considerable amount of effort (not to mention the inflow of revenues to the public coffers).
- "Fairness" and incentives are restored by removing excess burden from low and high incomes and putting in place a "dual" rate system of 10% for low salaries, pensions and rents and 20% for anything else.

Its running will be less costly both to the taxpayer and the state; improved transparency will help improving tax compliance and increase collection of revenues; and corruption is expected to subside significantly, due to lack of content. More importantly, the new flat, reduced rates can be rewarding vis-à-vis employment and competitiveness.

⁴¹ However, dividends might be taxed at the rate of 20%, if treated as financial instruments, rather than direct investment. This would not make much difference to our estimates, since payment of dividends has been minimized in the past few years.

⁴² The current system adds rents to all other incomes, subjecting them to the highest marginal rate for each income. The new system, on the other hand, provides a reduced rate of 11% for low incomes for rents (up to €12,000), presumably having in mind the large number of small properties in Greece, since the low rate encompasses 93% of the taxpayers in this category. However, the data reveal that those having rental incomes up to €12,000 have total incomes over €10,000 (up to €21,300), whereas very small rent earners (up to €6,000) gain the rest of their income mainly from pensions and salaries (at least half of it and up to $\frac{3}{4}$). This implies that most taxpayers will benefit from the tax credit for salaried incomes and pensions.

5. Concluding remarks

Greece has embarked on a tax reform process that will designate its future in income taxation. The tax system is at a crossroads: there are voices supporting an egalitarian comprehensive tax system, yet it seems that the public administration structure would be quite weak to support such an elaborate and costly system, which no country has fully implemented as yet⁴³. On the other hand, the new system is still not in place. It is envisaged that it will broaden the tax base without adverse distributional effects, thus generating enough revenues to contribute to the overall fiscal effort.

However, the reform will not be complete until tax administration changes radically. Regardless of the tax system, traditional or not, tax administration has an absolutely key role in the efficiency of the system. Owens (2005) correctly points out that "*The borderline between tax policy and tax administration is rarely clear*". Reforming institutional arrangements and administrative operations, as well as managing taxpayers' compliance, are elements of improving the governance of the system. The simplicity and transparency of a flat rate system would certainly facilitate the function of the system itself, enabling tax administration to be efficient.

A chronic inadequacy of the Greek income tax system has been its low revenue yield, where the gap from the Euro area average is more than 4% of GDP. The problem is traced mainly to personal income taxation, which not only does it suffer from a low collection rate⁴⁴, but serves as a tax avoidance and tax evasion shelter, as well. Over 50% of the taxpayers cram at income brackets below €10,000 (with agricultural income earners reaching 99%), taking advantage of the low taxation and avoiding the high progressive rates, either by tax shifting or tax evading. According to tax statistics, 41% of salary earners and pensioners reported incomes below €10,000, compared to 84% for non-salary earners (63% of them below €5,000-the general tax allowance threshold!). This distortion, combined with poor tax administration, has proved detrimental to tax compliance. Moreover, it produces an impression of extremely high income inequality among non-salary earners that does not significantly improve after taxation. On the other hand, high marginal tax rates for salary earners, combined with high social security contributions, has led either to labour supply reductions or tax shifting of labour income to sources that may avoid taxation, misreporting and not reporting at all of salaried incomes. The need for budgetary consolidation has as a direct consequence the increase of taxation for low incomes, mainly by the reduction of the

⁴³ OECD (2006), p.4.

⁴⁴ According to the 2012 Report of the Court of Audit, the collection rate for direct taxes stood at 56.5%, with a backlog of non-collected taxes of almost €9 bn. Personal income taxes, excluding arrears, were assessed at €8,985 m., of which €6,308 m. were collected.

general tax allowance level. This problem has been tackled by the recent tax reform, although the system is still plagued by high marginal rates.

These high marginal rates for the taxation of salaries is bound to maintain tax shifting to the relatively lower tax rates of entrepreneurial activities, not to mention straightforward boosting of allocative inefficiency. If marginal taxation of labour and capital is to be equalised, this has to be done downwards, since an increase in the tax rate of business would only produce further tax evasion (especially under the current status of tax administration). Therefore, the only solution seems to be a downward leveling of tax rates. If we are to dismiss Laffer-type effects⁴⁵, then keeping tax revenues at a neutral level would signify an increase in the tax burden of middle incomes and this is where the issue of "fairness" in income distribution emerges.

A flat tax rate system respects horizontal equity. Vertical equity, however, remains a problem and, more or less, an issue of value-judgment. The political dimension of the problem is that it would be hard for any party to justify to the median taxpayer/voter an increase in the tax burden, however small⁴⁶. A way out of this problem would be the simultaneous significant reform of the pensions and benefits schemes. Social policy should be implemented through mechanisms that manage to meet the criteria of efficiency and fairness better than taxation can.

Business income taxation is more or less already proportional. The flat tax rate system can bring about improvements mainly through the simplification of the rules and the leveling of tax rates with those of other types of taxation. The main benefits will comprise: reduced costs in money, time and effort so far committed to payoffs, tax shifting and exploiting loopholes; competitiveness gains through lower taxes; enhancement of competition and economic activity because of equal treatment of all business activities in an exemption-free environment; easier financing to the extent that equity capital is treated in a "preferential" way compared to debt (tax-free dividends).

The tax reform has made a first step in the direction of simplification, efficiency and fairness. It seems reasonable that the next step is in the same direction rather than backtracking. This direction can only be towards a flatter system. The political difficulties that have held back all other governments of the old EU-15 club also apply to Greece. However, their tax systems not only are they well established and more sound, but they seem to have some more fiscal

⁴⁵ It may be argued that so far no such clear evidence is available. The case of Russia, which boosted its tax revenues significantly following the introduction of a flat tax rate, is far from conclusive, since a major tax administration reform took place at the same time. However, flat rate supporters firmly believe that low tax rates potentially lead to higher revenues (see Laffer, 2004).

⁴⁶ In our proposal, the median salaried/pensioner taxpayer has an income of approximately €17,500 and the extra tax burden is estimated at about €250.

future. In contrast, Greece seems to have no future in up keeping a system that has failed her miserably so far. Maybe a fresh start is what is needed.

6. ANNEX

Table 1
Main National Accounts Tax Aggregates

National Accounts Code	Type of Tax	National Accounts	Type of Tax
D21	Taxes on products	D29EC	<i>Various</i>
D211	Value added type taxes	D29F	Taxes on pollution
D212	Taxes and duties on imports excluding VAT	D29G	Under-compensation of VAT (flat rate system)
D2121	Import duties	D29H	Other taxes on production n.e.c.
D2122	Taxes on imports, excluding VAT and import duties	D29HA	<i>Taxes on capital accumulation</i>
D2122A	<i>Levies on imported agricultural products</i>	D29HB	<i>Various</i>
D2122B	<i>Monetary compensatory amounts on imports</i>	D51	Taxes on income
D2122C	<i>Excise duties</i>	D51M	Taxes on individual or household income incl. holding gains
D2122D	<i>General sales taxes</i>	D51A	Taxes on individual or household income excl. holding gains
D2122E	<i>Taxes on specific services</i>	D51AA	<i>Taxes on income from rents</i>
D2122F	<i>Profits of import monopolies</i>	D51AB	<i>Income taxes on individuals</i>
D214	Taxes on products, except VAT and import taxes	D51AC	<i>Taxes on interest and other taxes on individuals</i>
D214A	Excise duties and consumption taxes	D51C1	<i>Taxes on individual or household holding gains</i>
D214AA	<i>Excise duties on cars</i>	D51O	Taxes on the income or profits of corporations incl. holding gains
D214AB	<i>Excise duties on oil products (benzin, petroleum etc)</i>	D51B	Taxes on the income or profits of corporations excl. holding gains
D214AC	<i>Excise duties on tobacco products</i>	D51BA	<i>Income taxes on corporations</i>
D214AD	<i>Taxes on beer</i>	D51BB	<i>Taxes on shipowners</i>
D214AE	<i>Taxes on alcoholic drinks</i>	D51BC	<i>Various corporation taxes</i>
D214AF	<i>Taxes on other products</i>	D51C2	<i>Taxes on holding gains of corporations</i>
D214B	Stamp taxes	D51C3	<i>Other taxes on holding gains</i>
D214BA	<i>Stamp taxes on products</i>	D51C	Taxes on holding gains
D214BB	<i>Stamp taxes on legal documents</i>	D51D	Taxes on winnings from lottery or gambling
D214C	Taxes on financial and capital transactions	D51DA	<i>Taxes on winnings from lottery or gambling</i>
D214CA	<i>Taxes on the sale of non-financial assets</i>	D51E	Other taxes on income n.e.c.
D214CB	<i>Taxes on the sale of financial assets</i>	D51EA	<i>Tax penalties and fines</i>
D214D	Car registration taxes	D51EB	<i>Various</i>
D214DA	<i>Car registration taxes</i>	D59	Other current taxes
D214E	Taxes on entertainment	D59A	Current taxes on capital
D214EA	<i>Amusement taxes</i>	D59AA	<i>Taxes on household buildings</i>
D214F	Taxes on lotteries, gambling and betting	D59B	Poll taxes
D214FA	<i>Taxes on lotteries</i>	D59C	Expenditure taxes
D214FB	<i>Taxes on gambling and betting</i>	D59D	Payments by households for licences
D214FC	<i>Duty on casino</i>	D59DA	<i>Car registration licences</i>
D214G	Taxes on insurance premiums	D59DB	<i>Various</i>
D214GA	<i>Taxes on insurance premiums</i>	D59E	Taxes on international transactions
D214H	Other taxes on specific services	D59F	Other current taxes n.e.c.
D214HA	<i>Taxes on advertising</i>	D59FA	<i>Tax on buildings</i>
D214HB	<i>Taxes on hotels, restaurants, etc</i>	D59FB	<i>Various</i>
D214HC	<i>Taxes on the use of mobile phones</i>	D91	Capital Taxes
D214I	General sales or turnover taxes	D91A	Taxes on capital transfers
D214IA	<i>Wholesale sale taxes</i>	D91AA	<i>Taxes on capital transfers</i>
D214IB	<i>Other general sales taxes</i>	D91B	Capital levies
D214J	<i>Profits of fiscal monopolies</i>	D91BA	<i>Capital levies</i>
D214K	Export duties and monetary comp. amounts on exports	D91C	Other capital taxes n.e.c.
D214KA	<i>Export duties and monetary comp. amounts on exports</i>	D91CA	<i>Other capital taxes n.e.c.</i>
D214L	Other taxes on products n.e.c.	D61	Social contributions
D214LA	<i>Other taxes on products n.e.c.</i>	D611	Actual social contributions
D29	Other taxes on production	D6111	Employers' actual social contributions
D29A	Taxes on land, buildings or other structures	D6111	<i>Compulsory employers' actual social contributions</i>
D29AA	<i>Taxes on land, buildings or other structures</i>	D6111	<i>Voluntary employers' actual social contributions</i>
D29B	Taxes on the use of fixed assets	D6112	Employees' social contributions
D29BA	<i>Taxes on the use of dogs, streets, lighting</i>	D6112	<i>Compulsory employees' social contributions</i>
D29C	Total wage bill and payroll taxes	D6112	<i>Voluntary employees' social contributions</i>
D29D	Taxes on international transactions	D6113	Social contributions by self- and non-employed persons
D29E	Business and professional licences	D6113	<i>Compulsory social contributions</i>
D29EA	<i>Professional licences</i>	D6113	<i>Voluntary social contributions</i>
D29EB	<i>Vehicle licences for businesses</i>	D612	Imputed social contributions

Source: Adapted from Eurostat's "Main national accounts tax aggregates "

Table 2

Classification of Main National Accounts Tax Aggregates by Economic Function

National Accounts Code	Economic function	National Accounts Code	Economic function
D211A	C	D61121A	Lees
D2121A	C	D61111A	Leyrs
D2122AA	C	D51BA	KIC
D2122BA	C	D51BB	KIC
D2122CA	C	D51BC	KIC
D2122DA	C	D51DA	KIH
D2122EA	C	D51EA	KIH
D2122FA	C	D51EB	KIH
D214AA	C	D214BB	KS
D214AB	C	D214CA	KS
D214AC	C	D214CB	KS
D214AD	C	D214KA	KS
D214AE	C	D29AA	KS
D214AF	C	D29BA	KS
D214BA	C	D29EA	KS
D214DA	C	D29EB	KS
D214EA	C	D29EC	KS
D214FA	C	D29HA	KS
D214FB	C	D29HB	KS
D214FC	C	D59AA	KS
D214GA	C	D59FA	KS
D214HA	C	D59FB	KS
D214HB	C	D91AA	KS
D214HC	C	D91BA	KS
D214IA	C	D91CA	KS
D214IB	C	D51AA	SPLIT 1
D214LA	C	D51AB	SPLIT 1
D59DA	C	D51AC	SPLIT 1
D59DB	C	D61131A	SPLIT 2

Key:

- C: Consumption tax
- Leyrs: Labour tax on Employers
- Lees: Labour tax on Employees
- Lnon: Labour tax on the non-employed (pensioners/ unemployed)
- KIC: Capital tax on the income of corporations
- KIH: Capital tax on the income of households
- KISe: Capital tax on the income of self-employed
- KS: Capital tax on Stocks of Wealth
- SPLIT 1: Personal Income Tax (PIT) Split between Lees, Lnon, KIH, KISe
- SPLIT 2: Split between Lnon and KISe

Source: Adapted from Eurostat's National Tax List of Greece

Table 3
Tax Revenues in the EU (2011, % of GDP)

	D2R	D5R	D61R	D91R	TT	TT/TE	TT/TR
EU27	13,1	12,6	13,9	0,3	39,9	81,3	89,5
EA17	12,8	11,9	15,7	0,3	40,7	82,4	89,8
BE	12,6	16,0	16,6	0,7	45,9	86,0	92,7
BG	14,6	4,8	7,3	0,3	27,0	76,7	81,6
CZ	11,5	7,5	15,5	0,1	34,6	79,7	85,9
DK	16,9	29,9	2,0	0,3	49,1	84,8	87,7
DE	11,4	11,5	16,9	0,2	40,0	87,7	89,5
EE	13,8	6,6	12,3	:	32,7	85,6	83,4
IE	11,5	11,7	6,6	0,5	30,3	62,2	84,9
EL	12,4	8,3	12,8	0,1	33,6	67,1	82,2
ES	9,8	9,5	13,0	0,3	32,6	74,8	92,9
FR	15,3	11,3	18,8	0,5	45,9	82,1	90,5
IT	14,1	14,3	13,7	0,4	42,5	85,2	92,2
CY	14,8	11,9	9,5	0,0	36,2	76,5	88,3
LV	11,5	7,4	8,8	0,0	27,7	70,8	77,8
LT	11,6	4,4	10,2	0,0	26,2	69,9	81,9
LU	11,9	14,0	11,9	0,1	37,9	90,2	91,5
HU	16,6	6,4	13,0	0,5	36,5	74,9	69,0
MT	14,2	13,3	7,6	0,2	35,3	82,1	87,8
NL	11,5	11,4	15,5	0,3	38,7	77,2	85,1
AT	14,3	12,9	16,2	0,0	43,4	85,9	90,6
PL	13,7	7,0	11,4	0,0	32,1	73,6	83,4
PT	13,6	9,9	12,3	0,0	35,8	73,2	80,1
RO	12,6	5,8	8,8	0,0	27,2	72,1	83,7
SI	14,1	8,2	15,5	0,0	37,8	74,3	84,9
SK	10,4	5,6	12,5	0,0	28,5	74,6	85,3
FI	14,0	16,1	12,4	0,2	42,7	79,1	80,3
SE	18,4	18,7	7,6	0,0	44,7	87,1	87,0
UK	13,3	15,7	8,5	0,2	37,7	76,9	92,4

Source: Eurostat

Memo Item:

D2R: Taxes on products and production

D5R: Taxes on income and wealth

D61R: Social security contributions

TT: Total general government tax revenues

TE: Total general government expenditure

TR: Total general government revenues

Note: Total tax revenues include imputed social contributions (D.612REC) but not revenues assessed but unlikely to be collected (D.995)

Table 4
Tax Revenues in the EU (2010, % of GDP)

	TX_CONS	TX_LAB_EMPR	TX_LAB_EMPE	TX_LAB_NEMP	TX_CAP_INCO	TX_CAP_INHO	TX_CAP_INSE	TX_CAP_STO
EU27	11,0	8,0	10,1	1,5	2,4	0,8	2,0	2,5
EA17	10,7	8,9	10,2	1,7	2,3	0,7	2,2	2,3
BE	10,9	8,6	13,3	1,9	2,7	0,3	2,3	3,7
BG	14,5	4,5	4,4	0,1	2,1	0,2	0,7	0,8
CZ	10,9	9,7	6,5	1,4	3,4	0,1	1,1	0,7
DK	15,0	0,6	18,9	5,1	2,7	1,7	0,8	2,8
DE	10,8	6,8	12,3	2,4	2,2	0,6	2,1	1,0
EE	13,6	12,2	5,6	0,6	1,4	0,1	0,1	0,6
IE	10,0	3,2	8,4	0,1	2,6	0,8	1,0	2,2
EL	12,1	5,0	6,3	1,1	2,4	0,6	2,4	1,2
ES	8,7	8,6	7,3	0,8	1,8	0,9	2,1	2,5
FR	10,9	12,8	9,7	0,7	1,9	1,0	1,6	4,3
IT	10,2	10,7	8,6	2,6	3,0	1,2	3,5	2,5
CY	13,5	7,1	5,5	0,1	6,2	0,9	0,6	1,9
LV	10,8	6,1	7,8	0,4	1,0	0,2	0,1	1,0
LT	11,5	7,7	5,5	0,3	1,0	0,2	0,5	0,7
LU	9,9	4,7	10,1	1,3	5,7	1,3	1,3	2,7
HU	14,8	8,2	9,2	0,9	1,3	0,4	0,5	2,5
MT	13,2	2,7	7,0	1,0	6,5	0,3	1,0	1,6
NL	12,0	5,0	13,8	2,4	2,3	-0,9	2,3	1,8
AT	11,8	9,6	11,8	2,5	2,0	0,9	2,5	1,0
PL	12,3	5,0	6,3	0,3	2,0	0,8	3,5	1,8
PT	11,7	5,2	6,8	0,9	2,8	0,9	0,7	2,4
RO	11,5	5,6	5,5	0,2	2,3	0,6	0,3	1,1
SI	14,2	5,8	12,9	0,9	1,9	0,3	1,0	0,9
SK	10,1	6,9	5,3	0,0	2,7	0,1	2,4	0,6
FI	13,1	8,9	11,3	2,4	2,5	0,6	2,0	1,4
SE	13,3	11,8	10,6	3,5	3,4	1,2	0,6	1,4
UK	11,2	4,1	10,0	0,2	3,1	1,2	1,5	4,3

TX_CONS - Taxes on consumption

TX_LAB_EMPR - Taxes on labour, of which on employed paid by employers

TX_LAB_EMPE - Taxes on labour, of which on employed paid by employees

TX_LAB_NEMP - Taxes on labour, of which on non-employed

TX_CAP_INCO - Taxes on capital, of which on capital and business income of corporations

TX_CAP_INHO - Taxes on capital, of which on capital and business income of households

TX_CAP_INSE - Taxes on capital, of which on capital and business income of self-employed

TX_CAP_STO - Taxes on capital, of which on stock of capital (wealth)

Table 5
Nominal Statutory CIT rates in the E.U. and the O.E.C.D.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Change since			
																			1995	2000		
BE	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	-6.2	-6.2	
BG	40.0	40.0	40.2	37.0	34.3	32.5	28.0	23.5	23.5	19.5	15.0	15.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	-30.0	-22.5	
CZ	41.0	39.0	39.0	35.0	35.0	31.0	31.0	31.0	31.0	28.0	26.0	24.0	24.0	21.0	20.0	19.0	19.0	19.0	19.0	-22.0	-12.0	
DK	34.0	34.0	34.0	34.0	32.0	32.0	30.0	30.0	30.0	30.0	28.0	28.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	-9.0	-7.0	
DE	56.8	56.7	56.7	56.0	51.6	51.6	38.3	38.3	39.6	38.3	38.7	38.7	38.7	29.8	29.8	29.8	29.8	29.8	29.8	-27.0	-21.8	
EE	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	24.0	23.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	-5.0	-5.0	
IE	40.0	38.0	36.0	32.0	28.0	24.0	20.0	16.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	-27.5	-11.5	
EL	40.0	40.0	40.0	40.0	40.0	40.0	37.5	35.0	35.0	35.0	32.0	29.0	25.0	35.0	35.0	34.0	30.0	30.0	30.0	-10.0	-10.0	
ES	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	32.5	30.0	30.0	30.0	30.0	30.0	30.0	-5.0	-5.0	
FR	36.7	36.7	41.7	41.7	40.0	37.8	36.4	35.4	35.4	35.4	35.0	34.4	34.4	34.4	34.4	34.4	34.4	34.4	36.1	-0.6	-1.7	
IT	52.2	53.2	53.2	41.3	41.3	41.3	40.3	40.3	38.3	37.3	37.3	37.3	37.3	31.4	31.4	31.4	31.4	31.4	31.4	-20.8	-9.9	
CY	25.0	25.0	25.0	25.0	25.0	29.0	28.0	28.0	15.0	15.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	-15.0	-19.0	
LV	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	19.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	-10.0	-10.0	
LT	29.0	29.0	29.0	29.0	29.0	24.0	24.0	15.0	15.0	15.0	15.0	19.0	18.0	15.0	20.0	15.0	15.0	15.0	15.0	-14.0	-9.0	
LU	40.9	40.9	39.3	37.5	37.5	37.5	37.5	30.4	30.4	30.4	30.4	29.6	29.6	29.6	28.6	28.6	28.8	28.8	28.8	-12.1	-8.7	
HU	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	17.6	17.5	17.5	21.3	21.3	21.3	20.6	20.6	20.6	20.6	1.0	1.0	
MT	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	0.0	0.0	
NL	35.0	35.0	35.0	35.0	35.0	35.0	35.0	34.5	34.5	34.5	31.5	29.6	25.5	25.5	25.5	25.5	25.0	25.0	25.0	-10.0	-10.0	
AT	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	-9.0	-9.0	
PL	40.0	40.0	38.0	36.0	34.0	30.0	28.0	28.0	27.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-21.0	-11.0	
PT	39.6	39.6	39.6	37.4	37.4	35.2	35.2	33.0	33.0	27.5	27.5	27.5	26.5	26.5	26.5	29.0	29.0	31.5	31.5	-8.1	-3.7	
RO	38.0	38.0	38.0	38.0	38.0	25.0	25.0	25.0	25.0	25.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	-22.0	-9.0	
SI	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	23.0	22.0	21.0	20.0	20.0	20.0	20.0	-5.0	-5.0	
SK	40.0	40.0	40.0	40.0	40.0	29.0	29.0	25.0	25.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-21.0	-10.0	
FI	25.0	28.0	28.0	28.0	28.0	29.0	29.0	29.0	29.0	29.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	24.5	24.5	-0.5	-4.5	
SE	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	26.3	26.3	26.3	26.3	26.3	-1.7	-1.7	
UK	33.0	33.0	31.0	31.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	28.0	28.0	26.0	24.0	24.0	-9.0	-6.0	
EU-27	35.3	35.3	35.2	34.1	33.5	31.9	30.7	29.3	28.3	27.0	25.5	25.3	24.5	24.0	23.9	23.7	23.4	23.5	23.5	-11.9	-8.4	
EA-17	36.8	37.0	37.0	35.8	35.2	34.4	33.0	31.8	30.4	29.6	28.1	27.7	26.8	26.3	26.2	26.2	25.9	26.1	26.1	-10.8	-8.3	
IS	33.0	33.0	33.0	30.0	30.0	30.0	18.0	18.0	18.0	18.0	18.0	18.0	15.0	15.0	18.0	20.0	20.0	20.0	20.0	-13.0	-10.0	
NO	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	0.0	0.0	
AUS	36.0	36.0	36.0	36.0	36.0	34.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	-6.0	-4.0	
CAN	42.9	42.9	42.9	42.9	42.9	42.4	40.5	38.0	35.9	34.4	34.2	33.9	34.0	31.4	31.0	29.4	27.6	27.6	27.6			
CHL	41.0	39.0	39.0	35.0	35.0	15.0	15.0	15.0	16.0	16.5	17.0	17.0	17.0	17.0	17.0	17.0	20.0	20.0	20.0	-21.0	5.0	
ISR	n.a.	n.a.	n.a.	n.a.	n.a.	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	25.0	24.0	24.0	24.0		-12.0	
JPN	34.0	34.0	34.0	34.0	35.0	40.9	40.9	40.9	40.9	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	5.5	-1.4	
KOR	35.0	35.0	35.0	35.0	35.0	30.8	30.8	29.7	29.7	29.7	27.5	27.5	27.5	27.5	24.2	24.2	24.2	24.2	24.2	-8.8	-6.6	
MEX	28.0	28.0	28.0	28.0	28.0	35.0	35.0	35.0	34.0	33.0	30.0	29.0	28.0	28.0	28.0	30.0	30.0	30.0	30.0	2.0	-5.0	
NZL	39.6	39.6	37.4	37.4	37.4	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	30.0	30.0	30.0	28.0	28.0	28.0	-11.6	-5.0	
CHE	n.a.	n.a.	n.a.	n.a.	n.a.	24.9	24.7	24.4	24.1	24.1	21.3	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2		-3.7	
TUR	n.a.	n.a.	n.a.	n.a.	n.a.	33.0	33.0	33.0	30.0	33.0	30.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		-13.0	
USA	n.a.	n.a.	n.a.	n.a.	n.a.	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.1	39.2	39.2	39.2	39.2		-0.1	

Source: Data compiled from "Taxation Trends in The European Union 2012" Eurostat and the OECD database of corporate income tax rates (Tables II.1). Data for EU-27 countries, IS and NO come from Eurostat. Differences in the methodologies of the two organizations should be taken into account.

Table 6
**Gini coefficients before and after PIT
for salaried and non-salaried taxpayers**

	Before PIT			After PIT			SILC
	Salaried/ pensioners	Non- salaried	Total	Salaried/ pensioners	Non- salaried	Total	
2003	0,40	0,81	0,55	0,36	0,75	0,51	0,33
2004	0,40	0,80	0,55	0,35	0,75	0,51	0,33
2005	0,39	0,79	0,54	0,35	0,74	0,50	0,34
2006	0,39	0,79	0,54	0,34	0,74	0,49	0,34
2007	0,38	0,78	0,53	0,34	0,73	0,49	0,33
2008	0,39	0,79	0,54	0,34	0,73	0,49	0,33
2009	0,39	0,76	0,54	0,35	0,74	0,50	0,33
2010	0,38	0,73	0,52	0,36	0,71	0,50	0,34

Table 7
Social Protection expenditure (% of GDP, 2010)

	EA-17	Greece
Social protection benefits	29,1	28,2
Sickness/Health care	8,6	8,2
Disability	2,1	1,3
Old age	11,1	11,9
Survivors	2,1	2,2
Family/Children	2,3	1,8
Unemployment	2,0	1,7
Housing	0,4	0,4
Social exclusion n.e.c.	0,5	0,6

Source: Eurostat

7. REFERENCES

- Bankman, J. and M. Schler (2005) **Tax Planning Under The Flat Tax/X-Tax: Do We? Should We? Can We? (Can We Not?)** Brookings Institution.
- Bergström, Fredrik and Robert Gidehag (2004) **EU versus USA** Timbro, Stockholm.
- Bradford, David F. (2003) "*The X Tax in the World Economy*" NBER, CESifo, CEPS Working Paper No. 93.
- Carone, G., G. Nicodème and J.H. Schmidt (2007) **Tax revenues in the European Union: Recent trends and challenges ahead** European Economy-Economic Papers, No 280.
- Council Regulation (EC) N° 2223/96.
- Eurostat (2012) **Taxation trends in the European Union**.
- Edwards, Chris (2003): "*Replacing the Scandal-Plagued Corporate Income Tax with a Cash-Flow Tax*" Policy Analysis no. 484, August 14, 2003, Cato Institute.
- Emes, Joel, Jason Clemens, Patrick Basham, and Dexter Samida (2001) **Flat Tax: Principles and Issues** Fraser Institute, 1 May 2001.
- Evans, Anthony John (2006) "*The Spread of Economic Theology - The Flat Tax in Romania*" Romanian Economic and Business Review, Vol. 1, No. 1 (June 2006), pp.41-53, The Scientific Research Department of The Romanian American University.
- Evans, Anthony John and Paul Dragos Aligica (2008) *The Spread of the Flat Tax in Eastern Europe: A Comparative Study* Eastern European Economics, Vol. 46, No. 3 (May-June 2008), pp. 49-67, M.E. Sharpe, Inc.
- Fuest, Clemens, Andreas Peichl, and Thilo Schaefer (2008) "*Is a Flat Tax Reform Feasible in a Grown-up Democracy of Western Europe? A Simulation Study for Germany*" International Tax and Public Finance, Vol. 15, No. 5 (October 2008), pp. 620-636, Springer Science+Business Media, LLC.
- Gale, W. G. (1999) "*Flat Tax*", in J. Cordes, R. D. Ebel and J. G. Gravelle (eds), The Encyclopedia of Taxation and Tax Policy, Urban Institute Press, Washington, D.C., pp. 155-158.
- Hall, Robert E. and Alvin Rabushka (1995) **The Flat Tax** 2nd ed. Hoover Institution Press, Stanford University, Stanford, California.
- Keen, Michael, Yitae Kim, and Ricardo Varsano (2006) "*The "Flat Tax(es)": Principles and Evidence*". IMF Working Paper 06/218, International Monetary Fund.
- Laffer, A. (2004) "*The Laffer Curve: Past, Present, and Future*" The Heritage Foundation Backgrounder, No. 1765.
- Matsaganis and Leventi (2011) "*The distributional impact of the crisis in Greece*" EUROMOD Working Paper, No. EM3/11
- Mitchell, Daniel J. (2007) "*The Global Flat Tax Revolution*" Cato Policy Report, July/August 2007.
- OECD (2006) **Reforming Personal Income Tax** Policy Brief, March 2006.
- OECD (2011) "*Growing Income Inequality in OECD Countries: What Drives it and How Can Policy Tackle it?*" OECD Forum On Tackling Inequality, Paris, May 2011.
- Owens, J. (2005) **Fundamental Tax Reform: an International Perspective** OECD.
- Paulus, Alari and Andreas Peichl (2008) "*Effects of Flat Tax Reforms in Western Europe on Equity and Efficiency*" EUROMOD Working Paper No. EM2/08.