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Abstract

The aim of this paper is to provide with the analysis of Greece government expenditures and taxation trends from 1974 to 2018 concluding on valid results concerning the implemented policies and provide with critical insights to analyze and assess the implementation of the tax policy in a targeted manner and to highlight the main recommendations for policy makers and the tax authorities to further contribute to strategic planning, revenue capacity and efficient tax administration. Furthermore, it is also known from the relevant literature that effective tax rates do not capture only tax changes but the constructed series by tax revenue figures and national accounts taking into account exemptions, deductions and relevant tax bases to estimate tax burden on an effective way. Thus, we apply Martinez-Mongay method to calculate the effective rates for the examined period and draw conclusions regarding tax policy in Greece.

JEL Classification: E6, E62, E63

Keywords: Macroeconomics, Fiscal Policy, Greek Tax Legislation, Tax Policy, Tax Reforms

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1. Introduction

There are numerous macroeconomic and policy considerations that relate the structure of tax revenues and tax changes to fiscal sustainability and macroeconomic performance. The impact of fiscal and tax policies on macroeconomic performance is an important policy issue. In this paper we provide with the analysis of Greece government expenditures and taxation trends from a historical point of view from 1974 to 2018 concluding on valid results concerning the implemented policies. Then we analyze the main characteristics of Greek Tax System from theoretical point of view so to understand the basic legal framework and then analyze the taxation trends. Under this context, we focus on the construction of appropriate effective tax rates to determine the impact of fiscal policies and draw conclusions regarding tax reforms in Greece. In applying this approach, effective tax rates are calculated as the ratio between tax revenues and the corresponding tax bases, which are derived from national accounts. Effective tax rates are indicators that allow us to obtain complete information about a tax system with exemptions, reductions, and the corresponding tax bases, and to evaluate the efficiency of the tax system and the distribution of the tax burden, and the extent to which these effective rates reflect tax changes and implemented policies.

2. Government Expenditure Trends

In this section we provide an overview of government expenditures trends from 1974 to 2018.Greece had suffered significant damage from World War II and in the early 1950s essentially began to develop and rebuild the state and establish a framework for economic growth. With Marshall Plan (1952) and the economic growth policies implemented in the following decades, the country entered a path of recovery in the 1950s. In the early 1970s, the Greek economy faced the problems created by the current oil crisis and increased defense spending. From a macroeconomic perspective, there was a significant balance of payments deficit, industrial competitiveness was weakened due to high energy costs, pressure for higher wages in the labor market increased production costs, and rising inflation reduced purchasing power. Against this background, the government's borrowing needs surged, exceeding 742 billion drachmas in 1978 (at constant 1995 prices), and gross fixed capital formation as a share of GDP followed a downward trend. The stressful conditions of the 1970s crisis affected not only the private sector, but also the public sector and the government. Public spending rose from 29 % in 1970 to 33 % of GDP in 1980, due to increased government consumption. In terms of foreign investment, Greece has often been criticized for providing more tax and investment incentives for foreign investment. Despite its modest economic performance, the proactive and sustained policy orientation toward the European Economic Community in the early 1980s introduced the Greek economy to a new environment and changed the context of international trade relations. Also, the private sector remained larger than the public sector, but the rapid growth of public organizations eventually led to expansionary public sector effects and increased government spending in a wide range of public services, such as salaries and pensions, social security, health, education, and infrastructure. Specifically, total government spending increased from 33% in

1980 to 47% of GDP in 1989. Social transfers also doubled within a decade, and public consumption reached the level of private consumption. In addition, unemployment reached high rates, a trend that continued and intensified over the following decade, even though the state was the main provider of jobs[1]. Moreover, in the early 1990s, public spending and public consumption were reduced, while spending on health care, social welfare, and education remained unchanged, but the economy ran large trade deficits. However, in the 1990-1993 period, the economy experienced the effects of the borrowing of the previous decade, and despite the curtailment of public consumption and the public expenditure stabilization program, claims only for net interest doubled from 1989 to 1995. On the other hand, the reduction of the budget deficit to below 3% and of the public debt to below 60% of GDP is directly related to the government budget and therefore affects the fiscal policy of each government.[2] Moreover, demographic trends have exacerbated the problem by increasing the need for social spending.

As far as the evolution of the budget deficit is concerned, the first thing to highlight is the fact that, after a period of budget surpluses in the previous years, our country started to have a budget deficit from 1974 onwards. As for the evolution of the total public deficit from 1974 to 2018, we can observe an increasing trend. We note that Greece had a substantial deficit of 3% of GDP in 1975, which was significantly reduced to 1.7% of GDP in 1976, only to increase again to 2.5% and 2.9% of GDP in 1977 and 1978, respectively. A significant increase in the government deficit was recorded from 1979 to 1985, where the government deficit rose from 2.4% of GDP in 1979 to 11.6% of GDP in 1985. In 1986 and 1987, there was a slight decrease due to the adopted stabilization program. In 1989 and 1990, the government deficit in our country was 14.2% and 15.9%, respectively, while it decreased in the 1990s. From 15.9% of GDP in 1990, it reached 3.4% of GDP in 1999. This reduction was mainly the result of tax adjustment, which was a necessary condition for the country to join EMU. The programs implemented, which were characterized by restrictive tax policies, broadening of the tax base and limiting tax evasion, led to a de-escalation of the budget deficit. In the 2000s, the upward trend in the government deficit resumed, reaching 1990 levels by the end of the decade. In 2000, the government deficit was 3.7% of GDP and reached 15.5% of GDP in 2009. Starting in 2009, attempts were made to reduce the public deficit, so that it reached 9.4% of GDP in 2012. The international financial and economic crisis, which began in the second half of 2007, most clearly revealed the structural weaknesses and macroeconomic imbalances of the Greek economy. During 2009, fiscal figures continued to deteriorate rapidly, with the deficit reaching an excessive 15.5% of GDP. Despite the measures taken in 2009 and thereafter, due to escalating pressures in the bond market and the dramatic increase in borrowing costs, on April 23, 2010, the Greek authorities addressed a request for financial assistance to the euro area countries and the International Monetary Fund. On May 2, 2010, as part of the agreed memorandum on economic and fiscal policy, it was decided to make the fiscal adjustment more forward-looking and the institutional framework for fiscal structural reforms was established.

[1] Underreporting of income and labor and tax evasion also contributed further.

[2] These requirements were part of the Maastricht Agreement and the activation of the Economic and Monetary Union. The other criteria concerned the stabilization of the exchange rate, the convergence of price growth and interest rates

Moreover, primary deficits were small from 1975 to 1980, ranging from 2.1% of GDP in 1975 to 1.2% of GDP in 1980. From 1981 to 1990, primary deficits increased substantially. In 1981, Greece recorded one of its highest primary deficits, at 8.7% of GDP. The course of rising primary deficits continued until 1990, when the primary deficit was 6.5% while efforts to reduce the primary deficit began in 1991, leading to a primary surplus in 1994 that were maintained until 2002. In 1994, primary results were 2.7%, peaking at 5.0% in 1998 and reaching 0.7% of GDP in 2002. Of course, the primary surpluses achieved were not sufficient to eliminate the entire public deficit, as the interest payments to service the accumulated debt were too high. From 2003 onward, relatively low percentages of primary deficits were reported until this percentage rose to 10.5% of GDP in 2009. Since 2009, attempts were made to reduce primary deficits, and in 2010 and 2011 these percentages decreased significantly to 4.9% and 2.4%, respectively.

Another important topic was public debt. During the period 1975-2012, the ratio of public debt to GDP increased from about 24.6% in 1975 to about 156.9% in 2012. More specifically, between 1975 and 1980, the ratio of public debt to GDP ranged from 24.6% in 1975 to 28.4% in 1980. The debt-to-GDP ratio began to increase significantly after 1981 (34.2%), reaching more than 100% in 1993, specifically 110.1%. Subsequently, the adjustment programs adopted to enable the country to meet the accession criteria of EMU, combined with high economic growth rates, contributed to the stabilization of public debt at around 100% of GDP. This stabilization of public debt was also due to the primary surpluses recorded every year from 1994 to 2002 and the acceleration of the real GDP growth rate. In 2003 and 2004, the percentage was below 100%, at 97.4% and 98.9%, respectively. However, from 2008 onwards, there was again a sharp increase in debt, which caused the ratio of public debt to GDP to rise to a particularly high level and to a percentage of 110.7%. Since 2009, public debt has been rising steadily, reaching 170.3% of GDP in 2011. In 2012, there was a significant decrease of 13.4 percentage points, which corresponded to 156.9%. During the period of high economic growth, the decisive factor contributing to a balanced public debt ratio was the increase in GDP, rather than the fiscal policy implemented, which resulted in constant deficits that had to be financed by new borrowing. Thus, in the period 1974-1981, loose fiscal discipline was demonstrated in order to increase wages and nationalize several companies, which led to the dynamics of public debt taking shape starting in 1979. After the 1981 elections, there was an increase in public spending such as salaries and pensions, which led to an increase in the national debt and deficit. In 1985-1987, a two-year economic stabilization program was implemented to redress the imbalances in the economy. However, this program was soon abandoned, which was followed by a complete reversal of economic policy (1987-1989) that led to an explosion of public debt. In 1993, a revised convergence program (1993-1996) was implemented, as a result of which debt was stabilized and deficits reduced. In 2000-2004, the stabilization of the economy continued, the public debt was reduced, but deficits began to show an upward trend. In 2004 and thereafter, a significant increase in the government deficit was observed, mainly due to the increase in expenditures.

In this part we will examine the evolution of public expenditures and revenues in our country during the examined period. The analysis of these figures is necessary because they are the main factors that influence the evolution of public deficits and, consequently, public debt. Other factors that have influenced the evolution of the public deficit and debt have been the shadow economy and tax evasion, political behavior, the bureaucratic mode of production and development policies. In our country, there has been a significant increase in public spending from 1960 to the present. Until 1970, the share of government spending in GDP was low. A significant increase occurred from the mid-1970s, when the dictatorship and the crisis in Cyprus coincided. The percentage of total public spending increased from 25.3 % in 1974 to 29.3 % in 1980, and the 1980s saw a sharp increase in public spending, which rose from 29 % in 1981 to 44.8 % in 1990. In the 1990s, attempts were made to contain public spending, as it increased by only 1.9 percentage points from 44.8% in 1990, reaching 46.7% in 2000. A similar picture emerges for the period from 2001 to 2007, where expenditures ranged from 45.4% in 2001 to 47.5% in 2007. Starting in 2008, the percentages increased to over 50%, peaking at 54.8% in 2012. In the 1960s and 1970s, total government spending did not exceed 30% of GDP, but in the 1980s, government spending increased more rapidly, reaching over 40% of GDP by the end of the decade. In 1990, spending reaches a percentage of almost 50% of GDP and stabilizes at a percentage of about 45% of GDP in the following years. From 2008 to the present, the cost exceeds 50% of GDP. One of the most important public expenditures in our country is wages and salaries, which concern the remuneration of public employees. In 1975, this expenditure amounted to 8.3% of GDP, until 2012, when it increased to 12.5% of GDP. Since 1991, there has been a decline in this spending, from 10.3% in 1996 to 9.6% of GDP, and an upward trend resumed from 1997. Social benefits account for the largest share of total spending in our country. In 1975, this expenditure was 8.1% of GDP and in 2012 it reached 20% of GDP. Moreover, the above figure has increased by 12 percentage points over the years and is the expenditure with the largest increase, as it was continuously increased until 1987. After that, there was a decline, which turned into an upward trend again in 2000, and in 2012 it showed the highest value ever reached in our country. In terms of intermediate consumption data, there was an increase in the period 1988-2012, which was 3.4% of GDP in 1988 and reached 4.9% of GDP in 2012. The largest increase was in 2002, with a rate of 6.5%, and in 2009, with a rate of 7.4%. Subsidies decreased from 1975 to the present. More specifically, in 1975, they were equivalent to 2.4% of GDP, while in 2012 they were only 0.4% of GDP. The highest percentage was reached in 1986, when subsidies represented 5.9% of GDP, and from 1988 onward there was a significant decline. Until 1981, there was a steady upward trend, rising from 24.1% in 1975 to 26.7% in 1981. After 1981, primary expenditures registered a sharp increase, reaching over 30% (32.1% of GDP). While primary spending followed a stable path, the percentages fell below 30% in 1992 and 1993 (28.2% and 29.1%, respectively), before rising again from 1994 and stabilizing at a level above 40% since 2004. Intermediate consumption, which is one of the factors affecting public spending, also increased significantly in the years from 1995 to 2012. From 1997 to 2012, subsidies amounted to only 0.1% of GDP, and in 2011 there was an increase to 0.5%. Property income was also the most important general government expenditure, accounting for 11.2% of GDP in 1995. However, this share declined steadily in the following years, reaching 4.8% of GDP in 2007. After 2007, it began to rise again, reaching 7.2% in 2011. The share of interest payments was another element of tax expenditures that is very important for our country. In the period 1995-2012, the share of interest in GDP decreased: in 1995 it was 11.2% of GDP and in 2012 it was only 5% of GDP. From the above figures, it is clear that interest repayment played a more important role in the formation of total expenditure in Greece. Social benefits also accounted for the largest percentage of general government spending, apart from social transfers in kind. In 1995, this expenditure represented 13.5% of GDP, and in the following years, this share increased steadily. In 2012, it reached 20%, which was an increase of 6.5%. Expenditures on social transfers in kind, which refer to expenditures on goods supplied to households by producers of tradable goods, were zero until 2004. From 2005, they appeared at rates between 2.5% and 3.0%. Another issue is the capital transfers payable, whose percentage fluctuated between 1.5% and 2.6% between 1995 and 2011, rising to 5.9% of GDP in 2012. In addition, we should point out that primary expenditures in our country increased continuously from 1995 to 2012. Based on Eurostat data, in the period 1995-2012, our country had the largest share of public spending on social protection, general public administration and defense, while the smallest shares were allocated to environmental protection, culture, entertainment and religion, and housing infrastructure. Another important conclusion we can draw is that our country's spending on public administration and defense is higher than the European average. Our country's defense spending was almost double the EU-15 average (2.8% of GDP in Greece versus 1.6% in the EU). This shows us that a significant part of resources is used for expenditures that do not contribute to economic and social development. It can be concluded that in Greece, spending was more focused on services such as administration and defense and less on providing services to households and businesses.

From our analysis, it is clear that the upward trend of public deficit and debt in Greece started in the 1980s. The policies pursued in the 1980s emphasized social benefits and led to an expansion of the public sector, but without creating the necessary conditions to strengthen the productive process and ensure long-term economic growth. Moreover, the substantial inflows of Community funds that began in the 1980s were not properly utilized, and the objectives of the convergence programs were not adequately achieved. In addition, the country's debt obligations, the stock market turmoil of 1999, the country's over-indebtedness, internal and external macroeconomic imbalances, structural problems and the need for new loans led to a gradual increase in public debt. This weak macroeconomic condition of the Greek economy was unable to cope with the financial crisis that erupted in 2008, and the Greek economy began to move at negative growth rates. The state, households and companies were now over-indebted, public revenues began to decline, and public spending and debt servicing costs could not be financed. As mentioned earlier, the 1980s saw the beginning of the upward trend in government deficits. In the 1990s, attempts were made to contain the public deficit in order to join the website EMU. The main reason for the increase in the public deficit was policy measures that led to a sharp increase in public spending that was not accompanied by a corresponding increase in taxes collected, which are the main source of revenue. In general, there was a significant increase in all categories of public spending, especially in spending on public wages and salaries and social spending (health and welfare spending). The evolution of social spending in the 1980s played an important role in the further increase in the debt level in the following decades. In addition, a large share of spending was used to repay interest. In addition to the sharp increase in government spending, an important problem was the substantial shortfall in government revenues, which was mainly due to the high share of the shadow economy and tax evasion.

It should be noted, however, that in the 1990s there was a significant increase in revenues, which led to a containment of public deficits. The occurrence of primary surpluses in the years 1994 to 2002 was mainly due to the pressure created by the significant accumulation of public debt in the early 1990s, but also to the need to meet the Maastricht targets for the country's entry into the Eurozone. The increase in public debt that took place until 1980 was kept within tolerable limits, and interest costs were also low. In the following years, however, the situation changed dramatically, and in the 1990s the public debt increased to over 100%, while the cost of servicing the debt reached high levels. In the 2000s, attempts were made to stabilize the national debt at a level of around 100%. In 2009, government debt reached uncontrollable levels due to the 2008 global financial crisis, and attempts were made to limit government debt from 2009 onward. However, as in the early 2000s, even a debt of 100% of GDP could be serviced because interest rates were low. From a theoretical point of view, the structural factors played an important role in the large discrepancy between public spending and revenues, leading to an increase in the public deficit and the accumulation of public debt. Another important point is that fundamental characteristics directly related to the current economic situation and the country's economic growth model have exacerbated fiscal problems. More specifically, the reason for this is the low propensity for capital accumulation and technological modernization, a very high propensity to import and an inadequate export process, and state-centered entrepreneurship. The bureaucratic nature of public production also led to low productivity growth rates, which were accompanied by an increase in public spending. The high percentage of the shadow economy in our country caused the state to lose a lot of revenues and was forced to borrow. As far as political behavior is concerned, it can be observed that in election years the percentage of spending and the need for borrowing increases significantly. In both Greece and the EU, most of the total expenditure is spent on social spending, dependent labor income (wages), intermediate consumption and interest. Greece is also the only country that spends such a high percentage on interest payments. Greece spends the most money on social protection, general public administration and defense, while the lowest percentages are spent on environmental protection, culture, entertainment and religion, and housing infrastructure. Some measures that the Greek state can take are the restructuring of public spending, the increase of public revenues, privatizations and the institutional modernization of the Greek economy, which will contribute to the development and restructuring of public debt. Thus, the redistribution of public spending could bring several benefits in Greece. For example, redistributing spending from defense and interest payments to health, culture, education and social protection would promote public sector functions characterized by higher economic and social returns. The main conclusion we can draw is that the problem in Greece is not so much the high level of spending, since total spending in Greece is not above the EU average, but the significant deficits in public revenues. Moreover, most of the public debt has been spent on unproductive investments, defense costs, public administration costs, foreign policy implementation and interest on previous loans. As mentioned above, the high public deficits and the high public debt are due to the implemented policies. The main feature of these policies is the lack of a structured program for economic and social development that should be implemented consistently. Moreover, Figure 1 shows real GDP growth, total tax revenues, government spending, and gross debt from 1974 to 2018, with total tax revenues showing an upward trend, reaching 40% in 2018 compared to 20% in 1974. Government spending trends also fluctuated depending on the period, political and socioeconomic conditions. There was a sharp increase from 30% in 1980 to almost 50% in 1990, which had a significant impact on the debt level, which exceeded 100% of GDP in the early 1990s. Thereafter, there was an overall stable trend during the ten-year period, due to the convergence programs and the requirements for joining the Eurozone. The same pattern was observed for debt. The sharp increase in public debt to 180% after the 2008 global financial crisis and the subsequent financial turmoil in Greece had a significant impact on growth and fiscal policy implementation. As for the trends in Figure 2, it is evident that consumer spending increased at both the private and public levels and, more importantly, gross fixed capital formation declined significantly after 2008.

Figure 1: Fiscal Policy and Growth (source Ameco, OECD)

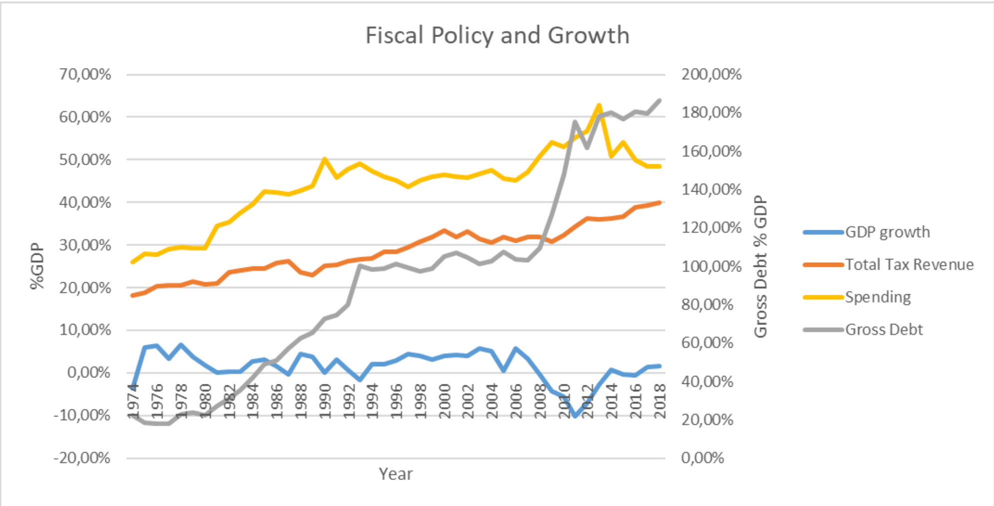
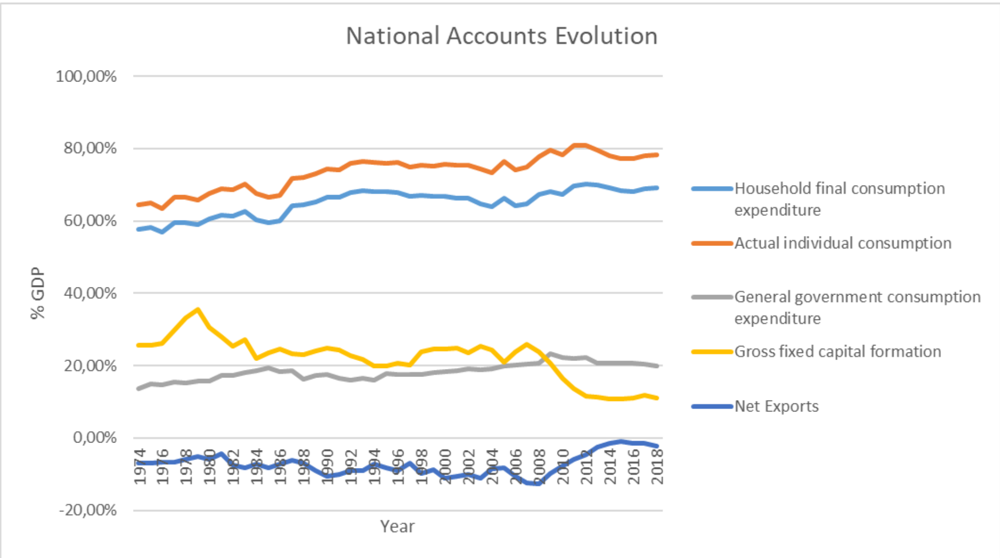


Figure 2: National Accounts Evolution (source Ameco, OECD)



3. Main Categories of Taxes

In this part, we highlight the main characteristics of income tax so as to understand in a more conceptual way the basic functions of income taxation concerning both individuals and companies in Greece.[3] Our approach is to highlight the key issues concerning relevant tax legislation so as to be familiar not only with the tax revenues analysis but also to address the main legislative tax reforms. By the provisions of Law, the taxable income is taxed either on rates and scales per each income category, taxed independently or exempt from tax. Moreover, tax subjects which are either individual or legal entities are defined as those who have their tax residence in Greece and are considered subject to tax for their worldwide income. Tax residency can be determined, according to permanent or principal residence, or the time period when an individual taxpayer has been in Greece. An individual in Greece is liable for tax on income as an employee, employer, and a self-employed person, and the income tax is imposed on global income irrespective of where such income has been generated or paid. According to the Greek tax legislation, taxable income is classified into main four categories with a separate tax rate[4]. The above suggests that only income that falls into one of the four categories is subject to tax and therefore anything that does not fall within the conceptual scope of any of the listed taxable income categories is not subject to tax. Furthermore, the tax year is relevant to the concept of management period and fiscal year, and a general rule for the acquisition time of income is the accrued base in contrast to the cash base. Also, the concept of residence status was introduced in domestic legislation, according to the standards set up by OECD and European Union conventions. The determination of the tax residence was clarified, thus, with the aim of forming fair tax environment and avoiding double taxation issues. The related legislation indicates several different facts that might be taken into thorough consideration by the tax authorities in order to determine permanent residence on the grounds of vital interests[5].Moreover according to provisions of Law, a legal entity is considered a tax resident in Greece if it has been incorporated according to the domestic legislation, or effective management is located in Greece. Effective management[6] is based primarily on the place of exercising the day-to-day management, making strategic decisions or the place where the annual general meeting is held.

Personal Income Tax

As far as personal income tax is concerned, the taxable income from employment[7] and pensions is the income that remains after deducting the deductible expenses from the gross

[3] Personal Income Taxation: Articles 10-43A, Corporate Income Taxation: Articles 44-58, Withholding Tax Articles 59-64 of Law 4172/2013.

[4] See Law 4172/2013 as amended. Articles 12-20 for Employment and Pensions, Articles 21-29 for Business Activities, Articles 35-40 Capital, and Articles 41-43 for Capital Gains. See Article 5 and 5A of Law 4172/2013 for domestic sources of income and an alternative taxation of tax foreign residents

[5] Indicatively vital interests include among others ownership of assets, citizenship, social security registration, children’s schools, country where a family resides. See also the provisions of Article 51 of the Greek Civil Code, Article 2 of Law 2238/1994 and Article 12 of Law 3943/2011

[6] See Article 6 of Law 4172/2013 for the terms and effective management issues.

[7] An employment relationship exists in the context of an employment contract of a dependent employment relationship which specifies the performance of the services. Gross income includes allowances and reimbursements solely on the basis of employment, termination benefits, and group insurance policies. The salary

income. Gross income from employment and pensions includes all types of income in cash or in kind obtained in the context of an existing, past, or future employment relationship. Monthly income from paid employment and pensions, including benefits in kind, wages, and lump-sum benefits, is subject to withholding tax. Benefits such as vehicle, loans, advance payments, concession of residence are included in the taxable income at their market value and their value increase respectively employment income. Also, stock options benefits are calculated at the time the option is exercised and the employment status should be in force. Law restrictively defines which amounts do not constitute income and categories of income that are exempt from tax. Thus, income is taxed according to a unified tax scale[8] which includes the net taxable income from employment and pensions, profits from individual agricultural activities, and the profits from an individual business activity. The tax payable applicable to employment and pension income is reduced in a case of existence of dependent children. If the amount of the tax payable is less than these amounts, the tax reduction is limited to the amount of the corresponding tax. In order to maintain the tax reduction, as an indirect tax-free limit, the taxpayer is required to incur expenses using means of electronic payment. These reductions shall not apply to income that is obtained from business activity and therefore the tax reduction will be the one that corresponds to the part of the income that comes from employment, pensions and agricultural activity. Moreover, as tax reliefs are concerned, from 2017 onwards, the medical expenses do not reduce the tax but these expenses are declared for the construction of the tax-free limit. It is also provided to deduct 20% of the amounts paid for donations up to 5% of taxable income. Also, tax paid abroad is deductible under certain conditions, and taxpayers who do not have their tax residence in Greece are not entitled to tax reductions unless they maintain their tax residence in another EU or OECD member state and at least 90% of their worldwide income is generated domestically or prove that their income is so low that they would be entitled to such reduction in their country.

Taxable income from business activity is generated by business transactions and is considered a process which is carried out in a market in order to achieve profit. The former provision does not apply to the traded securities and corporate or government bonds transactions. The act of sale of an asset, which has been acquired by inheritance, parental provision or has been held for a period of more than five years, is not considered as profit from business activity.[9] In particular, the profit from business activity is considered the total income from business transactions after deducting tax allowable business expenses, depreciation, and provisions for doubtful receivables. The income from business

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of a member of the Board of Directors, representative, partner, or director is considered income from employment. Legal or accounting services provided by sole traders and managers are taxed as income from business activity. In the case of remuneration within the context of public limited company withholding tax at a rate of 10% based on of Articles 62 and 64 of Law 4172/2013.

[8] See Article 15 of Law 4172/2013

These rates applied to employment and pension income as well income from business activities. For tax reductions for using means of electronic payments see Article 16 of Law 4172/2013. Categories of taxpayers are exempted from the obligation to use electronic means of payment (taxpayers over 70 years, persons with disabilities of 80% or more public official serving abroad, etc.) See Law 3862/2010 as modified by Law 4537/2018.Rates are 10%,15%,20% for the first 10.000 euros,10.000 to 30.000 and above 30.000 respectively. If the minimum required amount is not covered, then the tax is increased by the amount resulting from the positive difference between the required and the declared amount, and taxed at 22%

[9] Article 41 and 42 of Law 4172/2013.Also See Article 21 to 29 of Law 4172/2013.Article 62 of Law 4172/2013 is relevant for withholding taxation issues.

transactions also includes the income from the sale of the assets of the company, as well as the product of its liquidation, during the tax year. The profit from the business activity is determined for each tax year based on the profit and loss account, which is prepared according to the accepted accounting standards. As far as withholding taxation is concerned, provisions define those payments concerning fees for technical services, administration fees, and fees for consulting services that are subject to withholding tax. Also, wages that are not categorized in the dependent employment relationship are classified and taxed as business income. Another issue is that grants for the investments in new assets are not considered as gross income but are a deductible element of the new investment. All business expenses are deductible expenses should be in the interest of the company and correspond to a real business transaction, accompanied by appropriate supporting documents. As far as the non-deductible expenses are concerned among others the provision stipulates certain categories of non-deductibility[10].

Capital income includes income earned by an individual and arises in the tax year in cash or in kind, in the form of dividends, interest, rights, as well as income from real estate including income from short-term lease in the context of the sharing economy. Dividend is the income that arises from shares, securities or other participation rights in companies. Interest is the income that arises from bank deposits, loans, government bonds, interest-bearing bills. Also, income from rights in exchange for the use of industrial or intellectual rights is considered capital income. Income from real estate means the income resulting from the lease or the private use or the free concession of use of land and real estate. The incomes of these four categories are not aggregated and taxed separately. Dividends, interest, and royalties are subject to withholding taxation to a rate of 5%, 15%, royalties 20% respectively and real estate income is taxed independently based on a rate scale.[11] Capital Gains taxable income includes the disposal gains arising on an assets, shares and securities, as well as transfer of whole business or sole proprietorship, provided that do not constitute a business activity[12].It is pointed out that especially for the goodwill acquired by an individual from the transfer of listed shares and securities acquired before 2009, it is exempt from income tax. On the contrary, for securities acquired after 2009, the exemption from capital gains tax is provided only when the transferor participates in the share capital of the company with a percentage of less than 0, 5%. Goodwill arising from the transfer of securities is subject to a tax rate of 15% provided that the resulting goodwill does not fall under exemption provisions. Moreover, the establishment of the deemed income have been introduced with Law

[10]See Articles 22 and 23 of Law 4172/2013 for deductibility of expenses. Indicatively, interest on loans that exceed the official interest rate, expenses over 500 euros that were not paid through a bank payment method ,unpaid insurance contributions, fines and penalties, including surcharges, taxes and expenses that correspond to VAT non-deductible inputs, the imputed cost of private use that exceeds 3% of property value, the entertainment expenses for customers or employees that exceed 300 euros per participant and to the extent that the total annual expenditure exceeds 0.5% of the annual gross income of the company, ,personal consumer spending, expenses paid to a tax resident of a non-cooperative state or to a preferential tax regime, employment relationship expenses if they have not been paid by electronic means of payment. Business expenses are deductible if they meet the criteria set out in Article 22 and do not belong to the restrictive list in Article 23 or Article 48.

[11] See Article 64 of Law 4172/2013. For Rental Income see Article 40 of Law 4172/2013 and Circular Pol. No 1069/2015.Also is applied 5% deductible expenses related to property.

[12] See Article 41, 42,42A of Law 4172/2013 for goodwill arising on capital transfers on shares, securities bonds, provided have been acquired from 1 January 2009 onwards the CGT tax rate is 15%, For stock options of Article 42A is 5%.

820/1978 with the aim of taking measures to reduce tax evasion. Under this context and its subsequent tax legislation evolution, living presumption criteria is the minimum annual income that a taxpayer needs to have in order to be able to maintain movable and immovable assets such as engine power of cars, salaries for staff such as baby sitters and housekeepers, private schools' fees, yachts, surface of main or secondary residence as well as minimum annual living cost. The presumption income is calculated separately for each asset with specific criteria according to the provisions of alternative methods of calculation of minimum taxation. According to this, taxpayer must justify expenses incurred by declaring respective income and if the presumed income of the taxpayer is higher that the declared income, then will be taxed according to presumed income under personal income tax provisions.

Corporate Income Tax

Concerning corporate income tax, the provisions stipulate that income tax of legal entities is imposed annually on the corporate profits from business activities. Corporations are taxed on their worldwide profits except for foreign companies who are taxed only on income which is generated in Greece. Corporate profits of legal entities, with the exception of the credit institutions and the entities that keep single entry books are taxed at a rate of 24%. The credit institutions of Law 4261/2014 are taxed at 29%, agricultural cooperatives of Law 4384/2016, partnerships and producer groups are taxed at a rate of 10%. Moreover, business profits from photovoltaic investments are exempt from tax.[13] Profits from ship operations under Greek Flag are subjected to tonnage tax according to ship taxation provisions. Capital companies and partnerships incorporated domestically or abroad, non-profit legal entities, associations, civil law societies, foundations, trusts, funds and joint ventures of Law 4072/2012 were subject to corporate income tax. Non-profit legal entities under public or private law are subject to income tax with the exception of any income incurred in pursuit of their purpose[14]. Legal entities[15] that are exempt from income tax among others are government bodies, Bank of Greece, portfolio investment firms located domestically or abroad.

Generally speaking, taxable corporate profits also include among others interest income, dividend, royalties, capital gains and property income. The calculation of tax adjusted trading profit for a company is similar to calculation of sole trader except for some key differences that will be analyzed further. More specifically, the valuation of inventory, stock and work in progress is based on the provisions of Law 4308/2014 and calculated on FIFO method or the Weighted Average Cost. Moreover, the depreciation rules for taxation vary according to asset class and useful life. According to the amended Law, buildings and fixed assets are depreciated at 4% on straight line basis, movable tangible asset at 10%, cars and trucks on 16%,computer equipment at 20%,zero emission vehicles at 50% and low emission vehicles at 25%.As far as intangible asset is concerned the standard depreciation rate is 10%.It is pointed out that corporations calculate its accounting profits according to Greek Accounting

[13] Article 2, 44 to 57, of Law 4172/2013.Business Profits are determined based on the provisions of Articles 21 to 28 of Law 4172/2013. Corporate profits are taxed based on the rates of Article 58 of Law 4172/2013.
[14]See Article 45,41, of Law 4172/2013 and 72 of Law 4430/2016.
[15] Article 46 of Law 4172/2013, In detail, for each of the above cases the income tax issues have been regulated by Circular Pol. No.1044 /2015.

or International Accounting Standards and a table of temporary and permanent taxable differences must be calculated in order to derive tax adjusted trading profit. Moreover, profit from business activity also includes the capitalization or distribution of profits for which no income tax has previously been paid and the amount distributed or capitalized was taxed in each case as a profit from business activity regardless of the existence of past previous tax losses. In this context, taxable profits are also the distributed or capitalized reserves that have not been subject to independent taxation, such as the reserves that have been formed from profits that have been taxed in a special way with the exhaustion of the tax liability. In case the result from the business activity is loss-making, the distributed or capitalized amount will reduce this loss-making result.[16] On the other hand, according to other provisions[17] the distributed profits of the legal entities that are tax residents of Greece either are exempt from income tax or are subject to tax based on special way. Indicatively, profits that exempt from income tax are also interest income on EFSF bonds under the program for the restructuring of Greek debt, disposal proceeds of corporate bonds of Law 3156/2003, capital gains from Greek government bonds on the program for restructuring the Greek debt, capital gains from mergers. As far as taxation of reserves of Law 2238/1994, in case of distribution or capitalization until December 31, 2013 the reserves are taxed independently at a rate of 15%. From 1 January 2014 onwards, retained earnings or capitalized must be offset at the end of each tax year against tax losses carried forward in the last five years, unless they are distributed or capitalized in independent taxation at a rate of 19%.[18]

The liquidation is considered a distribution of profit during the tax year in which the liquidation of the legal entity was completed. It was clarified that the product of the liquidation, to the extent that it exceeds the paid-in capital, is subject to withholding tax.[19] Also, intragroup dividends[20] are exempt if the taxpayer participates to a minimum 10% holding and is kept it investments for at least 24 months. The tax exemption for intragroup dividends also applies to legal entities who are not tax residents of Greece, provided that the intragroup dividends associated with business activities conducted within a permanent establishment in Greece. Furthermore, under the concept of Thin Capitalization Rules interest expenses must meet the requirement of 30% of EBITDA to be recognized as deductible business expenses. As far as intragroup transactions are concerned, it is stipulated that legal entities when conducting transactions with related parties, should adopt the Arm's Length Principle[21] and maintain documentation file. Also, another issue is the proper tax treatment of business restructurings to the domestic legislation. Concerning withholding taxation, upon distribution of dividends and other payments by companies to

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[16] See Article 99 of Law 4446/2016, Article 72, Article 68 and Article 58 of 4172/2013.In distributed or capitalized reserves also included the reserves of Article 106 of pre-existing Law 2238/1994.

[17] See Article 46 of Law 4172/2013, Circular Pol. No.1059 /2015, Article 103 of Law 4099/2012.

[18] See Circular Pol. No.1143/2014, Circular Pol. No.1007/2014, Circular Pol. No.1143/2015, and Circular Pol. No.1264/2014 and par. 12 and 13 of Article 72 of Law 4172/2013 for further taxation issues on reserves.

[19] See Article 36 of Law 4172/2013 par. 1 and 7 of Article 64 and Circular Pol. No.1011/2014. See Article 47 of Law 4172/2013 and Article 57 of Law 4172/2013. Also, see Circular Pol. No.1059/2015 when a legal entity is put into liquidation and shows reserves from profits for which no income tax has been paid.

[20] Article 48 and 63, 65 of Law 4172/2013, Article 11 of Law 2578/1998 apply (i.e., “Parent-Subsidiary” Directive 90/435/EEC), Article 4 of Directive 2011/96 / EU.

[21] Transfer pricing and the Arm's length principle was one of the important projects of the Base Erosion and Profit Shifting developed by the OECD. See also Law 4174/2013 for documentation procedures.

shareholders, directors and employees there is a 25% withholding tax. Also, in case of sole traders' payments there is an obligation to withhold tax 20%.[22] Regarding the credit of foreign tax, a taxpayer who has a tax residence in Greece and acquires income abroad is entitled to certain income tax reduction by the amount of tax paid abroad which must be equal to the amount of corresponding tax in Greece. Tax credits may be available for investing and development expenses and also by the virtue of Law provisions on Controlled Foreign Companies were introduced. Moreover, based on the provisions of Law, the amount of the corresponding income tax concerning the dividends is deducted in the calculation of distributed profits. As far tax advance is concerned, the law stipulates that based on the tax return an amount equal to 100% of the income tax payable of the current tax year is imposed as a tax advance. A reduced advance payment of income tax by 50% for the first three years from the date of commencement is applied for newly established legal entities.[23]

Inheritance, Donations and Parental Provisions

Inheritance tax is a direct tax and is classified in the category of taxes that have the object of transfer of value of an asset. The main establishments in the imposition of the inheritance tax were the Law 1641/1919, which was one of the basic tax legislations, and the Legislative Decree 118/1973. This Law was subsequently amended by a series of provisions, which were finally codified in a single text, Law 2961/2001[24].The value of the assets transferred due to the above provisions is real estate asset which market value is based on comparative data and market value of similar assets. From 1982, the system of objective determination of the taxable value of real estate properties began to be gradually applied, instead of the system of comparative data. In the areas where the objective system for determining the value of the real estate has not been applied, the value is based on mixed system based on Law 1249/1982. Furthermore, another category of transferred assets are receivables, securities and other financial assets, furniture, ownership, and benefits, but do not include jewelry, collections of works of art, coins, stamps[25]. According to the Law of inheritance, the inheritance tax is imposed on the net inheritance portion and certain settled debts, which legally exist at the time of death[26]. In inheritance tax, a full exemption is provided in the context of avoidance of double taxation. State is exempt from tax whereas acquisitions due to donation or inheritance are subject to independent taxation, if the beneficiaries are legal entities under public law and non-profit legal entities for pursuing their purposes. The above cases are subject to a tax which is calculated independently at a rate of 0.5% after deducting a tax-free amount of 1,000 euros per year for monetary donations. Donations of money or

[22] Article 9, 64, 68 of Law 4172/2013.Withholding tax rate is 5%, 15%, 20% for dividends, interest, royalties and management fees respectively.

[23] Not applied in mergers, restructuring, termination and discontinued operations

[24] Amended by Law 2948/2001, Law 3091/2002, Law 3193/2003, Law 3220/2004, Law 3296/2004, Law 3427/ 2005, Law 3470/2006, Law 3522/2006, Law 3554/2007, Law 3610/2007, Law 3634/2008, Law 3775/2009, Law 3815/2010, Law 3842/2010, Law 3899/2011, Law 3943/2011, Law 3986/2011, Law 4002/2011, Law 4093/2012, Law 4110/2013, Law 4254/2014, Law 4261/2014, Law 4330/2015, Law 4474/2017, Law 4484/2017, Law 4583 / 2018, Law 4587/2018, Law 4605/2019

[25] For valuation issues see Law 3091/2002.

[26] Certain and settled debts, which legally exist at the time of death (tax debts, the hospitalizations fees, inheritance costs and expenses, debts from credit cards, loans, household accounts etc)

other movable assets are exempt from the donation tax, provided that these donations are organized nationwide for proven philanthropic purposes. Furthermore, property acquisitions due to donation from the State, provided that their tax exemption is regulated by international agreements are exempt from tax. According to Law 1078/1980 as amended a first-time exemption up to 200,000 euros in case acquiring a first residence and will remain in the ownership of the heir for at least five years. In principle, the same provisions apply to lifetime gifts and donations as with inheritance tax. For the calculation of the tax, the beneficiaries of the acquisition, depending on their kinship with the heir, are classified into three categories, for each of which there are special tax-free limits and special tax rates.[27] The tax is calculated with the same tax scales for the rest of the property (except money) that is acquired due to donation or parental benefit, which remains after the deductions and exemptions. Also, by Law 4093/2012 winnings from a lottery and gambling games are taxed at a flat rate of 10% and profits are subject to tax per lottery ticket, after deducting a tax-free amount of 100 euros, at a rate of 10%, 15%, or 20%. In gambling conducted with game sessions, profits are subject to tax per game session, after deducting a tax-free amount of 100 euros, at a rate of 15% or 20%.

Property Taxes

The possession of real estate assets remained tax-free until the year 1975 when a regular tax on the possession of real estate was passed for the first time by Law 11/1975. However, this tax did not work satisfactorily in practice, mainly due to the unsuccessful treatment of the problem of real estate valuation and narrow tax bases. The weaknesses of Law 11/1975 were attempted to be covered by the amendments made by Law 231/1975 and Law 542/1977, while it was finally repealed by Law 1078/1980. The tax liability for real estate was re-introduced with the provisions of Law 1249/1982 which were abolished by Law 2065/1992. However, with Law 2459/1997 a tax on the possession of large real estate was imposed as abolished with the enactment of Law 3634/2008 which introduced the Unified Property Tax. With Law 3808/2009, an extraordinary contribution was imposed on the large real estate of individuals. Unified Property Tax was abolished, with Law 3842/2010 and was replaced again by the real estate tax.

From the year 2014 and for each subsequent year, a Single Property Tax by the virtue of Law 4223/2013 was imposed. According to the provisions of Law 4223/2013, from the year 2014 and for each subsequent year a new unified real estate tax (ENFIA) has been introduced[28].This tax is equal to the sum of the principal tax and additional tax on the total actual value of the property. The Law among others defines the scope, the object and subject of taxation, the cases of exemption and the way of determining the main tax, which is based on geographical location, area, the age, the floor and the number of facades of the building and provisions of Article 41 of Law 1249/1982. The supplementary tax is imposed on the exceeding value of 250,000 euros with a scale of progressive rates according to the provisions of Article 5 of Law 4223/2013. The supplementary tax on legal entities is at a tax rate of 5.5‰. The supplementary tax for owner-occupied business properties is 1‰. The

[27] Category A includes among others spouse, children, grandchildren, parents. Category B includes among others children, brothers and sisters. Category C includes any other relative or heir relative or exotic. A tax is imposed on money donation at 10%, 20%, and 40% per each category.
[28]Tax objects are property rights of bare or full ownership, usufruct on buildings and other kind of assets.

supplementary tax on non-profit legal entities is 3.5‰ in assets other than own-occupied. It is also known that Greek State, Hellenic Asset Development Fund, Public Properties Companies legal entities under public law, legal entities under private law which include general government entities possessing owner occupied properties for the fulfillment of their needs and if the property is used as an embassy or is used by legal entities under public law or private law exclusively for the fulfillment of educational, cultural, religious, charitable purposes were exempt from tax. Concerning previous property tax regimes, the Single Tax on Property[29] is imposed to real estate property which is located in Greece from the year 2010 and belongs to individuals and legal entities. The tax rates were 1‰ for individuals, 6‰ for legal entities and 3‰ for nonprofit legal entities. Also, a rate 1‰ applied in owner-occupied properties, leased assets and real estate investment properties. The Single Tax on Property has been abolished since 2010, but it is still valid for real estate tax cases, for which the tax liability was born before its abolition. Also, exemptions have been also applicable to both individuals and legal entities.

The Tax on Real Estate is imposed to a real estate property which is located in Greece, from the year 2010 and belongs to individuals and legal entities. A new tax (FAP) was introduced with the aim of combating tax evasion and among the many changes that were enacted, Law 3842/2010 provided for the abolition of several tax exemptions that were in force until then. The Real Estate Tax has been abolished since 2014, but it is still valid for real estate tax cases, for which the tax liability was born before its abolition. Also, exemptions have been also applicable to both individuals and legal entities. As far as the tax rates for legal entities are concerned, the tax rates are 0,6% for profit seeking legal entities, 0,3% for nonprofit legal entities that serve educational and religious purposes and 0,1% for owner occupied properties and assets of Real Estate Investment Companies and Mutual Funds. For 2010, 2011, 2012 respectively a rate 0.033% was imposed on own used properties by hotel companies. Moreover, the tax imposed on individuals is based on a progressive scale with a tax-free threshold of 200,000 euros.[30] Also Extraordinary Special Fee for Electrified Structured Surfaces[31] is imposed for overriding reasons of national interest consisting in the immediate reduction of the budget deficit The Special Tax on Real Estate[32], was imposed to create disincentives and tackle tax evasion, which usually observed in assets belonging to offshore companies and other legal entities. The tax rate for the years 2003 to 2009 was 3% and the rate from the year 2010 onwards was 15% respectively.

Other Direct Taxes

According to the relevant tax legislation, main category of other direct taxes is Motor Vehicles Tax [33] which is imposed on all vehicles registered in Greece. Since then, with the provisions of Law 2093/1992, motor vehicles taxes were collected on annual basis.

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[29] Law 3634/2008, Law 3697/2008, Law 3746/2009, Law 3756/2009, Law 3763/2009, Law 3775/2009, Law 3808/2009 and Law 3842/2010 for abolishment.

[30] For the years 2010, 2011 and 2012, the tax rate 2% applied to any value exceeding 5 million euros

[31] Article 53 Law 4021/2011 as amended

[32] See Law 3091/2002, Law 3842/2010, Law 3091/2002.For exemption see Circular Pol. No. 1093/2010, Circular Pol. No 1114/2011, Circular Pol. No 1112/2011). From the year 2017, the Circular Pol. No 1056/2017, Circular Pol. No. 1081/2018 and Decision A. 1193/2019

[33]For rates and fees Law 2093/1992, Law 2873/2000, Law 2948/2001, Law 2992/2002, Law 3052/2002, Law 3283/2004, Law 3697/2008, Law 3888/2010, Law 3986/2011, Law 4093/2012, Law 4346/2015, Law 4410/2016

Moreover, with the provisions of Law 2948/2001, Law 3986/2011, Law 4346/2015, Law 4410/2016 traffic fees were calculated according to the displacement of the vehicle, gross weight, number of seats and carbon dioxide emissions.

Value Added Tax

With Law 1642/1986, as amended by the provisions of Law 1676/1986, VAT[34] has been introduced to domestic tax legislation. VAT was one of the biggest institutional tax changes and abolished mainly the majority of provision for turnover taxes (except for the insurance tax provisions), and large part of the provisions of stamp duties taxation. According to the legal framework of Law 2859/2000 as amended, subject to tax is any individual or legal entity who is engaged in economic activity and obliged to apply the provisions of VAT regardless of the place of installation and intended purpose of achieving profit. Thus, VAT is charged on the sale of taxable supplies by a taxable person or legal entity in course of business. On the other hand, individuals who are not engaged in economic activity such employees in private or public sector are not subject to VAT. Among the most important exemptions of Law 2859/2000 are the services of post offices, noncommercial public radio and television activities, hospital and medical care by entities of public law ,non-profit supplies of cultural and education services related to social welfare, insurance and reinsurance services, the majority of banking activities and financial transactions, renting of immovable property for non-business use, lotteries and games of chance and betting of Law 4002/2011.Moreover,taxable supplies are considered delivery of goods, real estate transfer and electricity, gas, heat goods. Delivery also includes the sale of goods on the condition of retention of ownership until the repayment of the price. The transfer of goods of a company as a whole or branch is not considered as delivery of goods but in this case, as a transfer of rights and obligations. VAT that is charged on taxable supplies is also known as output VAT and on the other hand VAT that on expenses is also known as input VAT. As far as the rate structure is concerned there are 3 categories of rates, standard rate 24%, reduced rate of 13% imposed on food (excluding alcoholic beverages), the super reduced rate of 6% for pharmaceuticals, medical staff and cultural events.[35]

Excise Duties

According to the provisions of Law 2960/2001, as amended, alcohol and alcoholic beverages to which an excise duty is imposed, are considered ethyl alcohol beer, intermediate products, wine and sparkling wine, fermented beverages, other than wine and beer. As far as exemptions are concerned, the provisions specify that ethyl alcohol and alcoholic products which has been fully denatured or used as raw materials for production of foodstuff or medicine are exempt from excise duty. Moreover, general exemptions are applied to products delivered to international organizations, embassies and army. The rate

[34] Law 1642/1986 harmonization with 6th VAT Directive 77/388/EEC. The relevant provisions were already contained in Law 2859/2000

[35] Relevant articles of VAT Directives and Greek VAT code for the case of special reduced rate, for special temporary reduced rate, for parking rates, for special schemes. Also relevant are Articles 39a to 47 of the Greek VAT Code. See Article 41 of Law No 2859/2000 for those engaged on agricultural activities. Streamlining VAT administration and revenue efficiency, exemptions, narrow bases, preferential treatment of geographical areas was always be a key policy issue and suggesting problems in tax revenue collection.

structure of the above categories is based on alcoholic strength and VAT imposed is 24%. Moreover, the provisions of Law 2960/2001, as amended stipulate the tax object and basis of assessment of industrialized tobacco is the quantity, the weight and the retail price and the VAT imposed is 24%. Regarding the duties imposed on energy and electricity, the taxable unit is measured on the consumption scales depending on case basis and the rate structure depending on product and usage. The VAT is 24% for the majority of products and 6% is applied to business use purposes.

Other Indirect Taxes

As far as the Stamp Duty[36] is concerned, there are four categories of rates depending on the transactions. More specifically a rate of 3,6% is applied to commercial rentals arrangements, a rate of 2,4% to official loans schemes, a rate varies between 2.4%-3,6% concerning private loan agreements, and a rate 1,2% is applied to other cases such as in the movements and withdrawals of business transaction accounts. Real estate transfer tax[37] is calculated at 3% of taxable value based on market value or objective evaluation system. In case of distribution of real estate between co-owners as well as during the solution and liquidation of legal entities, the transfer tax is limited to 0.75%. In other cases, the above tax is limited to 1.5%. Indirect taxes also include the following categories[38]: Environmental Fee of Plastic Bag, Accommodation Tax, Fees for Games with Playing Cards, Duties on Gross Profits Online Betting and Gambling, Luxury Special Tax, Annual Special Fee for the Operation of a Smoking Area, Insurance Premium Tax, Excise Tax on Television Advertisements, Tax on Mobile Telephony Services, Fixed Telephony and Internet Subscriber Fee, End to Pay TV, Car Registration Duties. Most of the previous taxes were imposed in the period of economic crisis as measures to improve tax revenue efficiency. Concerning capital concentration tax[39], this tax applies to the establishment of a company in Greece, capital increase of companies, increase of company assets and increase of capital due to merger, division or conversion. The capital concentration tax is 1% on the contributed capital on each transaction. Such tax applies to certain types of accumulation of capital in replacement of stamp duty. Moreover, according to Law 2837/2000 a duty of 0, 1% is imposed on the capital upon incorporation or capital increase of legal entities. According to Law 2579/1998, sales of listed shares acquired

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[36] Stamp duty taxation was undergone many changes and abolishment regulated in several of Laws and ministerial circulars as a reform to broad tax base, streamlined administrative cost tax and replacement with VAT.

[37] Properties not subjected to VAT. See Law 2779/1999 for tax free transfer on REICs, Law 634/1977 for agricultural exemption, Law 1249/1982 for the determination of taxable value, Law 1078/1980 for First Residence Exemption. For other legislation concerning capital tax see: Leasing and Sale and lease back contracts (Law 1665/1986), Mergers of credit institutions (Law 2515/1997), Mergers due to consolidation (Law 3601/2007, Law 4261/2014), Merger, conversion, division of company branches (Law 2190/20, Law 3190/55, Law 4072/12, Law 4601/2019).Also see Laws 1521/1950, 2873/2000, 2948/2001,3091/2002, 3220/ 2004, 3427/2005,3522/2006, 3554/2007, 3634/2008, 3842/2010, 3943/2011, 4072/2012, 4174/2013 4223/2013 and 4537/2018

[38] For Accommodation Tax: see Law 4389/2016, Law 4472/2017, Law 4514/2018, For Fees for Games with Playing Cards see: Law 2515/1997, Law 3037/2002, Law 2539/1997, Law 1416/1984 and Law 622/1986, For Betting Games see: Law 4002/2011,For Luxury Special Tax see: Law 2859/2000, Law 3833/2010, Law 3845/2010, For insurance premium tax see: Law 3492/2006, Law 434/2015, Circular Pol. No. 1126/2006, Circular Pol. No. 1158/2015, Circular Pol. No. 1028/2017, Circular Pol. No. 1032/2018,For excise duties on TV advertisements: see Law 4532/2018,Law 4499/2017, Law 3845/2010, For tax on mobile telephony services see: Law 3775/ 2009, Law 2579/1998, and Law 4389/2016.For TV duties see: Law 4389/2016.For car registration see: Law 2960/2001, Law 1573/1985, Law 3583/2007, Law 4389/2016, Law 4410/2016, Law 4537/2018.

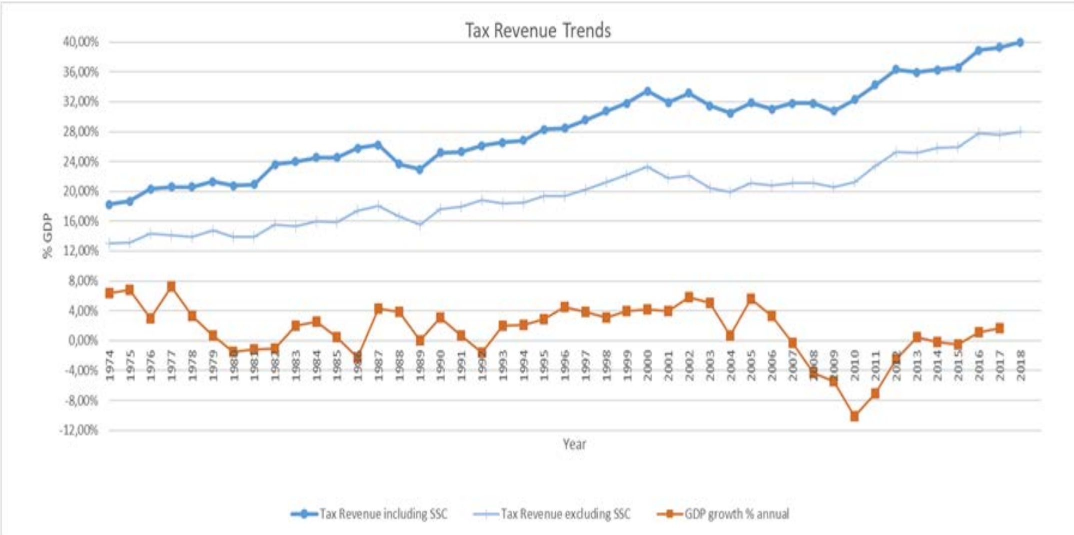
[39] See Law 1676/1986, Circular Pol. 2004/2019, Circular Pol..1238/2018, Circular Pol. 1042/2017, Circular Pol. 1133 /2014

prior 2011, are subject to 0,2% transaction tax. Capital gains resulting from the sale acquired as of 2012 and onwards, are taxed according to the general income tax provisions. According to Law 128/1975, as amended, an annual bank contribution of 0, 6% is imposed on the average outstanding monthly loan balances.

4.Tax Revenue Trends

In this chapter, we will examine the development of tax revenues in the period from 1974 to 2018[40]. Figure 3 first shows the evolution of total tax revenue as a percentage of GDP and the annual growth of GDP.

Figure 3: Tax Revenue Trends



Source: OECD as at Oct 2021.GDP growth from TED database

First of all, tax revenues have increased from 12% in 1974 to 28% in 2018, which shows an upward trend. Taking a closer look, we can distinguish four periods of tax revenue development. The first period, from 1974 to 1989, saw a slow increase

[40] For the analysis of this part valuable information, except for tax laws, budgets and Greek authorities and Fund staff estimates, provided also in **IMF**: IMF Country Report No. 13/155 (2013), IMF Concluded Article IV Consultation with Greece (2001), Greece IMF Staff Report for the 2000 Article IV Consultation, IMF Country Report No. 17/229, August 2009 IMF Country Report No. 09/245, IMF Country Report No. 19/341 Nov 2019[IMF Staff Country Reports] Greece_ Staff Report for the 1999 Article IV Consultation; **OECD:**OECD reports and economic surveys, (2007a,2007,2009 2011,2016,2020); **Eurostat and European Commission:** Tax reforms in EU Member States 2013, The ESM Stability Support Program ,Greece, First & Second Reviews July 2017 , Taxation Trends in the EU (2017,2018),Taxation in EMU Economic papers 301 March 2008, Tax Reforms in EU Member States(2015), Also Tax Policy Reform Database (TPRD), Amaglobeli, D.,V. Crispolti, E. Dabla-Norris, P. Karnane, and F. Misch, 2018, Tax Policy Measures in Advanced and Emerging Economies: A Novel Database, IMF Working Paper

from 12% to 16%, with shortfalls in revenues in 1980-1982 and 1987-1989. Overall, this period can be described as one of low efficiency tax policy, with narrow tax bases, exemptions and deductions for different groups of taxpayers, broader independent taxation of income, and inefficient application of withholding tax. The structure of the Greek economy and the fact that self-employed individuals can take advantage of tax avoidance and evasion opportunities to a greater extent than wage earners have hindered the generation of sustainable tax revenues. Apart from personal income tax, corporate income tax can be characterized as a less efficient source of tax revenue. This is due to different tax rates for different types of companies, tax treatment and incentives that limit the tax base, calculation of taxable profit based on legal requirements rather than on the substance of transactions, and insufficient audit controls by tax authorities. In addition, excise taxes were mainly based on consumption taxes, regulatory and stamp duties, resulting in distortions for consumers. With the introduction of VAT in 1987, there was an upward trend in excise taxes, but the poor revenue efficiency of excise taxes, unrecorded transactions, tax bases and exemptions, and tax evasion remained a key policy problem not only in Greece but also at the European level. As for property taxes, the relatively low value can be clearly explained by the fact that property tax is a transaction-based tax and based on outdated value determination despite the important contribution of Law 1249/1982, which provides an inefficient framework for taxation. It should be noted that there was generally an upward trend in the average net disposable income of all categories during the period 1973-1978, followed by a downward trend from 1979 to 1981, mainly due to the general downward trend of the economy that started with the second oil crisis in 1979 and stopped in 1982. The sharp decline in the average tax rate continued to be a significant burden on all taxpayers' groups as a percentage of average income in 1993. This is a consequence of government action to reform income taxation with a view to achieving more general acceptance of restrictive income policies and increasing productivity. Second, there is clearly a sustained upward trend from 13% to 20% for the period 1990 to 2001, which can be attributed to fiscal interventions, the Stability and Growth Package and eurozone membership. Also, the fact that during this period tax policy measures such as the ratification of the new income tax law with Law 2238/1994, the introduction of stricter criteria for advance taxation and objective income determination, the abolition of tax exemption and independent taxation schemes, and the intensification of audit controls provide an effective framework for sustainable revenue efficiency.

By 1989, in contrast to tax reforms in other countries, numerous standard and nonstandard tax deductions were introduced. The impact of these caps, exemptions, and tax evasion can therefore be easily seen in the difference between effective and statutory tax rates. Another important issue was the discrimination against agricultural activities and the self-employed, which led to under-reporting of income and significant revenue losses. Another negative aspect of the income tax system was its high progressivity by OECD standards. Finally, the tax system contained an excessive number of generous tax allowances and deductions.[41] As far as corporate income tax is concerned, the significant tax breaks and deductions as well as the different and reduced tax rates depending on the legal form are reflected in low revenues.[42] In 1988, the standard rate VAT was reduced from 18% to 16%, and products were switched from the top rate to the standard rate. With the aim of curbing tax evasion in particular, important income tax deductions for consumption expenses were introduced. In addition, the tax incentives for investment and exports introduced in 1988 were applied. In order to increase revenues from direct taxes, an extraordinary income tax surcharge of 5% was levied on income tax debts exceeding 170,000 drachmas from 1988, effectively affecting high income earners and reducing the tax base by excluding a large part of the taxpayers In the same context, an extraordinary income tax was levied on profits up to five million drachmas at the rate of 5% and on the amount exceeding that at the rate of 7%.

The 1991 budget contained significant changes in personal income taxation, primarily involving increases in tax rates. However, the non-indexation of the personal income tax rate and allowances, combined with the reduction of tax rates from nine to four, had a negative impact on personal income tax revenues. In addition, there was a change in the VAT framework, moving certain items from the low VAT to the standard rate. Another item that affected tax avoidance was the doubling of the assumed maintenance costs of assets, the justification for the purchase of expensive consumer goods and real estate, and a capital gains tax on real estate. Moreover, the objective values of buildings and land used for taxation of real estate transactions were adjusted closer to market values. Tax measures in 1992 also included an increase in indirect taxes and excise taxes, the abolition of the 36% tax rate VAT, and an increase in the withholding tax on interest income from bank deposits from 10% to 15%. In 1992, the taxation of individuals was simplified, income tax rates were significantly changed, and the top tax rate was reduced from 50% to 40%. Also, tax exemptions and deductions were abolished. The new personal tax framework thus increased the tax burden on low earners compared with average or high earners, for whom the taxes payable were significantly reduced. The corporate income tax rate on profits was also reduced to a uniform rate of 35%. To compensate for the loss of revenue caused by the reduction in corporate tax rates, an extraordinary tax on residential and commercial properties was introduced in 1992, and in the same context a progressive levy on pensions was introduced as a measure to increase direct tax revenues. In addition, a top tax rate of 45% was introduced in 1994, and dividends from investment funds and repos were taxed at 15%.

The budget continued to target tax evasion by increasing the criteria for presumptive income taxation of sole proprietors and imputation of income from ownership of private luxury cars and boats. In 1997, tax policy aimed to increase the

[41] In contrast to most OECD countries, there had been an increase in standard and nonstandard deductions. The most important problem was the lack of correlation between consumption expenditures and nontaxable amounts and deductions (expenditures with income)

[42] For example, Law 1262/1982 provides a ten-year framework for investment and tax incentives and benefits (interest income)

primary surplus by extending revenue-raising tax base strategies to consumption and reducing current primary expenditures. One of the most important innovations in 1997 was the elimination and reduction of numerous tax incentives that broadened the tax base, the imposition of a property tax on large estates, and the introduction of a withholding tax on previously untaxed government bonds. In addition, a large part of the increase in income tax is due to the indexation of tax brackets, which have remained unchanged since 1992. Consumption taxes, which have a negative impact on inflation, were also left largely unchanged. In addition, the tax on banking transactions (EFTE) was reduced from 4 % to 3% in 1997. Other important measures included an increase in the corporate tax rate for unlisted companies from 35% to 40%, an increase in the withholding tax on newly issued government securities to 10%, and the introduction of a program to terminate pending tax cases from 1993 to 1997. The 1999 budget focused on EMU licensing requirements, adopted cuts in excise taxes and administrative prices to curb inflation and meet the need for higher interest payments. On the revenue side, measures included not adjusting tax rates for inflation, increasing the criteria for presumptive income taxation of the self-employed, establishing a program to provide rebates for the termination of pending tax cases, and increasing the withholding tax.

In addition, the broader application of the withholding tax and VAT on a broader basis contributed to the sustainability of tax revenues. Overall, government policy since the mid-1990s has focused on improving the efficiency of the tax system, which has had a positive impact on the efficiency of tax revenues. Also, electronic systems and digitization were introduced for tax audit techniques and cross-checks.

In the third phase, the period 2001-2008 can be characterized as a stable period of tax revenues with a rate above 20%. The objectives of the tax reforms implemented in this period are to promote investment and employment, to create tax incentives, and to rationalize taxation by simplifying the personal income tax. Simplification was achieved by eliminating existing tax reductions, exemptions, allowances and special treatments of income. Tax policy measures include the abolition of the tax amnesty, the elimination of the discrimination against the self-employed and unincorporated businesses, the further broadening of the tax base, the further reduction of corporate income tax and the reform of the residential property market, the efficient tax administration and the digitization of the tax system. [43]

Key measures for 2000 included a substantial increase in the annual tax credit for income from employment, pensions, and self-employment by about 35% to 45% for 1999 and 2000, and an increase in the tax credit for dependent children. Other issues included changes for the self-employed in the criteria for the presumption of income and a reduction in the tax on partnerships and civil law companies from 35% to 30% for 1999 profits and from 30% to 25% for 2000 profits. One measure that affected the corporate tax base was a tax allowance on corporate profits equal to 50% of the employer's share of social security for each new employee, provided that employment

[43] See Bronchi (2001), for options for reforming tax system in Greece

remains unchanged. Other measures included an increase in the stock exchange tax rate from 0.3% to 0.6% and a reduction in the special consumption tax on motor vehicles depending on engine power. In addition, the special consumption tax on petroleum products and heating oil was reduced during the winter season. Moreover, interest income was taxed at 10% with the exception of government bonds and portfolio investment companies were taxed at 0.3% on the average value of their investments.

Key budget measures for 2001 include a reduction in the top personal income tax rate from 45% to 42.5%, followed by a 5% adjustment in all tax rates, an increase in the tax allowance by 100,000 drachmas, an increase in tax credits for families with three or more children, and deductible expenses for the purchase of personal computers and internet subscriptions. Corporate tax rates for unlisted companies were reduced from 40% to 37.5% and for general partnerships and limited partnerships from 30% to 25%. In addition, the special tax on banking activities (EFTE) was abolished and the tax allowances for agricultural transfers were increased to broaden the tax base. As highlighted in the 2001 budget, in 2002 the top personal income tax rate was reduced from 42.5% to 40% and the corporate income tax rate for unlisted companies was brought in line with that of listed companies by raising it from 37.5% to 35%, the same rate as for listed companies.

The tax measures introduced by Laws 2990/2002 and 2992/2002 provided for a 20% increase in the exemption amount applicable to all taxpayers and the abolition of the income scale corresponding to the 5% marginal tax rate applied to employment income. Corporate tax rates were reduced by 1, 2 and 2.5% in 2002, resulting in an increase in employment of 5, 10 and 12.5% respectively. Other innovations included the extensive abolition of stamp duty on transactions [44],the imposition of a 7% tax on interest income compared to the previous tax exemption regime, the application of measures to simplify the administration VAT, especially for SMEs, and the broadening of the property tax base.[45]

In the period 2004-2007, specific measures were taken, such as the reduction of personal and corporate income tax through gradual reduction of tax rates and a restructuring of tax rates to bring the Greek tax system in line with international standards. Another important role was played by the modernization of TAXIS, the restructuring of audit services, the improvement of tax administration, and the creation of tax incentives for the collection of tax revenues. Moreover, an efficient framework for the acquisition of goods and services established to reduce unreported income and tax evasion. In order to curb widespread tax evasion in the oil market, the tax rates for heating oil and diesel were adjusted in 2008. In the same context, the 2008 tax reform included a further reduction in income tax rates and measures to broaden the tax base, such as a 10% tax rate on dividends and capital gains. In addition, the tax-free threshold

[44] Compensating for revenue losses by broadening the VAT base or increasing rates

[45] Coverage of real estate across the country, rationalization of tax exemptions and allowances, significant reductions in numerous other taxes on the transfer of real estate, and reforms to estate taxation (reducing the number of tax tables and rates).

for self-employed persons was abolished for income up to 10,500 euros and a tax rate of 10% was applied instead. Another measure to simplify property taxation was the unified property tax introduced in 2008, which replaced a large number of taxes on real estate. In addition, the inheritance tax levied on transfers between close relatives was abolished and replaced by a uniform flat tax of 1% on real estate transfers. At the beginning of 2009, the primary residence exemption was replaced by an allowance based on marital status and the value of the property to create a uniform property tax regime. A separate tax of between 0.6% and 2.4% was levied on the transfer of shares and companies, depending on the type and degree of relationship. Law 3296/2004 provided for an increase in tax-exempt income and a reduction in the number of tax brackets from four to three, as well as a reduction in the tax rate for general partnerships and limited partnerships from 25% in 2004 to 20% in 2007[46]. In addition, a plan was implemented for a gradual reduction in income tax rates over the period 2007 to 2009, while maintaining the statutory top tax rate of 40% for incomes above 30,000 euros. The law also increased the exemption amount for employment and pension income from 10,000 to 11,000 euros and for all other taxpayers from 8,400 to 9,500 euros. Moreover, the tax allowances for housing, medical care and education expenses were raised. As for corporate tax rates, the law provided the framework for a gradual reduction in the corporate tax rate from 35% in 2004 to 25% in 2007 and introduced tax relief for mergers of SMEs and a 50% reduction in the advance tax payment for newly established companies in the first three years after their establishment. On the other hand ,by Law 3427/2005 VAT abolished the real estate transfer tax and the capital gains tax on the sale of new buildings.[47]

In 2002, the tax authorities simplified accounting procedures and the administration of VAT, reformed personal income tax and expanded the use of digitalization. Another important issue was the fact that non-standard deductions and credits treated certain categories of taxpayers unfairly and led to a narrowing of the tax base.

As mentioned above, the 2002 tax scale contained six tax brackets with tax rates ranging from 0% to 42.5%. The increase in the zero rate and tax deductions for children significantly reduced the number of taxpayers who had to file a tax return, thus reducing administrative and compliance costs. The 2003 reform aimed at broadening the tax base while reducing tax rates and aligning effective tax rates for different activities. In addition, the 2001 budget had already included measures consistent with general tax policy intentions, including the reduction of top direct tax rates and the abolition of smaller and more administratively burdensome indirect taxes such as stamp duties. In the case of personal income tax, the zero rate was doubled and the top marginal tax rate was reduced by 2.5 percentage points; the same tax rate reduction applied to unlisted companies and partnerships. It should be noted that the constant

[46] Reduction of the corporate tax rate from 35% in 2004 to 32% in 2005, to 29% in 2006 and finally to 25% in 2007: the reform package of Law 3296/2004 provided for the abolition of stamp duty on net profits and the abolition of the tax exemption on reserves in order to broaden the tax base.

[47] Increase revenue from housing market transactions and reduce tax evasion through informal construction activity.

revisions of the income tax law in the 1980s and 1990s increased tax uncertainty and that the frequent tax amnesties for pending cases had a negative impact on the fairness and compliance of the tax system.

Aiming to even out the tax avoidance gap between employees, pensioners and the self-employed that existed until 2003[48], the tax administration's efforts have focused on improving tax compliance by reformulating the objective taxation criteria that eroded the tax base, introducing withholding tax, changing independent taxation, and phasing out low-revenue third party taxes and stamp duties[49]. In addition, it became clear that tax avoidance measures were used to reduce tax liabilities[50]. As part of the simplification of the tax system, the tax base was broadened and exemptions were streamlined, with tax reductions being converted into capped tax credits. Another issue was that objective criteria applied to high-income individuals, and sole proprietors kept their books according to current accounting standards rather than taxing according to objective criteria. However, objective criteria played a crucial role in tax auditing as an alternative method of determining business income, which largely affected the sustainability of tax revenues. In addition, the period saw the alignment and unification of the corporate income tax rate to 35%, the reduction of the real estate transfer tax rate from 9% to 11% to 7% to 9%, the imposition of a 3% tax on domestic real estate owned by offshore companies, and the harmonization of the 15% tax on interest income. In addition, the exemption amount was increased and the tax rate for the transfer of the first residence between parents and children under the inheritance and gift tax was reduced. Another important administrative measure to reduce compliance costs was the simplification of tax record-keeping requirements and the extension of the period for filing tax returns (VAT) for small businesses and sole proprietors from two to three months. In this context, the widespread use of electronic filing of tax returns was also addressed.

Laws also unified the tax rate for unlisted companies to 35%, and addressed other tax issues related to redundancy costs, group life insurance, depreciation method, and effective taxation of capital depending on its legal form and the way it was financed, invested, and distributed. It also becomes clear that the contribution of the property tax is mainly based on the real estate transfer tax. Thus, revenues were previously generated mainly from real estate transactions, where the common practice was to understate property values by using objective values rather than market value as the tax base. In addition, VAT was levied on newly constructed real estate. However, taxing transactions resulted in adverse effects on transactions and undermined the functioning of property tax bases. However, real estate property taxation was inefficient due to the lack of a comprehensive land registry and valuation. In addition,

[48] The different taxation of incorporated enterprises and the lower social security contributions for self-employed persons favor unincorporated enterprises. Imputed income based on presumption criteria and the system of social security contributions made the self-employed attractive, leading to greater tax evasion

[49] Rents included in the income tax table while capital gains, interest and dividends are subject to independent taxation, ranging from 0% to 15%. The harmonization of interest income to 15% has reduced the preferential treatment for government debt and tax arbitrage techniques.

[50] Potential threat from social security contributions, self-employed, presumed versus declared income, real estate investments, and equity investments were excluded from the calculation of the presumed tax base

inheritance taxes were highly progressive and based on a scale tax that depended on the relationship of kinship, but tax avoidance practices, including the establishment of offshore companies, resulted in low tax revenues.

The adoption of policies to strengthen public tax administration and collection has increased the tax-to-GDP ratio and reduced high marginal tax rates. Since 2004, policies have focused on simplifying the tax system, broadening the tax base, and reducing tax evasion. The main objective was to unify the taxation of interest income, abolish the tax exemption on retained earnings, raise the tax rate VAT and apply it accordingly to real estate transactions, and reduce personal and corporate income tax. In addition, the 2008 tax reform focused on reducing the personal income tax by 2 percentage points to the two middle marginal tax rates of 29% and 39%, raising the tax exemption threshold, rationalizing real estate taxation by applying a single tax of 1% to the transfer of real estate, abolishing the real estate tax on large real estate, and modifying the inheritance tax exemption by applying a real estate tax of 0.1% for individuals and 0.6% for legal entities. Moreover, as part of the broadening of the tax base and the fight against tax evasion, tax incentives to collect tax revenues were introduced. An important issue was also the presumptive tax, which was enacted in 1994 and came into force in 1995[51]. Another issue was the broadening of the tax base for capital gains tax, rationalization of the complexity of capital income and the review of tax exemptions for income. Law 3299/2004, amended by Law 3522/2006, provided for investment incentives. An important point was to improve the efficiency of revenue VAT by reducing tax exemptions and limiting distortions.[52] Also, significant efforts have been made to streamline counterproductive and distortive tax exemptions, but important exemptions in income, VAT, and capital taxation have remained in place [53].

In the fourth phase, 2009-2018, Greece went through a financial crisis and tax revenues were increased from 20% to 28% to meet certain quantitative tax requirements. As can be clearly seen, the tax changes already presented significantly increase tax revenues in the main categories of income tax, property tax and consumption tax. Overall, the streamlining of the income tax with the introduction of a single tax rate, the elimination of deductions and tax credits, the intensification of auditing and collection procedures, the introduction of electronic payments and the introduction of a revenue-generating property tax provide a sustainable tax revenue of 28%.

In 2009, measures were also adopted to support the housing sector, such as increasing the tax deduction for mortgage interest from 20% to 40%, not only for primary residences but also for other purchases, and reducing notary fees from 1.2% to 1% of the asset value to encourage real estate transactions. The measures adopted in 2010 focused on increasing revenues rather than reducing expenditures. On the

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[51] The laws established criteria such as the national minimum wage and other adjustment factors to determine presumptive income. The issue of the presumptive tax base was another important topic for further analysis.

[52] In this context VAT rates schemes (super reduced), exemptions and thresholds play a crucial role.

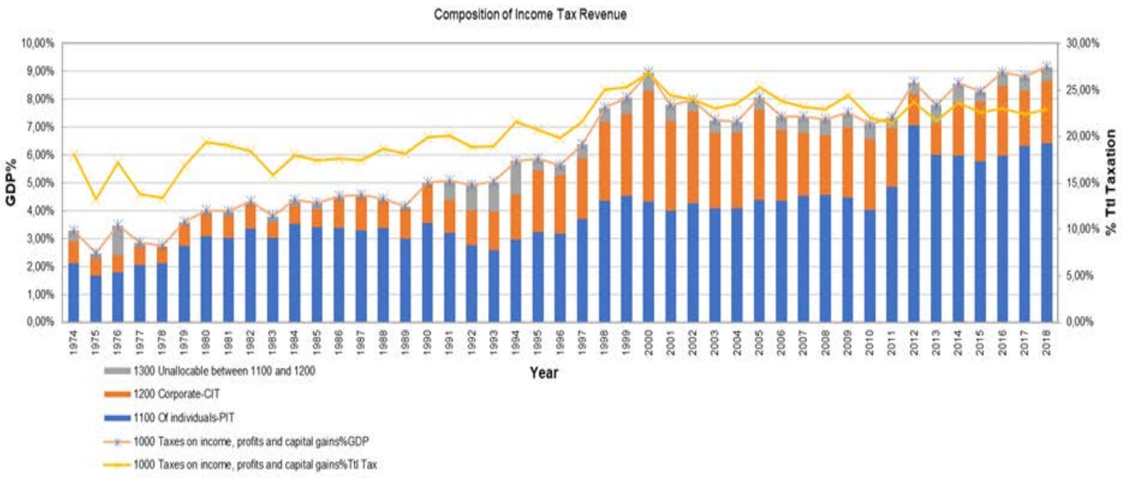
[53] Super reduced rates in Aegean Islands were also applied. Also, CIT reduced rates and exemptions were valid as well as PIT exemptions which applied to pensioners and disabled.

expenditure side, the measures primarily included cuts in salaries and pensions, as well as reductions in military spending and certain capital investments. In 2011, the same spending pattern was implemented. Revenue increases were mainly due to increases in tax rates VAT by 20% (with the top tax rate raised from 19% to 23%) and in excise taxes on tobacco, alcohol and fuel (by 33%), while income and property taxes were also raised to a lesser extent. However, the substantial progress made in fiscal consolidation in 2010 did not generate significant tax revenues and suggested serious deficiencies in the administration of the tax system, due to narrow tax bases and poor collection procedures.

The increase in tax revenues, which amounted to about five percentage points of GDP between 2009 and 2015, was mainly due to the introduction of higher VAT tax rates, excise taxes, and property taxes. In the same context, tax exemptions were also reduced and other revenues increased to meet quantitative budget targets. In addition, the broadening of the tax base for real property and the introduction of the zoning system for the assessment system generated higher revenues. In addition, the VAT for the hospitality industry was raised from 13% to 23% and a higher rate VAT was applied to soft drinks and natural and liquefied gas. Other tax changes envisaged in the medium-term fiscal strategy included the introduction of a special solidarity contribution, an increase in the excise tax on heating oil, an annual professional levy of 300 euros for small businesses and sole proprietors, an increase in social contributions, an increase in the income threshold for the self-employed, the introduction of a contribution for the self-employed and the introduction of the solidarity contribution for pensioners, as well as further cuts in pension benefits. In addition, a new income tax law passed in 2013 reduced the number of income tax brackets from eight to three and, most importantly, eliminated a number of tax credits and deductions and changed the tax rate on capital income. In June 2013, the property tax also underwent a comprehensive reform by combining the real estate tax (FAP), the extraordinary real estate tax on electrified land (EETIDE), and the real estate transfer tax. In addition, the simplification measures of VAT reduced the scope for tax arbitrage in favor of lower tax rates and created a more stable tax base.In this point we examine the income tax revenue evolution from 1974 to 2018[54].In Figure 4 below, we have created a chart showing the composition of income tax revenue as a percentage of GDP and as a percentage of total taxation, not only at the aggregate level, but also broken down by personal income tax and corporate income tax. As can be clearly seen, personal income tax has a major impact on total revenue.

Figure 4: Composition of Income Tax Revenue

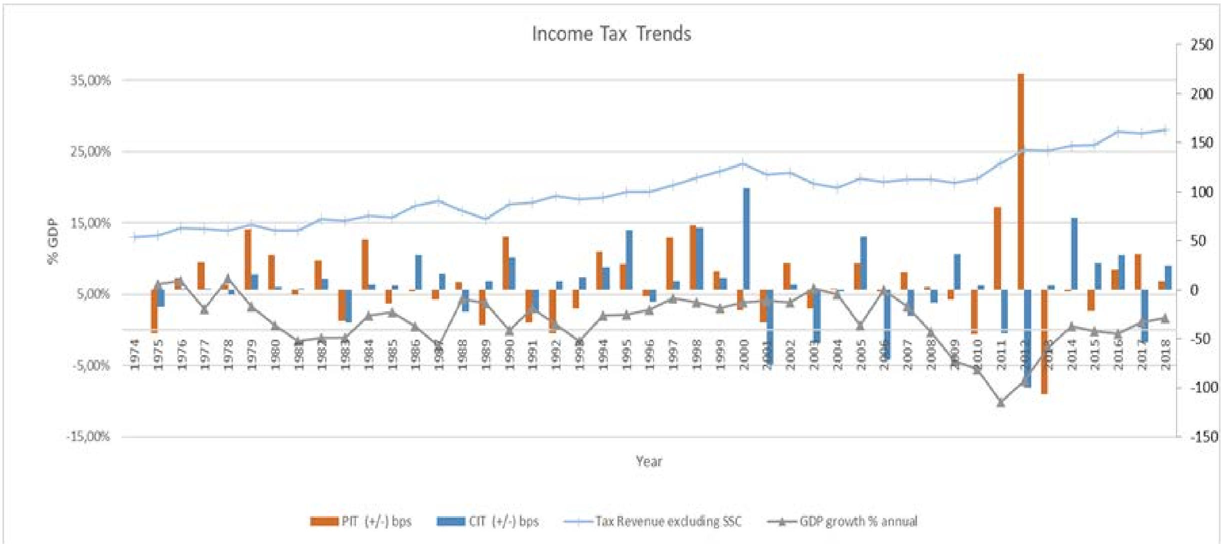
[54] As % GDP, Source: OECD, AMECO and Tax Legislation



Source: OECD as at Oct 2021

Figure 5 shows the evolution of the income tax by plotting the percentage change in personal and corporate income taxes along with total net tax revenue and annual real GDP growth. It is worth noting that the change in personal income tax in 2012 has a significant impact on the efficiency of tax revenue, despite the poor figures for corporate income tax.

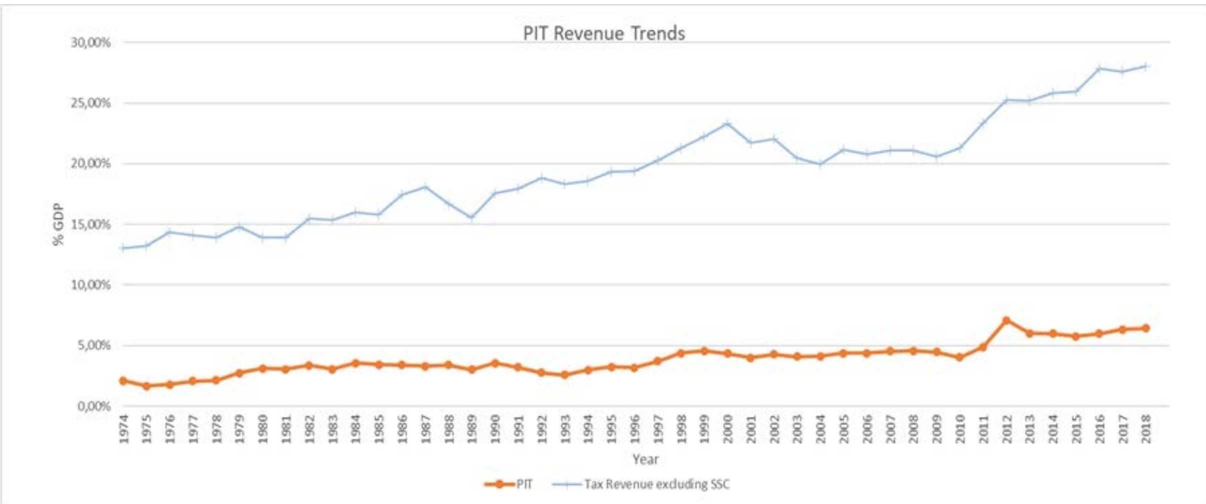
Figure 5: Income Tax Trends

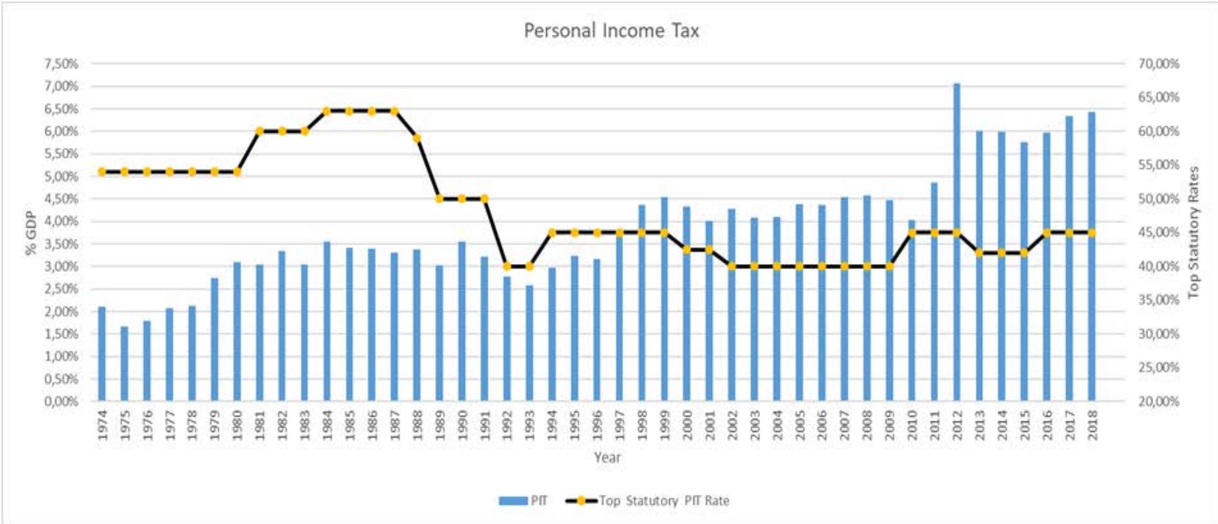


Source: OECD as at Oct 2021,Ameco,Tax Legislation,Author Adjustments

Third, it is useful to plot the top income tax rates and the income tax figures as a percentage of GDP. Figure 6 shows that between 1974 and 1991, higher top tax rates did not generate tax revenues of more than 3.5%, while the reduction of top tax rates, the streamlining of tax scales, the elimination of exemption and the rationalization of independent taxation, and the increase in objective income determination and presumptive taxation led to a more efficient income tax framework. More specifically, we can observe an increase in taxation after 1981. This is due to the increase in the lowest rate, while the top tax rate for high incomes has been maintained and is up to 54.50%. In this period, starting from 1983, the average tax rate decreases slightly from 47% to 46.40%. In 1989, a reduction in the tax brackets, limited to ten brackets, can be observed. Also, from 1975 to 1989, nine income brackets were reduced while the top tax rate was reduced from 60% to 50%. From 1992, the system of personal taxation was simplified and income tax rates were significantly changed. In particular, the top marginal tax rate was reduced from 50% to 40% and several exemptions and deductions were abolished. The new tax scale entailed a slight increase in the tax burden for low-income earners, while the tax burden for middle- and high-income earners was significantly reduced. The abolition of allowances meant that taxpayers who were entitled to standard and special allowances were disadvantaged by the new tax program. Tax policy was adapted to the new conditions by further reducing direct taxes and increasing indirect taxes. In 1994, the government announced and implemented a new package of tax measures. First, the objective criteria were changed and a minimum profit for sole proprietors was introduced as objective income. In 2003, the brackets were further reduced, the tax brackets were limited to three, and the top tax rate was reduced from 42.50% to 40.00%, further favoring middle, high, large incomes. In 2013 - 2015, the tax rates increased in the three stages with the highest rate from 40 % to 42%. The criteria of imputed income were also introduced for farmers, who until then were favored not only in income tax, but also in property and capital tax. From 2000, top tax rates have remained stable and revenues have increased, mainly due to the broadening of the tax base, the adaptation of tax rates to the majority of taxpayers and the application of anti-evasion measures such as electronic payments and the filing of income tax returns. Starting in 2009, the economic crisis had an impact on income tax. Primarily, tax rates were increased and tax exemptions were abolished in order to meet the quantitative measures of the Stability Program. It is noteworthy that extraordinary levies on incomes, such as those imposed in 2011-2012, significantly increase tax revenues but have negative effects on disposable income and growth.

Figure 6: Personal Income Tax Rates and Revenue

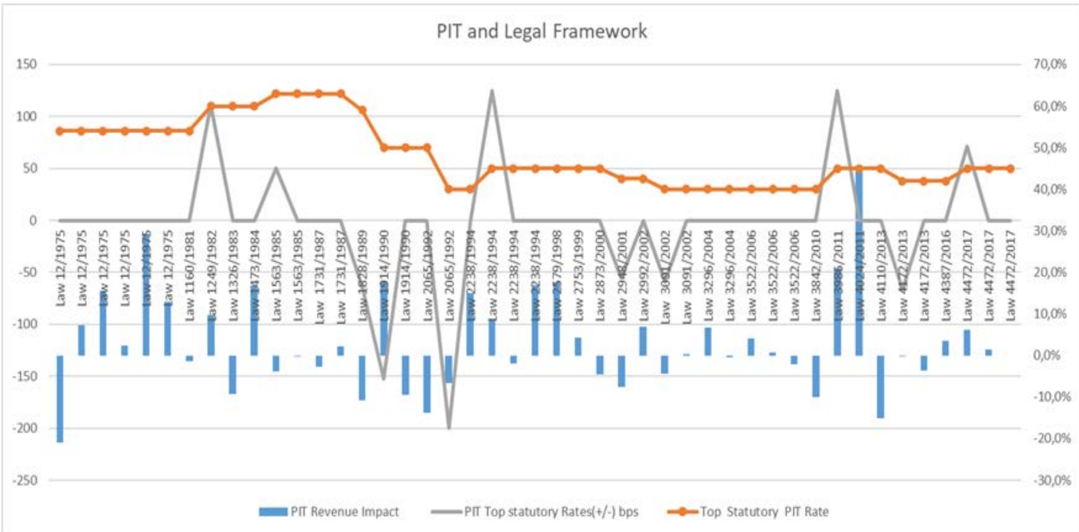




Source: OECD as at Oct 2021, Tax Legislation, Authors Adjustments

Another interesting aspect that complements the above is the joint presentation of the impact on income tax revenue as a percentage change scaled by GDP, legal status per year, percentage change (basis points) in top personal tax rates, and top rates.

Figure 7: Personal Income Tax and Legal Framework

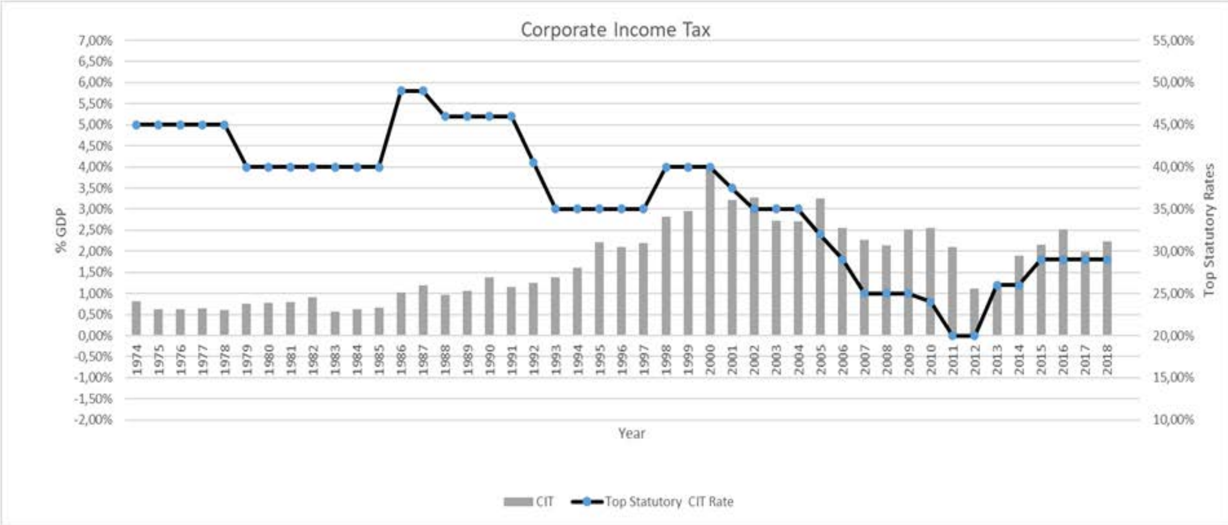


Source: OECD as at Oct 2021, Tax Legislation, Authors Adjustments

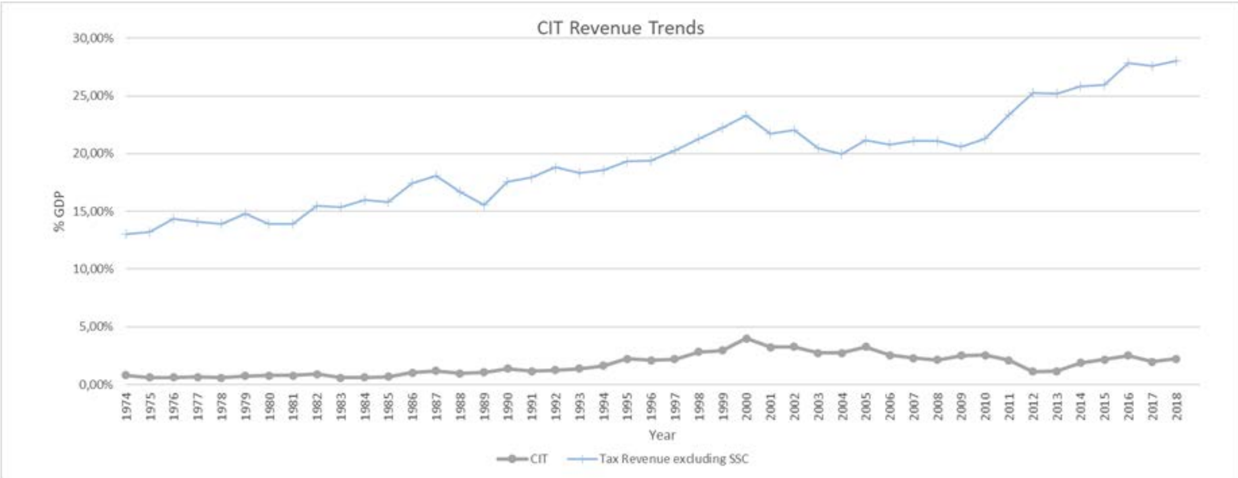
In this context, we also present the top corporate income tax rates and the corporate income tax figures, as shown in Figure 8. An increase in revenues was also generated by the full-year increase in the top corporate tax rate from 30% to 35% for unlisted domestic companies and by the introduction of a 15% withholding tax on repos and dividends from investment funds. The latter was implemented together with a comprehensive plan to combat tax evasion and an increase in the top tax rate from 40% to

45%. The corporate tax rate remained very high in Greece throughout the 1980s (40% or more) and was not reduced significantly until 1993 (35%). Initially, the high corporate tax rates were associated with low revenues, except for the years 1998 to 2000, when the corporate tax environment changed due to legislative interventions and the taxation of investment companies. Prior to 2000, and especially from 1994 onward, there was a significant increase in tax revenues and a stable top tax rate. This can be partly explained by legislative interventions in pending tax cases and tax amnesties, as well as gains from economic activity. It should be emphasized that a change in the tax rate does not only affect the revenues but also in the long run, as shown by a significant reduction in the tax rate (such as the one from 1993 to 1997), which changes the conditions for businesses and has an impact over the following years years. As can be clearly seen, revenues were around 1% of GDP during periods of high tax rates (1980s) and began to increase in the 1990s when the tax rate began to decline. The specific increases in government revenues are, of course, due to a number of other factors and are not the sole result of changes in the tax rate. Among other things, as mentioned above, they are based on the introduction of a more efficient operation of tax mechanisms In 1996, the corporate tax rate for financial institutions was increased from 35% to 40%, and the profits of investment funds were taxed at 2%, instead of the ineffective withholding tax that had been in place until then. In addition, tax cuts and tax investment incentives were introduced between 2004 and 2010, which did not significantly burden companies and caused corporate tax revenues to fluctuate. In 2009 and 2010, extraordinary levies on highly profitable companies increased revenues, although the top tax rate was reduced. Starting in 2012, top tax rates were increased, the tax base was broadened, and advance tax payments were raised to 100% for most legal entities, leading to an increase in corporate tax revenues. It should be noted that corporate taxation issues are more complex due to base erosion techniques and should be considered in this context to establish a reliable tax base while avoiding adverse effects on economic growth. In addition, the poor performance in tax debt collection is not only due to the inefficiency of tax administration, but also due to the structure of the economy and the business environment, as well as excessive market regulation. Also, tax evasion by the self-employed, generous tax incentives and the use of tax amnesties have further exacerbated the problem from a tax collection perspective.

Figure 8: Corporate Income Tax Rates and Revenue



Source: OECD as at Oct 2021, Tax Legislation Author's Adjustments



In addition, the evolution of consumption tax revenues is presented at this point. The indirect tax system in Greece is the historical result of the efforts of the respective governments to use it both as a main means of raising revenue and as an instrument of redistribution. This has resulted in a tax structure that is unnecessarily complex and inefficient, without achieving any significant redistributive effect. The introduction of VAT in 1987 brought about significant changes in consumption taxes. From 1987, sales taxes played a crucial role not only in the composition of goods and services tax revenue, but also in GDP to an estimated extent of 4% of GDP in 1983. After 1987, sales taxes gradually declined and was eventually abolished, and excise taxes mainly came from consumption taxes and VAT. In recent years, indirect taxes have been introduced into national legislation, which have increased revenues in these categories as of 2013.Excise taxes and VAT revenues play an important role in tax revenues. Increasing the top tax rate VAT leads to higher VAT tax revenues. Also, abolition of low-income stamp duties and third-party taxes, extension of VAT to house construction, rationalization of preferential taxation of products such as soft drinks, restaurants, electricity and abolition of preferential treatment of lawyers and notaries provide additional revenue. An additional factor contributing to the above results is the broadening of the tax base VAT and the rationalization of tax exemptions achieved in recent years, mainly through the laws harmonizing VAT and increasing revenue capacity to cope with the economic crisis. It is worth noting that excise taxes have been increased since 2009 as an emergency measure to raise revenue.

Last but not least, we provide an analysis of property tax revenues. Property tax revenues were stagnant and inefficient until 1997. More specifically, starting in 1997, a tax was levied on large properties located in Greece (FMAP). After calculating the allowances, the remaining amount was subject to a graduated tax for individuals and a fixed rate of 0.7% and 0.35% for legal entities. The main reason for the insufficient tax collection was the unreliable valuation, as there was no national land register despite the introduction of Law 1249/1982. As mentioned above, Law 1249/1982 was an important cornerstone for the taxation of real estate, which was later amended to meet the requirements for valuation. In this context, another important issue that made the valuation inefficient was the value of assets, which did not correspond to actual market prices. Tax exemptions and narrow tax bases ultimately did not contribute to tax revenue capacity. It is also known that Greece levied different taxes on property[55]. Also, Law 3453/2003 established that the real estate transfer tax and transfers subject to the automatic surplus tax are not subject to the real estate transfer tax. Various laws from this period govern the adjustment of the value of land and buildings and the extension of the application of VAT to real estate after January 1, 2006. In addition, starting in 2008, a new tax called ETAK replaced the narrowly defined FMAP and expanded the real estate tax base to include residential and commercial real estate as well as land, but retained the regime of deductible and exempt amounts. The tax rate was 1 ‰ for individuals, 6 ‰ for legal entities, and 3 ‰ for nonprofit organizations. Special cases such as own business assets and assets of REICs were taxed at a rate of 1‰. Since 2011, there has been a sustained increase in property tax revenues, mainly due to the expansion of the tax base, the elimination of tax exemptions, and the collection of special taxes. In addition, Law 4152/2013 introduced an extraordinary special tax for the property tax on electrified structured real estate areas (EETIDE). This tax was collected through electricity bills, and attempts were made to significantly increase tax revenues by adjusting the value of real estate to the market value and introducing a unified property tax (ENFIA). Another issue was the fact that for the years 2010, 2011 and 2012, a tax rate of 2% was established for a taxable real estate value of more than five million euros.

5.Evaluation of Tax Changes using Effective Tax Rates

As we have already highlighted the effects of fiscal and taxation policy on macroeconomic performance have been major policy issues. Under this concept, we focus on the construction of appropriate effective tax rates to determine the impact of fiscal policy and draw conclusions concerning tax reforms in Greece. By applying this, effective tax rates are calculated as the ratios between tax revenues and the

[55] A property tax on large property, a capital gains tax, a transfer tax; a transaction duty, surtax on rental income from land and building, a revaluation surplus tax, a special tax, and a local property tax regulated property taxation. In order to streamline the above taxes, broadening tax bases, market-based valuation, land registry application and unification of tax rates resulted in a more efficient property tax system. Extension of the VAT to newly built structures also lowered transfer taxes and led to market-based transactions.

corresponding tax bases, provided by national accounts. Effective tax rates are indicators from which we achieve to incorporate complete information of a tax system concerning tax exemptions, discounts and the relevant tax bases and evaluate the efficiency of tax system, distribution of the tax burden, and to understand to the extent that these effective rates reflect tax changes and implemented policies. Our aim is to construct a unique database of effective tax rate for Greece over the examined period 1974-2018. To do this, we follow proposed methodology developed in Martinez-Mongay (2000).[56] Our sample consists of annual data for the Greece over the period 1974 to 2018.

In the following table we provide with the transformed series and calculation of effective tax rates from 1974 to 2018. The upward trend is obvious and effective tax rates have been increased during the years revealing the impact of changes in increasing rates, broadening bases, combating with tax evasion and creating a more stable tax framework that provide with sustainable public revenue figures. In this context the entrance of Greece to EMU, requirements of stability and convergence programs and immediate act to meet quantitative targets of fiscal adjustment programs have also played crucial role. We follow the method in Martinez-Mongay (2000) for Effective Tax Rates calculation. Our sample consists of annual data for Greece for the period from 1974 to 2018 and the results are presented below.

Table 1: Calculation of Effectives Tax Rates[57]

Year	Total tax wedge on labour (%real producer wage)	Consumption effective tax rate (%pre-tax)	Consumption implicit tax rate (% post-tax)	Capital effective tax rate (gross operating surplus)	Capital effective tax rate (net operating surplus)	Capital implicit tax rate (gross operating surplus)	Capital implicit tax rate (net operating surplus)	Labor effective tax rate (%total costs)	Labor effective tax rate (% compensation of employees)	Personal Income tax rate	Tax wedge on employed labor (%of producer wage of employees)
1974	25,43%	14,97%	13,02%	6,43%	8,55%	6,81%	8,07%	9,28%	8,56%	4,53%	31,37%
1975	26,42%	16,34%	14,05%	5,87%	7,94%	6,46%	7,72%	9,12%	8,31%	4,04%	32,15%
1976	28,35%	16,82%	14,40%	7,24%	9,86%	7,85%	9,42%	10,60%	9,75%	5,23%	34,24%
1977	28,25%	16,40%	14,09%	6,50%	9,34%	7,37%	9,02%	10,90%	10,00%	4,99%	34,27%
1978	28,31%	16,29%	14,01%	6,19%	9,06%	7,05%	8,68%	11,05%	10,23%	4,97%	34,67%

[56] We extended calculation for period 1974- 2018 and follow the codes, calculation and definition as were expressed in Martinez-Mongay (2000) paper for effective tax rates. Our goal is not to propose a new way of calculating effective tax rates but to draw conclusions regarding implemented tax policy. We follow the same coding and process and calculation as Martinez-Mongay (2000) and constructed transformed series and applied on 1974-2018 period. The purpose of the thesis is not to provide measurement of effective tax rates but to extend Martinez-Mongay method beyond 2000 (eventually to 2018) and provide with conclusions and insights regarding the implemented tax policy.

[57] Data from AMECO,OECD

Year	Total tax wedge on labour (%real producer wage)	Consumption effective tax rate (%pre-tax)	Consumption implicit tax rate (% post-tax)	Capital effective tax rate (gross operating surplus)	Capital effective tax rate (net operating surplus)	Capital implicit tax rate (gross operating surplus)	Capital implicit tax rate (net operating surplus)	Labor effective tax rate (%total costs)	Labor effective tax rate (% compensation of employees)	Personal Income tax rate	Tax wedge on employed labor (%of producer wage of employees)
1979	29,11%	17,68%	15,03%	6,24%	9,23%	7,05%	8,75%	11,05%	10,29%	5,11%	35,21%
1980	28,38%	15,09%	13,11%	6,18%	9,05%	7,03%	8,79%	11,52%	10,82%	5,39%	34,82%
1981	27,50%	14,57%	12,71%	5,91%	9,01%	6,77%	8,50%	11,53%	10,80%	5,14%	34,28%
1982	30,80%	16,82%	14,40%	6,76%	10,32%	8,11%	10,18%	12,95%	11,88%	5,67%	37,29%
1983	31,29%	17,05%	14,56%	5,47%	8,94%	7,47%	9,58%	13,29%	12,10%	5,44%	38,27%
1984	32,67%	18,31%	15,48%	5,97%	9,39%	7,62%	9,69%	13,68%	12,73%	6,06%	39,98%
1985	32,48%	18,23%	15,42%	5,90%	9,29%	7,56%	9,62%	13,63%	12,60%	5,77%	39,64%
1986	34,23%	21,03%	17,38%	6,66%	10,33%	7,86%	10,08%	13,21%	12,27%	5,73%	41,47%
1987	33,97%	21,03%	17,38%	7,01%	10,95%	7,80%	10,05%	12,88%	12,10%	5,60%	41,27%
1988	31,19%	19,07%	16,01%	6,53%	10,02%	6,22%	7,94%	11,92%	11,91%	5,66%	39,34%
1989	29,46%	16,57%	14,22%	6,59%	10,28%	6,04%	7,74%	11,82%	11,81%	5,13%	37,57%
1990	31,76%	18,08%	15,31%	8,69%	13,66%	7,82%	10,07%	13,15%	13,15%	6,43%	39,67%
1991	33,19%	19,41%	16,25%	8,26%	12,33%	7,67%	9,79%	12,93%	12,92%	6,50%	41,26%
1992	33,82%	20,65%	17,12%	8,72%	13,03%	7,88%	10,09%	12,61%	12,60%	6,21%	42,15%
1993	34,66%	19,60%	16,39%	8,74%	12,78%	7,81%	9,96%	13,06%	13,06%	5,82%	43,99%
1994	34,84%	18,79%	15,82%	9,71%	14,22%	8,71%	11,12%	13,70%	13,69%	6,54%	44,26%
1995	35,64%	18,43%	15,56%	11,80%	17,66%	10,14%	13,07%	14,44%	14,44%	6,67%	45,44%
1996	36,15%	18,67%	15,73%	11,60%	17,24%	10,04%	12,93%	14,49%	14,49%	6,69%	46,13%
1997	37,37%	19,22%	16,12%	12,80%	19,12%	11,21%	14,44%	15,68%	15,68%	7,91%	47,08%
1998	37,91%	18,52%	15,63%	14,97%	22,63%	13,02%	16,85%	16,78%	16,78%	9,03%	47,57%
1999	38,94%	18,79%	15,82%	16,30%	25,19%	14,26%	18,72%	17,67%	17,67%	10,02%	48,12%
2000	39,68%	18,74%	15,79%	19,37%	30,65%	16,34%	21,77%	18,04%	18,04%	9,97%	49,09%
2001	39,46%	18,82%	15,84%	16,24%	25,65%	14,01%	18,76%	17,32%	17,32%	9,01%	48,75%
2002	40,43%	19,43%	16,27%	16,53%	27,31%	14,15%	19,25%	18,37%	18,37%	9,28%	49,52%
2003	39,46%	18,33%	15,49%	14,70%	23,62%	12,80%	17,23%	17,89%	17,89%	8,77%	48,43%
2004	38,55%	17,98%	15,24%	14,23%	22,24%	12,46%	16,61%	17,23%	17,23%	8,48%	47,06%
2005	38,13%	17,54%	14,92%	16,81%	28,01%	14,13%	19,06%	18,10%	18,10%	9,22%	46,91%
2006	38,61%	18,24%	15,43%	14,91%	24,17%	13,12%	17,68%	17,82%	17,82%	9,43%	46,83%
2007	39,93%	18,49%	15,60%	14,43%	23,43%	13,03%	17,64%	18,65%	18,65%	10,03%	48,21%
2008	39,68%	17,91%	15,19%	14,14%	23,82%	12,90%	17,81%	18,88%	18,88%	10,27%	47,74%
2009	37,03%	16,46%	14,13%	14,73%	26,52%	13,02%	18,43%	18,03%	18,03%	9,68%	44,51%
2010	39,39%	19,32%	16,19%	14,11%	27,04%	12,38%	18,10%	18,22%	18,22%	9,03%	47,20%
2011	40,51%	20,60%	17,08%	15,77%	33,24%	13,90%	21,04%	19,29%	19,29%	10,49%	47,88%
2012	44,00%	21,15%	17,46%	14,60%	31,75%	14,69%	22,50%	22,94%	22,94%	14,85%	51,40%
2013	43,89%	22,13%	18,12%	14,79%	29,61%	14,41%	21,72%	21,60%	21,60%	13,64%	51,30%
2014	43,27%	22,80%	18,57%	17,70%	35,90%	16,11%	24,32%	20,82%	20,82%	12,93%	50,14%
2015	43,81%	23,48%	19,02%	18,30%	34,64%	16,41%	24,35%	20,28%	20,28%	12,16%	50,55%
2016	45,88%	25,90%	20,57%	20,41%	39,41%	18,14%	27,21%	21,28%	21,28%	13,01%	52,12%
2017	47,03%	25,34%	20,22%	19,19%	35,79%	17,55%	25,92%	22,34%	22,34%	13,80%	53,54%
2018	47,86%	25,85%	20,54%	19,99%	36,26%	18,28%	26,86%	22,69%	22,69%	14,07%	53,95%

6.Conclusions and Further Remarks

Overall, we analyze Greek Tax System and provide with critical insights concerning the implement tax policy from 1974 to 2018. Due to the fact that Greek tax system is characterized by complexity, rigidities and frequent tax legislation changes to a broad range of taxes is quite challenging the fact that we highlight a narrative dataset of Tax Law both in rate or base for the majority of taxes. It is crucial to mention that mapping and legal documentation is important, not only due to the fact that is a constructive way to illustrate tax changes, but also the innovative approach to combined with contemporaneous macroeconomic policies sources provide policy makes with useful tool. Considering the conclusions, propositions can be formulated as towards changing tax policy to contribute to the fiscal consolidation and revenue enhancing. The major fiscal consolidation required in Greece cannot be achieved only through the reduction of public expenditure, but also imposes an increase in tax revenues while insisting on growth-friendly tax reforms. Specifically, an increase in tax revenue can be achieved through an increase in effective taxation of the self-employed, which will lead and in reducing the unequal distribution of the tax burden between employees and self-employed. Also, increasing tax revenue is possible through increase in effective taxation of consumption, which in Greece is considerably lower compared to the Eurozone. These can be made by increasing tax bases and measures to combat tax evasion. Finally, taking into account the relatively higher tax burden on labor income, shifting the tax burden from work to consumption or property taxes, can, through the positive effect on employment, lead to an increase of growth and the reduction of public debt but must be seen under the context of distributional effects. Overall, it can be derived that Greece should implement and insist on applying broad tax bases, effective taxation, collection procedures, and audit techniques, rationalize its government spending across the business cycle and established a better proactive debt management. By doing this it is rather conceivable that may avoid not only poor effective policies but also harmful to growth, economic recovery and debt sustainability. However, it should be emphasized that the effects and effectiveness of above conclusions also depends on the individual characteristics of Greek economy, such as tax efficiency and effectiveness administration. It is also clearly shown that Greece in recent years adopted a tax enhancing revenue strategy with government spending rationalizations.

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