

The Characteristics of a Fair and Efficient Tax Auditing Information System as a Tool against Tax Evasion: A Theoretical Framework

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II. LITERATURE REVIEW

A. Tax Evasion

A great research interest has been emerged last decades as it concerns tax evasion [1]-[3], which expresses the attitude of taxpayers not to pay voluntarily and timely their tax liability imposed by the tax law for a given tax year [4]. Rational economic agents, who want to maximize their individual utility, tax evade or not based on specific determining factors. They conceal fully their actual income or underreport a share of it by comparing the expected gross benefits with the expected gross costs of not reporting income [5].

Reference [6], studying tax evasion and optimal methods of dealing with it, distinguished two tools for its elimination - Fines and controls. The more audits are implemented, the greater the likelihood of detecting tax evasion. Likewise, imposing a fine on those arrested for tax evasion is a powerful disincentive for committing such offenses in the future. As [7] notes, the two tools are complementary, in the sense that the reduction to one can be offset by an increase to the other. However, the cost of using the two tools varies substantially. Increasing the likelihood of detection requires more audits, hence increasing public spending, in order to recruit additional staff or to overtime the existing ones in order to carry out the additional audits. Raise of government spending is also required in order the appropriate logistical infrastructure to be developed. On the other hand, the increase in the fine has zero costs. Nevertheless, according to [8], the adoption of the fine as a policy tool to combat tax evasion has two important constraints. The first is that it may not be in the complete authority of the government, as the amount of the fine is often determined by court decisions, which also take into account non-economic factors, such as the level of fines for other offenses. The second constraint is that if tax evasion is widespread among taxpayers, there may be strong reactions to any attempt to reduce it.

The literature in tax evasion has indicated that the attitude of a risk-averse taxpayer to evade concealing a share of his income depends on the probability of detection and the penalty tax rate (in case of detection) [9], [10]. The expected gross cost of concealing income to the tax administration is increasingly related to the expected risk/cost to be audited [11]. Reference [5] defines this probability of audit as the percentage of filed

Abstract—Economic growth and social evolution are connected to trust relationships in a society. The quality of the accounting information, the tax information system and the tax audit mechanism evolve multiple benefits in an economy. Tax evasion, the illegal practice where people and companies do not pay taxes, is a crime because of the negative effect in economy and society. In this paper, we describe a theoretical framework on the characteristics of a fair and efficient tax auditing information system which could be a tool against tax evasion, a tool for an economy to grow, especially in countries that face fluctuations in economic activity. We conclude that a fair and efficient tax auditing information system increases the reliability of tax administration, improves taxpayers' tax compliance and causes a developmental trajectory for the economy.

Keywords—Auditing information system, auditing mechanism, tax evasion, taxation, quality of accounting information.

I. INTRODUCTION

IN the present paper, we attempt to describe the main characteristics of a tax auditing mechanism that an innovative tax information system should possess in order to enhance tax administration performance in a fairer and more efficient way and subsequently contribute to the economic growth. Our paper is inspired by the economic situation of Greece during the recession period it has been in recent years and the consensus view of citizens over taxation and tax evasion that unbalance the economy. The general sense of citizens about unjust and excessive taxation, the observed tax evasion, as well as the changes that have occurred in the tax audit mechanism and in the related information systems provoke unwillingness for tax compliance.

The main objective of our research is to study the current situation with regard to Greece's tax system and to investigate the characteristics that this should have in order to be described as fairer and more effective. This main objective is linked to individual issues such as the characteristics of the tax audit mechanism and the tax information system. The combination of these will help to improve citizens' tax awareness and reduce tax evasion.

The assessment of the optimal characteristics of this fair and efficient tax auditing mechanism is based on three main pillars: the quality of tax information, the quality of tax services and the quality of the tax information system.

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federal income tax returns that is audited by tax administration government officials. More specifically, [12] supports the view that increase of probability of audit as well penalty rates result in lower tax evasion. Reference [13], following the agent-based models of tax evasion of earlier studies [14], [15], indicates that in network structures with higher levels of centrality across the agents, the level of tax evasion reduces, especially by expecting huge punishment in proportion to their incomes. Reference [16] also shows that higher the penalty rates the lower is the tendency of taxpayer to conceal income. Reference [15] investigates the extent of income tax evasion in an agent-based model with heterogeneous agents. These agents express different behavioral types, different individual risk-preferences and different taxable incomes. Their findings, being in accordance with earlier empirical evidence [7], [17], [12], indicate that the higher the probability rate of audit, the lower is the tendency to tax evasion. Reference [18] argues that the taxpayers' uncertainty to be detected or not, in case of concealing taxable income, discourages them from tax evading.

B. Tax Auditing Information System

Earlier studies have also indicated that the use of technology and appropriate tax information systems (third-party reporting, cross-checking, or better auditing algorithms) in auditing and detecting tax evaders can contribute significantly to the alleviation of the tax evasion problem. Studies uses microdata to shed light on enforcement technologies such as third-party reporting [19]-[21], paper trails [22], crosschecking [23], targeted auditing strategies [24], [25] and third-party monitoring of customs duty collection [26], [27].

Reference [28], being in accordance with the aforementioned argument of [8], asserts that political incentives play a major role in the adoption of these monitoring technologies especially in cases that policy makers feel that they will lose the voter's support. Then, policy makers may delay the implementation of tax enforcement measures. Reference [28] assesses the taxpayers' attitude to tax evade after the implementation of the Ghost Buildings Program anti-tax evasion policy in Italy, which is considered as a country with poor tax culture. This program uses innovative monitoring technologies in order to trace out any concealed undeclared to taxation real estate property, especially buildings. The program provides monetary as well as non-monetary benefit for the taxpayers who decide not to evade. Reference [28] found that there is a negative association between technological audit of tax evasion and political incentives. More specifically, they show that political returns are higher in areas with lower tax evasion tolerance. Furthermore, tax culture against tax evasion is another important parameter which affects the political incentives of policy makers to implement anti-evasion policies.

Reference [29] assesses the success of the Greek Tax Information System by integrating constructs from [30] and [31] Information System (IS) success models. This is attained by studying the taxation agencies employees' degree of satisfaction from using the system. They ascertain that Greek Tax Information System can be more successful through higher service quality (e.g. higher quality of taxation processes, more

simplified and standardized taxation services, improved decision taking processes), and higher information quality (e.g. provision of more comprehensive, accurate and reliable information) without overlooking the system quality effect.

With this research proposal, we consider that we are contributing to the development of a benchmark that can be the basis to the constant effort for greater stability and effectiveness in the way a society and economy operates. Assessing the components of a potential fair and efficient tax auditing mechanism by taking into consideration the opinion of the taxation agencies employees and the taxpayers (firms and households as taxpayers to be audited and detected for tax evasion), we aspire to contribute to a deeper understanding of the fields we are examining. For this purpose, we focus in Greece, a country which is hit perhaps the most severely by the recent global economic crisis and is characterized by specific features in the way it operates.

III. SCIENTIFIC METHODOLOGY & NOVEL ASPECTS

In this theoretical framework, the research methodology must be comprised of three main pillars. The first one investigates the information quality characteristics of the tax auditing mechanism. The second pillar investigates the quality of tax services and the third pillar focuses purely on the quality of the tax information system. More specifically, the objective of the first pillar is to provide insight on market's perception about tax audit implementation and the quality of the financial reports. This insight will be examined by a questionnaire. This empirical assessment of market's opinion is not limited to the firm's chief accountants' and financial managers' opinions but it also expands on capturing the households' views.

As we have already mentioned, the first objective must be to provide insight in taxpayers' opinions about tax audit implementation and the quality of the financial reports. Financial reporting quality influences strongly the tax audit outcome (output). The information quality depends on accuracy, reliability, relevance, completeness, precision of information, currency, and conciseness of the available information data [32], [33]. Due to the fact that in Enterprise Resource Planning (ERP) system modules are intricately linked to one another, inaccurate data input into one module will adversely affect the functioning of other modules [34]. Therefore, inaccurate or/and fake data may distort the tax auditing finding resulting to further tax burden distortions.

Literature has indicated that the quality of the financial reports has been measured by various measurement methods. Accrual models have been used to measure the extent of earnings management [35], [36]. Value relevance models have been used to measure financial reporting quality examining the relationship between accounting figures and stock-market reactions [37]-[39]. Both methods focus on measurement of the financial statements. However, financial reporting quality is connected with financial and non-financial information. Information about quality can be derived also from the annual report [39], from the auditor's report [40], from information about internal control [41], from corporate governance procedures [42].

Thereafter, we attempt to assess the quality of financial reporting focusing on how to measure qualitative characteristics which will be combined with quantitative characteristics in order to improve the quality of the tax auditing mechanism.

The second pillar focuses on investigating the service quality of the tax auditing mechanism. Some of the main characteristic that are assessed in service quality are, for instance, higher quality of taxation processes, more simplified and standardized taxation services, improved decision taking processes [29].

Finally, the third pillar is concerned with the investigation of the organizational, even technical characteristics of the workflow of the tax auditing mechanism, attempting to answer to the question how well tax auditors can use the available information to specific auditing tasks [43]. System quality must ensure the desired characteristics of the information system itself [44]. Some of the main characteristics which have discussed in literature [32], [44], [45] are among others, flexibility of the system, stability, reliability, usefulness of specific functions, user-friendly interface, ease of use, acceptable response time, integration among sub-systems, accuracy of data processing, ease-of-learning. We focus on the assessment of the system quality checking various possible system structures. We conclude to the most efficient mechanism which results to reduction of tax evasion ensuring at the same time fair distribution of tax burden.

IV. CONCLUSION: SCIENTIFIC AND SOCIAL IMPACT

Based on the results of this research proposal, it is expected to determine the main components of an effective tax auditing mechanism which may contribute significantly to the fight against tax evasion and shadow economy improving subsequently the social welfare.

Tax fraud in an underground economy has influenced significantly fiscal balance as well as growth prospects in many economies. Empirical studies claim that governments attempt to reduce shadow economy which results to tax evasion by implementing tax fraud combating policies. This policy making seems to contribute significantly to legal (official) economy's performance. [46] assessing the size of shadow economy of 28 European countries ascertain that it has reduced significantly. Characteristically, the average size of the shadow economy in 28 European Union countries was 22.6% to GDP in 2003, which it declined to 18.6% to GDP in 2014. However, [2] have indicated that the size of tax evasion shows a slight increase for the period 1999-2010 for most of the 38 OECD countries. They estimate that the average size of tax evasion across all 38 countries is 3.2% of GDP over the period 1999 to 2010.

Tax evasion has important fiscal implications since the government cannot collect the appropriate tax revenues in order to finance its public goods and services, according to the State fiscal budget. As a result, fiscal deficit arises increasing public debt. Thereafter, tax burden rises in order to service public debt. This fact results to tax distortions and to unfair tax systems and great income redistributing inequities. The honest taxpayers who cannot underreport their actual income pay more taxes than those who can tax evade (dishonest evaders) concealing a share of their income. In light of these negative outcomes, researchers

attempt to determine determinants and to estimate their impact on tax evasion in order to recommend policies which increase tax compliance and subsequently improve fiscal balance in a social welfare cost minimization framework.

During last years there is a great debate about the fiscal consolidation programs in European Union (EU) and their implications to the social welfare of the EU people taking into account tax evasion and underground economy in general. [47] taking into consideration a New Keynesian DSGE model with involuntary unemployment, an informal sector and public corruption, assess how the fiscal consolidation plans in Greece, Italy, Portugal and Spain influence tax evasion, output, unemployment and welfare. They find that during the consolidation programs, tax evasion has increased and social welfare has been deteriorated. According to the empirical results, the public expenditure cuts in conjunction with tax rates increases, as the main instruments to fiscal consolidation, result to rise of tax evasion and social welfare losses, especially for Greece and Portugal.

In order to restore the Greek economy to a sustainable development path and a sustainable improvement in the living standards of the population, a major fiscal adjustment program has been adopted in recent years in order to proceed immediately with fiscal consolidation through the creation of primary surpluses. Fiscal adjustment aims to cut public consumption spending and raise tax revenues.

Under this framework, the fiscal or debt crisis and the subsequent over taxation has negatively affected businesses and households during last years. As is well known, there is an indisputable and negative coexistence between business profitability and tax burden. The smooth operation of the market strengthens companies' desire to maximize their profits, which is reflected in the adoption of innovative business policies which in turn bring about an increase in economic transactions, added value and ultimately leads to an acceleration in economic growth rate. On the other hand, the aforementioned smooth functioning of markets with increased turnover is ensured in a healthy economic environment with "friendly" corporate tax rates.

At the same time, individuals and businesses are dissatisfied with the transfer of responsibilities and audit jurisdictions of accounting and tax procedures from the competent civil services to themselves. The quality of the tax information system and the tax audit mechanism has multiple benefits in the way that natural and legal persons of an economy operate with a direct impact on the well-being of citizens.

Taking into account the situation in the Greek real economy, we try to investigate those main components of a tax auditing mechanism that enhances the fair distribution of the tax burden, the efficiency and the reliability of the tax administration ensuring at the same time a general healthy and competitive business environment with a developmental trajectory.

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