

FACTORS AFFECTING TAX EVASION

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Abstract

Tax evasion is a problem that concerns developed and transition economies. The level of tax evasion in one country is related with specific characteristics of that country. It is important to review factors that influence tax evasion so governments can try to manage them through fiscal politics. Tax evasion generates costs for the economy, creates bad models for individuals and businesses and consumes resources in an inefficient way. The aim of this research is to present an overview of factors that influence tax evasion including mainly tax rate, audit probability and fine rate. The research tries to sum up some researches done from different authors through review of prior literature in this field. At the end of the paper it is concluded that three main factor that influence tax evasion are tax rate, probability for audit and penalty rate. It is also find that different authors reached different results of how the factors affect tax evasion.

Keywords: Tax Evasion, Tax Rate, Audit Probability, Penalty Rate, Marginal Tax Rate, Compliance Behavior

INTRODUCTION

Main factors that usually affect tax evasion level in one country are: traditional (tax rate, penalty rate and audit probability), institutional (corruption, cost compliance and confidence), socio-cultural (age, sex, education, social rules etc), macroeconomic (GDP, unemployment rate and inflation) and businesses characteristics (size, ownership and industry). It is important for the government to know how different factors like tax rate, audit probability and penalty rate affect tax evasion in one country in order to adjust its fiscal politics. Tax evasion is a threatening of all countries resulting in cost increasing for economy, creating bad models to businesses and individuals and decreasing resources efficiency.

As it can be seen from table the size of informal economy is considerable in 28 European countries during years 2003-2015. The main objective of the paper is to evidence the most important factors affecting tax evasion.

Table 1: Size of Informal Economy during 2003 – 2015 (as % of GDP)

Country / Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Austria	10.8	11.0	10.3	9.7	9.4	8.1	8.5	8.2	7.9	7.6	7.5	7.8	8.2
Belgium	21.4	20.7	20.1	19.2	18.3	17.5	17.8	17.4	17.1	16.8	16.4	16.1	16.2
Bulgaria	35.9	35.3	34.4	34.0	32.7	32.1	32.5	32.6	32.3	31.9	31.2	31.0	30.6
Croatia	32.3	32.3	31.5	31.2	30.4	29.6	30.1	29.8	29.5	29.0	28.4	28.0	27.7
Czech Republic	19.5	19.1	18.5	18.1	17.0	16.6	16.9	16.7	16.4	16.0	15.5	15.3	15.1
Denmark	17.4	17.1	16.5	15.4	14.8	13.9	14.3	14.0	13.8	13.4	13.0	12.8	12.0
Estonia	30.7	30.8	30.2	29.6	29.5	29.0	29.6	29.3	28.6	28.2	27.6	27.1	26.2
Finland	17.6	17.2	16.6	15.3	14.5	13.8	14.2	14.0	13.7	13.3	13.0	12.9	12.4
France	14.7	14.3	13.8	12.4	11.8	11.1	11.6	11.3	11.0	10.8	9.9	10.8	12.3
Germany	17.1	16.1	15.4	15.0	14.7	14.2	14.6	13.9	13.2	12.9	12.4	12.2	12.2
Greece	28.2	28.1	27.6	26.2	25.1	24.3	25.0	25.4	24.3	24.0	23.6	23.3	22.4
Hungary	25.0	24.7	24.5	24.4	23.7	23.0	23.5	23.3	22.8	22.5	22.1	21.6	21.9
Ireland	15.4	15.2	14.8	13.4	12.7	12.2	13.1	13.0	12.8	12.7	12.2	11.8	11.3
Italy	26.1	25.2	24.4	23.2	22.3	21.4	22.0	21.8	21.2	21.6	21.1	20.8	20.6
Latvia	30.4	30.0	29.5	29.0	27.5	26.5	27.1	27.3	26.5	26.1	25.5	24.7	23.6
Lithuania	32.0	31.7	31.1	30.6	29.7	29.1	29.6	29.7	29.0	28.5	28.0	27.1	25.8
Luxembourg (Grand-Duché)	9.8	9.8	9.9	10.0	9.4	8.5	8.8	8.4	8.2	8.2	8.0	8.1	8.3
Malta	26.7	26.7	26.9	27.2	26.4	25.8	25.9	26.0	25.8	25.3	24.3	24.0	24.3
Netherlands	12.7	12.5	12.0	10.9	10.1	9.6	10.2	10.0	9.8	9.5	9.1	9.2	9.0
Poland	27.7	27.4	27.1	26.8	26.0	25.3	25.9	25.4	25.0	24.4	23.8	23.5	23.3
Portugal	22.2	21.7	21.2	20.1	19.2	18.7	19.5	19.2	19.4	19.4	19.0	18.7	17.6
Romania	33.6	32.5	32.2	31.4	30.2	29.4	29.4	29.8	29.6	29.1	28.4	28.1	28.0
Slovenia	26.7	26.5	26.0	25.8	24.7	24.0	24.6	24.3	24.1	23.6	23.1	23.5	23.3
South-Cyprus	28.7	28.3	28.1	27.9	26.5	26.0	26.5	26.2	26.0	25.6	25.2	25.7	24.8
Spain	22.2	21.9	21.3	20.2	19.3	18.4	19.5	19.4	19.2	19.2	18.6	18.5	18.2
Slovakia	18.4	18.2	17.6	17.3	16.8	16.0	16.8	16.4	16.0	15.5	15.0	14.6	14.1
Sweden	18.6	18.1	17.5	16.2	15.6	14.9	15.4	15.0	14.7	14.3	13.9	13.6	13.2
United Kingdom	12.2	12.3	12.0	11.1	10.6	10.1	10.9	10.7	10.5	10.1	9.7	9.6	9.4
28 EU-Countries / Average (unweighted)	22.6	22.3	21.8	21.1	20.3	19.6	20.1	19.9	19.6	19.3	18.8	18.6	18.3

Source: Schneider (2015)

LITERATURE REVIEW

By using different secondary resources results that main factors affecting tax evasion are: tax rate, audit probability and penalty rate. Different researches concluded different results about how tax rate, audit probability and penalty rate influence tax evasion.

Tax rate

Clotfelter (1983) studied the relationship between marginal tax rate and tax evasion. The results of the research show that marginal tax rate has an important effect on tax evasion level in one country. The relationship between tax evasion and marginal tax rate is positive and correlation coefficient varies from 0.5 to 0.3. The study results suggest that should be taken into consideration other factors like fiscal politics, information availability and other liabilities that are important for tax evasion in one country.

Allingham and Sandmo (1972) reached the result that there is no clear evidence of the relationship between tax evasion and marginal tax rate. Research results for the relationship between interest rate and tax evasion level are not clear.

Pommerehne and Weck-Hannemann (1996) presented an empirical analysis of non compliance tax behavior in Switzerland. There were taken into consideration 25 Cantons during the study for three different years. The results show that there exist a strong positive relationship between marginal tax rate and tax evasion.

Alm, McClelland and Schulze (1992) analyzed why people pay taxes. The experimental results show that tax compliance behavior happens because some people overestimate low probability for tax audit. People pay taxes not because they are aware of tax evasion negative effect in the economy but because they appreciate the public goods that generate from paying taxes. In the experiment, authors take into consideration the effect of the change in fiscal politics including tax rate changes (10%, 30% and 50%). The results of the study show that when tax rate increases there is an increase in tax evasion.

Caroll (1998) analyzed the reaction of taxpayers resulted from increasing tax rate. The research investigates a taxpayer panel including years from 1990 to 1993 to evidence the income declared in response of a tax rate change. From the study was concluded that increasing tax rate causes lowering the declared income for tax purposes. The research shows that income tax rate increasing during 1993 reduced the income gathered from tax administration with 39% at most and 13% at least.

Mason and Calvin (1978) conducted a survey including 800 adults from Oregon whose 1 of four accepted that they evade. The higher level of tax evasion was evidenced from young people with low income and male, thinking that it was a low probability for detection. The research concludes that it exists a positive relationship between tax rate and tax evasion.

Pommerehne and Frey (1992) in their research presented tax moral in neoclassic standard tax evasion model. The main reason is to improve model performance which was not able to explain well legal behavior in empirical way. From the study results is concluded a positive relationship between tax rate and tax evasion.

Fisman and Wei (2004) analyzed tax evasion level as a response versus tax rate change in China. The conclusion of the study is that for one percent increase in tax rate, tax evasion was increased with three percent.

Chiarini, Marzano and Schneider (2008) investigated long-run characteristics of tax evasion and the relationship with tax liability by using official VAT avoidance time series data in Italy. The research was focused on three topics that were not analyzed before. Firstly, using different measures of economic activity like reference variables in calculating fiscal liabilities, it was analyzed size and dynamic of overburden originated from tax evasion. Secondly, using co-integration method it was determined in value elasticity between tax evasion and average tax rate in Italy. Thirdly, it was discussed for the relationship between tax burden and tax evasion evidencing the gap where effective tax rate is higher than perceptive rate. Statistical characteristics of this gap explain that it fluctuates at 11% with short run effect from outside disorders. Taxpayers use a strategy for tax evasion aiming to maintain this gap in equilibrium which its size is related with risk aversion. Based on the data from years 1980-2004, it results that there exists a positive relationship between tax evasion and tax rate. Except the fact that tax evasion has an important role in Italian economy there is no evidence of viscous circle.

Feinstein (1991) presented econometric analyses of income tax evasion and its detection based on the data on individual level taken from Internal Income Service and Taxpayer Compliance Measurement Program. The model build in the research consists of two equations: the first measures the size of tax evasion and the second measures the tax evasion that was detected. The research shows a negative effect between tax rate and tax evasion.

Baldry (1987) realized an experiment which tested two predictions of tax evasion theories: every person try to evade taxes if expected profits are positive and a change in marginal tax rate doesn't influence tax evasion size. Conclusions of the experiment indicate that tax rate doesn't influence tax evasion.

Gorodnichecko, Martinez-Vazques and Peter (2009) investigated the effect of flat tax in 2001 in Russia. Authors used the inconsistency of home expenditures and the declared income as a sign of tax evasion during 1998-2004. From the study, it was noticed that there is a huge and important change in tax evasion that followed flat tax reform. The research reaches some important conclusions for public finance. Firstly, there was evidenced a positive relationship between tax rate and tax evasion. Secondly, offers an empirical methodology in calculating tax evasion. Thirdly, the study develops a structure for appreciating economic inefficiency from personal income tax during the presence of tax evasion based on changes in consumption as a result of tax change.

An increase in tax rate resulted in a decrease of income self-declaration in Canada in 1988 when marginal tax rate changed (Sillamaa and Veall, 2000).

Nur-tegin (2008) performed an empirical valuation of a number of determinants of tax evasion. Analysis includes tax rate, probability for detection, government credibility, compliance behavior cost and corruption. There were analyzed data taken from the survey in business level. In the study were included 4,538 businesses from 23 transition economies. One of the conclusions is that the level of tax evasion cannot be decreased while decreasing tax rate.

Audit Probability

Another factor that has an important role in tax evasion is probability of detection of non-compliance behavior from tax authority. Supposing that taxpayer is risk-averse person, an increase in probability for tax audit will lead to a decrease in tax evasion.

According to Milltone (2006) there exists a positive relationship between tax evasion and number of audit.

Engida and Baisa (2014) studied some factors that influence taxpayers' behavior in Ethiopia. The most important factors that were taken into consideration were: audit probability, government expenditure perception, equality and justice, penalty, financial restrictions, changes in actual government politics, reference groups influences, tax authority role and tax knowledge. The research concludes that factors with greater impact were audit probability (positive), financial restrictions (negative), and changes in actual government politics (negative).

Audit probability results as most important explanatory variable in determining taxpayers' behavior followed by changes in actual government politics. From the study, it is concluded that taxpayers with essential financial restrictions and experience changes in government politics tend to have non compliance behavior (negative relationship). Results suggest that other variables like government expenditure perception, equality and justice perception, penalty, tax authority role and tax knowledge don't have a strong influence in taxpayers' behavior.

Crane and Nourzad (1986) analyzed the effect of inflation in tax evasion in United State of America during years 1947-1981. From the study is concluded that tax evasion is positively correlated with inflation rate, in absolute and relative terms. It is also concluded that tax evasion increases with increasing marginal tax rate and decreases with increasing probability for audit and penalty rate. Tax evasion increases in absolute term but decreases in relative term when real income increases. An increase in 1 percent in inflation rate results in 0.14 percent increase in unreported income, in this way tax authority must increase the efforts during inflation periods. Pommerehne and Weck (1996) performed an empirical analysis of non-compliance behavior on tax income in Switzerland, based on a standard model of tax evasion. Non-compliance behavior

is evidenced to be positively correlated with marginal tax rate and negatively with audit probability. There is no evidence of a great influence of penalty rate. Extended research model suggests that non-compliance behavior is positively correlated with inflation rate and non-compliance behavior decreases when taxpayers have direct control over government budgets. Palil, Hamid and Hanafiah (2013) studied determinants of non-compliance behavior in Malaysia. Probability of audit, government expenditure perception, tax rate and tax authority role were taken into consideration. From the survey, it was concluded that four determinants were important and have an essential role in tax compliance behavior. These factors are supposed to have an influence in compliance behavior also in other countries which have same cultural, political and economic characteristics like Malaysia.

Falsseta, Schafer and Tsakumis (2010) analyzed how audit probability and interest conflict influence individual judgment to perform tax evasion. The results of the study show that interest conflict mitigates audit probability's influence in taxpayers' decision to perform tax evasion or not. Audit probability influences taxpayers' behavior when interest conflict is low. When interest conflict is high, tax compliance is low regardless audit probability. The research shows also that tax authority should explain to taxpayers why they are paying taxes and how they benefit from gathered tax income. In this way, government makes taxpayers aware of efficient redistribution of income gathered from taxes.

Spicer and Hero (1985) studied orientations that taxpayers use when they make decision to evade or not. Personal tax evasion rate of a taxpayer is positively correlated with what this taxpayer perceives for other taxpayers' tax evasion rate. Taxpayers who experienced tax audit evaluate higher probability for audit and decrease tax evasion.

Penalty Rate

Allingham and Sandmo (1972) reach the conclusion that an increase in penalty rate increases compliance behavior.

Witte and Woodbury (1985) conclude for a negative relationship between severity of penalty and tax evasion.

Crane and Nourzad (1986) found that tax evasion decreases in absolute and relative terms during increasing penalty rate.

Fjelstad and Semboja (2001) studied factors that influence compliance behavior in Tanzania. The main objective was to explore compliance behavior of the taxpayer. To omit memory problems there were taken into consideration two years, 1995 and 1996. Their study showed that compliance behavior is positively correlated with the factors like: ability to pay,

perceived probability to be prosecuted and the number of lawbreaker known personally by taxpayer.

Friedland, Maital and Retenberg (1987) studied tax evasion in 15 subjects. From the study results that high penalty tends to be more effective barrier against tax evasion than frequently audit. Non-compliance behavior varies from a person to the other.

CONCLUSIONS

Different authors studied the main factors that influence tax evasion in one country. Tax rate, audit probability and penalty rate are main factors that affect the level of tax evasion. While analyzing secondary sources about how tax rate, audit probability and penalty rate affect tax evasion, it is found that different authors reached different results of how those factors influence tax evasion. In some countries is observed that with increasing tax rate, tax evasion level decreases while other countries may experience the opposite effect. The reason why studies reached different results is because every country has its own specific characteristics. Characteristics of countries include economic, social and environmental features.

Supposing that taxpayer is risk-adverse person, generally, an increase in probability for tax audit decreases tax evasion level.

Generally speaking, from research's results is concluded that high penalty rate tends to be more effective barrier against tax evasion. An increase in penalty rate increases compliance behavior so decreases tax evasion level.

Since this study tried to sum up some of results of a limited number of studies, other researches may try to extend the number of researches taken into consideration and give a larger overview of the studies done till now in this field.

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