



**MASTERS**  
**ACCOUNTING, TAXATION AND CORPORATE**  
**FINANCE**

**MASTER THESIS**  
**DISSERTATION**

Power and trust as determinants of tax compliance. The  
slippery slope framework applied to Portugal and  
Switzerland

MARCELO JOSÉ SILVA RODRIGUES

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## **Abstract**

The “slippery slope” framework assumes that economic determinants of tax behavior represent authorities’ power, which leads to enforced tax compliance. On the other hand, psychological determinants lead to trust in authorities and also to voluntary tax compliance. This research work aims to assess the perception of Portuguese and Swiss individual taxpayers in relation to various aspects of their relationship with tax authorities and the respective impact on tax evasion. The data set was obtained from two surveys applied during 2019, one applied to Portuguese taxpayers and another to Swiss taxpayers, that filed personal tax returns at least once during the previous five fiscal years. The sample consists of 179 questionnaires. Eight dimensions were identified: tax evasion, voluntary tax compliance, enforced tax compliance, trust; legitimate power; coercive power; power and legitimacy.

The empirical work was carried out through a series of tests of mean differences (t test) and multiple comparisons (Scheffé test) for the investigation of significant differences. It was found that trust presented the greatest number of significant differences, taking into account the control variables sex, age, country, tax return submission, tax education, conjugality, Current Feeling of Belonging to a Religion (CFBR), religion and degree of comfort with the income (DCI). In relation to these, country was the control variable that most contributed to the differences in means, in relation to certain tax matters.

We also estimated an econometric model for tax evasion. We found that voluntary tax compliance, trust and legitimate power, are statistically significant and negatively correlated with tax evasion. In addition, we also found that there is a positive and statistically significant correlation between tax evasion and the dimensions enforced tax compliance and coercive power.

**JEL Classification:** H20, H24 and H26.

**Keywords:** Tax compliance, power, trust, slippery slope framework.

## Resumo

O conceito de "*slippery slope*" pressupõe que os determinantes económicos do comportamento fiscal representem o poder das autoridades, o que por sua vez leva ao cumprimento fiscal coercivo. Por outro lado, os determinantes psicológicos levam à confiança nas autoridades e também ao cumprimento fiscal voluntário. Este trabalho de pesquisa tem como objetivo avaliar a percepção de contribuintes individuais portugueses e suíços em relação a vários aspectos de seu relacionamento com as autoridades fiscais e o respectivo impacto na evasão fiscal. O conjunto de dados foi obtido de duas pesquisas aplicadas em 2019, uma aplicada a contribuintes portugueses e outra a contribuintes suíços, que apresentaram declarações de impostos pessoais pelo menos uma vez nos cinco exercícios fiscais anteriores. A amostra é composta por 179 questionários. Foram identificadas oito dimensões: incumprimento fiscal, cumprimento fiscal voluntário, cumprimento fiscal coercivo, confiança; poder legítimo; poder coercivo; poder e legitimidade.

O trabalho empírico foi realizado através de uma série de testes de diferenças médias (teste *T*) e comparações múltiplas (teste de *Scheffé*) para a investigação de diferenças estatisticamente significativas. Constatou-se que a confiança apresentou o maior número de diferenças significativas, considerando as variáveis de controlo: sexo, idade, país, submissão de declaração fiscal, educação tributária, conjugalidade, Sentimento Atual de Pertença a uma Religião (CFBR), religião e grau de conforto com a renda (DCI). Em relação a estes, país foi a variável de controle que mais contribuiu para as diferenças de médias em relação a certas questões tributárias.

Também estimamos um modelo econométrico para o incumprimento fiscal. Constatamos que o cumprimento fiscal voluntário, a confiança e o poder legítimo são estatisticamente significativos e correlacionados negativamente com o incumprimento fiscal. Além disso, também descobrimos que existe uma correlação positiva e estatisticamente significativa entre o incumprimento fiscal e as dimensões do cumprimento fiscal coercivo e do poder coercivo.

**Classificação JEL:** H20, H24 and H26.

**Palavras-chave:** cumprimento fiscal, poder, confiança, *slippery slope framework*.

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## **List of Abbreviations**

**CPI** – Corruption Perceptions Index

**CFBR** – Current Feeling of Belonging to a Religion

**DCI** – Degree of comfort with the income

**HNWT** – High Net Worth Taxpayers

**IRS** – Imposto sobre Rendimento das Pessoas Singulares

**SSF** – Slippery slope framework

**VAT** – Valued added Tax

# List of Tables

## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>2</b>	<b>LITERATURE REVIEW .....</b>	<b>3</b>
2.1	TAX COMPLIANCE.....	3
2.2	MAJOR TRENDS RELATED TO TAX COMPLIANCE .....	4
2.3	THE TAX GAME AND THE INTERACTION BETWEEN TAXPAYERS AND TAX AUTHORITIES....	5
2.4	PARADIGMS ON THE INTERACTION BETWEEN TAXPAYERS AND TAX AUTHORITIES .....	5
2.4.1.	<i>Cops and Robbers</i> .....	6
2.4.2.	<i>Service provider and customer</i> .....	7
2.5	TRUST .....	9
2.6	POWER .....	10
2.7	THE “SLIPPERY SLOPE” FRAMEWORK (SSF).....	11
2.8	EMPIRICAL STUDIES RELATED TO THE SSF .....	13
<b>3</b>	<b>RESEARCH QUESTION AND HYPOTHESES .....</b>	<b>14</b>
<b>4</b>	<b>METHODOLOGY AND DATA .....</b>	<b>15</b>
4.1	DATA COLLECTION .....	15
4.2	TARGET POPULATION AND SAMPLE CHARACTERIZATION .....	16
<b>5</b>	<b>RESULTS AND DISCUSSION .....</b>	<b>18</b>
5.1	DESCRIPTIVE ANALYSIS OF THE QUESTIONNAIRE AND THE CREATION OF DIMENSIONS ..	18
5.2	TAX EVASION.....	18
5.3	ENFORCED TAX COMPLIANCE .....	20
5.4	VOLUNTARY TAX COMPLIANCE .....	22
5.5	TRUST .....	23
5.6	LEGITIMATE POWER .....	25
5.7	COERCIVE POWER .....	27
5.8	KEY TAKEAWAYS FROM OF THE RESULTS OBTAINED.....	28
5.9	ECONOMETRIC MODEL ANALYSIS .....	29
<b>6</b>	<b>CONCLUSIONS, LIMITATIONS AND TOPICS FOR FUTURE RESEARCH.....</b>	<b>31</b>
6.1	CONCLUSIONS .....	31
6.2	LIMITATION AND FUTURE RESEARCH .....	33
<b>7</b>	<b>REFERENCES.....</b>	<b>34</b>
<b>8</b>	<b>APPENDICES.....</b>	<b>42</b>
<b>I.</b>	<b>APPENDIX A – ENGLISH QUESTIONNAIRE.....</b>	<b>43</b>
<b>II.</b>	<b>APPENDIX B – PORTUGUESE QUESTIONNAIRE.....</b>	<b>46</b>

# 1 Introduction

Countries use taxes for financing public services and goods. Taxpayers perceive taxes as a burden and are usually sceptical about how governments manage and spend their taxes and often hold negative attitudes towards taxpaying (Hofmann *et al.*, 2008; Benk & Budak, 2011). This scepticism is increased when there is a common belief that corruption is spread across government institutions. Furthermore, during periods of fiscal imbalances where there is an increased pressure to reduce public debt, most governments take measures to increase tax collection. Taxpayers may be reluctant to comply under pressure of tight personal and domestic budgets. Consequently, tax revenues diminish due to noncompliance and often governments rely on increased tax rates to make up for such loss.

Tax authorities influence taxpayer's behaviour to comply with tax law through displaying power and/or establishing a trust relationship. Therefore, it is crucial to understand what influences taxpayers' attitudes towards tax compliance. Trust, perceptions of fairness and corruption have consistently been identified as playing a crucial role in tax compliance (Torgler, 2003, 2004; Wenzel, 2003; Sonnur *et al.*, 2019). Where governments are seen to be fair, not corrupt and treat citizens with respect, taxpayers are likely to trust them and show more willingness to comply and honestly pay their fair share in taxes (Feld & Frey, 2007). Concurrently, power displayed by authorities has also been identified as a main contributor to compliance namely the sanctions used to enforce tax compliance.

According to the Slippery Slope Framework (SSF) (Kirchler, 2007; Kirchler & Wahl, 2010; Muehlbacher & Kirchler, 2010) the effectiveness of economic and non-economic factors depends on the relationship between taxpayers and tax authorities. In a trustful climate, trust-building measures may be more important than in a relationship that is based primarily on the power of authorities, where deterrence may be the right policy (Muehlbacher *et al.*, 2011). In the SSF, two different forms of tax compliance are assumed: (i) voluntary tax compliance and (ii) enforced tax compliance (Kirchler, 2007).

Based on these definitions, we test the relationship between tax evasion and enforced tax compliance, voluntary tax compliance, trust, legitimate power and coercive power in Portugal and Switzerland. Switzerland has been chosen by two main reasons, first, the central government takes a low share of total tax revenues when compared to other OECD countries,

(e.g., in 2018, 27.9 percent, OECD average countries, 34.3 percent). Secondly, Switzerland had the lowest average size, 7.2 percent of GDP of shadow economy<sup>1</sup> from a set of 158 countries over the period 1991 to 2015 (e.g., the average of the 158 countries was 31.9 percent of GDP while in Portugal was 21.9 percent of GDP (Medina & Schneider, 2018).

This research work aims to assess the perception of Portuguese and Swiss individual taxpayers in relation to various aspects of their relationship with tax authorities and the respective impact on tax evasion, as well as to ascertain whether there are statistically significant differences in the scope of sociodemographic variables as well as religion. It is important to note that there are several relationships that can be tested, tax evasion, our dependent variable. The independent variables will be the dimensions defined for the study of the interaction between taxpayers and tax authorities (voluntary tax compliance, enforced tax compliance, trust; legitimate power; coercive power; power and legitimacy). The primary research question is “What are the determinant dimensions in tax evasion?”.

In addition, we considered secondary research questions based on nine control variables (sociodemographic and religion) which are widely used by other authors (McKerchar, 2003; Torgler, 2007; Devos, 2014). The secondary research question is “Which control variable(s) lead to statistically significant differences in relation to the defined dimensions”.

In order to test the main hypotheses, the data set was obtained through questionnaire survey. This survey was based on questions (indicators) previously elaborated and tested by other authors in other countries. The questionnaire form was derived from (Kastlunger *et al.*, 2013) study with Italian taxpayers. The questionnaire was applied to individuals tax residents in Portugal that had submitted at least once a tax return in Portugal for personal income tax purposes during the last five previous fiscal years, the same principle was applied for Switzerland. The questionnaire was made available online using the google forms platform and was shared across multiple social media platforms. The questionnaire was administered in 2019.

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<sup>1</sup> The shadow economy includes all economic activities which are hidden from official authorities for monetary, regulatory, and institutional reasons. Monetary reasons include avoiding paying taxes and all social security contributions, regulatory reasons include avoiding governmental bureaucracy or the burden of regulatory framework, while institutional reasons include corruption law, the quality of political institutions and weak rule of law.

We conducted two quantitative surveys, Switzerland (N = 97) and Portugal (N = 82). The results obtained point to country as the variable with more dimensions that have statistically significant differences in means (7 out of 8). Thus, the differences between Swiss and Portuguese taxpayers in relation to certain matters of a tax nature were remarkable.

We also estimated an econometric model for tax evasion. We found that voluntary tax compliance, trust and legitimate power, are statistically significant and negatively correlated with tax evasion. In addition, we also found that there is a positive and statistically significant correlation between tax evasion and the dimensions enforced tax compliance and coercive power.

## **2 Literature Review**

### **2.1 Tax compliance**

One of the first approaches to the concept of tax compliance is that tax compliance is verified when taxpayers timely declare income earned and expenses incurred in a timely manner so that the income tax settlement amount is accurate, respecting the tax rules in force and the prevailing jurisprudence at each moment in time (Roth *et al.*, 1989). (Devos, 2014) completes this definition by introducing the definition of tax non-compliance (which does not include tax planning situations (legal tax invoice reduction within the terms of the law) or tax avoidance (when tax invoice reduction is performed through use of loopholes which can create ambiguity in the tax law)). The author understands that tax non-compliance includes situations of excess of deductible expenses in tax reporting or even of underreporting earned income. The latter may occur intentionally - a sanctioned situation - or involuntarily, for lack of information, lack of understanding of the applicable tax law, negligence, among other reasons.

The topic of tax (non) compliance was also studied from a macro perspective, using the tax gap<sup>2</sup> concept by (James & Alley 1999; 2002). This definition was also used in the works of (Devos, 2005; 2014; Kirchler, 2007; Kirchler & Wahl, 2010), among others. Still, there is no definition of tax compliance that is unanimously accepted by all researchers due to the

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<sup>2</sup> It is the difference between the amount of tax that should have been legally paid by taxpayers and the amount of tax collected by the tax authorities (Mazur & Plumley, 2007 and McManus & Warren, 2007).

diversity of their background and the diverse scope of their work Devos (2005; 2014), Diogo (2018).

The OECD also has its own definition of tax compliance, according to which tax compliance consists of cumulatively fulfilling the following conditions: 1) being duly registered with the tax authorities; 2) submit the income statements in a timely manner; 3) declare the correct amounts of income and expenses and 4) pay the taxes due within the stipulated deadlines. It is understood that if one of these conditions is not met, the taxpayer will be in a non-compliant scenario.

## **2.2 Major trends related to Tax Compliance**

There are two major trends in the field of study of tax compliance or tax avoidance/tax evasion. The first trend is associated with models based on economic theory. The models based on economic theory assume that taxpayers are rational and aim to maximize their expected utility by guiding their strategic decisions with this goal in mind. If the probability of detection or audit is not too high and the fines or penalties are not too severe, taxpayers will tend to under-report income and / or over-declare expenses, thus entering intentionally in tax non-compliance. The same is to say that intentional tax non-compliance will occur in situations where the respective benefits exceed the costs (Becker, 1968).

The second trend for the study of tax compliance and / or tax evasion and fraud is associated with models of social and tax psychology whose pioneering work was (Schmölders, 1959). Furthermore, other authors reinforced the relevance of behavioural aspects to the study of the theme in question (Pickhardt & Prinz, 2014). From their perspective, tax (non) compliance, is a process in which individuals relate directly or indirectly to each other.

With tax payments being a duty of all citizens, tax authorities have the primary function of ensuring that taxpayers pay taxes due to meet the state's financial needs and for a fair redistribution of income and wealth. Tax authorities will safeguard tax compliance in two ways: (i) taxpayers voluntarily pay their taxes because they understand that it is their moral duty or (ii) taxpayers pay their taxes because they are obliged through enforced power of the tax authorities (Braithwaite, 2003 and Kogler *et al.*, 2013). The first situation corresponds to voluntary tax compliance and the second to enforced tax compliance (Kogler *et al.*, 2013).

Considering models based on economic theory and models of social and tax psychology for the study of tax compliance, tax authorities may apply measures based on both economic and psychosociological factors.

### **2.3 The tax game and the interaction between taxpayers and tax authorities**

From (Pickhardt & Prinz, 2014) perspective, tax (non) compliance, as well as tax evasion, are processes in which individuals relate, directly or indirectly, to each other. The authors present the “tax game” identifying the various players: taxpayers, tax legislators (law makers), tax practitioners (accountants) and tax authorities. The authors imply that there can exist four types of subgames within the tax game. Taxpayers vs Tax Authorities – one of the subgames is considered to be the most important game, the authors highlight three aspects: power, the level of service provided and trust. The power is linked to the of an audit and detection of evidence of tax evasion / fraud and the fines imposed for such behaviour. The level of service provided refers to taxpayer assistance with regard to tax information (doubts / aid in interpreting tax law and other services available). In turn, trust, together with the two aspects mentioned earlier, is crucial for assessing the degree of cooperation between taxpayers and the tax authorities.

### **2.4 Paradigms on the interaction between taxpayers and tax authorities**

Tax non-compliance is operationalized in two major forms: income under-declaration (e.g. sales suppression) and over-declaration of expenses (e.g. false invoices or inclusion of ineligible personal expenses, in countries where such expenses allow deductions or rebates) (OECD, 2017). These two forms of tax non-compliance are detrimental to the public accounts of any country and contribute to widening the tax gap. Reducing the tax gap by promoting tax compliance in order to ensure a fair distribution of income and tax effort becomes a preferable approach than: 1) increasing the tax burden; 2) the reduction of public expenditure and 3) the conditioning of the quality of public services and social benefits provided by the State (Devos, 2014 and Governo de Portugal, 2018). The relationship between taxpayers and tax authorities - one of the tax games identified by (Pickhardt & Prinz, 2014) - is a function of the perception of the other party's objectives and strategies (Kirchler, 2007 and Alm *et al.*, 2010), and three paradigms are proposed to study this relationship: 1) “cops and robbers” and 2) service providers and clients and 3) trust. The first involves maximizing the utility

expected by taxpayers, while tax authorities will execute strategies acting as "cops" to catch the "robbers", in this scenario there is no cooperation between taxpayers and the tax authorities. The second, in turn, assumes the promotion of voluntary tax compliance and cooperation between taxpayers and the tax authorities through relationship model in which taxpayers are treated as clients, providing them with a certain level of service. There is also the suggestion of a third paradigm, that of trust (Alm *et al.*, 2010; Alm & Torgler, 2011; Alm, 2012). Nothing precludes the coexistence of these approaches at the same time in a given tax jurisdiction, especially if we consider that there are multiple types of taxpayers.

#### **2.4.1. Cops and Robbers**

This paradigm postulates that tax authorities act as “cops” and view taxpayers as potential offenders’ "robbers" and is somehow aligned with economic deterrence models. Tax non-compliance will thus be curbed by resorting to tax audits and by the imposition of fines and penalties (Alm *et al.*, 2010; Allingham & Sandmo, 1972; Srinivasan, 1973; Yitzhaki, 1974; Kirchler, 2007 and Diogo, 2018).

Assuming that taxpayers are rational human beings and maximize their expected utility, if taxpayers feel indicted as potential defaulters, they can in fact take that stance and lower the amount of taxes payable through recourse to tax loopholes or risk if the benefits of tax default outweigh the associated costs (Kirchler, 2007).

Tax authorities will resource to various methods in their fight against tax evasion and fraud, highlighting the audits and enforcement of the respective penalties (Kirchler, 2007). In order to carry out tax audits it is necessary to take into account that these generate administrative costs (Collins & Plumlee, 1991).

The task of promoting voluntary tax compliance is arduous due to the range of opportunities that economic globalization and e-commerce provide for tax evasion and fraud which is one of the main causes of tax non-compliance (Kirchler, 2007). Tax authorities have to ensure that taxes are received by implementing strategies and policies that impact on a country's economy through the tax compliance decisions of economic agents. The Swiss taxpayers

rank as second worst payers<sup>3</sup> on the European continent, just behind Greece. Tax claims<sup>4</sup> are cited as the main reason for late payments in Switzerland.

The management style of tax authorities is often traditional and focused on command and control, with automatic fines and penalties on non-compliant taxpayers (Kirchler, 2007). However, automatism may create situations of overzealous or improper and inappropriate punishment (James & Alley, 2002 and Payne, 1993). In addition, (Braithwaite 2003) notes that tax authorities' power is not always used efficiently, which ultimately affects the relationship between tax authorities and taxpayers. This is reflected in a climate of distrust and a lower willingness for voluntary tax compliance.

Ultimately, the interaction between taxpayers and tax authorities will depend on tax authorities' dominant perception of taxpayers. That is, if taxpayers are mostly perceived as potential defaulters or as potential customers, as well as the style resulting from this perception, that is, if they adopt a style of a “cop” or of a “service provider” (Kirchler, 2007). The style used by tax authorities is important, as it is this that determines the level of tax morale and voluntary tax compliance by taxpayers (Kirchler, 2007).

#### **2.4.2. Service provider and customer**

The purpose of tax collection is to ultimately achieve a fair distribution of income and wealth as well as to meet the financial needs of the State (and other public entities). (James & Alley, 2002) argue that in order to ensure the proper functioning of the tax system, tax authorities should reconsider their approach towards taxpayers, moving from a style of command and control to a style of responsive regulation. The style of responsive regulation is based in the theory of regulation. This theory implies that regulation exists for the purpose of benefiting those who are regulated<sup>5</sup> (Stigler, 1971 and Pelzman, 1976).

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<sup>3</sup> [https://www.swissinfo.ch/eng/withholding-tax\\_switzerland-likes-to-tax-differently-from-europe/44591156](https://www.swissinfo.ch/eng/withholding-tax_switzerland-likes-to-tax-differently-from-europe/44591156)

<sup>4</sup> Since January 1, 2019, Switzerland is the only country in Europe where employees' taxes are not deducted directly from their wages.

<sup>5</sup> Aside from the unique feature that the Confederation, the cantons and the communes all levy taxes, the Swiss tax system also sets itself apart by letting citizens decide for themselves which taxes may be levied on them. This is because the state can impose only those obligations on them – including taxes – that are provided for in the Constitution and laws, and constitutional amendments automatically have to be subject to a popular vote (mandatory referendum) at both the federal and cantonal level.

By reconsidering their approach style, tax authorities treat taxpayers as clients, taking their needs into account in order to promote voluntary tax compliance. In this regard tax authorities' officials do have a pivotal role in achieving a high level of tax compliance (Kirchler, 2007 and Alm *et al.*, 2010). The officials act as intermediary agents for tax compliance, dissuading their clients (the taxpayers) from any problems with the tax authorities. Tax authorities' officials should have communication skills, a high level of tax literacy and consistency in advice and the application of fines and / or penalties to non-complying taxpayers (Hansford & Hasseldine, 2002). Therefore, the level of taxpayers' cooperation with the tax authorities will depend on their rules and / or regulations (Kirchler, 2007). This paradigm on the interaction between tax authorities and taxpayers aims to design a relationship based on trust, empathy and other values (e.g. communication and reputation) with a view of achieving a high level of voluntary tax compliance.

In the Swiss case, the FTA is keen to maintain close contact with its customers and sees itself as the partner of Swiss taxpayers. It takes a responsible approach to the resources of taxpayers and staff alike and seeks to minimise the administrative costs not only for taxpayers themselves but also for the staff of the FTA. The electronic processing of tax transactions has been expanded in phases to deliver shorter processing times for tax dossiers. As well as moving away from paper and conventional mail, printed and electronic forms of communication are being linked. FTA publications now have a code that gives the user direct access to the document on the FTA website (Swiss Confederation, 2017).

As the Portuguese taxpayer's standard is of voluntary compliance, the tax authorities' focus, on simplifying compliance, supporting the compliance for those who, wishing to comply, have difficulties to comply, and to punish those who deliberately do not want to comply. To improve the relationship with taxpayers several initiatives were made, in particular in simplifying tax compliance, *e.g.* the submission of (IRS) declarations are now made exclusively by electronic means, the scope of taxpayers to whom the "Automatic IRS" is available has also been extended, the introduction of direct debit payment mechanisms, the introduction of the first phase of the "Automatic VAT" project and also the implementation of the "E-Tax Free" (Government of Portugal, 2018).

In both jurisdictions the approach will then be to treat all taxpayers as clients. However, the actual success of the tax authorities or other state organizations will depend on their legitimacy (Easton, 1965; Karakus, 2017 and Robins & Kiser, 2017) and the level of procedural justice (Gobena & Dijke, 2017; Murphy, Bradford & Jackson, 2016 and Murphy, Tyler & Curtis, 2009).

Legitimacy consists in the belief that the authorities are able to abide by the rules imposed by them (French & Raven, 1959). Perception of legitimacy is important for fostering law enforcement and promoting cooperation between institutions and citizens and encouraging reporting of practices that go against the spirit of the law (Jackson *et al.*, 2012; Karakus, 2017; Murphy & Cherney, 2012; Murphy, Tyler & Curtis, 2009; Sunshine & Tyler, 2003; Tyler, 1997, 2006; Tyler, Schulhofe & Huq, 2010).

Procedural justice means that taxpayers comply with their tax obligations even if the likelihood of being found to be non-compliant is low or very low (Murphy & Jackson, 2016). If the authorities treat citizens fairly, with dignity, respect and if they “listen” to citizens by acting neutrally in their decisions, they promote a policy of encouraging compliance (Tyler, 2006 and Murphy, 2004).

## **2.5 Trust**

The concept of trust can be divided into two types: 1) reason-based trust (also called calculated, rational or knowledge-based trust) and 2) implicit trust (also called identification-based trust, habitual trust, social trust or affective trust). The first type of trust arises as a result of a deliberate rational decision of the trustor based on four factors: 1) objectives to be achieved; 2) degree of dependence; 3) internal factors and 4) external factors. The second type is defined as an automatic, involuntary and unconscious reaction to a stimulus (Castelfranchi & Falcone, 2010 and Gangl, Hofmann & Kirchler, 2015). These two types of trust are related, either in parallel or sequentially (Evans, 2008).

In general, evidence shows that trust in tax authorities is positively correlated with tax payments (Hammar *et al.*, 2009; Torgler, 2003). Trust in authorities exists if taxpayers perceive authorities’ treatment as respectful, fair and transparent (Kirchler, 2007; Kirchler *et al.*, 2008). Additional findings of (Feld & Frey 2002, 2007) show that trust in authorities and perceived treatment by tax authorities positively influences the relationship between

authorities and taxpayers, thus enhancing tax compliance levels. As a result, we formulate the following hypothesis:

In this regard, a study conducted in Switzerland which aimed to examine whether the relationship between tax authorities and taxpayers influenced the level of tax compliance and tax morale. Results concluded that in the cantons where citizens' participation rights are higher, the tax authorities have a more respectful and less suspicious outlook on taxpayers who report lower incomes. Accordingly, the willingness to comply with tax authorities is related to the degree of satisfaction with public services. An intrinsic motivation to pay taxes ("tax morale") has been advanced as a possible explanation for high rates of compliance (Torgler, 2002; Wenzel, 2003). In this scenario, citizens pay taxes out of a sense of social responsibility and respect for the law. When taxpayers are treated as trustworthy, they reciprocate by way of compliance (Feld & Frey, 2002). Similarly, attitudes towards taxation and politics can be seen as determinants of trust and perceived fairness of the tax burden and measures applied by the authorities are determinants of trust and crucial determinants of tax compliance (Kirchler, Kogler & Muehlbacher, 2014). Furthermore, when authorities display accountability, transparency and low corruption levels, taxpayers perceive them as trustworthy. Trust in tax authorities thus appears to foster tax compliance and is positively related to tax compliance (e.g., Torgler, 2003). In the SSF (Kirchler, 2007; Kirchler *et al.*, 2008), trust stimulates a synergistic interaction climate, in which taxpayers and authorities interact in a respectful manner and taxpayers voluntarily cooperate with authorities.

## **2.6 Power**

Power can be defined as the potential and perceived ability of one party to influence another's behaviour (Gangl, Hofmann & Kirchler, 2015). The power of the tax authorities is linked, on one hand, to tax law and the funding it obtains from the state budget for the exercise of its functions and, on the other hand, to the information it provides, for example through the data it provides about defaulting tax payers (Kirchler, Hoelzl & Wahl, 2008).

There are two fundamental theories about the exercise of power: enforced power as conceived in the work of (Becker, 1968), which points to the control of citizens and their punishment as tools for shaping their behaviour towards authorities' goals and legitimate power concept based on the works of (Turner, 2005) and (Tyler, 2006), in which authorities

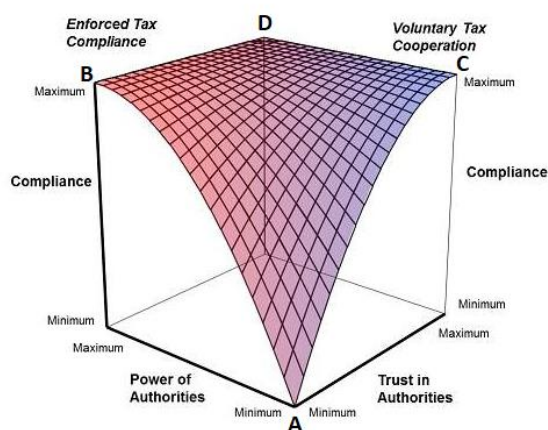
are “accepted” by citizens (through information provided, charisma, legitimacy and level of experience), arguing their advocates that is a more effective and appropriate way to influence and shape the behaviour of individuals (Gangl, Hofmann & Kirchler, 2015). These authors also point out that legitimate power and enforced power are independent, since the latter may exist without the presence of legitimate power and vice versa, just as enforced power may coexist with legitimate power (Hofmann *et al.*, 2014). (Hofmann *et al.*, 2014) study these two types of power, as well as their individual and joint impact on tax compliance, finding that if enforced power is applied in conjunction with legitimate power, the latter is the one that has a relevant impact on voluntary tax compliance. Furthermore, corroborating (Tyler, 2006), the authors conclude that legitimate power will have more relevance than enforced power.

Based on the studies by (Kogler *et al.*, 2013) and (Wahl *et al.*, 2010 and Gangl, Hofmann & Kirchler 2015) also conclude that the variables power and trust are not independent in the study of tax compliance. However, they emphasize the relevance of their interaction, adding that it will depend on the types of trust and power.

## **2.7 The “slippery slope” framework (SSF)**

The concept of slippery slope was firstly introduced by Henk Elffers at a conference in Leiden (The Netherlands), “Managing and Maintaining Tax Compliance”, in 2006 (Kirchler, Hoelzl & Wahl, 2008). The concept of the SSF assumes that tax compliance can be achieved by two means: 1) economic deterrent measures, such as tax audits and fines / penalties, and 2) fostering a trust-based relationship with providing assistance to taxpayers. promote voluntary tax compliance (Prinz *et al.*, 2014). The first is associated with the "cops and robbers" paradigm, with greater social distance, greater (coercive) power exercised by the tax authorities, and the predominant type of tax compliance being enforced, as the taxpayer’s cooperation is achieved by threatening to apply punishment to non-compliant taxpayers. The second, the synergistic environment, is associated with the service provider and client paradigm, where there is a greater social approximation between taxpayers and tax authorities, as well as a higher level of trust between both parties, predominating voluntary tax compliance, the tax authorities exercises greater legitimate and non-enforced power, leading taxpayers to recognize the competence and role of the tax authorities by cooperating voluntarily with it (Tyler, 2006).

The level and type of tax compliance will depend on tax authorities' power levels: enforced tax compliance with increasing tax authorities' power and voluntary tax cooperation with increasing authorities trust (Kirchler, Hoelzl & Wahl., 2008). Following the reasoning, (Kirchler, Hoelzl & Wahl., 2008) assume that the impact of changing the level of one variable will depend on the level of the other variable. It is also assumed that the variables power and trust regulate each other, that is, the impact of increasing the tax authorities' level of trust will be greater for lower levels of tax power. Similarly, the impact of increasing tax authorities' level of power will be greater for lower trust levels. The SSF is shown in Figure I below.



**Figure 1 SSF graphical representation**

(Source: Kirchler, Hoelzl & Wahl, 2008)

Figure 1 may be interpreted with points A to D below:

A. The level of trust in the tax authorities is low, so is its level of power. In this scenario, taxpayers will try to maximize their expected utility by resorting to tax defaults, the level of tax compliance is therefore reduced;

B. Starting from A and if the level of trust in the tax authorities remains low, if the tax authorities increases its level of power through greater use of tax audits and severe penalties in case of non-compliance, taxpayers will have fewer viable opportunities for non-tax compliance and thus tax compliance will be of the enforced type. Point B can be related to the “cops and robbers” paradigm;

C. Starting from A and if the tax authorities' power level remains low, when gradually increasing the level of trust in tax authorities, taxpayers will tend to cooperate voluntarily with tax authorities. Point C can be related to the "Service provider and customer" paradigm;

D. Represents the maximum level of tax compliance that can be achieved with high levels of tax authorities' power and trust in it.

In conclusion, the power of and trust in tax authorities will determine the type of interaction environment between tax authorities and taxpayers (Gangl *et al.*, 2013; 2015).

## **2.8 Empirical Studies related to the SSF**

The relationship between power and enforced compliance and between trust and voluntary cooperation and some of the previously mentioned assumptions of the SSF are partially supported by empirical tests. These assumptions received empirical support through experiments conducted with taxpayers showing that high in contrast to low legitimate power leads to a perceived service climate and voluntary cooperation (Hofmann *et al.* 2014).

An Austrian sample of self-employed taxpayers (Kogler *et al.*, 2011; Muehlbacher & Kirchler., 2010) showed that if taxpayers perceived that power or trust was high, tax compliance was also high. Furthermore, additional backing for tax payments being determined by both perceived power and trust in authorities is shown in a survey with citizens from Austria, the UK and the Czech Republic that assessed authorities' power, trust in authorities, enforced and voluntary tax compliance. The survey showed that voluntary tax compliance is positively associated with trust, power, and their interaction. Trust, however, had the largest effect. Power of authorities was found to be significantly positively associated with enforced compliance (Muehlbacher *et al.*, 2011). These conclusions were also confirmed for a sample of self-employed Italian taxpayers by (Kastlunger *et al.*, 2013). Furthermore, it was found that trust is positively related to legitimate, but negatively related to enforced power. Even if legitimate power is correlated to enforced compliance, the perception of the latter led to increased tax evasion. Another survey, (Kogler *et al.*, 2015) also confirmed trust as being the driver of voluntary compliance and power as the main driver of enforced compliance. The authors identified social norms, an additional influencing factor for tax compliance, which, however, was not mediated by trust or power. The SSF assumptions were also tested in the context of fare avoidance through a sample of Austrian

users of public transport which stated their perception towards power, trust and degree of enforced compliance or voluntary cooperation in regard to the respective public transportation company (Wahl *et al.*, 2011). The results indicated that perceived power was correlated with enforced compliance and that trust was correlated with voluntary cooperation. Hence, in both contexts the relationship between power and enforced compliance, and between trust and voluntary cooperation in the SSF were empirically confirmed using samples from different countries. The SSF indicates that both trust and power and their relationship influence the level of tax compliance (Kirchler *et al.*, 2008).

### **3 Research question and hypotheses**

This research work aims to assess the perception of Portuguese and Swiss individual taxpayers in relation to various aspects of their relationship with tax authorities and the respective impact on tax evasion, as well as to ascertain whether there are statistically significant differences in the scope of sociodemographic variables as well as religion. It is important to note that there are several relationships that can be tested, tax evasion (1), voluntary tax compliance (2) enforced tax compliance (3), our dependent variables. Variables (2) and (3) may also be considered as independent variables in relation to variable (1). The independent variables in this work will be the dimensions defined for the study of the interaction between taxpayers and tax authorities (voluntary tax compliance, enforced tax compliance, trust; legitimate power; coercive power; power and legitimacy).

Next, the primary research question and respective hypotheses is presented, according to the objective of this research work.

#### **– What are the determinant dimensions in tax evasion?**

As a result, we formulate the following hypotheses:

- o H1: There is a relationship between taxpayers' perception of enforced tax compliance and tax evasion;
- o H2: There is a relationship between taxpayers' perception of voluntary tax compliance and tax evasion;
- o H3: There is a relationship between taxpayers' perception of trust and tax evasion;

o H4: There is a relationship between taxpayers' perception of legitimate power of tax authorities and tax evasion;

o H5: There is a relationship between taxpayers' perception of coercive power of tax authorities and tax evasion;

In addition to the primary question, secondary research questions, are intended to provide a better understanding of the previously mentioned primary question (McKerchar., 2003 and Devos., 2014). Thus, we considered nine control variables (sociodemographic and religion): sex, age, conjugality, religion, CFBR, tax education, type of employment relationship, degree of comfort with earned income and the usage of services of a tax agent to submit the tax return which are widely used by other authors (McKerchar., 2003; Torgler., 2007; Devos., 2014).

After defining eight dimensions and nine control variables, we will then have 72 hypotheses. For example: is there a relationship between sex and trust in tax authorities? The respective hypothesis would be: there is a relationship between sex and trust in tax authorities. Thus, the secondary research question is presented below, according to the objective of this research work.

- **What control variable (s) lead to statistically significant differences in relation to the defined dimensions**

## **4 Methodology and Data**

### **4.1 Data collection**

In this chapter we present the methodology followed, with details regarding the data collection technique, the statistical instruments chosen for the respective analysis and the testing of the defined hypotheses.

In order to test the main hypotheses, the data set was obtained through two questionnaires. The first step was to draft a questionnaire based on questions (indicators) previously elaborated and tested by other authors in other countries. The questionnaire survey is one of the data collection processes suggested by (Saunders, Lewis & Thornhill., 2009 and Sekaran & Bougie., 2010). In the present case, the questionnaire consists of closed-answer questions, taking into account that this type of question enables the coding of responses and facilitates

the analysis of the data obtained. The questionnaire form was derived from (Kastlunger *et al* 2013) study with Italian taxpayers. To ensure that all questions were properly understood by the respondents, as well as to ensure that there were no problems with the writing or the scale, the second step consisted of pre-testing the questionnaire (suggested by Sekaran & Bougie, 2010), therefore was applied to a handful of volunteers.

The questionnaire was applied to individuals tax residents in Portugal that had submitted at least one tax return in Portugal in the five previous fiscal years, the same principle was used for Switzerland. The questionnaire was made available online using the google forms platform and was shared across multiple social media platforms. The questionnaire was administered in 2019.

Participation in the study was voluntary and the participants were assured that their answers would be kept confidential. The questionnaire was translated from English into Portuguese for the Portuguese sample and used in English for the Swiss sample. In this study, nine variables of interest were measured. The participants were asked to indicate their degree of agreement with certain statements.

With the intention of achieving the proposed objectives, the questionnaire was designed taking into account the type of questions, the nature of the variables and the scales of attitudes (Hill & Hill, 2008). In view of the literature review carried out it is expected that the taxpayer's attitudes, perceptions, as well as the interaction with tax authorities, are influenced by a set of variables, the influence of which should be verified through a direct effect. Additionally, there could be an influence of sociodemographic and religion variables on the variables under study.

## **4.2 Target population and sample characterization**

The target population for this research work is made up of single taxpayers' that had submitted a tax return in Portugal or Switzerland for personal income at least once during the previous five years. With regard to the sample, 179 responses were collected (97 in Switzerland and 82 in Portugal). The sample include individuals aged 18 years or over, with different professions and different levels of education. In terms of characterization of the sample, about 50.3% are male and 49.7% female.

The majority of the respondents 141 (80.1%) affirm to have submitted a tax return by themselves while the remaining 35 (19.9%) submitted their tax return with the support of an accountant or a similar situation. Note that of the 3 respondents affirmed that they should have submitted a tax return but did not. Thus, they were excluded from the analysis.

As for age, respondents are between 18 and 64 years old, with an average age of 33 years. In terms of age groups, due to the sample size two age groups were formed one from 18 up to 32 years old and another from 33 to 64 years old. About 53.1% of respondents are aged up to 32 years; 46.9% are aged between 33 and 64 years old.

Regarding conjugality status, the largest group of respondents affirms to not live in conjugality (59.8%) while the remaining respondents (40.2%) affirms to live in conjugality.

Regarding the level of education, 90.5% of the respondents affirm to have a university degree while the remaining 9.5% not. In relation to tax education, 56.4% of the respondents affirm to have a had some type of tax training while the remaining 43.6% had no tax training.

In professional terms, more than 89.4% affirm to be employed while the remainder respondents affirm to be in a different situation. With regard to the current or past professional situation, most respondents work / worked for others (91.6%) with the remainder respondents worked for themselves (8.4%).

In the characterization of the sample, an important point concerns to the income of the household. However, given the reluctance of many respondents to answer questions of this nature, the question about household income has been replaced by another question about the degree of comfort provided by the income, according to the European Values Survey (EVS). In these terms, almost half of the respondents (49.7%) answered that the household income is enough for them to live. The others replied that it is possible for them to live comfortably (27.4%), that it is difficult or very difficult to live on the income they have (22.9%).

With regard to questions of a religious nature, 110 respondents (61.5%) have a current positive feeling of belonging to a religion. The remaining 69 respondents, say they didn't feel of belonging to a religion. The respondents were further scrutinized about their religion, 30 as very religious (16.8%), 83 as somewhat religious (46.4%) and 66 as not belonging to any religion/atheists (36.8%).

## 5 Results and discussion

### 5.1 Descriptive analysis of the questionnaire and the creation of dimensions

This chapter aims to analyse and discuss results. It integrates a descriptive analysis of the administered questionnaires (composed of a set of indicators, organized by sections linked to the variables under study). The indicators, components of each dimension, will be those that maximize Cronbach's alpha. In order to highlight the robustness of the analysis - taking into account both the sample size and the thematic nature of the present research work - we will not consider dimensions whose Cronbach's alpha is less than 0.60 [value suggested by Marôco & Garcia -Marques (2006), Stephenson (2010) and Silva (2015)]. For, if this happened, the dimension's validity would be questioned (Marôco & Garcia-Marques, 2006). The constituent indicators for dimension mentioned in “5.2” is subject to a five-point Likert scale, where 1 = highly unlikely and 5 = very likely, while from “5.3 to 5.9” 1 = Strongly disagree and 5 = Strongly agree.

### 5.2 Tax Evasion

For the analysis of tax evasion, the indicators of the two administered questionnaires were measured, which are presented in the following table, with their descriptive statistics.

**Table 5.1. “Tax Evasion”**

	<b>Indicator</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Avg</b>	<b>SD</b>
1	A customer paid in cash and did not require an invoice. You could intentionally omit this income on your income tax return. How likely is it that you would omit this income?	179	1	5	2.21	1.44
2	You bought some of your goods privately. You could resell those goods later to established customer and omit the profit from this sale on your income tax return. How likely would you be to omit the profit from this sale on your income tax return?	179	1	5	2.06	1.34
3	You could intentionally declare restaurant bills for meals you had with your friends as business meals. How likely would you be to declare those restaurant bills as business meals?	179	1	5	2.75	1.54
4	You have been abroad to meet relatives and to have a short meeting with one of your suppliers. Regardless of this you could declare your expenses for the hotel and for the meals you invited your relatives to, as business travel and a business meal. How likely would you be to declare your expenses as business travel or a business meal?	179	1	5	3.07	1.45
5	Recently you took part in a project in an acquaintance's company. Now you could conceal this taxable additional income on your income tax return. How likely is it that you would conceal this additional income?	179	1	5	2.77	1.54
	<b>Tax Evasion</b>	<b>179</b>	<b>1</b>	<b>5</b>	<b>2.57</b>	<b>1.24</b>

As we can see from the table 5.1, from the set of 5 indicators related to people who would not declare all their income, only indicator number four (4) presents an average higher than the centre of the scale, which appears to indicate that there is a low tendency for evading taxation in both countries.

The “Tax Compliance” index was then created using the arithmetic mean of the indicators relating to the likelihood of tax avoidance (1 to 5), obtaining a Cronbach's Alpha of 0.905, considered excellent reliability (George & Mallery, 2003 and Stephenson, 2010).

The results obtained show that “Tax Evasion” presents an average lower than the centre of the scale (3), revealing a favourable tax attitude of taxpayers towards their tax obligations. In comparative terms, we will evaluate “Tax Evasion” according to several variables: country, tax return submission, gender, tax education level, conjugality, the current feeling of belonging to a religion (CFBR), age and degree of comfort with the income earned by the household. The results obtained are shown in the tables below.

**Table 5.2 “Tax Evasion” – T Test**

Variables		Descriptive Statistics			T Test	Cronbach's Alpha
Designation	Groups	Average	Standard Deviation	Obs.	$\sigma_x \neq \sigma_y$	
Country	Switzerland	2.42	1.14	97	-1.78*	0.905
	Portugal	2.75	1.34	82		
Tax Return Submission	Self	2.39	1.16	141	-4.36***	
	W/support	3.40	1.24	35		
Sex	Female	2.58	1.17	89	0.08	
	Male	2.56	1.32	90		
Tax Education	No	2.75	1.14	78	1.76*	
	Yes	2.43	1.30	101		
Conjugality	No	2.46	1.18	107	-1.49	
	Yes	2.74	1.32	72		
CFBR	No	2.95	1.32	69	3.18***	
	Yes	2.34	1.14	110		
Age	18-32	2.51	1.31	95	-0.72	
	33-64	2.64	1.17	84		

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.3 “Tax Evasion” – Scheffé Test by Religion**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Very	Somewhat
Very	2.64	1.25	30	3.65**	3.31	-	-
Somewhat	2.32	1.10	83			-0.32	-
Not +Atheist	2.86	1.36	66			0.22	0.54**

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.4 “Tax Evasion” – Scheffé Test by Degree of comfort with the income**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Confortable	Ok
Confortable	2.27	1.13	49	7.89***	0.97	-	-
Ok	2.45	1.26	89			0.18	-
Dif or V.Dif	3.21	1.14	41			0.94***	0.76***

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

The results shown through tables 5.1-5.4, that “Tax Evasion” is higher in Portugal than in Switzerland. In relation to the other variables, “Tax Evasion” is higher among those who do not submit a tax return by themselves, the female gender, do not have tax training, those who live in conjugality, those who are not religious and those who have more than 32 years old. There is a statistically significant difference in the variable tax return submissions and religion. Note that in the Scheffé test by religion, the hypothesis of inequality of variances is rejected for a significance level of 0.01.

### 5.3 Enforced Tax Compliance

For the analysis of tax compliance, the indicators of the two administered questionnaires were measured, which are presented in the following table, with their descriptive statistics.

**Table 5.5 “Enforced Tax Compliance”**

	Indicator	N	Min	Max	Avg	SD
1	When I pay my taxes as required by the regulations, I do so because a great many tax audits are carried out.	179	1	5	3.48	1.27
2	When I pay my taxes as required by the regulations, I do so because the tax office often carries out audits.	179	1	5	3.45	1.29
3	When I pay my taxes as required by the regulations, I do so because I know that I will be audited.	179	1	5	2.88	1.30
4	When I pay my taxes as required by the regulations, I do so because the punishments for tax evasion are very severe.	179	1	5	3.89	1.17
5	When I pay my taxes as required by the regulations, I do so because I do not know exactly how to evade taxes without attracting attention.	179	1	5	3.13	1.47
<b>Enforced Tax Compliance</b>		<b>179</b>	<b>1</b>	<b>5</b>	<b>3.37</b>	<b>1.04</b>

The data in table 5.5 allows us to conclude that, on average, the enforced tax compliance is higher than the centre of the scale. When we take a closer look at the individual indicators, we can see that indicator number four “When I pay my taxes as required by the regulations, I do so because the punishments for tax evasion are very severe.” presents the higher average in both countries, which indicates that the severity of the punishments from tax authorities in case of tax noncompliance seems to be the strongest factor for enforcing tax compliance.

As with the other subsections of the questionnaire previously analysed, a new dimension was created - “Enforced Tax Compliance”. The dimension in question was calculated based on the arithmetic mean of the five indicators present in table 5.5, whose Cronbach's alpha is 0.857, indicating an excellent reliability. The results are listed in the bottom row of table 5.6. From its analysis we can conclude that this dimension presents an average above the centre of the scale for Switzerland and at the centre for Portugal, revealing a high degree of enforced tax compliance in the Swiss case and average degree of tax compliance in the Portuguese case.

**Table 5.6 “Enforced Tax Compliance” – T Test**

Variables		Descriptive Statistics			T Test	Cronbach's Alpha
Designation	Groups	Average	Standard Deviation	Obs.	$\sigma_x \neq \sigma_y$	
Country	Switzerland	3.68	0.89	97	4.50***	0.857
	Portugal	3.00	1.09	82		
Tax Return Submissions	Self	3.27	1.07	141	-2.43**	
	W/support	3.69	0.88	35		
Sex	Female	3.29	1.01	89	-1.01	
	Male	3.44	1.07	90		
Tax Education	No	3.50	0.90	78	1.59	
	Yes	3.26	1.13	101		
Conjuality	No	3.20	1.03	107	-2.61**	
	Yes	3.61	1.01	72		
CFBR	No	3.12	1.14	69	-2.49**	
	Yes	3.52	0.94	110		
Age	18-32	3.24	1.00	95	-1.68*	
	33-64	3.50	1.07	84		

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.7 “Enforced Tax Compliance” – Scheffé Test by Religion**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Very	Somewhat
Very	3.75	0.93	30	7.21***	7.39**	-	-
Somewhat	3.51	0.87	83			-0.24	-
Not +Atheist	3.01	1.18	66			-0.74***	0.50**

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.8 “Enforced Tax Compliance” – Scheffé Test by Degree of comfort with the income**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Comfortable	Ok
Confortable	3.27	1.13	49	1.04	2.70	-	-
Ok	3.33	1.05	89			0.06	-
Dif or V.Dif	3.57	0.88	41			0.30	0.24

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

The results shown through tables 5.5-5.8, that “enforced tax compliance” is higher in Switzerland than in Portugal. In relation to the other variables, “Enforced Tax Compliance”

is higher among those who do not submit a tax return by themselves, the male sex, do not have tax training, those who live in conjugality, those who are religious and those who have more than 32 years old. There is a statistically significant difference in the variable country. Note that in the Scheffé test by religion, the hypothesis of inequality of variances is rejected for a significance level of 0.01.

#### 5.4 Voluntary Tax Compliance

For the analysis of Voluntary tax compliance, the indicators of the two administered questionnaires were measured, which are presented in the following table, with their descriptive statistics.

**Table 5.9 “Voluntary Tax Compliance”**

	<b>Indicator</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Avg</b>	<b>SD</b>
1	When I pay my taxes as required by the regulations, I do so because, to me, it's obvious that this is what you do.	179	1	5	3.80	1.23
2	When I pay my taxes as required by the regulations, I do so to support the state and other citizens.	179	1	5	3.81	1.24
3	When I pay my taxes as required by the regulations, I do so because I like to contribute to everyone's good.	179	1	5	3.64	1.27
4	When I pay my taxes as required by the regulations, I do so because, for me, it's the natural thing to do.	179	1	5	4.15	1.13
5	When I pay my taxes as required by the regulations, I do so because I regard it as my duty as a citizen.	179	1	5	4.25	1.06
<b>Voluntary Tax Compliance</b>			<b>1</b>	<b>5</b>	<b>3.93</b>	<b>1.01</b>

The data in table 5.9 allows us to conclude that, on average, the respondents tend to cooperate with tax authorities with averages above the centre of the scale.

As with the other subsections of the questionnaire previously analysed, a new dimension was created - “Voluntary Tax Compliance”. The dimension in question was calculated based on the arithmetic mean of the five indicators present in table 5.9, whose Cronbach's alpha is 0.91, indicating an excellent reliability. The results are listed in the bottom row of table 5.9. From its analysis we can conclude that this dimension presents an average above the centre of the scale for both countries, explicitly revealing the high cooperation by taxpayers with the tax authorities.

**Table 5.10 “Voluntary Tax Compliance” – T Test**

Variables		Descriptive Statistics			T Test	Cronbach's Alpha
Designation	Groups	Average	Standard Deviation	Obs.	$\sigma_x \neq \sigma_y$	
Country	Switzerland	4.19	0.94	97	3.94***	0.905
	Portugal	3.61	1.01	82		
Tax Return Submissions	Self	3.92	1.02	141	0.17	
	W/support	3.89	1.02	35		
Sex	Female	3.93	1.11	89	-0.01	
	Male	3.93	0.92	90		
Tax Education	No	4.13	0.93	78	2.35**	
	Yes	3.78	1.05	101		
Conjuality	No	3.88	1.08	107	-0.83	
	Yes	4.00	0.91	72		
CFBR	No	3.77	1.07	69	-1.68*	
	Yes	4.03	0.97	110		
Age	18-32	3.99	1.02	95	0.92	
	33-64	3.85	1.00	84		

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.11 “Voluntary Tax Compliance” – Scheffé Test by Religion**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Very	Somewhat
Very	3.94	1.01	30	0.35	0.02	-	-
Somewhat	3.99	1.01	83			0.05	-
Not +Atheist	3.85	1.03	66			-0.09	-0.14

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.12 “Voluntary Tax Compliance” – Scheffé Test by Degree of comfort with the income**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Comfortable	Ok
Confortable	4.09	0.94	49	14.97***	18.43***	-	-
Ok	4.16	0.74	89			0.07	-
Dif or V.Dif	3.22	1.28	41			-0.87***	-0.94***

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

The results shown through tables 5.9-5.12, that “voluntary tax compliance” is higher in Switzerland than in Portugal. Swiss taxpayers have an especially high voluntary tax cooperation (4.19) while Portuguese Taxpayers have a slightly lower value (3.61). In relation to the other variables, “voluntary Tax Compliance” is higher among those who do submit a tax return by themselves, do not have tax training, those who live in conjuality, those who are religious and those who have less than 33 years old. There is a statistically significant difference in the variable country.

## 5.5 Trust

For the analysis of trust, the indicators of the two administered questionnaires were measured, which are presented in the following table, with their descriptive statistics.

**Table 5.13 “Trust”**

Indicator		N	Min	Max	Avg	SD
1	The tax authorities have supported the taxpayers	179	1	5	3.42	1.27
2	The tax authorities are treating citizens correctly	179	1	5	3.41	1.35
3	The tax authorities are a trustworthy institution	179	1	5	3.58	1.12
4	The tax authorities are a reliable institution	179	1	5	3.70	1.08
5	The tax authorities are treating citizens in a respectful manner	179	1	5	3.57	1.22
<b>Trust</b>		<b>179</b>	<b>1</b>	<b>5</b>	<b>3.54</b>	<b>1.10</b>

The results obtained in the table above related to the trust in tax authorities show that the respondents, on average, have trust in TA. The fourth dimension “Trust” was created, based on the eleven indicators analysed in table above. With the aggregation of these indicators, through their arithmetic mean, a Cronbach's alpha of 0.946 was obtained, considered as excellent (Marôco & Garcia-Marques, 2006 and Stephenson, 2010). The results linked to the descriptive statistics are presented in the last line of table 5.13 The “Trust” dimension is evaluated, in comparative terms, through the various variables, the results of which are presented below.

**Table 5.14 “Trust” – T Test**

Variables		Descriptive Statistics			T Test	Cronbach's Alpha
Designation	Groups	Average	Standard Deviation	Obs.	$\sigma_x \neq \sigma_y$	
Country	Switzerland	4.20	0.63	97	11.22***	0.946
	Portugal	2.75	1.01	82		
Tax Return Submissions	Self	3.45	1.11	141	-1.81*	
	W/support	3.79	0.99	35		
Sex	Female	3.47	1.03	89	-0.77	
	Male	3.60	1.16	90		
Tax Education	No	3.75	0.94	78	2.42**	
	Yes	3.37	1.19	101		
Conjuality	No	3.34	1.06	107	-3.01***	
	Yes	3.83	1.09	72		
CFBR	No	3.23	1.26	69	-2.85***	
	Yes	3.73	0.94	110		
Age	18-32	3.38	1.14	95	-2.09**	
	33-64	3.72	1.03	84		

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.15 “Trust” – Scheffé Test by Religion**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Very	Somewhat
Very	3.41	1.10	30	3.97**	8.16**	-	-
Somewhat	3.78	0.90	83			0.37	-
Not +Atheist	3.29	1.26	66			-0.11	-0.49**

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.16 “Trust” – Scheffé Test by Degree of comfort with the income**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Comfortable	Ok
Comfortable	3.69	1.21	49			-	-
Ok	3.60	0.95	89	2.39*	4.80*	-0.09	-
Dif or V.Dif	3.22	1.21	41			-0.47	-0.42

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

The results shown through tables 5.13-5.16, that “trust” is higher in Switzerland than in Portugal. In relation to the other variables, “trust” is higher among those who do submit a tax return with support, the male sex, do not have tax training, those who live in conjugality, those who are religious and those who have more than 32 years old. There are statistically significant differences in the variable’s country, conjugality and religion. Note that in the Scheffé test by religion and Degree of comfort with the income, the hypothesis of inequality of variances is rejected for a significance level of 0.01.

## 5.6 Legitimate Power

For the analysis of legitimate power, the indicators of the two administered questionnaires were measured, which are presented in the following table, with their descriptive statistics.

**Table 5.17 “Legitimate Power”**

	Indicator	N	Min	Max	Avg	SD
1	Tax Evasion is detected in a high percentage of the cases	179	1	5	2.70	1.05
2	Tax authorities combat tax crimes in an efficient way	179	1	5	2.92	1.08
3	Tax evasion is likely to be detected	179	1	5	3.19	0.90
4	Tax authorities control frequently and profoundly	179	1	5	3.23	1.05
5	Due to their knowledge and competence, tax authorities are able to detect every act of tax evasion	179	1	5	2.38	1.17
	<b>Legitimate Power</b>	<b>179</b>	<b>1</b>	<b>5</b>	<b>2.88</b>	<b>0.76</b>

The data in table 5.17 allows us to conclude that, on average, the respondents perceive that the tax authorities legitimate power is moderately low. However, indicator number 4 presents an average value of 3.23 which appears to indicate that taxpayers admit that tax authorities control frequently and profoundly.

As with the other subsections of the questionnaire previously analysed, a new dimension was created “Legitimate Power. The dimension in question was calculated based on the arithmetic mean of the five indicators present in table 5.17, whose Cronbach's alpha is 0.769, indicating an acceptable reliability. The results are listed in the bottom row of table 5.18. From its analysis we can conclude that this dimension presents an average above the centre of the

scale for Switzerland, while for Portugal it indicates an average below the centre of the scale, explicitly revealing the low perception by Portuguese taxpayers on tax authorities’ “Legitimate Power”.

**Table 5.18 “Legitimate Power” – T Test**

Variables		Descriptive Statistics			T Test	Cronbach's Alpha
Designation	Groups	Average	Standard Deviation	Obs.	$\sigma_x \neq \sigma_y$	
Country	Switzerland	3.05	0.75	97	3.19***	0.769
	Portugal	2.69	0.73	82		
Tax Return Submissions	Self	2.85	0.78	141	-0.98	
	W/support	2.98	0.68	35		
Sex	Female	2.69	0.76	89	-3.51***	
	Male	3.08	0.71	90		
Tax Education	No	2.94	0.68	78	0.95	
	Yes	2.84	0.81	101		
Conjugality	No	2.72	0.73	107	-3.55***	
	Yes	3.12	0.74	72		
CFBR	No	2.86	0.82	69	-0.39	
	Yes	2.90	0.72	110		
Age	18-32	2.88	0.71	95	-0.07	
	33-64	2.89	0.81	84		

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.19 “Legitimate Power” – Scheffé Test by Religion**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Very	Somewhat
Very	2.93	0.72	30	0.16	0.22	-	-
Somewhat	2.90	0.77	83			-0.03	-
Not +Atheist	2.85	0.77	66			-0.08	-0.05

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.20 “Legitimate Power” – Scheffé Test by Degree of comfort with the income**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Comfortable	Ok
Confortable	3.14	0.77	49	5.32***	0.21	-	-
Ok	2.85	0.73	89			-0.29*	-
Dif or V.Dif	2.64	0.74	41			-0.50***	-0.21

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

The results shown through tables 5.17-5.20, that “Legitimate Power” is higher in Switzerland than in Portugal. In relation to the other variables, “Legitimate Power” is higher among those who do submit a tax return with support, the male sex, do not have tax training, those who live in conjugality, those who are religious and those who have more than 32 years old. There are statistically significant differences in the variable’s country, sex and conjugality.

## 5.7 Coercive Power

For the analysis of Coercive power, the indicators of the two administered questionnaires were measured, which are presented in the following table, with their descriptive statistics.

**Table 5.21 “Coercive Power”**

	<b>Indicator</b>	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Avg</b>	<b>SD</b>
1	Tax authorities primarily aim to punish	179	1	5	2.42	1.33
2	Tax authorities investigate as long as they find something	179	1	5	3.36	1.17
3	Tax authorities' interventions are too severe	179	1	5	3.41	1.06
4	Tax authorities nurture hostile feelings towards taxpayers	179	1	5	2.53	1.36
5	Tax authorities interpret tax laws in order to punish the highest number of taxpayers	179	1	5	2.64	1.34
<b>Coercive Power</b>		<b>179</b>	<b>1</b>	<b>5</b>	<b>2.87</b>	<b>0.88</b>

The data in table 5.21 allows us to conclude that, on average, the perceive that the tax authorities has a low coercive power. However, indicators 2 and 3 present average values of 3.36 and 3.41, respectively, these medium values above the centre of the scale allow us to conclude that taxpayers admit that tax authorities investigate as long as they find something and that tax authorities' interventions are severe.

As with the other subsections of the questionnaire previously analysed, a new dimension was created - “Coercive Power. The dimension in question was calculated based on the arithmetic mean of the five indicators present in table 5.21, whose Cronbach's alpha is 0.741, indicating an acceptable reliability. The results are listed in the bottom row of table 5.21. From its analysis we can conclude that this dimension presents an average below the centre of the scale for both countries, explicitly revealing the low perception by taxpayers on tax authorities' use of “Coercive Power”.

**Table 5.22 “Coercive Power” – T Test**

Variables		Descriptive Statistics			T Test	Cronbach's Alpha
Designation	Groups	Average	Standard Deviation	Obs.	$\sigma_x \neq \sigma_y$	
Country	Switzerland	2.91	0.92	97	0.58	0.741
	Portugal	2.83	0.84	82		
Tax Return Submissions	Self	2.85	0.90	141	-1.58	
	W/support	3.07	0.71	35		
Sex	Female	2.88	1.00	89	0.16	
	Male	2.86	0.75	90		
Tax Education	No	2.88	0.95	78	0.09	
	Yes	2.87	0.83	101		
Conjugalitiy	No	2.72	0.86	107	-2.83***	
	Yes	3.09	0.88	72		
CFBR	No	2.95	0.91	69	0.92	
	Yes	2.82	0.86	110		
Age	18-32	2.74	0.85	95	-2.06**	
	33-64	3.01	0.90	84		

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.23 “Coercive Power” – Scheffé Test by Religion**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Very	Somewhat
Very	2.93	0.72	30	0.20	2.77	-	-
Somewhat	2.83	0.89	83			-0.10	-
Not +Atheist	2.90	0.95	66			-0.03	0.07

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

**Table 5.24 “Coercive Power” – Scheffé Test by Degree of comfort with the income**

Groups	Descriptive Statistics			ANOVA Test		Scheffé Test	
	Average	Standard Deviation	Obs.	Teste F	Bartlett	Comfortable	Ok
Confortable	2.85	0.79	49	4.31**	2.33	-	-
Ok	2.73	0.84	89			-0.12	-
Dif or V.Dif	3.20	0.99	41			0.35	0.47**

\*  $p < 0,10$ ; \*\*  $p < 0,05$ ; \*\*\*  $p < 0,01$

The results shown through tables 5.21-5.24, that “Coercive Power” is higher in Switzerland than in Portugal. In relation to the other variables, “Coercive Power” is higher among those who do submit a tax return with support, the female sex, do not have tax training, those who live in conjugalitiy, those who are not religious and those who have more than 32 years old. There is statistically significant difference in the variable conjugalitiy.

## 5.8 Key takeaways from of the results obtained

With the previous analysis of the dimensions, below we summarize the variables with higher impact on the average of each dimension.

**Table 5.25 “Dimensions vs Variables” – Mean Differences**

	Country	Tax return submission	Sex	Tax Education	Conjugalilty	CFBR	Age	Religion	Degree of comfort with the income	Total
Tax Evasion	X	X		X		X		X	X	6
Enforced Tax Compliance	X	X			X	X	X	X		6
Voluntary Tax compliance	X			X		X			X	4
Trust	X	X		X	X	X	X	X	X	8
Legitimate Power	X		X		X				X	4
Coercive Power					X		X		X	3
<b>Total</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>31</b>

We conducted two quantitative surveys, Switzerland (N = 97) and Portugal (N = 82). The results obtained point to country and degree of “degree of comfort with the income” as the variable with more dimensions that have statistically significant differences in means (5 out of 6). Thus, the differences between Swiss and Portuguese taxpayers in relation to certain matters of a tax nature are remarkable. It would be a good topic for further research to find what leads to these differences. Additionally, the degree of comfort with the income was found as key socio demographic variable, as it is common for the income to be a decisive factor in regards to topics related to tax compliance.

Regarding the dimensions with most differences of statistically significant means, the dimensions “Tax Evasion”, “Trust” and “Enforced Tax Compliance” are the ones with most differences in means across the various groups, with respectively, 6, 8 and 6 sociodemographic variables.

### **5.9 Econometric model analysis**

Through an econometric model, it is intended, according to the title of this section, to infer which dimensions have explanatory power to explain the dependent variable, in our case the “Tax Evasion” dimension will be the dependent variable and the remaining identified dimensions will be the respective independent variables.

**Table 5. 26 “Output” ANOVA**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	91,858	5	18,372	17,292	,000 <sup>b</sup>
	Residual	183,802	173	1,062		
	Total	275,660	178			

a. Dependent Variable: taxevasion

b. Predictors: (Constant), coerpow, trust, enftaxcomp, legpow, voltaxcomp

Table 5.26 presents the output of the model for estimating the effect of independent variables on the taxevasion variable. First, we checked the p-value for the chi-square (Prob> Chi2). This is a test in which all the estimated coefficients are equal to zero, that is, it is a test of the model as a whole. Since the p-value is less than the  $\alpha$  of 5% or 10%, then the null hypothesis is rejected, that is, the model is statistically significant.

**Table 5. 27 “Output” Coefficients**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	2,897	,502		5,776	,000
	Enftaxcomp	,351	,082	,293	4,281	,000
	Voltaxcomp	-,261	,097	-,213	-2,686	,008
	Trust	-,272	,105	-,217	-2,596	,010
	Legpow	-,221	,114	-,134	-1,932	,055
	Coerpow	,367	,099	,260	3,689	,000

Table 5.27 shows the Pearson correlation matrix between the variables studied, where it can be seen that for the statistically significant relationships, the intensity of the association between variables is high. Regarding voluntary tax compliance, trust and legitimate power, we found that these variables are statistically significant and negatively correlated with tax evasion, thus corroborating H2, H3 and H4. On the other hand, there is a positive and

statistically significant correlation between tax evasion and the variables enforced tax compliance and coercive power, which allows corroborating H1 and H5 of the study.

The p-value for each variable in the model is identified and that tests individual significance ( $p > |z|$ ). All variables are statistically significant, since the p-value is lower than the  $\alpha$  of 10%. From the table we can also assess the beta values, we observe that enforced tax compliance and coercive power exert a positive impact on tax evasion while voluntary tax compliance, trust and legitimate power exert a negative impact on tax evasion.

**Table 5.28 “Output” Collinearity Statistics**

		Coefficients <sup>a</sup>	
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Enftaxcomp	,821	1,218
	Voltaxcomp	,614	1,628
	Trust	,551	1,816
	Legpow	,795	1,257
	Coerpow	,778	1,286

a. Dependent Variable: tax evasion

The table above tests the assumption of independence of residual variables. The tolerance is high- indicating the absence of multicollinearity - VIF values are low.

## 6 Conclusions, limitations and topics for future research

### 6.1 Conclusions

The aim of this research was to explore the relationship between the tax residency (Switzerland and Portugal) and attitudes toward tax compliance among singular taxpayers within the context of the slippery slope framework (Kastlunger *et al.*, 2013; Kirchler *et al.*, 2008). Results suggest that people with different tax residency approach tax compliance and tax evasion in very specific ways.

The non-compliant tax behaviours (i.e., tax avoidance) in the analysis are stronger among Portuguese tax payers than with Swiss taxpayers. This could account for some results, such

as the fact that Portuguese (compared to the Swiss) expressed lower levels of voluntary compliance. In this regard, we might guess that, because of their higher levels of enforced compliance, Portuguese taxpayers might be more inclined to avoid taxes, following Kirchler and Wahl's (2010) assumption that "when trust is low, but authorities' power to effectively audit and sanction wrong behaviour is strong".

Swiss, in particular, express very high levels of voluntary tax compliance and seem more inclined to consider tax compliance a civic duty, pointing out the collective consequences of tax evasion. This pathway of the slippery slope framework is the one deriving from trust, that influenced tax compliance significantly.

The results have theoretical and practical implications. From a theoretical perspective, the present study enriches previous literature on the slippery slope framework, confirming the existence of two different pathways that lead to tax compliance and hinting at a potential link between trust and evaluations of public expenditures. In the original framework (Kirchler *et al.*, 2008) and its developments (Kastlunger *et al.*, 2013; Muehlbacher & Kirchler, 2010; Wahl *et al.*, 2010), trust is mainly dependent on the type of interaction between tax authorities and taxpayers, along with their commitment to the society in which they live (see also Feld & Frey, 2007). The present findings suggest that the evaluation by taxpayers of the way public resources are managed might be another antecedent of their trust in tax authorities, and consequently of their voluntary cooperation. These findings suggest that the authorities should act in correspondence to the beliefs and attitudes of the taxpayers to increase their cooperation in a responsive regulation approach (Braithwaite, 2003). More specifically, tax authorities may use different methods and strategies to enhance tax compliance, responding to the beliefs and attitudes of taxpayers based on their political preferences.

Among Swiss taxpayers, who show higher levels of voluntary cooperation, authorities should be careful when auditing and fining taxpayers to avoid creating an antagonistic climate, because these individuals are more sensitive to the power dimension, a strong display of which might decrease their cooperation. For the Swiss a "service and client" approach is more effective to increase the level of tax compliance, whereas excessive deterrence might backfire. Among Portuguese taxpayers, on the other hand, it could be relevant to find ways

to increase their voluntary cooperation by increasing their trust and paying attention to the perception of the way public expenditures are managed.

These practical implications might be useful, both for tax and political authorities, when trying to promote taxpayer compliance. However, the fact that the same policies may meet differential responses among different groups of taxpayers enhances one of the basic assumptions of the slippery slope framework: that maintaining or achieving a high level of tax compliance in a social system is like operating on a slippery slope, because of the complex interaction of trust and power (Kirchler, 2007; Kirchler *et al.*, 2008). Although further research on this topic is advisable, these results bear relevant theoretical and practical implications.

## **6.2 Limitation and future research**

As the analysis is based on self-reports its limitations must be mentioned, results have to be interpreted in this light, and socially desirable responses cannot be ruled out. As tax non-compliance is an illegal and prosecuted behavior, self-reports may rather comply with tax law than reflect actual tax behavior. Nevertheless, an enforced tax compliance and voluntary tax compliance have to be assessed with questionnaires, as there is no measurable difference in actual behavior between these factors, the current approach seems the most promising.

In the slippery slope framework (Kirchler, 2007; Kirchler *et al.*, 2008), an interaction of perceived power and trust is assumed. In the current study, this interaction was not tested due to the small sample size. It might be that in the current sample several interactions are effective. As mentioned above, the interaction of power and trust can have several different characteristics and various impacts on tax payments. Although, the present study answers some questions regarding the support of the slippery slope framework (Kirchler, 2007; Kirchler *et al.*, 2008), it raises several new questions. First, the relation of power and trust, a closer theoretical and empirical inspection of the interaction and its impact on tax payments could shed light on an essential assumption of the slippery slope framework.

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## 8 Appendices

## Appendix A – English Questionnaire

The purpose of this questionnaire is to study the relationship between the Swiss tax authorities (cantonal or federal) and the Swiss taxpayers and their impact on personal income tax compliance, and should be answered by individual taxpayers who are/were not Personal income tax exempt in Switzerland. It is part of a master's project in accounting and taxation that is being developed at the Instituto Superior de Economia e Gestão (ISEG), University of Lisbon (UL).

Please be aware of the response instructions that appear throughout the questionnaire.

Remember that there are no right or wrong answers, all of them are important.

The questionnaire is anonymous and we guarantee the confidentiality of the data. Responses will only be dealt with in aggregate form and will not allow individual identification. For any questions or concerns, please contact the investigator via email at msjrodrigues@outlook.com.

We thank you in advance for your valuable cooperation without which this project would not be achievable.

NOTE: Internet Explorer has errors when answering the questionnaire. Please use Chrome, Firefox or Safari browsers.

### Tax Declaration Submission

**Please select the option below that most closely matches your situation:**

**Did you file a self-assessment tax return in Switzerland in the last five years?**

1	Yes, I submitted a tax return myself	
2	No, I did not submit a tax return, but I should have	
3	No, I did not submit a tax return because I didn't need to	
4	Yes, but an accountant/adviser/agent submitted it on my behalf	

### A – Tax Evasion

**A1. Below are some statements made regarding compliance with tax obligations. The statements concern one aspect of the so-called shadow economy. In this case they refer to situations in which instalments of income are received in the form of “cash in hand”, not declared for tax purposes. Indicate, for each statement, your degree of agreement. 5 = Most likely; 4 = Likely; 3 = Neutral; 2 = Unlikely; 1 = Very unlikely.**

		1	2	3	4	5
1	A customer paid in cash and did not require an invoice. You could intentionally omit this income on your income tax return. How likely is it that you would omit this income?					
2	You bought some of your goods privately. You could resell those goods later to established customer and omit the profit from this sale on your income tax return. How likely would you be to omit the profit from this sale on your income tax return?					
3	You could intentionally declare restaurant bills for meals you had with your friends as business meals. How likely would you be to declare those restaurant bills as business meals?					
4	You have been abroad to meet relatives and to have a short meeting with one of your suppliers. Regardless of this you could declare your expenses for the hotel and for the meals you invited your relatives to, as business travel and a business meal. How likely would you be to declare your expenses as business travel or a business meal?					
5	Recently you took part in a project in an acquaintance's company. Now you could conceal this taxable additional income on your income tax return. How likely is it that you would conceal this additional income?					

**B – Tax Compliance – Coercive and Voluntary**

**B1. Indicate, for each of the following statements, your degree of agreement. 5 = Strongly Agree; 4 = Agree; 3 = neither agree nor disagree; 2 = Disagree; 1 = Strongly disagree.**

*When I pay my taxes as required by the regulations, ...*

		1	2	3	4	5
1	I do so because a great many tax audits are carried out.					
2	I do so because the tax office often carries out audits.					
3	I do so because I know that I will be audited.					
4	I do so because the punishments for tax evasion are very severe.					
5	I do so because I do not know exactly how to evade taxes without attracting attention.					

**B2. Indicate, for each of the following statements, your degree of agreement. 5 = Strongly Agree; 4 = Agree; 3 = neither agree nor disagree; 2 = Disagree; 1 = Strongly disagree.**

*When I pay my taxes as required by the regulations, ...*

		1	2	3	4	5
1	I do so because, to me, it's obvious that this is what you do.					
2	I do so to support the state and other citizens.					
3	I do so because I like to contribute to everyone's good.					
4	I do so because, for me, it's the natural thing to do.					
5	I do so because I regard it as my duty as a citizen.					

**C – Trust**

**C1. Think about tax authorities and what was done over the past few years. Indicate, for each of the following statements, your degree of agreement. 5 = Strongly Agree; 4 = Agree; 3 = neither agree nor disagree; 2 = Disagree; 1 = Strongly disagree.**

		1	2	3	4	5
1	The tax authorities support the taxpayers.					
2	Tax authorities are treating citizens correctly.					
3	Tax authorities seem reliable.					
4	Tax authorities are trustworthy.					
5	Tax authorities are treating citizens in a respectful manner.					

**D – Tax System**

**D1. The following statements refer to your perception of the legitimate power of the Tax Authorities. Indicate, for each of the following statements, your degree of agreement. 5 = Strongly Agree; 4 = Agree; 3 = neither agree nor disagree; 2 = Disagree; 1 = Strongly disagree.**

		1	2	3	4	5
1	Tax evasion is detected in a high percentage of the cases.					
2	Tax authorities combat tax crimes in an efficient way.					
3	Tax evasion is likely to be detected.					
4	Tax authorities control frequently and profoundly.					
5	Devido ao seu conhecimento e competência, a AT é capaz de detectar quase todos os atos de fraude fiscal					

**D2. The following statements refer to your perception of the coercive power of the Tax Authorities. Indicate, for each of the following statements, your degree of agreement. 5 = Strongly Agree; 4 = Agree; 3 = neither agree nor disagree; 2 = Disagree; 1 = Strongly disagree.**

	1	2	3	4	5
1 Tax authorities primarily aim to punish					
2 Tax authorities investigate as long as they find something.					
3 Tax authorities' interventions are too severe.					
4 Tax authorities nurture hostile feelings towards taxpayers					
5 Tax authorities interpret tax laws in order to punish the highest number of taxpayers					

<b>E – Sociodemographic Data</b>
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**E1. Sex:**            M •                    F •

**E2. Age:** \_\_\_\_\_

**E3. Are you college educated? Yes • No •**

**E4. Have you had any tax training? Yes • No •**

**E5. 5. Do you live in conjugality? Yes • No •**

**E6. What is your job status, are you employed? Yes • No •**

**E7. In your main job are/were you working on behalf of another? Yes • No •**

**E8. Which of the following statements most accurately describes your feeling towards your current household income?**

1	Current income allows you to live comfortably	
2	Current income is enough to live	
3	It's hard to live with current income	
4	It is very difficult to live with current income	

**E9. Regardless of belonging to a particular religion, I would say that I'm a person**  
 Not religious •                    Somewhat religious •            Very religious •    Convict Atheist •

**E10. Currently, do you feel that you belong to any specific religion? Yes • No •**

## Appendix B – Portuguese Questionnaire

Este questionário tem como objetivo o estudo da relação entre as autoridades fiscais portuguesas e os contribuintes portugueses e o seu impacto no cumprimento fiscal em sede IRS, pelo que deverá ser respondido por contribuintes singulares sujeitos e não isentos de IRS. Integra-se num projeto de mestrado em contabilidade e fiscalidade que está a ser desenvolvido no Instituto Superior de Economia e Gestão (ISEG), da Universidade de Lisboa (UL).

Pedimos-lhe que tenha atenção às instruções de resposta que aparecem ao longo de todo o questionário.

Lembramos que não há respostas certas nem erradas, todas elas são importantes.

O questionário é anónimo pelo que garantimos a confidencialidade dos dados. As respostas serão tratadas apenas de forma agregada, não permitindo, por conseguinte, a identificação individual. Para o esclarecimento de qualquer questão ou dúvida, por favor queira entrar em contacto com o investigador, via e-mail, através do endereço msjrodrigues@outlook.com.

Agradecemos-lhe, desde já, a sua preciosa colaboração, sem a qual este trabalho não seria possível.

NOTA: Por favor utilize os browsers Chrome, Firefox ou Safari. O Internet Explorer tem erros na apresentação do questionário. Obrigado

### Submissão de Declaração Fiscal

**Por favor selecione a opção que mais se aproxima com a sua situação:**

**Submeteu alguma declaração de rendimentos em Portugal nos últimos cinco anos?**

1	Sim, submeti sozinho uma declaração de rendimentos	
2	Não submeti uma declaração de rendimentos, mas deveria	
3	Não submeti uma declaração de rendimentos porque não necessitava	
4	Sim, submeti uma declaração de rendimentos mas um contabilista/consultor/agente fez isso por mim	

### A – Fraude Fiscal

**A1. De seguida serão apresentadas algumas afirmações produzidas a respeito do cumprimento das obrigações fiscais. As afirmações dizem respeito a um aspeto da chamada economia paralela. No caso são referentes a situações nas quais parcelas de rendimento são recebidas sob a forma de “dinheiro na mão”, não declarado para efeitos fiscais. Indique, para cada afirmação, o seu grau de concordância. 5 = Muito provável; 4 = Provável; 3 = Neutro; 2 = Improvável 1 = Muito improvável.**

		1	2	3	4	5
1	Um cliente pagou-lhe em dinheiro e não exigiu fatura. Você poderia, intencionalmente, ocultar esse rendimento na sua declaração de rendimento. Qual a probabilidade de você ocultar esse rendimento?					
2	Imagine que comprou um conjunto de mercadorias a um particular. Suponha que teria a possibilidade de revender, mais tarde, essas mercadorias aos seus clientes e poder ocultar o lucro dessa venda na sua declaração de rendimento. Qual a probabilidade de você ocultar o lucro dessa venda na sua declaração de rendimento?					
3	Você pode declarar, intencionalmente, na contabilidade do seu negócio, despesas com refeições que teve com seus amigos. Qual seria a probabilidade de você declarar as despesas com refeições como refeições de negócios?					
4	Você deslocou-se ao estrangeiro para visitar familiares e ter uma breve reunião com um fornecedor. Independentemente disso, você pode declarar as suas despesas de hotel e refeições (para as quais convidou seus familiares) como despesas de representação. Qual a					

	probabilidade de você declarar suas despesas de hotel e refeições como despesas de representação?					
5	Você participou, recentemente, em um projeto numa empresa do seu conhecimento. Tendo a possibilidade de ocultar o rendimento obtido na sua declaração de rendimento. Qual a probabilidade de você ocultar esse rendimento?					

### B – Cumprimento Fiscal – Coercivo e Voluntário

**B1. Indique, para cada uma das seguintes afirmações, o seu grau de concordância. 5 = Concordo totalmente; 4 = Concordo; 3 = Não concordo nem discordo; 2 = Discordo; 1 = Discordo totalmente.**

*Eu pago os meus impostos, tal como determina a lei, pois ...*

		1	2	3	4	5
1	São levadas a cabo muitas inspeções fiscais					
2	A AT efetua com frequência inspeções					
3	Eu sei que vou ser inspecionado					
4	As consequências da evasão e fraude fiscal são muito severas					
5	Eu não sei como fugir aos impostos sem chamar a atenção					

**B2. Indique, para cada uma das seguintes afirmações, o seu grau de concordância. 5 = Concordo totalmente; 4 = Concordo; 3 = Não concordo nem discordo; 2 = Discordo; 1 = Discordo totalmente.**

*Eu pago os meus impostos, tal como determina a lei, pois ...*

		1	2	3	4	5
1	É obvio para mim que é o que qualquer contribuinte faria					
2	Para apoiar o Estado e os outros cidadãos					
3	Eu gosto de contribuir para o bem-estar geral de todos					
4	Para mim é completamente natural					
5	Considero que seja o meu dever como cidadão					

### C – Confiança

**C1. Pense na Autoridade Tributária e naquilo que esta tem feito ao longo dos últimos anos. Indique, para cada uma das seguintes afirmações, o seu grau de concordância. 5 = Concordo totalmente; 4 = Concordo; 3 = Não concordo nem discordo; 2 = Discordo; 1 = Discordo totalmente.**

		1	2	3	4	5
1	A AT tem apoiado os contribuintes					
2	A AT trata corretamente os contribuintes					
3	A AT é uma instituição confiável					
4	A AT é uma instituição fidedigna					
5	A AT trata os seus contribuintes num modo respeitável					

### D – Avaliação do Sistema Fiscal

**D1. As seguintes afirmações referem-se à sua perceção do poder legítimo da Autoridade Tributária. Indique, para cada uma das seguintes afirmações, o seu grau de concordância. 5 = Concordo totalmente; 4 = Concordo; 3 = Não concordo nem discordo; 2 = Discordo; 1 = Discordo totalmente.**

		1	2	3	4	5
1	A fraude fiscal é detetada numa percentagem elevada dos casos					
2	A AT combate os crimes fiscais de um modo eficaz					
3	A fraude fiscal é susceptível de ser detetada					
4	A AT controla frequentemente com detalhe os seus contribuintes					
5	Devido ao seu conhecimento e competência, a AT é capaz de detectar quase todos os atos de fraude fiscal					

**D2. As seguintes afirmações referem-se à sua perceção do poder coercivo da Autoridade Tributária. Indique, para cada uma das seguintes afirmações, o seu grau de concordância. 5 = Concordo totalmente; 4 = Concordo; 3 = Não concordo nem discordo; 2 = Discordo; 1 = Discordo totalmente.**

		1	2	3	4	5
1	A AT pretende, principalmente, punir					
2	A AT investiga até encontrar indícios de incumprimento fiscal					
3	As intervenções da AT, incluindo as inspeções tributárias, são muito severas					
4	A AT nutre sentimentos hostis em relação aos contribuintes					
5	A AT interpreta a legislação fiscal de modo a punir o maior número de contribuintes					

#### E - Dados Sociodemográficos

**E1. Sexo:**                      M •                      F •

**E2. Idade:** \_\_\_\_\_

**E3. Tem formação universitária? Sim • Não •**

**E4. Já teve alguma formação área fiscal? Sim • Não •**

**E5. Vive em conjugalidade? Sim • Não •**

**E6. Qual a sua condição perante o trabalho, trabalha? Sim • Não •**

**E7. Na sua profissão principal é/era trabalhador por conta de outrem? Sim • Não •**

**E8. Qual das seguintes descrições se aproxima mais do que sente relativamente ao rendimento atual das pessoas que vivem na sua habitação?**

1	O rendimento atual permite viver confortavelmente	
2	O rendimento atual dá para viver	
3	É difícil viver com o rendimento atual	
4	É muito difícil viver com o rendimento atual	

**E9. Independentemente de pertencer a uma religião em particular, diria que é uma pessoa**  
 Nada religiosa •                      Algo religiosa •                      Muito religiosa •                      Ateu •

**E10. Atualmente, sente que pertence a alguma religião? Sim • Não •**