TAX MORALE DETERMINANTS IN PORTUGAL

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Abstract
Tax morale has been recognized as the key to understand the levels of compliance achieved in most countries in the world. We applied a structural equation model (SEM) to gain a better understanding about the factors shaping tax morale of Portuguese taxpayer's. Our purpose was to analyze through SEM the direct effects of political democratic system, political participation, religiosity, individual satisfaction, trust in others and institutional trust on tax morale. A sample of 1,553 Portuguese individuals representative of Portuguese population obtained from European Values Study (EVS), carried out in 2008-2010 was used. The results confirmed that Portuguese taxpayers´ tax morale is influenced by taxpayers trust on institutions like government, parliament and the judicial system, by political participation and by the belief that democracy is a good political system for governing the country. Tax morale is also influenced by individual´s satisfaction, by religiosity and by societal behavior (trust in others). We concluded that tax morale is strongly influenced by political and psychological factors.

Keywords: Tax morale, Tax compliance, Structural Equation Model

Introduction
The reasons underlying taxpayers´ behavior are not yet completely understood by researchers and by politicians. Tax morale is understood as the intrinsic motivation to comply with fiscal duties (Torgler, 2003) and is recognized has having an important role in explaining the high degree of tax compliance observed in many countries (Molero and Pujol, 2005; Güth et al., 2005). Simultaneously, tax morale has a strong negative impact on shadow

economy level (Alm and Torgler, 2006; Torgler and Schneider, 2009) and on tax evasion (Torgler and Schneider, 2007). Recently, increased research has been developed about tax morale and its main determinants (Alm and Torgler, 2006; Alm et al., 2006; Barone and Mocetti, 2011; Cummings et al., 2009; Frey, 2003; Güth et al., 2005). Additionally, it seems that the concept of tax morale still remains open to interpretation (Pope and McKerchar, 2010).

Torgler and Schneider (2005) defined the concept as the intrinsic motivation to comply and pay taxes, and thus voluntarily contribute to public welfare. A better understanding about individual heterogeneity in shaping tax morale may contribute for the development of alternative mechanisms to reduce tax evasion (Riahi-Belkaoiu, 2004; Lago-Peñas and Lago-Peñas, 2010) and to improve tax compliance. A comprehensive understanding of tax compliance should help decision-makers to shape better communication policies with taxpayers (Trivedi et al., 2003). Also, tax authorities will be able to develop more targeted enforcement strategies for non-compliant taxpayers (Devos, 2008). Such measures are of particular importance because of the negative consequences that tax evasion has on public revenues, on equity level of the tax system (Kim, 2008) and on the perceptions of potential foreign investors (Frey, 2003; Richardson, 2006).

This paper contributes to the literature by extending previous studies about tax morale. Our paper applies SEM in order to study the influence of multidisciplinary factors on tax morale. Despite the existence of a considerable number of research papers on this topic, we believe that little is known, in particular, on the constraints of Portuguese taxpayers' tax morale. Data provided by EVS was used to apply SEM to analyze the factors that influence Portuguese taxpayers´ tax morale in 2008. The results achieved are a contribution for a better understanding of the factors shaping tax morale. The conclusions obtained can be used by politicians and the tax administration, in order to improve compliance levels and reduce noncompliance and underground economy through the implementation of more efficient rules. Given the present challenges faced by Governments, studies of this nature can be valuable to promote voluntary tax compliance.

The paper is organized as follows. In Section 2, we briefly review the literature on tax morale and its main determinants. Section 3 describes data and variables used in the study. Section 4 presents the empirical results. Section 5 concludes.

Literature review and research hipothesis
Empirical research clearly shows that taxpayers exhibit a wide range of behaviors towards their tax obligations under similar conditions. What still remains to be understood are the reasons behind taxpayer's behavior.

Behavioral differences are justified for several motives, ranging from an economic point of view (Allingham and Sandmo, 1972; Yitzhaki, 1974) to behavioral, political and psychological motivations (Andreoni et al., 1998). Traditional economic models based on the economics-of-crime approach (Allingham and Sandmo, 1972) pointed out deterrence factors to explain taxpayer's behavior. However, empirically based studies showed that higher levels of compliance were obtained when compared to the ones predicted by economic models (Andreoni et al., 1998; Alm et al., 1992; Feld and Frey, 2002). A proper understanding of taxpayers´ behavior requires the consideration of theories referred by sociologists and psychologists (Alm et al., 1995). The puzzle of tax compliance can only be understood if research takes into account individual´s willingness (Torgler, 2003) and moral sentiments, like shame and guilty (Erard and Feinstein, 1994).

Tax morale is linked to a civic duty, which can be crucial to explain the level of acceptance of a certain tax burden (Martinez-Vazquez and Torgler, 2009). It can be conceptualized as a set of moral principles or values that individuals have regarding the payment of their taxes (Alm and Torgler, 2006). Song and Yarbrough (1978) define it as the norms of behavior governing taxpayers´ in their relationship with the state. Among the range of tax morale definitions provided by the literature, it seems clear that moral rules and feelings, equity and the relation between taxpayers and government are important factors for an understanding of the concept.

Tax morale is a multidimensional concept and requires an interdisciplinary approach (Alm and Torgler, 2006). There is no readily available objective or observable measure of tax morale (Frey and Torgler, 2007). There are many advantages in working with a multi-item index instead of a single question to measure tax morale (Kirchler, 1997; 1999). An analysis of the factors that influence tax morale based on SEM allowed us to assess tax morale using three indicators. Simultaneously we avoid the disadvantages associated with the construction of an index, especially regarding the measurement procedure (Alm and Torgler, 2006).

Empirical studies results support the influence of a large number of behavioral, political and psychological variables on tax morale. Torgler (2005) studied religiosity (church attendance), trust in the President, trust people to obey the law, perception of being caught, satisfaction with national officers, national pride, pro-democratic attitude and wealth. Alm et al., (2006) consider the effect of confidence in the courts, pride and perception of tax evasion. Alm and Torgler (2006) considered the effect of confidence in the courts, trust in parliament and church attendance. Alm and Torgler (2006) referred church attendance, trust in legal system and trust in the parliament. Torgler (2006) considered religiosity (church attendance, religious education, being active in a church group, importance of religion,

religious guidance), corruption and trustworthiness. Torgler and Schneider (2007) considered direct democracy, national pride, trust in political institutions and government and attitude towards democracy. Barone e Mocetti (2011) analyzed public spending inefficiency.

From our point of view, analyses of tax morale determinants could be improved if those factors were studied simultaneously. In our opinion, we can contribute to an improvement in the understanding of factors shaping tax morale if the study simultaneously includes a higher number of factors. Empirical evidences from other areas, like political science, psychology, and sociology show that they influence each other.

Democratic political system

A democratic political system is understood as representing, according to the opinion of taxpayers, a good political system for governing the country. Empirical studies provide evidences of the influence of political democratic system on tax morale (for Asian countries see Torgler, 2004; for Latin America see Torgler, 2005). Individuals satisfied with how democracy has evolved and with the way the country is being governed, have higher levels of tax morale. Individual´s support for democracy helps to maintain a high level of tax morale (Torgler, 2004; 2005). A democratic political system offers citizens the possibility to express their preferences. Also, a more active role of the citizens helps them to better monitor and control politicians, and thus to reduce the asymmetry of information, which reduces the discretionary power of the government (Torgler, 2004). Frey and Stutzer (2000) argue that democracy influences happiness through a higher satisfaction with policy outcomes. People are happy if they have (and use) the opportunity to participate in direct democracy. Dorn et al., (2005) observe a significant relation between democracy and happiness. We hypothesize that:

H 1.1 – Political democratic system positively influences tax morale.

H 1.2 – Political democratic system positively influences individual satisfaction.

Political Participation

Opportunities for political participation contribute to what Lane (1988) calls "procedural goods of democracy". It implies, for instance, dignity goods such as self-respect, feeling of personal control or understanding and public resonance (Frey and Stutzer, 2006). There are several forms of political participation. Some involve active interactions with others, like being part of a political party, and others are usually performed in an individual manner, for example signing a petition (Quintelier and Hoodghe, 2011). Political participation in elections encourages citizens to

discuss relevant issues, which helps to improve their political awareness. Moreover, knowing that citizens are discussing and monitoring its behavior provides government with an incentive to act more effectively. Such participation further contributes to more effective governance, by offering citizens the opportunity to speak out, and show their preferences. The more aware a government is of citizens preferences, the better its policies will reflect citizens' needs (Boix and Posner, 1998). Politically interested citizens will tend to associate and engage in discussion. Exchange of arguments and face-to-face interaction enhances group identification and give citizens the opportunity to identify others' preferences. As these preferences become visible, the moral costs of free-riding or behaving illegally increase, reducing the justification for corruption and tax evasion. We hypothesize that:

H 2.1 – Political participation positively influences tax morale.

H 2.2 – Political participation positively influences political democratic system.

H 2.3 – Political participation positively influences trust in others.

Religiosity

Since the 1990´s researchers have paid attention to a discipline called "economics of religion" considering mainly two approaches: the economic analysis of religious behavior within an economic model, and the study of the consequences of religion and religiosity on economic behavior (Innaccone, 1998). Religion can be seen as a proxy for characteristics like work ethics, tolerance and trust (La Porta et al., 1999). Every society has moral constraints, which are not formally laid down (Torgler, 2006), but nevertheless influence citizens' behavior. Many of these standards are highly influenced by religious motives (Torgler, 2006). Church as an institution induces moral constraints in a community and influences people's behavior (Torgler and Schneider, 2005). Torgler et al., (2008) results support such previous findings in that a high sense of religiosity leads to a higher level of tax morale. Beit-Hallahmi and Argyle (1997) wrote extensively about the effect of individual religiosity, which is related to the development of a sense of compassion, honesty and altruism, as well as happiness and quality of life, health and mental health. Lehrer (2004) emphasize the positive outcomes between being a religious individual and well-being and healthy. Walker (2003) concluded that religious experience is important in moral functioning. Also, Roccas (2005) found a high correlation between religiosity and values. Religiosity induces choices between what is seen as right and wrong behavior (Margolis, 1997) Adicionaly, Guiso et al., (2003) found that in general there is a positive relationship between religion and trust (toward others, in the government and in the legal system). Brañas-garza et al., (2009) confirmed the link between religious practices and trust in several

institutions (the government, the police, the armed forces, the courts and the banks) and trust toward others. Some studies found that religiosity improves people´s civic engagement (Wald and Wilcox, 2006). Being a member of a religious organization is positively related with political participation (Gibson, 2008). Religiosity is used as a proxy to analyze the impact of standards imposed by non-governmental organizations or the impact of values that promote compliance and punish non-compliance (Torgler, 2007). We hypothesize that:

        H 3.1 – Religiosity positively influences tax morale.
        H 3.2 – Religiosity positively influences institutional trust.
        H 3.3 – Religiosity positively influences trust in others.
        H 3.4 – Religiosity positively influences political participation

Individual Satisfaction

The level of happiness of an individual can influence economic decisions, including consumption, behavior at work, investment decisions and political behavior (Frey and Stutzer, 2002). In this context it will be interesting to examine whether the level of happiness of citizens affects their tax morale. Many economists have made use of subjective questions on welfare (financial satisfaction), well-being, and health satisfaction, among others, to address a wide range of scientifically and politically relevant questions. The interest of considering happiness as a variable influencing individual willingness to comply increases significantly, given that there is little empirical evidence on the impact of happiness on tax morale (Torgler 2004; 2005). Happiness and individual satisfaction were found to have a significant positive effect on taxpayers' tax morale in Asian countries (Torgler, 2004) and in Latin America (Torgler, 2005). We hypothesize that:

        H 4.1 – Individual satisfaction positively influences tax morale.

Trust in Others

According to Uslaner (2002) people trust others based upon the belief that their fellow citizens are part of a moral community. "When we believe that "most people can be trusted," we are more likely to give of ourselves and to look out for the welfare of others. When we believe that "you can't be too careful in dealing with people," we are likely to be on our guard and to feel little compunction in taking advantage of others who may not have our best interests in mind" (Uslaner, 2002: 9). Generalized trust rests upon the psychological foundations of optimism and control, which leads people to believe that the world is a good place, it is going to get better, and that you can make it better Uslaner (2002).

Individuals do not act in isolation. They have perceptions about the behavior of other individuals. The greater the perception by an individual

that others engage on tax evasion practices, the more he will tend to lower his level of tax morale (Molero and Pujol, 2005). Similarly, the greater the perception, that other taxpayers meet their tax obligations, the greater is the individual willingness to pay taxes. Frey and Torgler (2007) also corroborate the idea that taxpayers' behavior depends on the social behavior of other taxpayers. In fact, taxpayers are willing to pay their taxes conditionally. If trust is matched by trustworthy behavior in others, the costs of dealing with risks and uncertainty are reduced (Helliwell, 2001). Also, results from public goods experiments suggest that most people are only willing to cooperate if they expect others to cooperate as well (Gächter et al., 2004). Trusting other citizens and political leaders are two contributing factors for people to pay taxes more willingly (Scholz and Lubell, 1998). We can conclude that the social context and institutional structure, in which the tax compliance occurs, influence the level of tax morale of each taxpayer. We hypothesize that:

      H 5.1 – Trust in others positively influences tax morale

      H 5.2 – Trust in others positively influences individual satisfaction

      H 5.3 – Trust in others positively influences institutional trust.

Institutional trust

      Institutional trust measures the degree of confidence that individuals have in institutions (government and parliament) and public administration of the country where they live (OECD, 2007). A sustainable tax system is based on a fair tax system and responsive government, achieved with strong connection between tax payments and the supply of public goods (Bird et al., 2006). The relationship between taxpayers and state can be seen as a relational or psychological contract, representing "a complicated interaction between taxpayers and the government in establishing a fair and reciprocal exchange" (Feld and Frey, 2007: 104) which involves strong emotional ties and loyalties. Institutional trust can only be created if the government acts in line with citizens' needs and desires (Hardin, 1998). Generally, it can be argued that positive actions by the state are intended to improve taxpayers' attitudes and commitment to the tax system, and thus enhance compliant behavior (Smith, 1992). If the state acts trustworthily, taxpayers might be more willing to comply with taxes. On the other hand, perceived unfairness increases the incentive to act against the tax law, as it reduces psychological costs. In this context, if taxpayers trust the government and the state, their willingness to comply with their tax obligations will be higher (Torgler and Schneider, 2007).

      Cummings et al., (2009) use an experimental setting to show that tax morale increases with individual perceptions of good governance. Institutions that respect the preferences of the citizens will have more support from people than a state that acts as Levianthan (Prinz, 2002). Not

only trust in the government may have an effect on tax morale, but also trust in courts and the legal system, and thus the way the relationship between the state and its citizens is established. Slemrod (2002: 13) points out that costs of tax collection and government running are lower if taxpayers are more willing to pay their taxes voluntarily: ''It is as if there is a stock of goodwill, or social capital, the return to which is the more efficient operation of government. This social capital stock may be reduced by a policy change that decreases the incentive to be a law-abiding citizen''. We hypothesize that:

H 6.1 – Institutional trust positively influences tax morale.

H 6.2 – Institutional trust positively influences individual satisfaction.

Methodology
Instrument
For our analysis, we used data from EVS survey carried out in 2008 (EVS, 2010). Year 2008 is the most recent EVS data available for Portugal. The EVS is a research project on human values in Europe that explores the differences and changes in the values of citizens. The survey provides details about ideas, beliefs, preferences, attitudes, values and opinions of citizens across Europe. By covering a broad variety of questions on different topics, EVS has the advantage of reducing the likelihood of respondents´ suspicions of surveys´ motivation and reduces the appearance of framing effects that may be present in surveys based only on tax compliance questions (Martinez-Vazquez and Torgler, 2009). EVS (2010) provided us with data to measure the constructs referred in the empirical literature as tax morale determinants.

Model of research
In our proposed SEM tax morale is directly influenced by individual´s institutional trust, by the level of trust in others, by political participation, by religiosity, by political democratic system and by individual's satisfaction.

Democratic political system construct represents Portuguese citizens opinion that democracy is the best regime to govern the country and was measured with 2 indicators. Political participation represents individual´s involvement in political activities on an individual level was measured with 3 indicators. Religiosity represents moral constraints on individual´s behavior was measured with 4 indicators. Individual´s satisfaction with life was measured with 3 indicators. Trust in others represents individual´s perception of others behavior and was analyzed with 3 indicators. Institutional trust allowed us to consider the effects of institutional trust at

the current politico-economic level (Alm e Torgler, 2006; Torgler, 2004) and at the constitutional level (trust in the legal system/justice system) thereby focusing on how the relationship between the state and its citizens is established. Institutional trust was measured with 3 indicators. There is not a unanimous opinion about the number of indicators a construct should have for SEM purposes, It is normally accepted that three or more indicators are suitable for analysis SEM (Hair et al., 2009).

Sample and procedure

EVS allows us to work with a representative set of individuals of Portugal ($N = 1,553$).

Multivariate outliers were evaluated with Mahalanobis squared distance (p1 and p2 < 0.001). From an initial sample of 1,553 individuals, 39 were considered multivariate outliers and were deleted. The final sample contains 1,514 individuals.

Sample includes individuals aged between 18 and 98 years old with an average of 53 years old. Around 59.40% of respondents are women and 40.60% are male. Most respondents are married (60.00%), around 18.00% have never been married or with registered partnership. There are individuals from all regions of Portugal, with emphasis for North (39.0%), Center (28.4%) and Lisbon (17.4%). Around 91% of respondents have up to (upper) secondary education, 8.1% have first stage of tertiary education and only 1% has second stage of tertiary education. Around 67.90% of the respondents declare to earn less than € 18,000 a year. However, a significant percentage of the respondents (48%) did not answer the question or did not new how much their annual income was. Regarding to employment status, 44.10% of the respondents are employed, 34.10% are retired or pensioned, 6.5% are housewife, 3.2% are students and 7.6% are unemployed.

We applied SEM to test the relationships between the variables included in the research framework. For the missing data we applied an imputation technique by replacing the missing values by the mean value of the responses of the variable (Hair et al., 2009). We used Amos 19.0 to generate maximum likelihood parameter estimates through the analysis of the matrix of covariance among variable scores. All the complementary analyses were conducted using SPSS 19.0.

Normality of data was analyzed through skewness (*sk*) and kurtosis (*ku*) which allowed us to check univariate normality. In AMOS multivariate normality is measured by the use of Mardia's multivariate kurtosis (Mardia, 1970).

Firstly we developed the measurement model supported by the literature reviewed. We verified the existence of unidimensionality, adequate reliability and validity of all constructs measures using an exploratory factor

analysis (EFA) and a confirmatory factor analysis (CFA). Sample adequacy for all variables was assessed by Kaiser-Meyer-Olkin test (KMO). The adequacy of factor analysis was measured with Bartlett test.

Scale reliability or internal consistency analysis of the constructs was assessed by Cronbach's alpha (α). A value of α higher than 0.60 is considered acceptable and a value greater than 0.7 is considered ideal (Hair et al., 2009). However, Nunnally (1967) considers the range of 0.5 to 0.6 is acceptable for exploratory research. Another measure of construct reliability (CR) was computed from the squared sum of factor loading for each construct and the sum of the error variance terms for a construct on the measurement model.

Construct validity was analyzed with both convergent validity and discriminant validity. Convergent validity exists if the indicators of a construct have a high portion of variance in common. Convergent validity is assured if standardized factor loadings are higher than 0.5 or ideally than 0.7 (Hair et al., 2009). Other measure of convergence is average variance extracted (AVE). AVE values greater than 0.5 (Hair et al., 2009) indicate good convergence.

Discriminant validity was assessed through the comparison of the values of AVE for each construct with the squared multiple correlations between two constructs (Hair et al., 2009).

Global model fit was assessed using the Goodness of Fit (GFI) and the Root Mean Square Error of Approximation (RMSEA). Incremental model fit was assessed with the Tucker Lewis Index (TLI), Comparative fit index (CFI) and Normed fit index (NFI). Incremental model fit was assessed with adjusted goodness of fit index (AGFI) and Parsimony Normed Fit Index (PNFI).

Results and discussion

Results showed values of *sk* between -1.278 and 2.588, and values of *ku* between -1.545 and 4.699. All indicators had univariate normal distributions. In a conservative assumption of normality for absolute values of *sk* less than ±3 and less than ±10 *ku* are considered acceptable for assumption of normality (Kline, 2004). In our model Mardia's multivariate kurtosis was 51.721. Bentler (2005) considers a cut off value of 5 for the assumption of multivariate normality. According to Hair et al. (2009) the maximum likelihood method is the most effective when the requirement of multivariate normality is verified and has shown to be very robust even in the presence of violation of multivariate normality.

The measurement model includes twenty indicators and seven constructs. Constructs´ unidimensionality was assured through EFA procedure. Seven constructs and 21 indicators were evaluated using EFA. A

value of KMO = 0.713 obtained is considered acceptable for this type of analysis (Hair et al., 2009). The values of Bartlett's test were $\chi2$ = 7618.568, df = 190 and p = .000, which confirmed the appropriateness of the factor analysis procedure as used. The principal component method, with a varimax rotation was used to extract relevant factors. The EFA results showed that all indicators with loadings greater than 0.56 in just one factor, and eigenvalues greater than 1 according to Guttman-Kaiser rule (Guttman, 1954; Kaiser, 1960; Kaiser, 1970) were considered. The measure of sample adequacy (MSA) is greater than 0.62 for all variables. The seven-factor (tax morale, political participation, democratic political system, religiosity, individual satisfaction, trust in others and institutional trust) solution obtained explained 66.355 percent of the total variance.

All constructs present a value of Cronbach's alpha (α) higher than 0.6, except for individual satisfaction with a 0.573 value. Values of CR greater than 0.7 suggest good reliability (Hair et al., 2009). All constructs CR values ranged from 0.7 to 0.9, showing good reliability. We concluded that all constructs presented acceptable reliability for this analysis purpose.

CFA shows standardized loading estimates greater than 0.5 except for two indicators: job security and religious services. All constructs have AVE values greater than 0.46. These results suggest the existence of convergent validity.

We concluded that all constructs of measurement model show discriminant validity. The matrix of factor score weights for CFA model show that indicators associated to each construct present high scores and have residual scores in all other constructs.

Tax morale measurement model exhibits good global fit indicators with GFI = 0.976 and RMSEA = 0.031. Values of GFI higher than 0.9 and RMSEA between 0.3 and 0.8 are considered good (Hair et al., 2009). TLI = 0.963, CFI = 0.971 and NFI = 0.953, suggest good incremental fit indicators. According to Hair et al., (2009) values of TLI greater than 0.95 and values of NFI and CFI greater than 0.9 suggest good fit. The model also presents good parsimony fit indicators with AGFI = 0.967 and PNFI = 0.747. Hair et al., (2009) recommends values of AGFI greater than 0.95 and values of PNFI greater than 0.5.

Final SEM of tax morale determinants included six endogenous constructs and one exogenous construct. Tax morale is influenced by institutional trust, by religiosity, by political participation, by trust in others, by individual satisfaction and by the political democratic system. Institutional trust is influenced by religiosity and trust in others. Political participation depends on religiosity. Individual´s satisfaction is influenced by trust in others, by institutional trust and by political democratic system.

Political democratic system depends on political participation. Trust in others is influenced by political participation and by religiosity.

SEM model presents good global fit indicators with GFI = 0.976 and RMSEA = 0.031. For incremental fit TLI = 0.964, CFI = 0.971 and NFI = 0.951. For the Parsimony fit AGFI = 0.967 and PNFI = 0.776. All values are considered good fit indices (Hair et al., 2009). SEM has $\chi 2(155) = 373.170$ and so the Normed Chi-square ($\chi 2/df$) is 2.408 (p<0.001). Hair et al., (2009) recommends a value less than 2 for an acceptable model. However, Kline (1998) argues that a value of 3 or less is acceptable. Considering that the Normed Chi-square is sensitive to sample size and considering our study has a sample greater than 1,000 observations, we concluded that Normed Chi-square of 2.408 is acceptable. Our SEM presents good fitness indicators. Table I presents structural model direct effects.

Table I – Structural model direct effect analysis

Structural relationships (direct effects)	Estimate	t-Value	Hypothesis	Expected sign	*p*-Value
Political Democratic System →Tax morale	0.665	4.887	H 1.1	+	***
Political Participation →Tax morale	-0.217	-2.831	H 2.1	+	0.005
Religiosity →Tax morale	0.161	2.598	H 3.1	+	0.009
Individual Satisfaction →Tax morale	0.193	5.527	H 4.1	+	***
Trust in Others →Tax morale	-0.142	-3.103	H 5.1	+	0.002
Institutional Trust →Tax morale	-0,127	-1.617	H 6.1	+	0.106
Political Democratic System →Individual Satisfaction	0.733	4.620	H 1.2	+	***
Political Participation → Political Democratic System	0.185	7.606	H 2.2	+	***
Political Participation → Trust in others	0.478	6.087	H 2.3	+	***
Religiosity → Institutional Trust	0.155	5.731	H 3.2	+	***
Religiosity → Trust in Others	0.156	2.267	H 3.3	+	0.023
Religiosity → Political Participation	-0.206	-7.363	H 3.4	+	***
Trust in Others → Individual Satisfaction	0.323	5.666	H 5.2	+	***
Trust in Others → Institutional Trust	0.141	7.184	H 5.3	+	***
Institutional Trust → Individual Satisfaction	0.233	2.440	H 6.2	+	0.015

In general, we find support for the hypothesis that behavioral, political and psychological variables influence Portuguese taxpayer's intrinsic motivation to pay taxes. SEM show direct effects of a

multidisciplinary set of constructs on the formulation of tax morale. Political democratic system, political participation, religiosity, individual satisfaction and trust in others have a direct significant influence on tax morale formulation. Democratic political system and individual satisfaction present the highest positive statistically significant effect on the formulation of individual´s motivation to comply. Furthermore, we also conclude that political democratic system positively contributes to individual satisfaction. Individuals who believe that democracy is the best government regime tend to state high levels of tax morale and satisfaction with life. Similarly, individual´s satisfied with their life´s tend to exhibit higher tax morale. Individual taxpayers are negatively statistically significant influenced by behavior of the other taxpayers. The knowledge that other individuals are not trustworthy reduces the motivation to act according the rules and to comply.

Religiosity presents a positive statistically significant effect on tax morale, although with lower influence compared to democratic political system, individual satisfaction and trust in others. Regarding to Portuguese taxpayers, a higher commitment to obey non-governmental rules increase their tax morale level and stands for an increasing level of institutional trust. Commonly, empirical studies analyze the impact of religiosity on tax morale just with one indicator, church attendance. We measured religiosity using four indicators. In our understanding this is more appropriated given the multidimensional dimension of the concept. Among the four indicators considered in the analysis, the one that contributes more to capture individual´s religiosity level is the level of trust individual's state on church.

Political participation and trust in others behavior present a negative statistically significant effect on tax morale. Taxpayers with a higher level of political participation are less willing to pay their taxes unconditionally. Active individual´s in political activities, in an individual level, like signing petitions, joining boycotts and be part of manifestations, present lower levels of tax morale. Commonly empirical studies present a positive relation between political participation and tax morale. Our result is not in line with previous studies. The result obtained in our study can be explained by the fact that most people stated that would never do any of the referred individual political activities, like signing a petition (mean = 2.26, Std. 0.777), joining boycotts (mean = 2.64, Std. 0.566) and be part of manifestations (mean = 2.46, Std. 0.691). Literature review showed that knowing that other people are trustworthy increases the motivation to act according the rules and to comply. However our study revealed a negative influence of trust in others behavior and tax morale. In our understanding, the result achieved because a high percentage of taxpayers stated high levels of tax morale and also stated the perception that people do not try to be fair or just look out for themselves.

Many empirical studies about tax morale determinants evidence a positive relation between institutional trust, and tax morale. When citizens believe governments act according to their interests willingness to comply increases. Our results show a negative not statistically significant relation between institutional trust and tax morale. We justified our result based on the fact that, in average, citizens report a low level of trust on government, parliament and justice system. Trust in parliament (mean = 2.80, Std. 0.802), trust in justice system (mean = 2.68, Std. 0.869) and trust in government (mean =3.01, Std. 0.834).

Political participation presents a positive and statistically significant relation with political democratic system with trust in others. People with high levels of political participation believe democracy is the best political system and are more aware of others behavior. Individuals who engage in political activities tend to state that others are trustworthy. Religiosity presents a positive and statistically significant relation with institutional trust and a negative and with trust in others. Religiosity presents a negative and statistically significant relation with political participation. People who are strongly influence by non-governmental institution are less willing to engage acts like petitions or manifestations.

Trust in others presents a positive and statistically significant relation with individual satisfaction and with institutional trust. Institutional trust presents a positive and statistically significant relation with individual satisfaction. Trust in public institutions contributes for satisfaction with life.

Conclusion and limitations

This paper contributes to the debate about the determinants of tax morale using a structural equation model. Using data from EVS regarding to Portugal, year 2008, we explored the direct and indirect effects of political, behavioral and psychological factors on tax morale. Tax morale gains importance in tax compliance research given the limitations of traditional economic models to explain taxpayers behavior. The intrinsic motivation to pay taxes is a key factor to provide an explanation about taxpayer's behavior over the years. It is also a crucial variable to explain tax evasion levels and the level of underground economy. Individual´s tax morale is a multidimensional concept not directly observable. So the study of the factors that shape it seem to give awareness to researchers and politicians of how to maintain or even increase individual´s motivation to comply.

Our work extends previous empirical studies by analyzing simultaneously the influence of political democratic system, political participation, religiosity, individual satisfaction, trust in others and institutional trust on the formulation of Portuguese taxpayers tax morale. Most of the estimated coefficients of tax moral causes analyzed in our model

are statistically significant at conventional levels. We conclude that Portuguese taxpayers tax moral is positively influenced by individual satisfaction and by democracy. Our results seem to indicate that, in Portugal, individual's intrinsic motivation to pay taxes is positively influenced by the existence of a democratic political regime and by individual´s satisfaction with life. However, we did found a not significant negative relation between institutional trust and tax morale. Individuals who support democracy as the best political regime, individual´s satisfied with their lives and strongly identified with the country tend to have a higher intrinsic motivation to comply. Thus, for Portuguese taxpayers, political and social conditions are important to explain the level of motivation to comply.

We studied a wide range of constructs as determinants of tax morale, although it is justifiable to state that further constructs could have been included. In the choice of the constructs and the indicators to be included in the model we were limited by the variables included in the EVS.

This paper provides detailed insights into Portuguese taxpayers tax morale and thus contributes to understanding why so many taxpayers in Portugal are willing to pay their taxes.

References:
Allingham, M. G. and Sandmo, A. (1972), "Income tax evasion: A theoretical analysis", Journal of Public Economics, Vol. 1, pp. 323-338.
Alm, J. and Torgler, B. (2006), "Culture differences and tax morale in the United States and in Europe", Journal of Economic Psychology, Vol. 27 No. 2, pp. 224-246.
Alm, J., Martinez-Vazquez, J. and Torgler, B. (2006), "Russian Attitudes Toward Paying Taxes – Before, During, and After the Transition, International", Journal of Social Economics, Vol. 33, pp. 832-857.
Alm, J., McClelland, G. H. and Schulze W. D. (1992). Why Do People Pay Taxes? Journal of Public Economics, Vol. 48, pp. 21-38.
Alm, J., Sanchez, I. and De Juan A. (1995), "Economic and Noneconomic Factors in Tax Compliance", Kyklos, Vol. 48 No. 1, pp. 3-18.
Andreoni, J., Erard, B. and Feinstein, J. (1998), "Tax Compliance", Journal of Economic Literature, Vol. 36 No. 2, pp. 818-860.
Barone, G. and Mocetti, S. (2011), "Tax morale and public spending inefficiency", International Tax and Public Finance, Vol. 18, pp. 724-749.
Beit-Hallahmi, B. and Argyle, M. (1997), The psychology of religious behavior, belief and experi- ence, Routledge, New York.
Bentler, P.M., (2005), EQS 6: Structural Equation Program Manual, Encino, CA: Multivariate Software.
Bird, R., Martinez-Vazquez, J., and Torgler, B. (2006), "Societal institutions and tax effort in developing countries". In J. Alm, J. Martinez-Vazquez, &

M. Rider (Eds.), The challenges of tax reform in the global economy (pp. 283–338), Springer, New York.

Boix, C. and Posner, D., (1998), "Social capital: explaining its origins and effects on government performance", British Journal of Political Science, Vol. 28 No. 4, pp. 686–695.

Brañas-garza, P., Rossi, M. and Zaclicever, D. (2009), "Individual´s religiosity enhances trust: Latin American evidence for the puzzle", Journal of money, credit and banking", Vol. 41 No. 41-42, pp. 555-566.

Cummings, R.G., Martinez-Vazquez, J., McKee, M., Torgler, B., (2009), "Tax morale affects tax compliance: evidence from surveys and an artefactual field experiment", Journal of Economic Behaviour & Organization, Vol. 70 No. 3, pp. 447–457.

Devos, K. (2008), "Tax Evasion Behavior and Demographic Factors: An Exploratory Study in Australia", Revenue Law Journal, Vol. 18 No. 1, pp. 1-43.

Dorn, D. et al., 2005. Is It Culture or Democracy ? The Impact of Democracy , Income , and Culture on Happiness. Science.

Erard, B. and Feinstein, J.S. (1994), "The role of moral sentiments and audit perceptions in tax compliance", Public Finance, Vol. 49, pp. 70-89.

EVS (2010): European Values Study 2008: France (EVS 2008). GESIS Data Archive, Cologne. ZA4751 Data File Version 2.0.0, doi:10.4232/1.10198

Feld, L.P. and Frey, B.S. (2002), "Trust breeds trust: How taxpayers are treated", Economics of governance, Vol. 3, pp. 87-99.

Feld, L.P. and Frey, B.S. (2007), "Tax Compliance as the Result of a Psychological Tax Contract: The Role of Incentives and Responsive Regulation", Law & Policy, Vol. 29 No.1, pp. 102-120.

Frey B.S. and Stutzer, A. (2000), "Happiness, economy and institutions", The Economic Journal, Vol. 110, pp. 79–102.

Frey B.S. and Stutzer, A. (2006), "Political participation and procedural utility: An empirical study", European Journal of Political Research, Vol. 45 No. 3, pp. 391–418.

Frey, B.S. (2003), "Deterrence and tax morale in the European Union", European Review, Vol. 11 No. 3, pp. 385-406.

Frey, B.S. and Stutzer, A. (2002), " What can Economists Learn from Happiness Research? ", Journal of Economic Literature , vol. 40 No. 2, pp. 402-435.

Frey, B.S. and Torgler, B. (2007), "Tax morale and conditional cooperation", Journal of Comparative Economics, Vol. 35 No. 1, pp. 136–159.

Gächter, S., Herrmann, B. and Thöni, C. (2003), "Trust, voluntary cooperation, and socio-economic background: survey and experimental evidence", Journal of Economic Behavior & Organization, Vol. 55, pp. 505–531

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Gibson, T. (2008), "Religion and civic engagement among American´s youth", The Social Science Journal, Vol. 45, pp.504-514.

Guiso, L., Sapienza, P. and Zingales, L. (2003), "People´s opium? Religion and economic attitudes", Journal of Monetary Economics, Vol. 50, pp. 225-282.

Güth, W., Levati, V. and Sausgruber, R. (2005), "Tax morale and (de-)centralization: An experimental study", Public Choice, Vol. 125, pp. 171-188.

Guttman, L. (1954), "Some necessary conditions for common factor analysis", Psychometrika, Vol. 19, pp. 149-161.

Hair, J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2009), Multivariate Data Analysis (7th ed.), Prentice Hall, New Jersey.

Hardin, R. (1988), Morality within the Limits of Reason, University of Chicago Press, Chicago.

Helliwell J.F. (2001), The Contribution of Human and Social Capital to Sustained Economic Growth and Well-Being, OECD and Human Resources Development, Canada.

Innaccone, L.R. (1998) "Introduction to the economics of religion" Journal of Economic Literature, Vol. 36, pp. 1465-1496.

Kaiser, H.F. (1960), "The application of electronic computers to factor analysis", Educational and Psychological Measurements, Vol. 20, pp. 141-151.

Kaiser, H.F. (1970), "A second generation little jiffy", Psychometrika, Vol. 35, pp. 401-417.

Kim, S. (2008), "Does political intention affect tax evasion?", Journal of Policy Modeling, Vol. 30, pp. 401-415.

Kirchler, E. (1997) "The burden of new taxes: Acceptance of taxes as a function of effectedness and egoistic versus altruistic orientation", Journal of Socio-Economics, Vol. 26, pp. 421–436.

Kirchler, E., (1999), "Reactance to taxation: Employers' attitudes towards taxes", Journal of Socio-Economics, Vol. 28 No. 2, pp. 131-138.

Kline, R.B. (2004), Principles and practice of structural equation modeling (2nd edition), Guilford Press, New York.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1999), "The Quality of Government, Journal of Law", Economics, & Organization, Vol. 15, pp. 222-278.

Lago-Peñas, I. and Lago-Peñas, S. (2010), "The determinants of tax morale in comparative perspective: evidence from European Countries", European Journal of Political Economy, Vol. 26, pp. 441-453.

Lane, R.E. (1988), "Procedural goods in a democracy", Social Justice Research, Vol. 2, pp. 177–192.

Lehrer, E.L. (2004), "Religion as a determinant of economic and demographic behavior in the United States", Population and Development Review, Vol. 30 No. 4, pp.707-726.

Mardia, K.V. (1970), "Measures of Multivariate Skewness and Kurtosis with Applications", Biometrika, Vol. 57 No. 3, pp. 519–530.

Margolis, H. (1997), "Religion as paradigm", Journal of Institutional and Theoretical Economics, Vol. 153, pp. 242–252.

Martinez-Vazquez, J. and Torgler, B. (2009), "The Evolution of Tax Morale in Modern Spain", Journal of Economic Issues, Vol. 43 No. 1, pp. 1-28.

Molero, J.C. and Pujol, F. (2005), "Walking inside the potential tax evader's Mind: The case of Spain", Working Paper N01/05. Facultade de Ciencias Económicas y Empresariales, Universidad de Navarre, Spain,

Nunnally, J. (1967), Psychometrics theory, McGraw-Hill, New York.

OECD, (2007), Society at glance, OECD, pp.112-113, Paris.

Pope, J. and McKerchar, M. (2010), "The Concept of Tax Morale and Its Role in Tax Compliance Behaviour", paper presented at 19th Tax Research Network Conference, University of Wales, Bangor, 7-8 September.

Prinz, A. (2002), A moral theory of tax evasion, Unpublished paper Westfälische Wilhelms-Universität Münster.

Quintelier, E. and Hooghe, M. (2011), "Political attitudes and political participation: a panel study on socialization and self-selection effects among late adolescents", International Political Science Review, Vol. 33 No. 1, pp. 63-81.

Riahi-Belkaoiu, A. (2004), "Relationship between tax compliance internationally and selected determinants of tax morale", Journal of International Accounting, Auditing and Taxation, Vol. 13, pp. 135–143.

Richardson, G. (2006), "Determinants of tax evasion: A cross-country investigation", Journal of International Accounting, Auditing and Taxation, Vol. 15, pp. 150-169.

Roccas, S. (2005), "Religion and value systems", Journal of Social Issues, Vol. 61 No. 4, pp. 747-759.

Scholz, J.T. and Lubell, M. (1998), "Adaptive Political Attitudes: Duty, Trust and Fear as Monitors of Tax Policy", American Journal of Political Science, Vol. 42, pp. 398-417.

Slemrod, J. (2002). "Trust in Public Finance", NBER Working Paper n.º 9187, Cambridge, September.

Smith, K.W. (1992), "Reciprocity and fairness: Positive incentives for tax compliance" In J.Slenrod (Ed), Why people pay taxes – Tax Compliance and enforcement, 223-258. Ann Arbor, MI: University of Michigan Press.

Song, Y. and Yarbrough, T.E. (1978), "Tax Ethics and taxpayer attitudes: A survey", Public Administration Review, Vol. 38, pp. 442-452.

Torgler, B. (2003), "Tax Morale, Rule-Governed Behaviour and Trust", Constitutional Political Economy, Vol. 14 No. 2 pp. 119-140.

Torgler, B. (2004), "Tax morale in Asina countries", Journal of Asian Economics, Vol. 15, pp. 237–266.

Torgler, B. (2005), "Tax morale in Latin America", Public Choice, Vol. 122 No. 1-2, pp. 133-157.

Torgler, B. (2006), "The importance of faith: Tax morale and religiosity", Journal of Economic Behaviour & Organization, Vol. 61 No. 1, pp. 81-109.

Torgler, B. and Schneider, F. (2005), "Attitudes Towards Paying Taxes in Austria: An Empirical Analysis", Empirica, Vol. 32, pp. 231-250.

Torgler, B. and Schneider, F. (2007), "What shapes attitudes toward paying taxes? Evidence from multicultural European countries", Social Science Quarterly, Vol. 88 No. 2, pp. 443-470.

Torgler, B. and Schneider, F. (2009), "The impact of tax morale and institutional quality on the shadow economy", Journal of Economic Psychology, Vol. 30 No. 2, pp. 228-245.

Torgler, B., Demir, I., Macintyre, A. and Schaffner, M. (2008), "Causes and Consequences of Tax Morale: An Empirical Investigation", Economic Analysis & Policy, Vol. 38 No. 2, pp. 313-340.

Trivedi, V.U., Shehata, M., Lynn, B., (2003), "Impact of personal and situational factors on taxpayer compliance: An experimental analysis", Journal of Business Ethics, Vol. 47 No. 3, pp. 175-197.

Uslaner E. M., (2002), The Moral Foundations of Trust, Cambridge University Press, Cambridge.

Wald K. D. and Wilcox C. (2006), "Getting Religion: Has Political Science Rediscovered the Faith Factor?", American Political Science Review, Vol.100, pp.523-529.

Walker, L.J. (2003), "Morality, religion, spirituality—the value of saintliness", Journal of Moral Education, Vol. 32 No. 4, pp. 373-384.

Yitzhaki, S. (1974), "A note on Income tax evasion: A theoretical analysis", Journal of Public Economics, Vol. 3 No. 2, pp. 201-202.