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Tax evasion, tax morale and policy maker's effectiveness

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ABSTRACT

This paper aims to show that aggregate tax evasion may be largely explained by tax morale and that tax morale is dependent on the taxpayers' intrinsic attitudes to honesty and social stigma. The theoretical hypothesis is that these attitudes are influenced by the taxpayers' perceptions of the size of tax evasion as well as by their perceptions of the policy maker's effectiveness in exercising control over the relevant macroeconomic variables and safeguarding the interests of citizens. Applying Gordon's [Gordon, J.P.F., 1989. Individual morality and reputation costs as deterrents to tax evasion. European Economic Review 33(4), 797–805] framework, a dynamic model of aggregate tax evasion is proposed whereby multiple equilibria may emerge. Econometric analysis on Latin American countries supports the assumptions made in the model.

1. Introduction

According to the standard model of tax evasion (Allingham and Sandmo, 1972), risk-adverse taxpayers maximize the expected utility of income to choose the amount of income they wish to conceal. In this approach, the amount of taxpayer's undeclared income the levels of risk aversion and true income, the marginal tax rate, the probability of detection, and the quantum of fines that may be imposed on the evader when caught. Allingham and Sandmo's (1972) model has been widely criticized.[1] The most important critique, which is connected to the empirical (e.g. Clotfelter, 1983; Graetz and Wilde, 1985; Skinner and Slemrod, 1985) and experimental findings (e.g. Baldry, 1986; Webley et al., 1991; Alm et al., 1992) is that according to the standard deterrence model – the low deterrence observed in most countries – there should be more tax evasion than there actually is.

For Feld and Frey (2007), the literature on tax evasion has pursued two lines of research. One line of argument highlights the subjective nature of the probability of detection. This approach is widely supported by experimental research. It hypothesizes that individual perceptions of being discovered could be much higher than the objective probabilities of detection.[2] Further advances in this strand of literature are based on an alternative approach to the expected utility theory (e.g. cumulative prospective theory, rank dependent expected utility theory, etc.) as proposed by behavioural economics (e.g. Yaniv, 1999; Eide, 2001; King and Sheffrin, 2002; Arcand and Rota Graziosi, 2005; Dhami and al-Nowaihi, 2007).

Another line of research considers tax morale as the key factor to explain the higher degree of tax compliance with respect to Allingham and Sandmo's (1972) predictions. It probably represents the most extensive body of tax evasion literature (for an overview see Torgler, 2007). Tax morale is usually defined as "the intrinsic motivation to pay taxes" (Frey, 2002; Torgler, 2007; Feld and Frey, 2007). According to this approach, at least two main effects of tax morale on tax compliance are discernible. Its explanation for the higher degree of tax compliance than predicted by the standard deterrence model is at the microeconomic level. Since tax morale is usually considered as shaped by historical- and cultural factors, its explanation for the observed persistence in the size of aggregate tax evasion is at the macroeconomic level.

This research attempts to bring together the different strands of literature on tax morale. Applying Gordon's (1989) theoretical framework, we develop a model where its concepts coexist with the main factors hypothesized by Torgler (2001) as determining tax

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[1] For an overview see: Cowell (1990), Andreoni et al. (1998), Slemrod and Yitzhaki (2002) and Slemrod (2007).

[2] For instance, Erard and Feinstein (1994) assume a misperceived audit probabilities; Bernasconi (1998) works on the orders of risk aversion, etc.

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morale fairness, moral rules, and the relationship between taxpayer and government. The notion of fairness assumes several meanings in literature. For instance, Murphy and Nagel (2002) define fairness (or tax equity) as a standard for evaluating differences in the tax treatment of different individuals. In this research, following Wenzel's (2005) taxonomy three types of fairness are included in the theoretical framework: (a) perceived fairness of outcomes; (b) fairness of procedures and treatment; (c) fairness of sanctions imposed. In particular, we measure the *fairness of outcomes* by the effectiveness of decision makers in controlling certain fundamental economic and institutional variables; the (un)*fairness treatment* and (un)*fairness of sanctions* are measured by the size of shadow economy as a share of the official GDP. The latter is deemed an indicator of both unfair distinction between dishonest- and honest citizens and an ineffective detection system.

Where the relationship between citizens and government on tax compliance is concerned, this research has some similarities with Schnellenbach (2006). He proposes an explanation of tax morale based on the perceived legitimacy of public policies. Although adopting a similar approach, this study identifies different sources for legitimacy of government and fairness. Schnellenbach's (2006, p. 130) supposition is "*individuals find legitimacy and fairness not so much in the results of political deliberation, but in the process of decision-making*". Unlike Schnellenbach, we believe that taxpayers base their attitude to payment of taxes on the economic outputs of policy makers as perceived by them, the taxpayers. Thus, taxpayers perceive as fair a government that properly safeguards their interests; consequently, tax morale increases and tax evasion decreases. In this respect, this paper may be considered complementary to Schnellenbach's approach. Recent empirical research has found that tax morale is higher "*if the relation between the paid tax and the performed government services is found to be equitable*" (Torgler, 2003a, p. 137); so also, is the trust reposed by citizens in the government and in direct democracy correlates with higher tax morale (Torgler, 2003b). Both kinds of legitimacy (a transparent decision-making process instead of the results of political deliberation) may improve tax morale but, ceteris paribus, further research is necessary to explore which of these exercises greater influence on the taxpayer.

As stated earlier, we present a dynamic model based on Gordon's (1989) framework, where the aggregate tax evasion is microfounded on non-pecuniary costs. Tax morale depends upon the taxpayers' (exogenous) attitude to abiding by rules (psychic cost) and to social stigma. The latter is related to the taxpayers' perceptions of the pervasiveness/scale and size of tax evasion and the effectiveness of policy makers in exercising control over certain fundamental economic and institutional variables.

In the second part of this paper, we empirically test the inferences of the theoretical model. Econometric analysis was carried out with panel data of 19 Latin American countries collected for the period 1990–2004. It showed that the size of tax evasion depends, inter-alia, on taxpayers' perception of government's capability to control indicative variables such as unemployment, inflation, and Rule of Law.

The original contribution of this research is to set a simple theoretical framework of the aggregate tax evasion where different and interactive types of fairness, affecting taxpayers' decision to evade, determine the aggregate size of tax evasion. In particular, we aim to fill a gap of literature on how (also) policy maker's effectiveness in controlling certain important economic and institutional variables plays a relevant role to control the size of tax evasion. Furthermore, we provide empirical support for our model by using macroeconomic data.

The outline of the paper is as follows: Section 2 provides an overview of tax evasion literature concerning the role of tax morale, fairness and relationship between citizens and institutions; Section 3 presents the theoretical model; Section 4 describes the empirical analysis, outcomes and policy implications. The paper closes with some concluding remarks and possible further applications of the model. Sources of data and econometric details are contained in Appendix A.

2. Tax morale, fairness and tax evasion decision: a brief survey

One of the most important extensions of the standard model of tax evasion is its appeal to the non-pecuniary cost of tax compliance. Numerous studies have endorsed the existence of an effective link of the fairness/unfairness of the political-, tax-, institutional- or economic systems to the good/bad conscience of citizens. This literature emphasizes the values, attitudes, norms, and conformity to laws that influence the taxpayers' decision of the amount of income they want to conceal. The first question that arises in this approach is about the definitions of factors that shape these non-pecuniary costs, because scholars use different labels for roughly similar notions (e.g. tax morale, tax ethics, moral rules, psychic cost, social stigma, social norms, reputational cost, civic duty, etc.). Agreeing with Torgler (2007) and Feld and Frey (2007), adopted here is a definition of tax morale as inclusive of various social and psychological motivations for citizens to pay taxes. Such an extensive definition allows arranging under a single body the widespread literature extant on the determinants of tax morale.

With this aim, Feld et al. (2008) propose a bifurcation of literature on tax morale. They identify a first line of research that considers taxpayers' willingness to comply with tax laws as exogenously determined from an economic point of view. Tax morale then depends on the demographic-, religious-, historical-, cultural-, and educational backgrounds of taxpayers. A second approach treats tax morale as endogenous to economic factors. In this strand, Feld and Frey (2007) further classify three main issues that shape tax morale, "*(a) the fiscal exchange where taxpayers get public services for the tax prices they pay; (b) the political procedures that lead to this exchange; and (c) the personal relationship between the taxpayers and the tax administrators*." (Feld and Frey, 2007, p. 115). Torgler (2007) explores in-depth factors that shape tax morale. These factors can be summarized under three heads: moral rules and sentiments, fairness, and the quality of relationship between the taxpayers and the government. Such categorisation reveals the twofold nature of tax morale. On the one hand, it is based on the subjective characteristics of taxpayers (namely their moral rules) as economic analysis is expected to take into account the psychology of taxpayers. On the other hand, tax morale also relates to social norms and the perceived fairness of the system; therefore, any analysis of individual tax evaders has to provide for the institutional context, that is, the place of residence of taxpayers.

With no pretension to exhaustiveness, in Table 1, we summarize, in choronological order, the main hypotheses proposed in literature on the different types of non-pecuniary costs that influence tax compliance.

As pointed out in our overview, concepts of tax morale and fairness have occupied a significant place in the economic theory of tax evasion. By contrast, we observe that empirical evidence on the macroeconomic aspects of tax morale is still lacking. In the following, we attempt to fill this gap by proposing a formal model with the explicit aim to test empirically the consistency of this strand of theoretical literature.

3. The model

In this section, we present a simple model of tax evasion where psychological-, social-, and institutional determinants of tax morale coexist with the standard expected utility model of reporting non-