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# The interaction between trust and power: Effects on tax compliance and macroeconomic implications☆

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ABSTRACT

This paper aims to formalise both the role of trust (in) and power (of) tax authorities as major determinants of tax compliance, and the interplay between trust and power and its influence on tax climate and overall tax compliance. Unlike the related literature that studies the role of the psychological determinants of individual tax compliance, this paper focuses on the macroeconomic implications of the “slippery slope” framework. The main finding is that trust-building actions are better than deterring measures. In a society where the tax authority respects the taxpayers and applies transparent and fair procedures, in fact, trust and tax compliance are higher, tax evasion is lower and thus the level of taxation can be reduced. Hence, firms open more vacancies, thus increasing the employment rate.



## 1. Introduction

The slippery slope framework, henceforth SSF (Kirchler, 2007; Kirchler, Hoelzl, and Wahl, 2008a; Muehlbacher and Kirchler, 2010) was born in the field of Economic Psychology to explain the puzzling findings in tax compliance decisions, viz.: (i) the high degree of tax compliance in many countries where the level of deterrence is too low (Torgler, 2007; Slemrod, 2007) and (ii) the huge differences in tax compliance between countries or regions despite the same tax and punishment policies (Rothstein, 2000).[1]

Traditional economic models of income tax evasion *à la* Allingham and Sandmo’s (1972) (for a review see Sandmo, 2005), based above all on monitoring probability and expected penalty, predict far too little compliance and far too much tax evasion (Feld and Frey, 2002). Furthermore, the empirical support for the deterrent effect of audits and fines is unclear and unstable (Andreoni, Erard, and Feinstein, 1998; Kirchler, 2007; Kirchler et al., 2008b). Hence, not only the well-studied instruments of deterrence, such as audits and penalties (economic determinants of tax compliance), but also psychological determinants (such as social norms, morality and trust), affect/lead to tax compliance (Wenzel, 2005). Trust in tax authorities, in particular, is necessary to foster and stabilise the voluntary cooperation of honest taxpayers (Kirchler, 2007; Kirchler, Hoelzl, and Wahl, 2008a; Muehlbacher and Kirchler, 2010). In a nutshell, the taxpayers’ decision to evade taxes or comply with the tax rules is much too complex to be explained by a standard economic approach of profit maximisation and thus it needs to be analysed within a larger pattern of human behaviour (Molero and Pujol, 2012).

The SSF changes the perspective of the analysis since it aims to explain the high level of tax compliance rather than the high level of tax evasion. This approach distinguishes two forms of tax

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[1] Another important strand of literature on psychological determinants of tax compliance concentrates on tax morale, i.e. the intrinsic motivations of why people pay taxes (see e.g. Torgler, 2003, 2007; Torgler and Schneider, 2009; Cummings et al., 2009; Halla, 2012; Molero and Pujol, 2012).

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compliance: voluntary and enforced compliance. Voluntary compliance depends on trust in tax authorities, whereas enforced compliance depends on the effectiveness of tax authorities to clamp down on tax evaders. Hence, trust (in) and power (of) tax authorities are the major determinants for each form of compliance.[2]

Furthermore, the SSF stresses the crucial interaction of power and trust which increases the overall tax compliance (Kirchler, Hoelzl, and Wahl, 2008a; Muehlbacher and Kirchler, 2010). In the SSF, however, the interplay between power and trust is discussed but it is not formalised. In particular, a thorough theoretical formalisation – i.e. how power and trust may increase or decrease each other and how this pattern affects the relationship between tax authorities and taxpayers, the so-called tax climate – is missing (Gangl et al., 2012). On the one hand, power may corroborate trust and thus facilitate cooperation; on the other hand, however, too much power may damage trust and thereby cooperation. The tax climate which prevails in a society is in fact crucial for the effectiveness of power and trust. In a climate of distrust, high power of tax authorities is needed to enforce tax compliance and high fines and audits may be the right policy. In a trustful tax climate, instead, confidence-building measures are sufficient and high fines and audits may even have the opposite effects to those intended (Kirchler et al., 2008b; Muehlbacher, Kirchler, and Schwarzenberger, 2011).

Although the SSF postulates a positive relationship between power of tax authorities and tax compliance, empirical evidence is less clear and contradictory results are gathered (Park and Hyun, 2003; Webley et al., 1991; Slemrod, Blumenthal, and Christian, 2001; Andreoni, Erard, and Feinstein, 1998). Indeed, audits and penalties may guarantee enforced compliance but bear the risk of destroying existing voluntary compliance (Hofmann, Hoelzl, and Kirchler, 2008). Instead, in general, evidence shows that trust in tax authorities is positively correlated with tax payments (Hammar, Jagers, and Nordblom, 2009; Torgler, 2003). In a nutshell, the empirical evidence would seem to suggest that trust is more effective than power in increasing overall tax compliance.

The rest of the paper is organised as follows: Section 2 explains the motivations of the paper; while Section 3 presents the macroeconomic model with income tax evasion where trust in tax authorities plays a key role; Section 4 extends the model to the interaction between power and trust and its effects on tax climate, tax compliance; also, it shows the macroeconomic and policy implications of the model; finally, Section 5 concludes the work.

## 2. Motivations

According to the 'Nobel Prize' Daniel McFadden, a key challenge in economics is to introduce more realistic individual decision-making processes into theoretical models, in order to obtain better predictions and more effective policy implications. Hence, the introduction of the psychological determinants into the models which aim to explain tax compliance can be considered as an important part of that challenge.

Recently, attempts have been made to formalise the assumptions from the SSF regarding the effects of trust (in) and power (of) tax authorities on tax compliance (Lisi, 2012b; Gangl et al., 2012; Prinz, Muehlbacher, and Kirchler, 2014). With respect to the last two quoted works, this paper, together with Lisi (2012b), takes another route. In fact, unlike the related literature that studies the role of the psychological determinants of individual tax compliance, these papers focus on the macroeconomic implications of the SSF, thus linking the psychological determinants of economic behaviour and the main macroeconomics variables.[3] Precisely, they combine the SSF with a popular macroeconomic model, namely the Mortensen–Pissarides matching model (see e.g. Pissarides, 2000). The benefit of using the basic matching model in this type of analysis is straightforward: on the one hand, this model allows us to obtain macroeconomic outcomes (effects of tax evasion on employment rate, for example) and, on the other hand, by the "one-job firms" assumption, it allows us to analyse the behaviour of entrepreneurs and small businesses. Indeed, in most studies of tax compliance, the research has focused on personal income tax evasion, while studies on business tax evasion are very limited (Torgler and Schaltegger, 2005). Since taxation can have important effects on firm creation and on the development of small (and also medium-sized) enterprises, tax evasion of small businesses is a relevant problem (Schuetze and Bruce, 2004). It is evident, therefore, that there is a strong and direct link between tax climate, tax compliance and job creation. In a tax climate of distrust, where tax evasion is large, firms could open fewer vacancies or create jobs in the shadow economy. An extended matching model with tax evasion is able to take this important link into account.

With respect to Lisi (2012b), however, the present paper introduces several new and very important elements. Firstly, the paper introduces a tax rule and a budget constraint which highlight the crucial role of the tax authority. Since trust and tax compliance depend on the relationship between tax authorities and taxpayers (i.e. the tax climate), it is necessary to introduce a greater role for tax authority. Secondly, this model also includes an underground sector in order to show the realistic possibility of a firm to operate in the shadow sector. As far as we are aware, this is perhaps the first attempt at developing a matching model with tax evasion which includes trust in tax authorities as a key determinant of tax compliance and where a firm can operate in both the official and underground sector. Finally, a threshold value of trust – that divides a trustful society from a distrustful one – is derived. Indeed, this element is very important for the model: the threshold value of trust, in fact, allows important macroeconomic implications to be obtained, thus comparing different economic policies.[4]

Furthermore, in this paper the "extended" slippery slope framework is also formalised. Precisely, following the valuable insights of Muehlbacher and Kirchler (2010), this model formalises both the role of trust (in) and power (of) tax authorities as major determinants of tax compliance (the so-called SSF) and the interaction between trust and power and its influence on tax climate and overall tax compliance (the extended SSF). In particular, the proposed model is able to differentiate between coercive and legitimate power, thus making the interplay between power and trust and its influence on tax climate and tax compliance clearer. The legitimate power is defined as the level of tax authorities' power that is high enough to foster belief in the effectiveness of their work but not so high that exertion of power corrodes trust, thus becoming coercive power. When power is higher than the legitimate power, an increase in power decreases trust and tax compliance, and the opposite is true when the actual power is lower than the legitimate

[2] A related idea was proposed by Braithwaite (2003a, 2003b) who suggests that taxpayers follow very different behavioural attitudes in paying their taxes. While some may voluntarily pay their taxes as a contribution to society, others enjoy tax evasion. Hence, the taxpayers who are driven by the latter postures should be pursued with full rigour of the law.

[3] The link between the psychological determinants of economic behaviour and the main macroeconomic variables is anything but weak. According to Zingales (2012), in fact, "*the moral question* (in Italy) *is no longer about policy alone: it is the main cause of the lack of economic growth of the last ten years*".

[4] Indeed, the work by Lisi (2012b) is a very short paper where only the general idea of the SSF is present and the economic policy results are weak.