

Full Length Research Paper

Power and trust as determinants of voluntary versus enforced tax compliance: Empirical evidence for the slippery slope framework from Turkey

BENK S.* and BUDAK T.

Department of Public Finance, Faculty of Economics and Administrative Sciences, Zonguldak Karaelmas University, Zonguldak, TURKEY.

Accepted 15 September, 2011

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. The aim of the current study is to empirically test this framework in Turkey by investigating the impact of power and trust on enforced tax compliance and voluntary tax cooperation. The data set of the study was obtained from the survey applied to 300 self-employed taxpayers. Two-step linear regression was used for data analysis. This study confirms the main assumptions of the slippery slope framework that power promotes enforced tax compliance and trust fosters voluntary tax cooperation. Although the results are not as clear as in previous studies, the current study reveals that the main theoretical postulations hold also for a Turkish sample than for the previously investigated samples.

Key words: Tax compliance, power, trust, Turkey.

INTRODUCTION

Nations struggle to levy enough funds in taxes for the financing of public goods, e.g., health care, education, and transportation. However, taxpayers perceive taxes as a burden and hold often negative attitudes towards taxpaying (Hofmann et al., 2008). Governments and tax authorities, specifically, need to motivate taxpayers to comply with tax law and pay their fair shares in taxes honestly. They can do so by influencing taxpayers’ behaviour through wielding power and/or establishing a trust relationship with the taxpayers.

But in which way do power and trust influence citizens’ tax compliance? Theoretically, power of authorities and trust in authorities is distinguished in the slippery slope framework (Kirchler et al., 2008), a concept integrating economic and psychological determinants of tax compliance. The framework suggests that the

effectiveness of economic and non-economic factors depends on the relationship between taxpayers and tax authorities. In a trustful climate, confidence-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 slippery slope framework, two different forms of tax compliance are assumed: (i) voluntary tax compliance and (ii) enforced tax compliance (Kirchler, 2007). This framework also offers an explanation on how different forms of tax compliance are achieved by authoritarian power and/or a trust relationship. While strong power wielded by authority causes enforced tax compliance, citizens’ high trust in authorities leads to voluntary tax cooperation. Both forms of tax compliance assure tax revenues in the country, but different means are applied to ensure compliance.

The objective of the present study is to empirically test for the main hypotheses of the “slippery slope framework” in Turkey by investigating the impact of power and trust

*Corresponding author. E-mail: serkanbenk@yahoo.com. Tel: +90 372 257 40 10, Fax: +90 372 257 40 57.

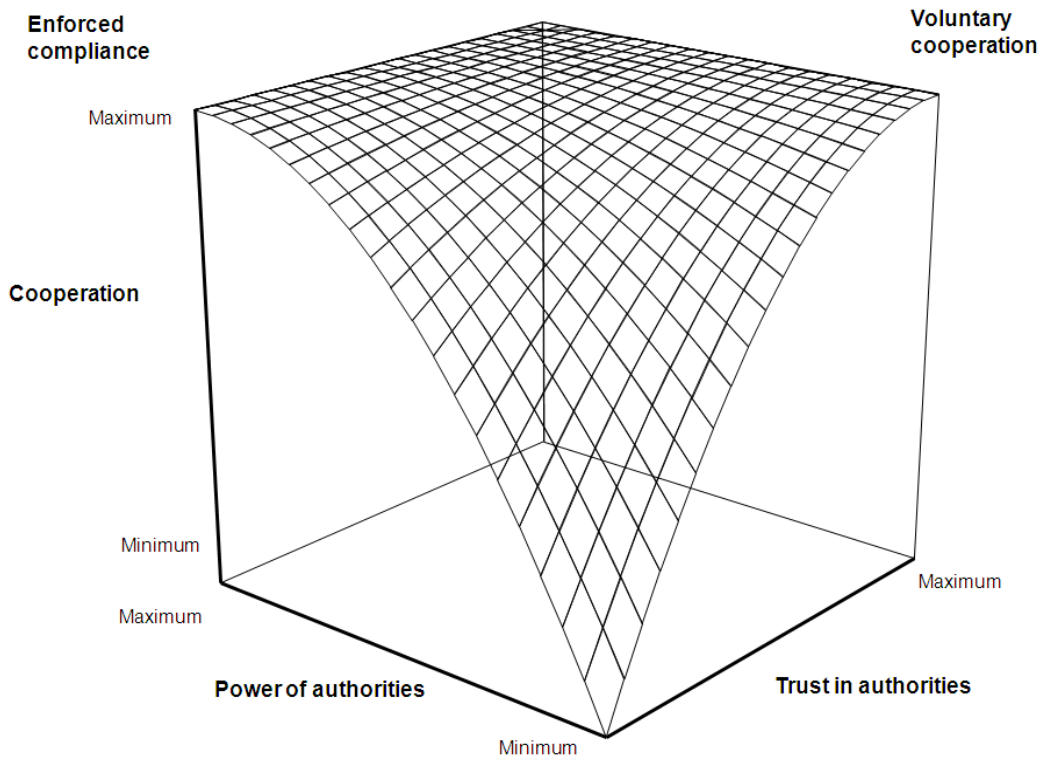


Figure 1. The slippery slope framework (Kirchler et al., 2008).

on enforced tax compliance and voluntary tax cooperation.

The “slippery slope” framework

The slippery slope framework (Figure 1; Kirchler, 2007; Kirchler et al., 2008) assumes that economic determinants of tax behavior, such as audit probability and fines, represent authorities’ power, which leads to tax compliance (Andreoni et al., 1998; Collins and Plumlee, 1991). On the other hand, psychological determinants such as social norms and justice perceptions lead to trust in authorities and also to compliance (Cowell, 1992; Cullis and Lewis, 1997; Orviska and Hudson, 2002; Wenzel, 2005).

Power of authorities and trust in authorities generate specific climates characterized by the relationship between authorities and taxpayers (Kirchler et al., 2008). According to the assumptions in the slippery slope framework, the wielding of power generates an antagonistic climate that matches a “cops and robbers”-attitude, where authorities are “cops” trying to detect as many delinquent taxpayers, that is, robbers, as possible, and taxpayers on the other side try to escape authorities’ watchful eyes and evade taxes whenever possible. Thus, in an antagonistic climate, taxpayer comply with tax law only, if they perceive high power. This type of compliance

is called enforced compliance. Contrary, trust in authorities stimulates the development of a synergistic climate, where a “service and client”-attitude is predominant. In this climate, authorities are perceived as part of the respective community that is a service unit of the community, acts supportive, respects the taxpayers and applies transparent and fair procedures. In the synergistic climate, taxpayers cooperate with authorities, if their trust in authorities is high. This type of cooperation is termed voluntary cooperation. While in both climates taxpayers pay their taxes in accordance with the law, the motives that lead to tax behavior are divergent.

First, empirical tests support some of the above presented assumptions of the slippery slope framework. Especially the relations between trust and voluntary cooperation and between power and enforced compliance were investigated. An experimental study on tax behavior (Wahl et al., 2010) revealed that both power and trust increase tax payments. Nevertheless, it was shown that power increases enforced compliance but decreased voluntary cooperation. On the contrary, trust increased voluntary cooperation but decreases enforced compliance. These findings from the laboratory with a student sample were replicated with an experiment in which self-employed taxpayers reported their intentions to pay taxes. A survey with 3,071 citizens from Austria, the UK and the Czech Republic assessing perceived power of authorities, trust in authorities, enforced tax

compliance and voluntary tax compliance with questionnaire items confirmed also that power is the most important determinant of enforced compliance and trust for voluntary cooperation (Muehlbacher et al., 2011). Support for the slippery slope framework also stems from an analysis of survey data from a representative Austrian sample of self-employed taxpayers, assessing perceived power, trust, enforced compliance, and voluntary cooperation (Kogler et al., 2011; Muehlbacher and Kirchler, 2010). Perceived power and trust together determined tax payments. If power was perceived as high and/or trust was high, taxpayers' compliance was high, whereby compliance results from the average of enforced compliance and voluntary cooperation over each person. Assumptions of the framework were also examined and supported in the context of fare dodging (Wahl et al., 2011). Again, participants of an Austrian convenience sample of users of public transport reported their perception of power of the respective transportation company, their trust in the company and their degree of enforced compliance and voluntary cooperation, and results revealed that perceived power correlates with enforced compliance and that trust correlates with voluntary cooperation. Thus, in the tax context as well as in the context of fare dodging, the relations between power and enforced compliance, and between trust and voluntary cooperation in the slippery slope framework were empirically confirmed with Austrian samples and also British and Czech samples.

Perceived power wielded by authority

In the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008), authorities are perceived as powerful if they work efficiently and can detect and prosecute non-compliant taxpayers. They are also perceived as powerful, if they have the ability to force citizens, who otherwise would be non-complaint, to declare their income correctly. Additionally, intensive expertise in tax law and especially tax law enforcement is an aspect to lead to the perception of powerful authorities. Therefore, expert knowledge, instruments to enforce tax compliance, i.e. sanctions, and efficiency in the detection of non-compliant taxpayers, i.e. audit probability, are relevant aspects that lead to the perception of powerful authorities.

Although, the slippery slope framework postulates a positive relation between perceived power of authorities and tax compliance (Kirchler, 2007; Kirchler et al., 2008), empirical evidence is less clear. It was shown that monetary punishment is a determinate of tax compliance (Park and Hyun, 2003) as well as that it is unrelated (Webley et al., 1991). Regarding the effect of audit probability, also contradictory results are gathered; threats of close inspection of tax returns increases tax compliance (Slemrod et al., 2001), while a review on the

effect of audit probability reports a rather small impact (Andreoni et al., 1998). Nevertheless, essential for the slippery slope framework is the fact that perceived power, which is wielded by authority, influences tax behavior, but not wielded power itself. Therefore, the perception of too much power leads to distrust and an antagonistic interaction climate between authorities and taxpayers (Kirchler et al., 2008). In such a climate, this distrust stipulates non-compliance and this again asks for severer wielding of power which keeps compliance on the required level.

Trust in authority

In the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008), citizens trust in authorities, if they perceive authorities' treatment as respectful, and if subsequently the relation between taxpayers and authorities is characterized of mutual respect. Besides respect, authorities' fair and transparent treatment of taxpayers is central for its trustworthiness. Therefore, respectful and fair treatments of taxpayers are the relevant aspects that lead to trust in authorities.

In general, evidence shows that trust in tax authorities is positively correlated with tax payments (Hammar et al., 2009; Torgler, 2003). Specifically, perceived unfairness in the context of distributive justice, i.e. the fair distribution of cost and benefits between taxpayers (Wenzel, 2003) and in the context of procedural fairness i.e. a fair and respectful treatment of taxpayers (Wenzel, 2003), decrease tax payments (Cowell, 1992; Hartner et al., 2008). For retributive justice i.e. the fair enforcement of sanctions and audits by authorities (Wenzel, 2003), it was shown that unfairness leads to negative attitudes toward taxes and the tax authorities (Wenzel and Thielmann, 2006), which might foster distrust and therefore leads to non-compliance. In the slippery slope framework (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.

Interaction of power and trust

Although the graph of the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008) might suggest that power and trust are independent factors determining tax compliance (Figure 1), it is assumed that the level of trust in authorities has an effect on the perception of authorities' power and vice versa. The shift of power can have an influence on trust in two contradictory ways (Kirchler, 2007; Kirchler et al., 2008). First, the application of stricter enforcement such as more frequent tax audits could lead to the perception that authorities hold a "cops and robbers" attitude and therefore leads to taxpayers'

distrust. Thus, an antagonistic interaction climate is prevalent, in which taxpayers show enforced compliance. Second, in case stricter enforcement such as more frequent tax audits are perceived as efficient in discovering tax offences, power would increase trust in authorities. Subsequently, a synergistic interaction climate is dominant, and taxpayers cooperate voluntarily. The shift of trust can also influence power in two contradictory ways (Kirchler, 2007; Kirchler et al., 2008). First, an increase of trust in authorities makes the wielding of power obsolete. If taxpayers trust in authorities and cooperate voluntarily, a costly enforcement system is not necessary and can be reduced. Thus subsequently, power decreases. Second, increasing trust in authorities can strengthen the perception of authorities' power. If authorities are trusted and therefore accepted as regulating entities, they are ascribed power to influence taxpayers, who then cooperate voluntarily. Thus, the interaction of perceived power of authorities and trust in authorities is unclear.

Determinants of enforced compliance and voluntary cooperation

Based on the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008), perceived power of authorities leads to enforced compliance and trust in authorities to voluntary cooperation. It is the aim of the current study to examine these relations.

First, the impact of power on enforced compliance is investigated. If perceived authorities' power is high, it is expected that also enforced compliance is high, but voluntary cooperation is low, because an antagonistic interaction climate is prevalent that fosters enforced compliance but hinders voluntary compliance.

Second, the impact of trust on voluntary compliance is examined. It is assumed that high trust in authorities corresponds with high voluntary cooperation but with low enforced compliance due to the dominance of a synergistic climate that promotes voluntary cooperation but suspends enforced compliance.

The empirical confirmation of both hypotheses would be a positive test of essential relations between variables within the slippery slope framework.

METHODOLOGY

Participants

Data required to test the main hypotheses' of the slippery slope framework were obtained through questionnaires applied to self-employed taxpayers in Zonguldak, a city in Turkey. Researchers visited the taxpayers in person and conducted the questionnaires. The questionnaires were administered in 2011. Participation in the study was voluntary and the participants were assured that their answers would be kept confidential. 350 out of 800 questionnaire forms distributed to the taxpayers were returned. Return rate was

43.75%. During the analysis, 300 questionnaire forms were accepted for analysis.

Table 1 shows the demographics of the study. As shown in this table, demographical variables collected were, age, (The youngest subject was 19 and the oldest was 79) gender, level of education, and income. The participants' educational degrees were categorized into three groups (compulsory education, A-level education, academic education). Their income was divided into three categories (low, medium, high) according to the percentiles.

Measured variables

Questionnaire form was derived from Hartner et al.'s study with Austrian taxpayers (2004). The questionnaire was translated from German into Turkish, and re-translated into German to check the validity of the translations. Understandability levels of the questions in the questionnaire form were tested on 55 people with different education levels by conducting a pilot study and it was confirmed that these questions were understandable. In this study, four variables of interest which are perceived trust in authorities, perceived power of authorities, voluntary compliance, and enforced compliance were measured by seven Likert-type scales. The participants were asked to indicate their degree of agreement with three statements in each scale (1 = "completely disagree" to 7 = "completely agree"; additionally, a "don't know" option was provided, which was defined as a missing value for the statistical analyses). Table 2, shows the variables analyzed through the questionnaires.

The inter-item reliability estimates shown on Table 2 were at or above the recommended level of 0.60 (Carmines and Zeller, 1979) indicating acceptable convergent validity. In addition, it was observed that none of the variables has a negative relationship with the total correlation. Thus, this findings show us that internal consistency of the data is considerably high. All the variables were z-transformed for the following regression analyses.

RESULTS

We used a two-step linear regression to test the hypothesis on voluntary tax cooperation. The regression model in step 1 contains trust, perceived power and the interaction of trust and perceived power (trust x power) as independent variables. Socio-demographic variables (education, gender, income, and age) were added in step 2. The results are shown in Table 3. According to Table 3, voluntary cooperation depends primarily on trust in tax authorities as expected. Perceived power is the other significant variable that effects voluntary cooperation. The interaction of power and trust is not statistically significant on voluntary cooperation. When we add demographic variables (age, education, gender, and income), the findings remain invariant for trust and the interaction of trust and power but the power variable become statistically insignificant. Education is negatively related to voluntary cooperation though the impact of the other socio-demographic variables is only marginally significant.

We use a similar regression analysis for enforced tax compliance as the dependent variables. The latter regression results are shown in Table 4. According to Table 4, enforced tax compliance primarily depends on

Table 1. Demographics of self-employed taxpayers in Turkey (N= 300).

Demographic variable		
Age	Mean	Standard deviation
Youngest (19 years)	37.95	10.72
Oldest (79 years)		
	N	%
Gender		
Male	262	87.3
Female	38	12.7
Education		
Compulsory education	75	25.0
A-levels	145	48.3
Academic education	78	26.0
Missing	2	0.7
Income		
Low income	118	41.1
Average income	122	42.5
High income	48	12.1
Missing	13	4.3

Table 2. Descriptive statistics and reliability estimates^a.

Variable	Item wording	M	SD	α^b
Trust	The Tax Office treats taxpayers in a respectful manner.	4.24	2.35	0.78
	The Tax Office is fair in collecting tax.	4.01	2.36	
	The Tax Office is trustworthy in Turkey.	4.84	2.22	
Power	The Tax Office has extensive powers to force citizens to be honest about tax.	4.90	2.13	0.74
	The Tax Office is able to uncover more or less any tax evasion that occurs because of its expert knowledge.	4.20	2.42	
	The Tax Office fights tax criminality in Turkey efficiently.	4.17	2.32	
Voluntary compliance	I pay my tax as a matter of course	6.40	1.49	0.85
	I would also pay my tax when there are no tax controls	6.18	1.59	
	I pay my taxes, not have to think how I could reduce them	5.90	1.82	
Enforced compliance	I feel that I am forced to pay tax	3.59	2.48	0.82
	I pay tax because the risk of being checked is too high	3.28	2.43	
	Tax evasion is not worth because of the tax authority's strict controls	2.71	2.38	

^a Each variable was assessed using a 7-point Likert scale. ^b Reliability estimates reflect Cronbach' alpha.

Table 3. Determinants of voluntary tax cooperation.

Determinant	Step 1			Step 2		
	B	SE (B)	β	B	SE (B)	β
Trust	0.162	0.068	0.162**	0.183	0.070	0.180*
Power	0.126	0.067	0.013*	0.099	0.070	0.098
TrustxPower	-0.059	0.058	-0.058	-0.091	0.060	-0.087
Gender				0.228	0.180	0.073
Age				0.083	0.061	0.082
Education				-0.113	-0.064	-0.112*
Income				0.045	0.061	0.044
R ²			0.073			0.110
p						

Variable gender is dummy coded with 1=female; *p<0.10; ** p<0.05.

Table 4. Determinants of enforced tax compliance.

Determinant	Step 1			Step 2		
	B	SE (B)	β	B	SE (B)	β
Trust	-0.017	0.070	-0.017	-0.015	0.073	-0.014
Power	0.115	0.069	0.115*	0.092	0.073	0.91
TrustxPower	0.021	0.060	0.021	0.024	0.063	0.023
Gender				0.248	0.187	0.080
Age				0.021	0.064	0.021
Education				-0.106	-0.066	-0.104*
Income				-0.091	0.063	-0.090
R ²			0.011			0.037
p						

Variable gender is dummy coded with 1 = female; *p<0.10.

power in tax authorities as expected. Interestingly, trust is not only statistically insignificant but also has a negative sign in this form of compliance. When we add socio-demographic variables in step 2, the regression results are not statistically significant. In this study, both the main hypotheses' of slippery slope framework are corrected without using socio-demographic factors to the regression models.

DISCUSSION

Results of the statistical analysis revealed that data from Turkish taxpayers support the assumptions of the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008) only partly. Perceived power of authorities is a significant predictor of enforced tax compliance, while trust in authorities has no significant influence. Nevertheless, the relation between power and enforced compliance is rather low ($\beta=0.115$), and when demographics, especially taxpayers' education, are included in the regression, the effect of perceived power diminishes ($\beta=0.092$). Trust in authorities is as expected as a significant but small predictor ($\beta=0.162$) of voluntary tax cooperation, but contrary to the hypotheses, perceived power of authorities is also significantly influencing voluntary cooperation. This effect diminishes again, if taxpayers' education is incorporated in the regression analysis, while the effect of trust increases slightly ($\beta=0.180$). The effects of perceived power of authorities and trust in authorities on enforced tax compliance and voluntary tax cooperation are less definite in the current study with a Turkish sample than in previous studies with Austrian samples (Wahl et al., 2010; Wahl et al., 2011), but still support the assumption of the slippery slope framework that power promotes enforced tax compliance and trust fosters voluntary tax cooperation.

Although, theoretically in the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008), an interaction of

perceived power and trust is assumed. In the current study, the interaction has no impact on enforced tax compliance and voluntary tax cooperation. As mentioned above, the interaction of power and trust can have several different characteristics and various impacts on tax payments. It might be that in the current sample several interactions are effective and that due to the rather large sample size of 300 taxpayers these effects neutralize each other.

Despite the interesting insights of the current study, its limitations should also be mentioned. As the analysis bases on self-reports, results have to be interpreted in this light, and socially desirable response cannot be completely ruled out. As tax non-compliance is an illegal and prosecuted behavior, self-reports could rather comply with tax law than reflect actual tax behavior. Nevertheless, an enforced tax compliance and voluntary tax cooperation have to be assessed with questionnaires, because there is no measureable difference in actual behavior between these factors, the current approach seems the most promising.

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 education seems an interesting one for future research. It should be emphasized, why the impact of power on enforced tax compliance and voluntary tax cooperation diminishes as soon as the level of education is incorporated in the analysis. Second, although the interaction of power and trust did not have an effect on enforced tax compliance and voluntary tax cooperation in the current study, 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. Third, the slippery slope framework was mainly tested with Austrian representative and convenient samples; the current study is the first to use a non-Austrian, a Turkish, sample. A next step should be to use participants from other countries with different

cultural background to underline the slippery slope frameworks robustness or observe its limits.

Conclusion

Overall, the current study confirms the assumptions of the slippery slope framework (Kirchler, 2007; Kirchler et al., 2008), that power promotes enforced tax compliance and trust fosters voluntary tax cooperation. Although the results are not as clear as in previous studies (Wahl et al., 2010; Wahl et al., 2011), the current study reveals that the main theoretical postulations hold also for a Turkish sample than for the previously investigated samples.

REFERENCES

- Andreoni J, Erard B, Feinstein J (1998). Tax compliance. *J. Econ. Lit.*, 36: 818-860.
- Carmines EG, Zeller RA (1979). *Reliability and Validity Assessment*. Newbury Park, CA: Sage.
- Collins JH, Plumlee RD (1991). The taxpayer's labor and reporting decision: The effect of audit schemes. *Account. Rev.*, 66(3): 559-576.
- Cowell FA (1992). Tax evasion and inequity. *J. Econ. Psychol.*, 13(4): 521-543.
- Cullis J, Lewis A (1997). Why people pay taxes: From a conventional economic model to a model of social convention. *J. Econ. Psychol.*, 18(2-3): 305-321.
- Hammar H, Jagers SC, Nordblom K (2009). Perceived tax evasion and the importance of trust. *J. Socio-Econ.*, 38(2): 238-245.
- Hartner M, Rechberger S, Kirchler E (2009). SIT-Tax: European transfer payments: Fragebogen, Datenerhebung und Stichprobe. Working paper 3, Universitaet Wien.
- Hartner M, Rechberger S, Kirchler E, Schabmann A (2008). Procedural fairness and tax compliance. *Econ. Anal. Pol.*, 38(1): 137-152.
- Hofmann E, Hoelzl E, Kirchler E (2008). Preconditions of voluntary tax compliance: Knowledge and evaluation of taxation, norms, fairness, and motivation to cooperate. *J. Psychol.*, 216(4): 209-217.
- Kirchler E (2007). *The economic psychology of tax behaviour*. Cambridge: Cambridge University Press.
- Kirchler E, Hoelzl E, Wahl I (2008). Enforced versus voluntary tax compliance: The "slippery slope" framework. *J. Econ. Psychol.*, 29(2): 210-225.
- Kogler C, Muehlbacher S, Kirchler E (2011). An empirical testing of hypotheses and assumptions of the slippery-slope-framework of tax compliance. Presentation at the IAREP/SABE/ICABEEP Conference in Exeter, UK, 12-16 July.
- Muehlbacher S, Kirchler E (2010). Tax compliance by trust and power of authorities. *Int. Econ. J.*, 24(4): 607-610.
- Muehlbacher S, Kirchler E, Scharzenberger H (2011). Empirical evidence for the "slippery slope" framework. *Eur. J. Law Econ.*, 32(1): 89-97.
- Orviska M, Hudson J (2002). Tax evasion, civic duty and the law abiding citizen. *Eur. J. Polit. Econ.*, 19(1): 83-102.
- Slemrod J, Blumenthal M, Christian C (2001). Taxpayer response to an increased probability of audit: Evidence from a controlled experiment in Minnesota. *J. Public Econ.*, 79(3): 455-483.
- Torgler B (2003). Tax morale, rule-governed behaviour and trust. *Consti. Polit. Econ.*, 14: 119-140.
- Wahl I, Endres M, Kirchler E, Böck B (2011). Voluntary and forced cooperation in social dilemmas: The Slippery Slope model for public transport. *J. Econ. Psychol.*, (1): 87-100.
- Wahl I, Kastlunger B, Kirchler E (2010). Trust in authorities and power to enforce tax compliance: An empirical analysis of the "Slippery Slope Framework." *Law Pol.*, 32(4): 383-406.
- Webley P, Robben H, Elffers H, Hessing DJ (1991). *Tax Evasion: An Experimental Approach*. Cambridge: Cambridge University Press.
- Wenzel M (2003). Tax compliance and the psychology of justice: Mapping the field. In V. Braithwaite (Ed.), *Taxing Democracy. Understanding Tax Avoidance and Tax Evasion*, pp. 41-69. Aldershot: Ashgate.
- Wenzel M (2005). Motivation or rationalisation? Causal relations between ethics, norms and tax compliance. *J. Econ. Psychol.*, 26(4): 491-508.
- Wenzel M, Thielmann I (2006). Why we punish in the name of justice: Just desert versus value restoration and the role of social identity. *Soc. Justice Res.*, 19(4): 450-470.