



Center for Research in Economics, Management and the Arts

**A KNIGHT WITHOUT A SWORD
OR A TOOTHLESS TIGER?**

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IN SWITZERLAND

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THE EFFECTS OF AUDIT COURTS ON TAX MORALE IN SWITZERLAND

by

Benno Torgler*

Abstract: The intention of this paper is to analyse how audit courts affect tax morale, controlling in a multivariate analysis for a broad variety of potential factors. Switzerland with its variety of audit court competences among the cantons has been analysed. With data from the ISSP for 1999 evidence has been found that a higher audit court competence has a significantly positive effect on tax morale. Thus, the results in Switzerland suggest that in the cantons where audits courts are not just knights without swords or toothless tigers, they help improve taxpayers' tax morale and thus citizens' intrinsic motivation to pay taxes.

JEL Classification: H260; H730; D700

Keywords: Tax Morale, Tax Compliance, Tax Evasion, Audit Courts Direct Democracy, Local
Autonomy

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I. INTRODUCTION

Tax morale, the intrinsic motivation to pay taxes, is a key determinant to explain the high degree of tax compliance, taking into consideration the low level of deterrence. The high tax compliance cannot be explained with risk aversion. There is a big gap between the amount of risk aversion that is required to guarantee such a compliance and the effectively reported degree of risk aversion (see Graetz and Wilde 1985, Alm, McClelland and Schulze 1992, Frey and Feld 2002). An increasing number of researchers point out that there must be a certain degree of tax morale or social norms to explain the high degree of tax compliance (for empirical and experimental papers see, e.g., Schwartz and Orleans 1967, Lewis 1982, Roth, Scholz and Witte 1989, Alm, McClelland and Schulze 1992, 1999, Pommerehne, Hart and Frey 1994, Frey 1997, 2003, Frey and Feld 2002, Feld and Tyran 2002; for a survey see Torgler 2001). Some studies have analysed tax morale as an exogenous residual (see, e.g., Weck 1983, Torgler 2003a). However, Feld and Frey (2002) point out that

“Most studies treat „tax morale“ as a black box without discussing or even considering how it might arise or how it might be maintained. It is usually perceived as being part of the meta-preferences of taxpayers and used as the residuum in the analysis capturing unknown influences to tax evasion. The more interesting question then is which factors shape the emergence and maintenance of tax morale” (pp. 88-89).

The purpose of this paper is to fill out this gap identifying which factors have an impact on tax morale. It can be supposed that the extent of tax morale depends on the type of constitution. On the whole there are not many studies which systematically analyse the influence of institutions on tax morale or tax compliance. We are going to focus on audit courts, an institution that exists in many countries (for example, Federal Audit Court in Germany (Bundesrechnungshof), local audit courts in Switzerland (Rechnungsprüfungsorgan), General Accounting Office (USA), National Audit Office (United Kingdom), Supreme Audit Court in France (Cours des Comptes), the Italian State Audit Court, the Office of the Auditor General (Canada), the Rigsrevisionen in Denmark or the Riksrevisionsverket in Sweden¹). However, empirical evidence about the effects of audit courts is rare. Thus, we are going to analyse if audit courts have an influence on tax morale,

¹ For an overview on the degree of autonomy of some of these audit courts see Schram 1994).

controlling for additional variables. It is essential to analyse under which institutional conditions citizens are more willing to pay their taxes. For this, the study analyses a cross-section of individuals throughout Switzerland using the International Social Survey Programme (ISSP) data set “Religion II” (data from 1999). Switzerland is chosen because it allows to observe the influence of audit courts very well, because there is a certain variation in the degree of audit courts rights in the cantons (see *Table I* in the next section).

Thanks to this variation for Swiss audit courts at the local and cantonal level, this institution can be analysed empirically. In Section II theoretical considerations on audit courts and the link between audit courts and tax morale are presented. Section III presents the empirical findings and Section IV finishes with some concluding remarks.

II. HOW AUDIT COURTS AFFECT TAX MORALE

1. General Overview

We observe many supreme audit courts at the national level. We do not find many papers on that. Interestingly, the few that exist have mostly been published in the *European Journal of Law and Economics* (see Frey 1994, Forte and Eusepi 1994, Streim 1994). Frey (1994) surveys the advantages and the systematic distortions audit courts are faced with. Regarding the advantages Frey points out that

“The information made available by the supreme auditing institution is a necessary precondition for the control of the public administration ... the activity of the supreme auditing institution is of crucial importance for a well-functioning political and administrative system” (p. 169).

This information function (collecting, processing, interpreting) helps - according to Frey - the members of parliament, the opposition parties and the media to better supervise the administration performances.

However, Frey especially discusses the problems with audit courts stressing four major distortions. Audit courts have the tendency to observe the formal rules and regulations. This might have the consequence that efficiency is reduced and new sources are wasted. Audit courts furthermore overemphasize budgetary aspects. Nonbudgetary costs and alternative uses

of money or even the positive effects of competition between administrative units are often neglected. It should also be considered that individuals in the administration sector have their own goals and interests and are not selfless people who pursue the best solution for the society (for an overview of the public choice theory, see e.g., Mueller 2003). They react in a systematic way to specific institutional conditions. Frey gives a good example: The *Salzburger Festspiele* (see p. 172). It makes no sense to publish huge reports on the inefficiency of such a festival when the federal law states that all the deficits will be covered by the public purse. Finally, auditing institutions are driven by a “mini-maximizing strategy”. The cases presented are not sufficiently weighted. Important and highly political policies are often disregarded.

Forte and Eusepi (1994) give an overview on the profile of the Italian State Audit Court, which has a long tradition in Italy (more than 150 years). The authors criticise that the audit court work does not produce any strong real effects. Ex ante controls lack of an important financial impact:

“ex ante checking by the court of such details as the regularity and costs of any of committees appointed by the various ministers; the formal correctness of the documents produced and of the examining activities by the committees charged with the appointment of state employees; the overcharged procedure of promotions of civil servants (even in cases of regular seniority based promotions) – appears like a waste of human resources” (pp. 157-158).

They suggest that efficiency could be increased if the transfers to public and private entities were under an ex ante and an ex post control. Ex post controls by the audit courts have the same problems as the ex ante controls and are less efficient due to the lack of effective controls based on the registration requirement. In Italy, audit courts are not controlled at the regional/local level, which would be essential to increase transparency. All in all the authors stress the relevance of the taxpayers acting as principals of the court, but they also see the difficulties to add new institutional rules as the government, the parliament and the bureaucracy have incentives to reduce external controls, accepting to “control each other, in a friendly trust relation” (p. 160).

Schreim (1994) also points out the difficulty to motivate auditors to perform high-quality audits, due to, e.g., fixed salaries or lifetime tenure positions. He stresses the relevance of developing technologies that measure the efficiency and the effectiveness of the audits. But

there is still the problem of how it can “be ensured that the politicians would really use the audit results” (p. 187).

Recently, Schelker and Eichenberger (2003) have filled a gap with their study, doing an empirical analysis using audit courts as independent variable, working with Swiss data. As dependent variable they used tax burden and expenditures and found that a stronger audit court leads to a lower tax burden and lower expenditures. Surprisingly, direct democracy and federalism had no statistically significant impact on either dependent variable. However, it should be noticed that, due to the low number of observations (26 or less) and the relatively high number of control variables (around 9), the empirical results obtained by the authors should be treated with caution. . Our empirical analysis goes a step further, working with a higher number of observations at the individual level (around 1000) and focusing not on revenues and expenditures, but on the individuals’ willingness to pay taxes.

2. Audit Courts in Switzerland

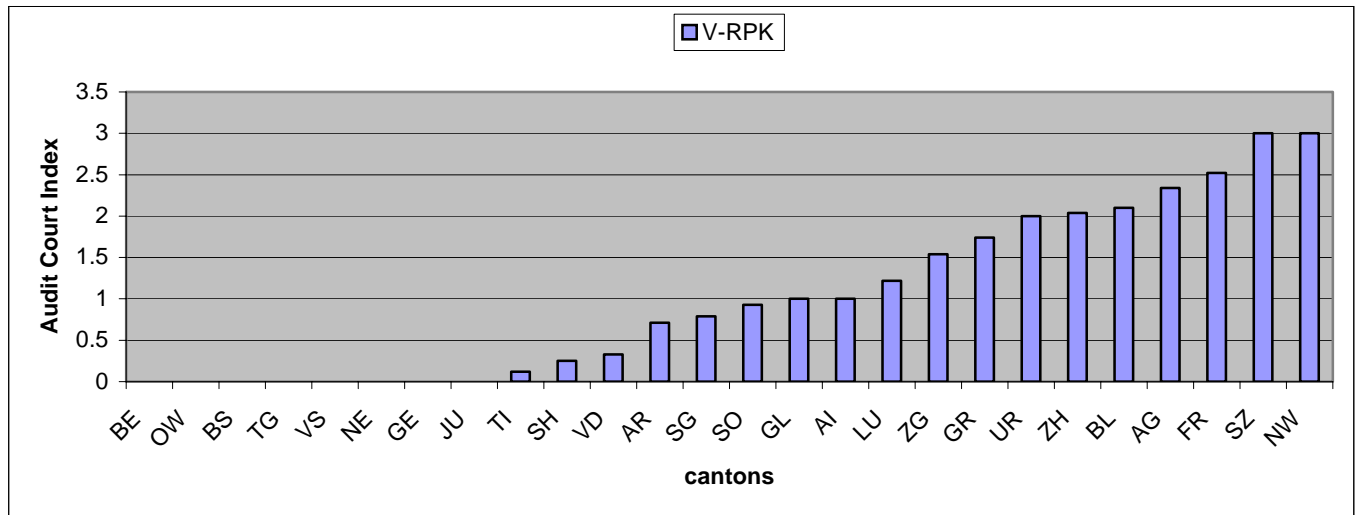
Switzerland offers a good case study as the audit court structures vary strongly among the 26 cantons. In some cantons the audit courts have a low influence as they have similar competences as the supreme audit courts in different countries at the national level. In other cantons they can even be regarded as a shadow cabinet (Schelker and Eichenberger 2003).

Schelker and Eichenberger (2003) give a good overview of the competences of audit courts (*Rechnungsprüfungskommissionen*) in Switzerland. These are strongly influenced by the direct democratic traditions in many cantons. In direct democratic communes without a parliament, citizens have the right to decide in a municipal assembly (*Gemeindeversammlung*). There, the audit courts have more competences than the national supreme courts and have the advantage that they control not only the public administration, but also the *executive*. They are more independent and are more actively integrated in the political process with ex ante verification competences (e.g., budget proposals, application right). There are even cases where the audit court members are chosen by elections in the *Gemeindeversammlung*.

Schelker and Eichenberger (2003) have developed a useful index that measures the rights and competences of audit courts in the different cantons. The index catches the main differences among the cantons: 1) resource accounting (*Gesamtrechnung*) ex ante, 2) individual businesses (*Einzelgeschäfte*) ex ante, 3) individual businesses (*Einzelgeschäfte*) ex

post, 4) amendments (*Änderungsanträge*)². These total values have been multiplied by a factor (from 0 to 1) which measures the prevalence of municipal assemblies (*Gemeindeversammlung*) in a canton. Thus, the final index (V-RPK) measures two dimensions: the *strength* and the *diffusion* of audit courts aggregated at the cantonal level. The values are presented in *Figure 1*. We observe strong differences among the 16 Swiss cantons, which allow using this variable as independent variable in our multivariate analysis.

Figure 1
Strength and Dissemination of Audit Courts in Swiss Cantons



Notes: BE: Bern, OW: Obwalden, TG: Thurgau, VS: Valais, NE: Neuchâtel, GE: Genève, JU: Jura, TI: Ticino, SH= Schaffhausen, VD: Vaud, AR: Appenzell a. Rh., SG: Sankt Gallen, SO: Solothurn, GL: Glarus, AI: Appenzell i. Rh., LU: Luzern, ZG: Zug, BL: Basel-Landschaft, AG: Aargau, FR: Fribourg, SZ: Schwyz, NW: Nidwalden. Source: Schelker and Eichenberger (2003, p. 370).

2. The Effects on Tax Morale

How can audit courts affect individuals' tax morale in Switzerland? It should be noticed that taxes are collected at the communal level. Local audit courts inform taxpayers about public finance aspects. They control the executive and the public administration. This reduces the principal agent problem between taxpayers and the state, especially with the ex ante rule.

² Value 1 if possible, 0 if not. All values have been added to a total Index (from 0 to 3).

Thus, it can be supposed that tax revenues might be spent more in accordance with taxpayers' preferences.

Tax morale might depend on the type of institutional settings. Institutions that respect the preferences of the citizens will have more support by the people than a state that acts as a Leviathan (see Prinz, 2002). Levi (1988) points out that a possibility to create or maintain compliance is to provide reassurance by the government. A government that precommits itself with specific rules such as a strong audit court imposes itself restraints on its own power and thus sends a signal that taxpayers are seen as responsible persons. Furthermore, if citizens can elect the members of the government and the audit court, the government signalise that citizens are not ignorant or uncomprehending voters, which might create or maintain a certain social capital stock. Taxpayers' preferences are taken into account in the political process. The more taxpayers are informed on political issues (especially tax issues), the more the tax contract is based on trust and the higher is tax morale. Taxpayers are in the position to better monitor and control politicians with the help of audit courts. An intensive every-day interaction between taxpayers, the audit court, and the local politicians and bureaucrats induces trust and thus enhances tax morale. Thus, audit court reports and suggestions become less complex as the ones prepared at the national level in different countries, and are thus more suitable to attract the citizens' interest. Furthermore, elected audit court members have an incentive to take citizens' preferences into account. They have a strong incentive to control the executive and the public administration in line with taxpayers' preferences. Thus, the following hypothesis can be developed:

- Hypothesis: *The more extensive the competences of the audit court, the higher the intrinsic motivation to comply in the form of tax morale.*

III. DATA ANALYSIS

1. Dependent Variable: Tax Morale

To assess the level of tax morale we use the following question:

Do you feel it is wrong or not wrong if a taxpayer does not report all of his or her income in order to pay less income taxes? (0= not wrong, 1= a bit wrong, 2= wrong, 3=seriously wrong).

2. Model

In order to examine our hypothesis, the following estimation equation is postulated³:

$$TM_i = \beta_0 + \beta_1 \cdot p_c + \beta_2 \cdot f_c + \beta_3 \cdot t_i + \beta_4 \cdot y_i + \beta_5 \cdot CTL_i + \beta_6 \cdot TR_i + \beta_7 \cdot INST_c + \varepsilon_i$$

1. TM_i : Tax morale (dependent variable)
2. p_c : As an approximation for the probability of detection, the number of tax auditors as a percentage of the total number of taxpayers in each canton c is used.
3. f_c : The penalty tax rate is approximated by the standard legal fine as a multiple of the evaded tax amount (in percent) in a canton c .
4. t_i : Individual tax rate.
5. y_i : Is the taxpayer's individual income class
6. CTL_i a panel of control variables at the individual level covering: age, gender, education, marital status, employment status.
7. TR_i measures the confidence in the courts and the legal system.
8. $INST_c$: Institutional factors at the cantonal level c
 - AUDIT COURT INDEX developed by Schelker and Eichenberger (2003)
 - To check the robustness of the results, in some estimations we include two further indexes: i) index for the degree of direct democratic participation and ii) index for the degree of local autonomy. The direct democracy index reflects the extent of direct democratic participation (1= lowest and 6 highest degree of participation) at the cantonal level (applied, e.g., by Frey and Stutzer (2000, 2002)⁴. Local autonomy is measured with an index developed by Ladner (1994) based on survey

³ See *Table A1* for the derivation of the main variables.

⁴ The index includes the four legal instruments : the popular initiative to change the canton's constitution, the popular initiative to change the canton's law, the compulsory and the optional referendum to prevent new law or changing of a law and the compulsory and the optional referendum to prevent new state expenditure. The index is based on the degree of restrictions in form of the necessary signatures to use an instrument, the time span to collect the signatures and the level of new expenditure which allows to use the financial referendum (for a detailed discussion see Stutzer, 1999).

results where chief local administrators in 1865 Swiss municipalities were asked to report how they perceive their local autonomy on a 10 point scale. (1= no autonomy, 10 = very high communal autonomy, see Appendix *Table A2*).

3. Results

In our first estimations we are going to consider basic tax compliance variables without the institutional variables. This allows to see to which extent it is important to add institutional factors into the estimations. Weighted least squares models and weighted ordered probit models are estimated in *Table 1*. Some groups might be over-sampled. A weighted variable helps correct the samples and thus reflect national distribution. The weighted ordered probit models help analyse the ranking information of the scaled dependent variable tax morale. As in the ordered probit estimation, the equation has a non-linear form; only the sign of the coefficient can be directly interpreted and not its size. Calculating the marginal effects is therefore a method to find the quantitative effect a variable has on tax morale. The marginal effect indicates the change in the share of taxpayers (or the probability of) belonging to a specific tax morale level, when the independent variable increases by one unit. In the weighted ordered probit estimation, only the marginal effects for the highest value “seriously wrong not to report all the income” are shown. In general it could be criticised that including aggregated cantonal variables as local autonomy, audit probability and fine rate might produce downward biased standard errors (see, e.g., Frey and Stutzer, 2000). Thus, we present standard errors adjusted for clustering on cantons.

Table 1 presents the results. As we can see most results are robust regarding the estimation methods. The weighted least squares estimations using tax morale as a cardinal variable offer qualitatively quite similar results as the weighted ordered probit model. The results indicate that our hypothesis cannot be rejected. In all estimations the coefficient is significant. The ordered probit estimations indicate that an increase in the audit court index by one point raises the proportion of taxpayers with the highest tax morale by around 3 percentage points. The marginal effects are high. In the weighted least squares estimation we observe that an increase in the audit court index by one point increases tax morale on average between 0.08 and 0.091 score points. In both estimations we have included trust variables, as a positive correlation between the audit court variable and tax morale might be driven by a

higher general trust. Therefore, it might be important to control for trust variables. The effects of trust on tax morale can be analysed on two different levels: i) at the *constitutional level* and ii) at the *current politico-economic level*. With the TRUST IN THE PARLIAMENT variable we focus more closely on the current politico-economic level. On the other hand with the variable TRUST IN THE COURT AND THE LEGAL SYSTEM we focus on how the relationship between the state and its citizens is established. The results indicate that both trust coefficients are highly significant showing a statistically significant positive effect on tax morale. An increase in the trust in the court and the legal system (trust parliament) by one unit increases the share of subjects indicating the highest tax morale by 3.5 (4.1) percentage points. Thus, the results indicate that trust is an important factor, which influences citizen's incentive to commit themselves to obedience. The findings are in line with other empirical studies (see, e.g., Torgler 2003b).

Looking at the variables FINE RATE, AUDIT PROBABILITY and INDIVIDUAL INCOME TAX RATE we observe that the basic tax evasion model does not perform in a satisfactory way. The coefficients are not significant. One reason might be that we analyse tax morale and not tax evasion itself. However, the findings reduce the significance of such an instrument for resolving the social dilemma of tax payments. A deterrence policy shows the taxpayers that extrinsic motivation has increased, which on the other hand crowds out intrinsic motivation to comply with taxes. A high perceived probability of being caught could be interpreted by the taxpayers as a signal that the government distrust them, which might crowd out tax morale (see Frey 1997). The results seem to confirm that in modern democratic states, due to a high level of consent among the actors, deterrence factors do not work well (see Frey 2003). The negative sign is consistent with many empirical papers analysing the correlation between tax rates and tax evasion (see, e.g., Clotfelter 1983; Crane and Nourzad 1992). However, it should be noticed that Feinstein (1991) does not find a positive correlation between tax rates and non-compliance, trying to better separate the effects of marginal tax rates from those of income, which might justify that the coefficient is not significant. Neither INCOME nor EDUCATION have a statistically significant impact on tax morale, but for both the coefficient is positive.

Table 1 shows the relevance of adding institutional variables to the tax compliance models. Tax morale depends on the institutional settings. Thus, institutions, which have often been neglected in the tax compliance models, should be taken seriously.

Table 1: Tax Morale and Audit Courts (Std. Err. Adjusted for Clustering on 26 Cantons)

<i>ISSP 1999</i>	<i>Eq. 1</i>		<i>Eq. 2</i>		<i>Eq. 3</i>			<i>Eq. 4</i>		
<i>Dependent Variable:</i>	<i>weighted</i>		<i>weighted</i>		<i>weighted</i>			<i>weighted</i>		
<i>Tax Morale</i>	<i>least squares</i>		<i>least squares</i>		<i>ordered probit</i>			<i>ordered probit</i>		
<i>Independent Variables</i>	<i>Coeff.</i>	<i>t-Stat.</i>	<i>Coeff.</i>	<i>t-Stat.</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg.</i>
a) Deterrence Factors										
FINE RATE	-0.001	-1.250	-0.001	-0.900	-0.001	-1.380	0.000	-0.001	-1.030	0.000
AUDIT PROBABILITY	0.001	1.020	0.001	1.100	0.001	1.000	0.000	0.001	1.060	0.000
b) Tax Rate										
INDIVIDUAL INC. TAX RATE	-0.006	-0.370	-0.006	-0.330	-0.008	-0.380	-0.002	-0.007	-0.350	-0.002
c) Demographic Factors										
AGE 30-49	0.043	0.400	0.049	0.460	0.067	0.520	0.020	0.075	0.580	0.022
AGE 50-64	0.036	0.270	0.052	0.430	0.053	0.340	0.016	0.077	0.540	0.023
AGE 65+	0.042	0.300	0.067	0.490	0.039	0.230	0.012	0.078	0.490	0.023
FEMALE	0.065	0.940	0.085	1.090	0.087	0.960	0.025	0.116	1.140	0.034
EDUCATION	0.015***	4.310	0.015***	4.490	0.036*	1.960	0.010	0.040**	2.150	0.012
d) Marital Status										
MARRIED/LIVING TOGETHER	-0.002	-0.020	-0.031	-0.340	0.002	0.020	0.001	-0.032	-0.310	-0.010
DIVORCED	-0.274	-1.680	-0.284*	-1.730	-0.316*	-1.660	-0.082	-0.331*	-1.720	-0.086
SEPARATED	0.156	0.840	0.087	0.470	0.231	0.970	0.073	0.132	0.580	0.041
WIDOWED	-0.016	-0.100	-0.058	-0.330	-0.002	-0.010	-0.001	-0.047	-0.220	-0.014
e) Economic Variable										
INCOME	0.2E-04	0.580	0.2E-04	0.530	0.2E-04	0.480	0.000	0.1E-04	0.410	0.000
f) Employment Status										
PART TIME EMPLOYED	-0.155	-1.270	-0.200	-1.490	-0.210	-1.410	-0.057	-0.269	-1.630	-0.073
LESS THAN PART TIME	0.037	0.200	0.052	0.280	0.030	0.140	0.009	0.038	0.170	0.011
UNEMPLOYED	0.078	0.380	0.066	0.310	0.069	0.310	0.021	0.064	0.270	0.019
STUDENT	0.235*	1.780	0.246	1.610	0.308	1.890	0.099	0.316*	1.690	0.102
RETIRED	0.256*	2.050	0.193	1.470	0.301**	1.970	0.095	0.210	1.310	0.065
AT HOME	0.159	1.100	0.132	0.830	0.175	0.990	0.054	0.135	0.690	0.041
SICK/DISABLED	0.271*	2.000	0.289*	1.740	0.274	1.640	0.088	0.286	1.430	0.093
g) Audit Court										
TRUST IN THE COURT AND THE LEGAL SYSTEM	0.108* **	3.720			0.121***	3.710	0.035			
TRUST IN THE PARLIAMENT			0.125**	2.220				0.138**	2.090	0.041
Observations	1087		1021		1087			1021		
R-squared	0.054		0.053							
Prob(F-statistic)	0.000		0.000							
Prob(LM-statistic)					0.000			0.000		

Notes: Dependent variable: tax morale on a four point scale. In the reference group are AGE 16-29, MALE, SINGLE, and FULL TIME EMPLOYED. Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Marginal effect = highest tax morale score (3).

In a next step we are going to integrate two further institutions which are important for Switzerland: direct democracy and federalism. The Swiss constitution combines direct democracy elements as initiative and referenda with a high degree of federalism, which means that cantons and local authorities have extensive competences. The degree of institutionalised rights of political participation strongly varies between the 26 Swiss cantons (see *Table A2* in the Appendix). However, it should be noticed that a stronger audit court goes in line with higher direct democratic rights. In our data there is a high correlation between the index of direct democracy and the index of audit court ($r=0.61^{***}$, significant at the 0.01 level). Direct democracy fosters a stronger audit court at the cantonal level. It can be supposed that the significance of the audit court variable decreases when adding direct democratic rights to the equation, as direct democratic participation rights are a stronger instrument for taxpayers to express their preferences and might therefore have a stronger impact on tax morale. *Table 2* presents the results. Adding the proxy for local autonomy has no impact on the significance of the coefficient AUDIT COURT. The coefficient is still significant with marginal effects between 1.9 and 2.3 percentage points. If we observe these marginal with previous estimations in *Table 1*, we observe a decay of the quantitative effect. However, the marginal effects in *Table 2* are still quite high. Not surprising, adding the proxy for direct democratic participation rights, the coefficient loses its significance and its size. On the other hand the coefficient of the variable DIRECT DEMOCRACY is highly significant with marginal effects of between 2.3 and 2.5 percentage points. In the last estimation (Eq. 7) of *Table 2* we check whether the findings regarding the variables AUDIT COURT and LOCAL AUTONOMY in Eq. 6 remain robust, accounting for different cultural background with the variable LANGUAGE. This helps isolate the institutional effect better from the cultural one. The results indicate that sign and significance of the variables AUDIT COURT and LOCAL AUTONOMY remain stable. In general, the findings in *Table 1* and *2* indicate that instruments at the constitutional level have a strong effect on tax morale.

Table 2: Tax Morale and Institutions (Std. Err. Adjusted for Clustering on 26 Cantons)

<i>Weighted ordered probit</i>									
<i>Dependent Variable:</i>									
<i>Tax Morale</i>	<i>Eq. 5</i>			<i>Eq. 6</i>			<i>Eq. 7</i>		
<i>Independent Variables</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg.</i>
<i>all other control variables included in the estimations</i>									
<i>audit court</i>	0.051	0.980	0.015	0.078**	2.250	0.023	0.072**	2.120	0.021
<i>Trust</i>									
TRUST IN THE COURT AND THE LEGAL SYSTEM	0.116***	3.630	0.034	0.118***	3.620	0.034	0.116***	3.500	0.034
<i>Democracy and Autonomy</i>									
DIRECT DEMOCRACY	0.085**	2.370	0.025						
LOCAL AUTONOMY				0.193***	3.080	0.056	0.182***	2.830	0.053
<i>Language</i>							0.039	0.460	0.011
Observations	1087			1087					
Prob(LM-statistic)	0.000			0.000					
<i>all other control variables included in the estimations</i>									
<i>audit court</i>	0.042	0.790	0.012	0.065*	1.820	0.019	0.056	1.640	0.016
<i>Trust</i>									
TRUST IN THE PARLIAMENT	0.136**	2.030	0.040	0.130**	2.010	0.038	0.129**	1.980	0.038
<i>Democracy and Autonomy</i>									
DIRECT DEMOCRACY	0.079**	1.990	0.023						
LOCAL AUTONOMY				0.189***	3.110	0.055	0.170***	2.880	0.050
<i>Language</i>							0.062	0.650	0.018
Observations	1027			1027					
Prob(LM-statistic)	0.000			0.000			0.000		

Notes: Dependent variable: tax morale on a four point scale. In the reference group are AGE 16-29, MALE, SINGLE, and FULL TIME EMPLOYED. Significance levels: * $0.05 < p < 0.10$, ** $0.01 < p < 0.05$, *** $p < 0.01$. Marginal effect = highest tax morale score (3).

IV. CONCLUSIONS

The intention of this paper was to analyse how audit courts affect tax morale, controlling for a broad variety of potential factors. Switzerland with a variety of the audit court competences in its states/cantons has been analysed. This variety makes Switzerland a good case study to investigate. With data from the ISSP evidence has been found that a higher audit court competence has a significantly positive effect on tax morale. This effect tends to persist even after controlling for factors as trust measured at the *constitutional* and the *current politico-economic level*, age, income, education, gender, marital status, employment status, federalism and culture. Thus, the results in Switzerland suggest that in some cantons the audits courts are not knights without swords or toothless tigers. Giving them a sword has an important impact for society. It enhances taxpayers' intrinsic motivation to pay taxes and thus their willingness to contribute as citizens to the society.

The findings also show that direct democracy and audit courts are not independent of each other. Cantons with stronger direct democratic participation rights have also institutionalised stronger audit courts. The indices for direct democratic rights and audit courts are highly correlated. This makes it difficult to clearly separate the effects of the two variables in one estimation. It is no surprise that the coefficient of the audit court variable loses its significance. Audit courts can be seen as a sort of "supplement" or "transmission mechanisms" of direct democracy.

This paper contributes also to the tax compliance literature, analysing tax morale as dependent variable working with the International Social Survey Programme. Empirical and experimental findings in the tax compliance literature have shown that the standard model of tax evasion based on an expected utility maximisation approach predicts a higher degree of tax evasion than observed. Thus, the tax compliance puzzle is why people pay taxes. It has been argued that tax morale might explain such a high compliance. However, there is still a lack of empirical studies that analyze what shapes tax morale. The paper also shows that using tax morale as dependent variable, the basic tax evasion models do not perform in a satisfactory way. The coefficients such as audit probability and fine rate are not statistically significant.

Finally, the paper is also novel in its nature, as institutions have often been neglected in the tax compliance literature. The results clearly indicate the relevance of incorporating institutions in the traditional economic of crime models.

APPENDIX

Table A1

Derivation of Variables ISSP

Variable	Derivation
Tax Morale (dependent variable)	Do you feel it is wrong or not wrong if a taxpayer does not report all of his or her income in order to pay less income taxes? (1. not wrong, 2. a bit wrong, 3. wrong, 4. seriously wrong).
Trust in Court and the Legal System	How much confidence do you have in courts and the legal system (5=complete confidence to 1=no confidence at all)
Fine Rate	Standard legal fine (in percent) as a multiple of the evaded tax amount based on questionnaire data of Frey and Feld (2002) and Feld and Frey (2002a, 2002b)
Probability of Detection	Number of tax auditors as a percentage of the total number of taxpayers based on questionnaire data of Frey and Feld (2002) and Feld and Frey (2002a, 2002b)
Individual Tax Rate	Own calculations based on the average weighted value (in percentage) working with the income information done by the ISSP. From the tax table (Steuerbelastung in der Schweiz 1999, p. 48) the value closest to the ISSP income values (midpoint) is used. For simplicity, no differentiation between singles and married people has been made, working with the individual tax rate table for singles.
Income	Monthly earnings from employment in Swiss francs (midpoints)
Education	What is the highest educational level that you have attained? <ol style="list-style-type: none"> 1. Incomplete primary school 2. Primary school (up to 12 years of age) 3. Incomplete secondary 4. Secondary completed 5. Incomplete + complete semi-higher qualification, incomplete university, others 6. University completed

Source: ISSP (1998)

Table A2
Direct Democratic Rights and Local Autonomy in Swiss Cantons

<i>Canton</i>	<i>Composite Index for Direct Democratic Rights</i>	<i>Local Autonomy</i>
Aargau	5.46	4.9
Appenzell I. Rh.	5.25	5
Appenzell A. Rh.	5.5	5.8
Bern	3.5	4.6
Basel-Landschaft	5.69	4.3
Basel-Stadt	4.4	5.5
Fribourg	2.42	4.2
Genève	1.75	3.2
Glarus	5.5	5.6
Graubünden	4.75	5.8
Jura	3.71	4
Luzern	4.48	4.1
Neuchâtel	2.13	3.7
Nidwalden	4.92	5.5
Obwalden	5.58	6
Sankt Gallen	3.4	4.9
Schaffhausen	5.08	6.1
Solothurn	5.42	4.9
Schwyz	4.93	4.6
Thurgau	4.04	5.9
Ticino	2.1	4.3
Uri	5.42	5.4
Vaud	2.42	4.7
Valais	3.42	5.5
Zug	4.42	6
Zürich	4.17	5.4

Source: Index Direct Democracy, Frey and Stutzer (2002, p. 192), Local Autonomy, Ladner (1994), see also Frey and Stutzer (2002, p. 192).

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