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# Tax Morale, Trust and Corruption: Empirical Evidence from Transition Countries

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# **Tax Morale, Trust and Corruption:**

## **Empirical Evidence from Transition Countries**

by

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**Abstract:** This paper analyses tax morale in transition countries. Tax morale has been used as dependent variable working with World Values Survey and European Values data for different years (1990-2000). The results suggest that trust, measured as trust in the legal system, the government, the parliament and the national officers has a strong impact on tax morale. Furthermore, a higher degree of satisfaction with the political system leads to a higher tax morale. Furthermore, the paper investigates the correlation between corruption and tax morale. The bivariate as well as the multivariate analysis show that in transition countries a higher corruption leads to a lower tax morale.

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## I. INTRODUCTION

One of the most interesting features in research is the transition process of former Communist countries. The transition process brings up many policy questions, among others the tax system, the structure of tax administration, the degree of political participation etc. There are numerous research papers treating the transition process. However, surprisingly it is novel in the tax compliance literature to analyse tax morale in transition countries.

It is often argued that tax evasion is widespread in transition countries (see, e.g., Alm and Martinez-Vazquez, 2003; Martinez-Vazquez and McNab, 2000). The problem is that a high level of tax evasion reduces government's ability to implement important reforms and provide adequate public goods (see Alm and Martinez-Vazquez, 2003). Thus, revenue needs are an important issue. Previous studies have shown that tax morale, the intrinsic motivation to pay taxes, is a key determinant to explain the level of tax evasion (see, e.g., Frey and Feld, 2002; Alm, McClelland and Schulze, 1999; Frey, 1997). Thus, it might be useful not to focus on tax evasion alone but to go a step back and to analyse tax morale as a dependent variable. Frey (2002, p. 5) stresses that it is important to have social capital in terms of mutual trust and honesty in the transitional deregulation and privatisation process. It is interesting to analyse tax morale as individuals in transition countries often were not aware of taxes before or had no perceptions regarding the tax burden. Martinez-Vazquez and McNab (1997) argued that it is not surprising to see taxpayers' resistance movements in the reform process when they are taxed for the first time. The undeveloped tax administrations, mostly engaged in cash management, are not prepared to do their work in a modern income tax system. A main problem is the lack of skills and experience of the tax administration with market-oriented taxes. Furthermore, as tax collectors are not salaried well, no quality personnel can be attracted. Thus, civil servants may not be motivated adequately, but may instead willingly go for opportunities for corruption. It is interesting to notice that in Ancient Egypt, the pharaohs searched for ways to reduce corruption of their tax collectors (called *scribes*). The scribes obtained, e.g., high salaries to reduce the incentives to enrich themselves by cheating taxpayers. Furthermore, scribes working in the field were controlled by a group of special scribes from the head office (see Adams, 1993). Rijckeghem and Weder (2002) found that an increase in civil service salaries in relation to the private sector reduces corruption. The wage is highly correlated with measures of rule of law and the quality of bureaucracy.

New procedures have only been implemented slowly (for an overview see Martinez-Vazquez and McNab, 1997). Casanegra de Jantscher et al. (1992) point out that tax collection

problems arise in transition countries as, e.g., taxpayers are required to “physically make a trip to either a tax office, a post office, or a bank” (p. 125). This presupposes that these services are reliable. Furthermore, much greater problems result from the fact that with an increasing number of taxpayers it becomes much more difficult to detect tax evaders or avoiders. In this context it might be interesting to see what shapes tax morale in transition countries.

To measure tax morale, we are going to use the World Values Survey and the European Values Survey. The main intention is to check whether a higher trust in the state and lower corruption leads to a higher tax morale. We are going to apply multiple regressions using tax morale as a dependent variable, controlling for different factors, to isolate the effects of our main variables. This paper contributes to the tax compliance literature as the link between trust and compliance has not been analysed intensively from the empirical point of view. Furthermore, to the author’s knowledge, there is no paper until now that has analysed the effects of corruption on tax morale.

## II. WHAT SHAPES TAX MORALE IN TRANSITION COUNTRIES

The World Values Survey (WVS) and the European Values Survey (EVS) allow to integrate many transition countries into an empirical study. In the estimations we are going to differentiate between Former Soviet Union (FSU) and Central/Eastern European (CEE) countries. The general question to assess the level of tax morale in a society is:

Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between: (...) Cheating on tax if you have the chance (% “never justified” = code 1 on a ten-point scale where 1=never and 10=always).

*Table 1* presents mean tax morale values for all countries in different years, based on a scale from 0 to 3, where 3 is the highest tax morale (tax morale is never justifiable) while value 0 integrates values 4 to 10.

*Table 1*  
Tax Morale in Transition Countries

	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>
<b>Countries</b>	<i>1990-1993</i>	<i>1995-1997</i>	<i>1999-2000</i>
<b>Central and Eastern Europe</b>			
Armenia		1.508	
Bulgaria	2.038	2.24	2.316
Bosnia		2.172	
Croatia		1.309	1.956
Czech Republic			2.209
Hungary	1.913		2.252
Macedonia		2.109	
Montenegro		1.749	
Poland	1.829	2.001	2.228
Romania	2.308		1.97
Slovak Republic			2.181
Slovenia	2.296	1.913	2.122
Serbia		1.969	
<b>Average</b>	<b>2.077</b>	<b>1.886</b>	<b>2.154</b>
<b>Former Soviet Union</b>			
Azerbaijan		1.634	
Belarus	1.617	1.518	1.11
Estonia	2.25	1.56	
Georgia		1.76	
Latvia	2.155	1.379	2.113
Lithuania	2.089	1.687	1.433
Moldova		1.426	
Russia	1.857	1.662	1.73
Ukraine		1.558	1.533
<b>Average</b>	<b>1.994</b>	<b>1.576</b>	<b>1.584</b>

Notes: Own calculations from the World Values Surveys. Mean of the degree of tax morale, scale from 0 to 3, where 3 means the highest tax morale.

CEE countries show a higher tax morale than FSU countries. Furthermore, we can see a decay of tax morale over time between the years 1990 and 1997. These results are in line with the registered decline of the living standard in the transition countries. This effect is much stronger for FSU than for CEE countries. In the period 1990-1993, we find the lowest tax morale in Belarus (44.4%, 1.617), in 1995-1997 in Latvia (31.3%, 1.379) and Croatia (36.6%,

1.309). We find a high decay of tax morale in the Baltic countries Latvia, Lithuania and Estonia. However, between the years 1995-1997 and 1999-2000 we observe a stabilization of tax morale in the FSU countries and an increase of tax morale in CEE countries. However, the main disadvantage of the WVS/EVS Survey is the fact that only a small number of countries participated in all three survey waves.

### III. EMPIRICAL ANALYSIS

#### *1. Hypotheses*

##### 1. Trust

As in many developing countries we might observe that transition countries are in a situation of “over-government” and “under-government” (Frey and Eichenberger, 1999, p. 89). There is a combination of interventionism and bureaucracy. On the other hand, property rights are not sufficiently secured and there is a high degree of uncertainty, reducing thus the incentive for investment. For transition countries it is difficult to find the right equilibrium of state activity, as the collapse of communism was a collapse of a vast state apparatus. A frequent use of the exit option in form of tax evasion or tax avoidance by entering the shadow economy has the negative effect of reducing the state’s tax collection, affecting thus the revenues governments need to provide public goods and to build trustworthy institutions. Many countries might react with the problematic strategy of increasing taxes. This enlarges the shadow economy, as the incentive for enterprises to evade taxes increases; they just pay, e.g., more bribes to protect themselves (see Levin and Satarov, 2000).

We will analyse trust as a key factor that influences tax morale. Governments have a leading role in the transition process. Institutional changes are connected to uncertainty. Institutions reduce uncertainty by designing the structure of interaction. As a consequence, greater certainty in the political process is gained. Ensley and Munger (2001) argue, “if rules are not formalized, the players may spend too much time arguing over the rules and less time competing in productive activities” (p. 116). And Kasper and Streit (1999) stress that

“Strong institutional controls and accountability are required to control deeply rooted agent opportunism. The rule of law has to be imposed on all government agents” (p. 432).

Stable and easily knowable institutions help create reliability. A government based on a well-functioning democracy produces more trust than a dictatorship. A lack of public trust could undermine state revenues and thus the government's ability to perform its function.

In the tax compliance literature economists have recently started to pay attention to the determinant of trust (e.g. Slemrod, 2003; Wintrobe, 2001; Torgler, 2003a). Trust in public officials might tend to increase taxpayers' positive attitudes and commitment to the tax system and tax-payment, which has finally a positive effect on tax compliance. Institutions taxpayers perceive as fair and efficient seem to have a positive effect on tax morale. Taxes can be seen as a price paid for government's positive actions. Thus, if taxpayers trust the public officials, they are more willing to be honest. If the government acts trustworthily, taxpayers might be more willing to comply with the taxes. Similar to the tax administration, the relationship between taxpayers and government can be seen as a relational contract or psychological contract, which involves strong emotional ties and loyalties. Such a psychological tax contract can be maintained by positive actions, based on trust. If the government tries to generate trust with well functioning institutions, co-operation can be initiated or increased. Furthermore, when taxpayers are satisfied with the way they are treated, the co-operation is enhanced. If the outcome received from the government is judged to be fair in relation to the taxes paid, no distress arises. Raiser et al. (2001) found that in transition countries social capital in form of civic participation and trust in public institutions has a significant impact on growth.

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*. Especially trust in the legal system, but also trust in justice focus more closely on the constitutional level, on how the relationship between the state and its citizens is established. Weakness of the legal system is a major problem in a transition process. Levin and Satorov (2000) stress that after the collapse of socialism, "judicial weakness left a legal vacuum that remains unfilled" (p. 120).

Trust in the legal system and trust in the justice have been measured as follows:

Could you tell me how much confidence you have in the legal system: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (4= a great deal to 1=none at all).

On the other hand, trust in government and the parliament, which is more influenced by the current politico-economic level, have been developed based on the following question:

Could you tell me how much confidence you have in the government in your capital: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (4= a great deal to 1=none at all)

Could you tell me how much confidence you have in the parliament: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (4= a great deal to 1=none at all)

In this light, the following hypothesis is going to be tested:

*Hypothesis 1: The more extensive the citizens' trust in the government, the legal system and the justice, the higher their intrinsic motivation to pay taxes.*

Not only trust might be relevant, satisfaction with the current political process might also have a positive impact on tax morale. If the political system works well and people are satisfied with the national officers, their intrinsic motivation to pay taxes increases. Taxpayers are sensitive to the way the government uses the taxes. There is an input-output relation between what an individual pays with his/her taxes and what comes back from the government. Thus, individuals' tax compliance might be influenced by the benefits received from the government in form of public goods compared to the price they paid for them. Individuals might feel cheated if taxes are not spent adequately. Thus, taxpayers perceive their relationship with the state not only as a relationship of coercion, but also as one of exchange. Taxpayers are more inclined to comply with the law if the exchange between the paid tax and the performed government services are found to be equitable.

Satisfaction with national officers and the evaluation of the political system have been measured as follows:

How satisfied are you with the way the people now in national office are handling the country's affairs? Would you say you are very satisfied (4), fairly satisfied (3), fairly dissatisfied (2) or very dissatisfied (1) (scale 1 to 4)?

Where on a score from 1 to 10 would you put the political system as it is today (1=very bad, 10=very good)?

Thus, the following hypothesis can be developed:



*Hypothesis 2: The more extensive the citizens' satisfaction with national officers and the political system, the higher their intrinsic motivation to pay taxes.*

## 2. Corruption

Corruption studies, up to the 1980s largely confined to other fields such as political science, sociology etc., strongly increased since the early 1990s. The transformation of the socialist economies was one of the reasons for such an explosion of economics of corruption publications. The corruption increased because of the lacking rule of law and accountability of the governance. (Abed and Gupta, 2002). Friedman et al. (2000) show empirically that countries with more corruption have a higher share of unofficial economy Previous empirical studies have found that corruption is negatively associated with government expenditure on education (Mauro 2002), has an adverse effect on a country's child and infant mortality rates (Gupta, Davoodi and Tiongson, 2002), leads to allocation biases in favour of less productive investments (Tanzi and Davoodi, 2002), and is associated with higher income inequality and poverty (Gupta, Davoodi and Alonso-Terme, 2002).

Insecurity of property rights and corruption might also have an impact on tax morale. In many former centrally planned economies, the government and the administration have still a strong discretionary power over the allocation of resources, which enhances corruption. Agents as the political elite, administration staff, and legislators have a discretionary power, because institutions are neither credible nor working well. Levin and Satarov (2000), e.g., analyse corruption and institutions in Russia. They criticise that corruption is an integral part of Russia's economy. Corruption has the negative consequence that citizens have less trust in the authority. Levin and Satarov state that the degree of corruption exceeds the total expenditures on science, education, health care, culture, and art. In some industrial branches criminal groups spend up to 50% of their revenues to bribe officials (p. 115).

Tanzi (2002, p. 28) mentions several situations, in which corruption is likely to be a problem in the tax administration:

- “-the laws are difficult to understand and can be interpreted differently so that taxpayers need assistance in complying with them;
- the payment of taxes requires frequent contacts between taxpayers and tax administrators;
- the wages of the tax administrators are low;

- acts of corruption on the part of the tax administrators are ignored, not easily discovered, or when discovered penalized only mildly;
- the administrative procedures (e.g., the criteria for the selection of taxpayers for audits) lack transparency and are not closely monitored within the tax or customs administrations;
- tax administrators have discretion over important decisions, such as those related to the provision of tax incentives, determination of tax liabilities, selection of audits, litigations, and so on”

Corruption is interesting to analyse, as there is still a lack of empirical evidence on the interaction between corruption and tax morale. In countries where corruption is systemic and the government budget lacks transparency it cannot be assumed that the obligation of paying taxes is an accepted social norm. Corruption generally undermines the tax morale of the citizens, because they get frustrated. Furthermore, there might be a crowding-out effect of morality among the tax administrators when there are a great number of corrupt colleagues. Taxpayers will feel cheated if they believe that corruption is widespread and their tax burden is not spent well. Corrupt bureaucracy will not award the services to the most efficient producers, but to the producer who offers the larger bribes. Thus, corruption reduces the efficiency of allocation and produces delays in transactions to acquire additional payments (see, e.g., Rose-Ackerman, 1997; Jain, 2001). Such tendencies might have a strong impact on tax morale. The perceived corruption is developed from the following question:

How widespread do you think bribe taking and corruption is in this country?

1. Almost no public officials are engaged in it
2. A few public officials are engaged in it
3. Most public officials are engaged in it
4. Almost all public officials are engaged in it

Thus we are going to test the following hypothesis:

*Hypothesis 3: A higher perceived size of corruption crowds out the public spirit, which reduces tax morale.*

## 2. Empirical Results

The World Values Survey (WVS) allows us to analyse many factors, such as personality, demographic and attitudinal factors. In our multiple regression analysis we will use tax morale as dependent variable. This research framework is novel, as there are not many studies that use tax morale as a dependent variable and search for factors that systematically influence tax morale. In line with the descriptive analysis, the ten-point scale of tax morale has been recoded into a four-point scale (0,1,2,3), with the value 3 standing for “never justifiable”. 4-10 has been integrated in the value 0 due to a lack of variance. Regressions help isolate the effects of different factors from each other and thus to get the correlation of a single factor with tax morale when all other factors are constant.

### 1. Trust

To analyse trust, we are going to work with the WVS waves 1989-1993, 1995-1998 and the European Values Survey 1999/2000. This offers the possibility to integrate a high number of transition countries into the empirical study. Furthermore, different years will allow to check the robustness of the trust variable. Not all waves include all trust variables though. Most of the questions regarding trust have been asked in the WVS wave 1995-1998. We are also going to build dummy variables to compare FSU and CEE countries

*Table 2* presents the results. We have used a *weighted* ordered probit estimation to correct the samples and thus to get a reflection of the national distribution. The ordered probit models are relevant in such an analysis insofar as they help analyse the ranking information of the scaled dependent variable tax morale. However, as in the ordered probit estimation, the equation has a nonlinear 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 (see, e.g., Frey and Stutzer, 2002). In *Table 2* we present only the marginal effect for the highest value “tax evasion is never justified”. The regression results are comparable to the descriptive statistics. It should be noticed that Eq. 2 and 4 use another weighting variable. To get an equal number of weighted observations (around 1500) for each survey the original weight variable was multiplied by a constant for each country.

The data set 1989-1993 allows to analyse the effects of trust in the legal system and the parliament. The variable has a highly significant positive effect on tax morale. An increase in

the trust in the legal system level by one unit increases the share of individuals arguing that tax evasion is never justifiable by 3.5 percentage points in both equations. This result is consistent with hypothesis 2 (“trust is an important mechanism to raise tax morale”). Similar, an increase in the trust in the parliament level by one unit raises the share of citizens with the highest tax morale by 3.4 percentage points. Thus, hypothesis one cannot be rejected.

There is the tendency for people from Central/Eastern Europe to have a higher tax morale than people from Former Soviet Union countries. Being from Central/Eastern Europe rather than from a Former Soviet Union country increases the probability of stating that tax evasion is never justified between 2.8 and 4.4 percentage points in Eq. 1 and 3 and between 1.4 and 3.1 percentage points in Eq. 2 and 4. However, this estimation shows that the difference between CEE and FSU is not always significant. Based on these results we are going to analyse possible differences in later years, working with the second weighting variable.

For the other variables we observe that all age groups from 30 to 65+ have a significantly higher tax morale than the reference group 16-29. For example, the proportion of persons of the age 30-49 who report the highest tax morale is 9.3 percentage points higher than for the reference age group. The marginal effects increase with an increase of age. Thus, the age group 65 and above reports the highest tax morale of all the groups. Being a woman rather than a man increases the probability of a person stating that tax evasion is never justified by more than 5 percentage points. Married and divorced people have a significantly higher tax morale than singles. The proportion of self-employed people who report the highest tax morale is 5.1 (6.2) percentage points lower than the one of full-time employees. Students and retired people seem to have a lower tax morale than the reference group.

*Table 2*  
Determinants of Tax Morale 1989-1993

<i>Weighted Ordered Probit</i>	<i>EQ. 1</i>		<i>EQ. 2</i>		<i>EQ. 3</i>		<i>EQ. 4</i>	
<i>Independent Variables</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>
<b><i>a) Demographic Factors</i></b>								
AGE 30-49	0.238***	0.093	0.235***	0.092	0.229***	0.089	0.225***	0.088
AGE 50-64	0.513***	0.2	0.517***	0.201	0.511***	0.199	0.510***	0.198
AGE 65+	0.680***	0.265	0.671***	0.261	0.648***	0.252	0.638***	0.248
WOMAN	0.148***	0.058	0.150***	0.059	0.140***	0.054	0.145***	0.057
<b><i>b) Marital Status</i></b>								
MARRIED	0.084**	0.033	0.087**	0.034	0.085**	0.033	0.092**	0.036
LIVING TOGETHER	0.017	0.007	0.014	0.006	0.014	0.005	0.007	0.003
DIVORCED	0.144**	0.056	0.125**	0.049	0.138**	0.054	0.120*	0.047
SEPARATED	-0.048	-0.019	-0.031	-0.012	-0.009	-0.003	0.002	0.001
WIDOWED	0.099	0.039	0.097	0.038	0.119*	0.046	0.116*	0.045
<b><i>c) Employment Status</i></b>								
PART TIME EMPLOYED	0.034	0.013	0.027	0.011	0.004	0.002	0.000	0.000
SELFEMPLOYED	-0.132**	-0.051	-0.170***	-0.066	-0.159***	-0.062	-0.197***	-0.077
UNEMPLOYED	0.004	0.002	0.018	0.007	-0.003	-0.001	0.009	0.003
AT HOME	-0.069	-0.027	-0.087	-0.034	-0.071	-0.028	-0.093	-0.036
STUDENT	-0.255***	-0.099	-0.253***	-0.099	-0.253***	-0.098	-0.256***	-0.099
RETIRED	-0.091**	-0.035	-0.098**	-0.038	-0.116***	-0.045	-0.117***	-0.046
OTHER	-0.182**	-0.071	-0.180**	-0.070	-0.178**	-0.069	-0.172**	-0.067
<b><i>d) Further Variables</i></b>								
CEE	0.072***	0.028	0.113***	0.044	0.037	0.014	0.080	0.031
TRUST IN LEGAL SYSTEM	0.089***	0.035			0.090***	0.035		
TRUST IN PARLIAMENT			0.088***	0.034			0.086***	0.034
Observations	10324		10063		10324		10063	
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, MEN, SINGLE, FULL TIME EMPLOYED, and FORMER SOVIET UNION COUNTRIES. Significance levels: \* 0.05 < p < 0.10, \*\* 0.01 < p < 0.05, \*\*\* p < 0.01. Marginal effect = highest tax morale score (3). EQ. 2 and 4 use another weighting variable: original weight variable was multiplied by a constant for each country, in order to produce an equal weighted N for each survey.

The World Values Survey (1995-1998) offers the possibility to include more countries into the analysis (see *Table 1*). Furthermore, we will have the possibility to check the robustness of the correlation between trust and tax morale, including more trust variables. *Table 3* presents the first results. All trust coefficients are highly significant. Similar to the years 1989-1993, hypothesis 1 cannot be rejected. Trust in the legal system has a significant positive effect on tax morale, but with higher marginal effects. An increase in the trust in government (parliament) scale by one unit increases the share of subjects indicating the highest tax morale by 5.1 (4.4) percentage points. A positive evaluation of the political system and a higher satisfaction with national officers also significantly influences tax morale in a positive way. The marginal effects are between 3.4 (satisfaction with national officers) and 0.8 (evaluation of the political system) percentage points.

This time we find a highly significant difference between Central/Eastern European and Former Soviet Union citizens. The marginal effects are much higher in the years 1995-1997, which indicates a higher divergence between the regions. It indicates that being from a CEE rather than from a FSU country increases the probability of stating that tax evasion is never justified by around 13 percentage points. In line with hypothesis one it seems that Central and Eastern Europe had better succeeded to control the decay of tax morale during the transformation process.

Similar results can also be found regarding the control variables. A higher age and being a woman have a positive effect on tax morale. Self-employed persons have a significantly lower tax morale than full-time employees. One reason might be that self-employed persons have higher compliance costs and taxes become more visible (see Lewis 1982). Furthermore, tax evasion might depend on the opportunity to evade or avoid taxes. Djankov et al. (2000) show with data from 75 countries that in general heavier regulation of entry goes in line with a higher corruption and a higher shadow economy. On the other hand, countries with more democratic and limited governments have less entry regulations.

Comparing both data sets, it seems that the coefficient of the variables “divorced” and “retired” are not robust. The coefficient of the variable “divorced” is not significant for the years 1995-1998, and the sign of the variable “retired” has changed.

Table 3  
Trust and Tax Morale (1995-1997)

<i>Weighted Ordered Probit</i>	<i>Eq. 5</i>		<i>Eq. 6</i>		<i>Eq. 7</i>		<i>Eq. 8</i>		<i>Eq. 9</i>	
<i>Dep. V.: Tax Morale</i>										
<i>Indep. Variables</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>
<b>a) Demographic Factors</b>										
AGE 30-49	0.219***	0.087	0.214***	0.085	0.218***	0.087	0.212***	0.084	0.220***	0.087
AGE 50-64	0.387***	0.154	0.380***	0.151	0.382***	0.152	0.387***	0.154	0.390***	0.155
AGE 65+	0.426***	0.169	0.428***	0.17	0.427***	0.170	0.458***	0.182	0.450***	0.179
WOMAN	0.087***	0.035	0.093***	0.037	0.089***	0.035	0.086***	0.034	0.094***	0.037
<b>b) Marital Status</b>										
MARRIED	0.075***	0.03	0.073***	0.029	0.072***	0.028	0.074***	0.030	0.083***	0.033
LIVING TOGETHER	-0.153***	-0.061	-0.141***	-0.056	-0.162***	-0.065	-0.161***	-0.064	-0.143***	-0.057
DIVORCED	-0.07	-0.028	-0.057	-0.023	-0.061	-0.024	-0.06	0.000	-0.069*	-0.027
SEPARATED	-0.005	-0.002	0.002	0.001	0.004	0.002	-0.001	0.000	0.009	0.003
WIDOWED	0.059*	0.024	0.069**	0.027	0.076**	0.030	0.072**	0.029	0.069**	0.027
<b>c) Employment Status</b>										
PART TIME EMPLOYED	-0.018	-0.007	-0.029	-0.012	-0.019	-0.008	-0.022	-0.009	-0.013	-0.005
SELFEMPLOYED	-0.343***	-0.136	-0.352***	-0.14	-0.353***	-0.141	-0.373***	-0.149	-0.365***	-0.145
UNEMPLOYED	-0.007	-0.003	-0.006	-0.002	0.002	0.001	0.012	0.005	0.004	0.002
AT HOME	-0.047*	-0.019	-0.067**	-0.027	-0.064**	-0.026	-0.033	-0.013	-0.031	-0.012
STUDENT	-0.049	-0.019	-0.051	-0.02	-0.057	-0.023	-0.05	-0.02	-0.051	-0.02
RETIRED	0.149***	0.059	0.150***	0.06	0.149***	0.059	0.157***	0.063	0.146***	0.058
OTHER	0.004	0.001	0.003	0.001	0.026	0.010	0.018	0.007	0.000	0.000
<b>d) Regional Variable</b>										
CEE	0.332***	0.132	0.322***	0.128	0.329***	0.131	0.330***	0.131	0.331***	0.132
<b>e) Trust</b>										
TRUST IN LEGAL SYSTEM	0.126***	0.05								
TRUST IN GOVERNMENT			0.128***	0.051						
TRUST IN PARLIAMENT					0.109***	0.044				
SATISFACTION WITH NATIONAL OFFICERS EVALUATION OF THE POLITICAL SYSTEM							0.086***	0.034		
									0.021***	0.008
Observations	20779		20645		20203		19339		20565	
Prob(LM-statistic)	0.000		0.000		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, FULL TIME EMPLOYED, and FORMER SOVIET UNION COUNTRIES. Significance levels: \* 0.05 < p < 0.10, \*\* 0.01 < p < 0.05, \*\*\* p < 0.01. Marginal effect = highest tax morale score (3).

Finally, we are going to evaluate the newest European Values Survey data set. In these estimations, Central and Eastern European countries are in the reference group.

*Table 3*  
Trust and Tax Morale (EVS 1999-2000)

<i>Weighted Ordered Probit</i>	<i>Eq. 10</i>		<i>Eq. 11</i>	
<i>Dep. V.: Tax Morale</i>				
<i>Indep. Variables</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>
<b><i>a) Demographic Factors</i></b>				
AGE 30-49	-0.461***	-0.183	-0.453***	-0.180
AGE 50-64	-0.226***	-0.090	-0.228***	-0.090
AGE 65+	0.185***	0.073	0.191***	0.076
WOMAN	0.104***	0.041	0.104***	0.041
<b><i>b) Marital Status</i></b>				
MARRIED	0.032	0.013	0.037	0.015
DIVORCED	-0.109**	-0.043	-0.102**	-0.040
SEPARATED	-0.200**	-0.079	-0.185**	-0.073
WIDOWED	-0.047	-0.019	-0.036	-0.014
<b><i>c) Employment Status</i></b>				
PART TIME EMPLOYED	-0.201***	-0.080	-0.213***	-0.084
SELFEMPLOYED	-0.299***	-0.119	-0.294***	-0.117
UNEMPLOYED	-0.064*	-0.026	-0.067**	-0.027
AT HOME	-0.025	-0.010	-0.037	-0.015
STUDENT	-0.167***	-0.066	-0.164***	-0.065
RETIRED	0.123***	0.049	0.123***	0.049
OTHER	-0.039	-0.016	-0.068	-0.027
<b><i>d) Regional Variable</i></b>				
FSU	-0.213***	-0.085	-0.225***	-0.089
<b><i>e) Trust</i></b>				
TRUST IN THE JUSTICE	0.064***	0.025		
TRUST IN THE PARLIAMENT			0.081***	0.032
Observations	15564		15490	
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, MAN, SINGLE, FULL TIME EMPLOYED, and CENTRAL AND EASTERN EUROPEAN COUNTRIES. Significance levels: \* 0.05 < p < 0.10, \*\* 0.01 < p < 0.05, \*\*\* p < 0.01. Marginal effect = highest tax morale score (3).

The results are in line with previous findings. An increase in the trust in justice (parliament) scale by one unit increases the share of taxpayers indicating the highest tax morale score by 2.5 (3.2) percentage points. Thus, throughout all data sets, hypothesis 1 cannot be rejected.



FSU countries have still a significantly lower tax morale than the CEE countries. However, the marginal effects have not increased as in the previous years. We even observe lower marginal effects. But it should be noticed that the number of countries varies over time in our analysis, so the results for different years can not always be fully compared.

The control variables show the same tendencies. Self-employed have a lower tax morale than people being full-time employed. Women report a higher tax morale than men. The highest age group has the highest tax morale. However, contrary to previous findings, the age groups between 30 and 64 indicate a lower tax morale than the reference group.

## 2. Corruption

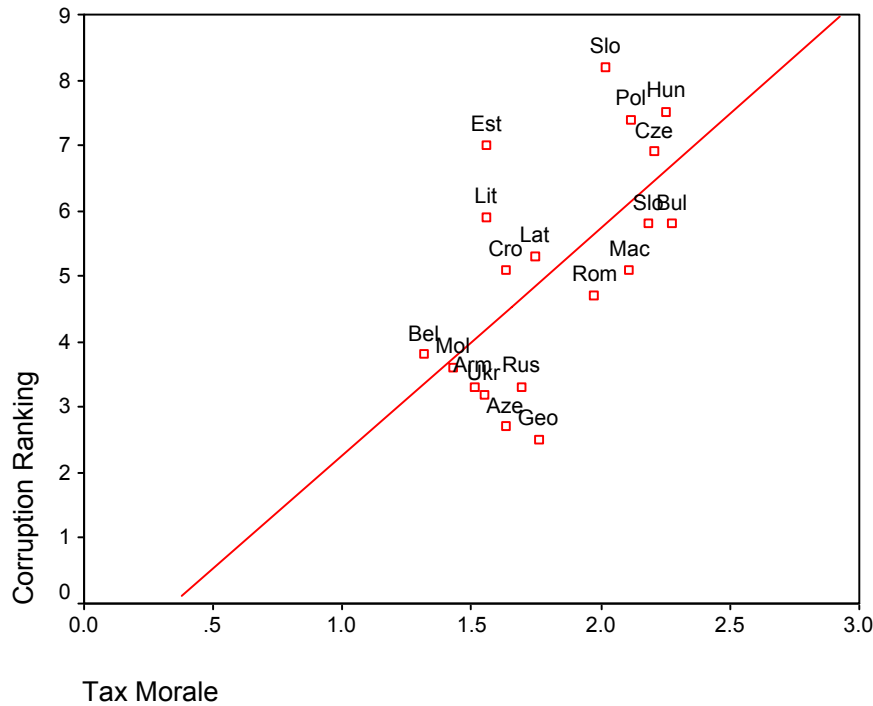
Only the WVS wave 1995-1997 allows to analyse the effects of corruption at the micro level. However, merging the latest two waves together (1995-1997 and 1999-2000) offers enough observations to check the correlation between tax morale and the corruption ratings commonly used in the literature.

We use an average value developed by Abed and Davoodi (2002, p.502), based on the rankings of the Transparency International, the Political Risk Service, the International Risk Guide and the Business International. A higher corruption rating goes in line with a lower corruption. *Figure 1* presents the result. We observe a highly positive correlation between the corruption ratings and the tax morale, including 19 countries ( $r=0.610$ , significant at the 0.01 level).

The World Values Survey perceived corruption index (aggregated country, including not only transition countries) values is highly correlated ( $-0.745$ , significant at the 0.01 level) with the Transparency International Index of Corruption (CPI ranking 1996, the higher the value the lower is the corruption).

Figure 1

Correlation Between Tax Morale and the Corruption Ranking



Notes: Arm=Armenia, Aze=Azerbaijan, Bel=Belarus, Bul=Bulgaria, Cro=Croatia, Cze=Czech Republic, Est=Estonia, Geo=Georgia, Hun=Hungary, Lat=Latvia, Lit=Lithuania, Mac=Macedonia, Mol=Moldova, Pol=Poland, Rom=Romania, Rus=Russia, Slo=Slovenia, Slov=Slovak Republic, Ukr=Ukraine.

Table 4 presents the results of the multivariate analysis. The findings indicate that there is a significant negative correlation between tax morale and the perceived size of corruption. An increase in the corruption scale by one unit increases the share of subjects indicating the highest tax morale by more than 1.7 percentage points. The corruption variable also remains robust after including the trust variables and the satisfaction with the national officers and the political system. Thus, the results indicate that hypothesis 3 cannot be rejected. A higher degree of perceived corruption crowds out tax morale. If taxpayers notice that many public officials are corrupt and many others evade taxes, they might get the feeling that their intrinsic motivation is not recognised or honoured. Taxpayers get the feeling that they can as well be opportunistic. The moral costs of evading taxes decrease.

*Table 4*  
Corruption and Tax Morale (1995-1998)

<i>Weighted Ordered Probit</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>
	<i>12</i>		<i>13</i>		<i>14</i>		<i>15</i>		<i>16</i>		<i>17</i>	
<i>a) Demographic V.</i>	included		included		included		included		included		included	
<i>b) Marital Status</i>	included		included		included		included		included		included	
<i>c) Employment Status</i>	included		included		included		included		included		included	
<i>d) Regional Variable</i>												
CEE	0.316***	0.125	0.323***	0.128	0.312***	0.124	0.320***	0.127	0.308***	0.122	0.315***	0.125
<i>e) Trust</i>												
TRUST IN LEGAL S.			0.116***	0.461								
TRUST IN GOV.					0.121***	0.048						
TRUST IN PARL.							0.099**	0.039				
SATISFACTION WITH NATIONAL OFFICERS									0.078***	0.031		
EVALUATION OF THE GOV. SYSTEM											0.014***	0.005
<i>f) Corruption</i>	-0.079***	-0.031	-0.048***	-0.019	-0.043***	-0.017	-0.052**	-0.020	-0.071***	-0.028	-0.070***	-0.028
Number of observations	18264		18280		18343		18002		17284		18331	
Prob(LM-statistic)	0.000		0.000		0.000		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, FULL TIME EMPLOYED, and FORMER SOVIET UNION COUNTRIES. Significance levels: \* 0.05 < p < 0.10, \*\* 0.01 < p < 0.05, \*\*\* p < 0.01. Marginal effect = highest tax morale score (3).

## IV. CONCLUSIONS

In this paper we have analysed the impact of trust in the state and corruption on tax morale. Interestingly, our empirical findings indicate that increasing individuals' trust in the legal system, the justice and the government has a significantly positive effect on tax morale. Tax morale depends on how satisfied taxpayers are with their national officers and the political system. A higher satisfaction in both cases is significantly correlated with a higher tax morale. Thus, as the transition process gives the opportunity to build new trustworthy institutions, much weight should be put on developing a trustworthy ground so that taxpayers feel comfortable with paying taxes. Our results indicate that tax administration and government are forced to drastically change their structures and their relationship with taxpayers at the constitutional level and in the current political process. We also observe a high correlation between the degree of tax morale and the perceived size of corruption. Thus, anticorruption strategies, such as creating high transparency and standards in the conduct of public business, limiting the discretion of public officials and government members might be key instruments to enhance tax morale. It seems that transition countries have to work on that goal, as new institutional conditions are not created in a few years. The role of the state is a key determinant in the development of tax morale. Our empirical findings indicate that trust in government and the legal system have a positive effect on tax morale. On the other hand, a perceived degree of corruption has a negative effect on tax morale. Thus, it seems that in the transition process, reforms are needed concerning the political institutions. More direct democratic participation might be a key instrument to increase tax morale. It raises trust and honesty, improves social outcomes (Frey, 2002) and reduces corruption (Levin and Satarov, 2000).

Institutional arrangements, which increase tax morale, are necessary to stabilise individuals' tax compliance behaviour. Which instruments improve tax morale? Trust might be increased when sub-national governments get more fiscal autonomy. A higher fiscal decentralisation (local tax autonomy) would have the advantage that citizens' preferences can be better met. Decentralisation moves the government closer to the people. Thus, political and fiscal autonomy are among the most important elements for a national transition process. Results in Switzerland indicate that both instruments have a positive impact on tax morale (see Torgler, 2003b). Certainly, caution should be used when implementing experiences from totally different countries. Furthermore, such an implementation of instruments needs time. Such institutions might however help increase transparency regarding the government's

spending of the tax revenue and help build a tax system respecting the taxpayers' preferences. If the taxpayers are not actively integrated in the transition process, tax morale might decrease. A decrease of tax morale can initiate a negative spiral. The more a taxpayer believes that others have a low tax morale; the lower his/her moral costs will be to behave dishonestly (see, e.g., Torgler, 2003c). Thus, tax morale erodes. Furthermore, the tax system must be visible to local taxpayers. The income tax is a good instrument for a local structure.

Interestingly our data show that socio-demographic factors influence tax morale. Getting older has a positive effect on tax morale. Women report a significantly higher tax morale than men. Married people have the tendency to a higher tax morale than singles. Self-employed have a lower tax morale than full-time employees. This result is not surprising, especially in transition countries where self-employed individuals are confronted with and restricted by high transaction costs imposed by inefficient government activities.

Is there also a significant difference between CEE and FSU countries in the second part of the 90s like in the initial phase of transition? Yes, in fact there is. The difference between CEE and FSU has increased in the first few years, the tax morale being higher in CEE countries. This tendency indicates that FSU countries have not succeeded as well as the CEE in designing tax systems, tax administrations, or government structures that taxpayers trust.

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