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Tax Morale and Compliance

Review of Evidence and Case Studies for Europe

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Abstract

This paper provides an overview of the literature on tax morale and tax compliance. Most of the material here is based on research that I have conducted together with my co-authors over the last 10 years. Europe has a dominant place in this paper. Sometimes results derived from other countries are discussed that could be relevant for Europe. The overall findings show the importance of accountability, democratic governance, efficient, and transparent legal structures and therefore trust within the society to enforce tax compliance and tax morale.

This paper is a product of the Human Development Economics Unit, Europe and Central Asia Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at benno.torgler@qut.edu.au.

Tax Morale and Compliance: Review of Evidence and Case Studies for Europe[1]

by

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[1] This paper—a product of the Human Development Economics Unit, Europe and Central Asia Region—is part of an effort to understand the underlying factors that determine the size of informal employment in the shadow economy, providing background technical analysis for a forthcoming World Bank regional study "In from the Shadow: Integrating Europe's Informal Labor". Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted as follows:

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I. INTRODUCTION: MOVING BEYOND DETERRENCE

Adams' book (1993) begins with the inscription found over the entrance to the Internal Revenue Service building: "Taxes are what we pay for a civilized society". An essential question for policymakers is the extent to which individuals are willing to pay this price. The state-building process in post-communist societies and state-maintaining element requires the collection and the use of revenues. Over the last several decades, there has been a growing interest in theoretical, empirical, and experimental work on all aspects of tax compliance and tax evasion. A common theme in much of this work is that the traditional economics-of-crime approach to compliance, while containing many insights, is simply inadequate as a framework for more fully understanding why people pay taxes. Rather, the basic model of individual choice must be expanded by introducing some aspects of behavior or motivation considered explicitly by other social sciences. Many of these aspects can be discussed under the general rubric of "behavioral economics", broadly defined as an approach that uses methods and evidence from other social sciences to inform the analysis of individual and group decision making. This report represents an attempt to review exactly this new framework of compliance: one that moves beyond the "economics of crime" perspective, one that provides a more complete understanding of individual (and group) decisions, and one that is more consistent with empirical evidence. In general, the effect of cultural or social norms and of social capital on tax compliance behavior is not well understood and addressing this gap is the focus of the present research report.

It is useful from the start to identify more fully the basic insight – and the basic problem – with the standard economic approach to compliance. To date, the basic theoretical model used in nearly all research on tax compliance begins with Becker's (1968) economics-of-crime model first applied to tax compliance by Allingham and Sandmo (1972). Here a rational individual is viewed as maximizing the expected utility of the tax evasion gamble, by weighing the benefits of successful cheating against the risky prospect of detection and punishment. Through this process, an outcome is reached where the individual pays taxes because he or she is afraid of getting caught and penalized if he or she does not report all income. The obvious policy implication here is that enforcement matters because enforcement can affect the financial considerations that motivate – at least in part – an individual's compliance choices. However, it is essential to recognize that this approach also concludes that an individual pays taxes because - and *only* because - of the economic consequences of detection and punishment. Again, this is a plausible and productive insight, with the obvious implication that the government can encourage greater tax compliance by increasing the audit and the penalty rates. The many extensions of this economics-of-crime approach considerably complicate the theoretical analyses, and generally render clear-cut analytical results impossible. Nevertheless, these extensions retain the basic approach and result: individuals focus exclusively on the financial incentives of the evasion gamble, and individuals pay taxes solely because they fear detection and punishment.

However, it is clear to many observers that compliance cannot be explained entirely by such purely financial considerations, especially those generated by the level of enforcement. The percentage of individual income tax returns that are subject to a thorough tax audit is generally quite small in most countries, tallying less than 1 percent of all returns. Similarly, the penalty on even fraudulent evasion seldom exceeds more than the amount of unpaid taxes, and these penalties are infrequently imposed; civil penalties on non-fraudulent evasion are even smaller. Taxpayer audits are a central feature of the voluntary compliance system in all countries, largely because more frequent audits are thought to reduce tax evasion. Even so, a purely economic analysis of the evasion gamble suggests that most rational individuals should either underreport income not subject to source withholding or over-claim deductions not subject to independent verification because it is extremely unlikely that such cheating will be caught and penalized. However, even in the least compliant countries evasion never rises to levels predicted by a purely economic analysis, and in fact there are often substantial numbers of individuals who apparently pay all (or most) of their taxes all (or most) of the time, regardless of the financial incentives they face from the enforcement regime.

The basic model of individual compliance behavior therefore implies that rational individuals (especially those whose incomes are not subject to third-party sources of information) should report virtually no income. Although compliance varies significantly across countries and tax regimes and is often quite low, compliance seldom falls to a level predicted by the standard economic theory of compliance. It seems implausible that government enforcement activities alone can account for these levels of compliance; the basic model is certainly unable to explain this behavior. Indeed, the puzzle of tax compliance behavior may well be why people pay taxes, not why they evade them (Slemrod, 1992; Kirchler, 2007; Torgler, 2007a; Alm, Martinez-Vazquez, and Torgler, 2010). This observation suggests that the compliance decision must be affected in ways not fully captured by the basic economics-of-crime approach. But what are the reasons behind this puzzle of tax compliance? The literature in the last couple of years has stressed that the social norm of compliance or tax morale may help to explain why people willingly conform. If tax morale is a key determinant in enhancing tax compliance there are a variety of policies besides coercion that will help to reduce tax fraud. To derive policy recommendation from these results it is necessary to go a step further and explore the determinants of tax morale. Thus, an increasing number of studies have explored the factors that shape tax morale in an attempt to gain a broader understanding of this issue (see, e.g., Torgler, 2007a). However, there is still a lack of empirical evidence on the link between attitudes and behaviour in the tax compliance literature. It is important to address this deficiency because the state and the tax administration have a variety of methods available to influence tax compliance; traditional approaches such as deterrence can be seen as just one possible instrument. Historical examples also indicate that states "can be strong with regards to specific capacities, for instance coercion and repression, without "producing" voluntary compliance, a phenomenon to be observed in many transition countries... This also means that they are weak with regard to their *political* capacity to rely on voluntary compliance" (Hayoz and Hug, 2007, p. 9). Thus, knowledge about the causes and consequences of tax morale could lead to a better tax policy through better voluntary compliance.

II. THE IMPACT OF TAX MORALE ON TAX COMPLIANCE

1. Overview and Theoretical Considerations

Since the 1990s, the issue of tax morale has increasingly attracted attention. The question of why so many people pay their taxes, despite low fine and audit probabilities, has become a central issue in the tax compliance literature. Erard and Feinstein (1994) stress the relevance of integrating moral sentiments into the models to provide a reasonable explanation of actual compliance behaviour. Assessing the literature, Andreoni, Erard and Feinstein (1998) also point out that "adding moral and social dynamics to models of tax compliance is as yet a largely undeveloped area of research" (p. 852). Many researchers maintain that a considerable portion of taxpayers are always honest. There are some taxpayers who are "simply predisposed not to evade" (Long and Swinger, 1991, p. 130) and thus do not even search for ways to cheat at taxes (see Frey, 1999). Furthermore, Elffers (2000) reasons that not everyone with "an inclination to dodge his taxes is able to translate his intention into action" (p. 187). Many individuals do not have the opportunity or the knowledge and resources to evade. Frey and Schneider (2000) point out that moral costs could act as a disincentive to be active in the illegal sector: "A good citizen has moral qualms to undertake a forbidden activity. These moral costs are closely related to 'tax morale,' which motivates citizens to pay their dues to the state" (p. 6). An increase in tax morale increases the moral costs of behaving illegally and therefore reduces the incentives to evade taxes. Spicer and Lundstedt (1976) claim that the choice between tax compliance and evasion is not only made on the grounds of sanctions but also on the grounds of a set of attitudes and norms. Lewis (1982) contends "it could be that tax evasion is the only channel through which taxpayers can express their antipathy … we can be confident in our general prediction that if tax attitudes become worse, tax evasion will increase" (p. 165, 177).

Polinsky and Shavell (2000), who present a survey of the economic theory of public enforcement of law, draw attention to the issue of social norms for future research. Social norms can be seen as a general alternative to law enforcement in channeling individuals' behavior. The violation of social norms has consequences including internal sanctions (guilt, remorse) or external legal and social sanctions such as gossip and ostracism. Polinsky and Shavel (2000) explain that there is an expanding literature on social norms because of their influence on behavior, their role as a substitute for and supplement to formal laws and the possibility that laws themselves can influence social norms.

In literature we find interesting theories that enable us to integrate moral constraints in a rational taxpayer model. One theory taking an altruistic approach (e.g., Chung 1976), involves taxpayers who are not only interested in their own welfare but are also concerned with societal welfare. The decision to evade is constrained by the knowledge that their evasion will reduce the amount of resources available for social welfare. Another theory is the 'Kantian' morality approach (see Laffont, 1975; Sugden, 1984). This methodology is broadly related to Kant's definition of morality and is based on the assumption that a fair tax is a tax which a taxpayer believes to be fair for all other taxpayers to pay. A false declaration will generate anxiety, guilt or a reduction in the taxpayer's self-image. It is assumed that a taxpayer only experiences these detrimental effects if he believes that his tax share is lower than what is defined as fair. If he is paying a higher amount, evasion can be seen as a sort of self-defense.

Erard and Feinstein (1994) incorporate shame and guilt directly into the taxpayer's utility. They hypothesize that a taxpayer feels guilty when he under-reports and escapes detection yet conversely also feels ashamed when he under-reports and gets caught. Gordon (1989) modifies the standard model by including non-pecuniary costs of evasion. He appeals to the literature on social customs (see Akerlof, 1980; Naylor, 1989) to provide a reason why utility loss can be incurred by the act of evading. Non-pecuniary or psychic cost increases as evasion increases, and Gordon develops a model which can explain why some taxpayers refuse a favorable evasion game. Furthermore, dishonesty is endogenized as reputation cost. Non-pecuniary costs have a dynamic component, varying inversely with the number of individuals having evaded in the previous period. Interestingly, there is a stable interior equilibrium where evaders and honest individuals coexist. However, non-pecuniary costs are exogenous to the analysis so that they can rationalize, but not explain, differences in tax behavior across consumers or social groups.

Myles and Naylor (1996) state that the model developed by Gordon is a step forward but lies outside the mainstream of the social custom literature because psychic costs depend on the extent of evasion. They see no reason why such a relation should hold. They argue that if the psychic cost is due to the shame at prosecution then the extent of evasion is irrelevant. If it is due to the fear of detection, then it should be dependent on the detection probability rather than the extent of evasion. Based on the social custom literature where it is accepted that once a social custom is broken, all utility from it is lost, Myles and Naylor suggest a model in which a social custom utility is derived when taxes are paid honestly, but is lost when evasion is undertaken. In their model, taxpayers face a choice between evading or not. If a taxpayer chooses evasion, the standard model of tax evasion becomes operative. Myles and Naylor combine social customs and social conformity with the standard model which represents tax evasion as a choice with risk. Since then, further studies have also modeled this puzzle of tax compliance (see, e.g., Schnellenbach, 2010).

2. Measurement of Tax Morale

Several studies have used the World Values Survey (WVS) to generate a proxy for tax morale (see Torgler, 2007a). The World Values Survey is a worldwide investigation of socio-cultural and political change collecting comparative data on values and belief systems among people around the world. WVS builds on the European Values Surveys (EVS), first carried out in 1981-1984. These surveys have assessed the basic values and beliefs of people around the world and have been carried out in about 80 societies representing over 80 per cent of the world's population. This large data set therefore permits cross-country comparison of people's tax morale that is based on representative national samples The WVS/EVS is particularly advantageous to this review because it covers a large set of Central Eastern and Former Soviet Union countries. Not only does the WVS/EVS pertain to a wide variety of religions and cultural traditions within each country, but it can assist an analysis of value changes over time. The WVS has been broadly used by social scientists.

To assess the level of tax morale the following question has been used:

> "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". The question leads to a ten scale index of tax morale with the two extreme points "never justified" and "always justified".

A second important data set that has been used is the Latinobarómetro (Torgler, 2005a). It is an annual public opinion survey carried out in 17 Latin American countries (since 1996). It reports the opinions, attitudes, and behaviors of the around 400 million inhabitants of the region. The survey started with 8 countries in 1995 and was extended to 17 countries in 1996. It covers most of Latin America with the exception of Cuba, the Dominican Republic, and Puerto Rico. This data set is not as well known as the WVS though economists have referred to it recently (see, e.g., Graham and Pettinato, 2002, who contributed to the happiness research). This data set has integrated a similar question which allows to measure tax morale:

> "On a scale of 1 to 10, where 1 means not at all justifiable and 10 means totally justifiable, how justifiable do you believe it is to: Manage to avoid paying all his tax".

In addition some studies have worked with the International Social Survey Programme (ISSP) (see, e.g., Torgler, 2005b). Similar to the previous data sets, it is a continuing annual program of cross-national collaboration. It started in 1983 and has grown to include more than 30 nations (mostly European countries). The RELIGION II (ISSP 1998) module covers, e.g., 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? (1= not wrong, 2= a bit wrong, 3= wrong, 4=seriously wrong)".

In general, these three data sets have the advantage that they are designed as a wide-ranging survey, which reduces the probability of being suspicious and of creating framing effects by other tax context questions.

Some studies have also analyzed the Taxpayer Opinion Survey (TOS), data collected in the United States in 1987 and providing a broad set of taxpayers' opinions and evaluations of aspects as the tax system, the Internal Revenue Service, tax evasion, cheating on taxes etc. The TOS offers the possibility to separately analyze two determinants of tax evasion, overstating of deduction or expenses and underreporting income, as dependent variables. Furthermore, it allows for the possibility of developing different tax morale variables to check the robustness of the results. Unfortunately, the TOS has not been used by many researchers (see, e.g., Smith, 1992; Sheffrin and Triest, 1992). Even if the data set is quite old, the huge amount of questions and the fact that not many papers have used the data set, makes it attractive for newer research projects (see, e.g., Forest and Sheffrin, 2002; Torgler, Demir, Macintyre and Schaffner, 2008; Torgler, Schaffner, and Macintyre, 2010). Furthermore, the TOS has not been conducted post 1990.

In general, extracting only a single question from the WVS also reduces complexity problems inherent with the construction of an index, especially regarding the measurement procedure or a low correlation between the items. Even so, one should recognize that there are some good reasons to use a multi-item index instead of a single question to measure tax morale.[2] Tax morale is likely to be a multi-dimensional concept, which may require a multi-item measurement tool, as in psychometric studies. In this context, a single-item measure like ours has some disadvantages compared to a multi-item index (Lewis, 1982; Jackson and Milliron, 1986). For example, a single-item measure may have difficulty in capturing adequately the interrelated facets of tax morale, and may also be adversely affected by random errors in measurement. Further, a multi-item index has the advantage that errors should tend to average out, therefore producing a more reliable measure. Compared to a single-item measure, a multi-item index likely provides better score reliability by pooling together information that the items have in common; a multi-item tool also increases validity by providing a more representative sample of information about the underlying concept, and it increases precision by

[2] For example, Kirchler (1997, 1999) uses several items to measure tax morale. He confronted subjects with various scenarios, in which a fictitious individual overspends/underreports income on a tax return. After reading the scenarios, subjects could express their disagreement with or acceptance of tax evasion.

decreasing score variability. Torgler, Schaffner, and Macintyre (2010), e.g., have used an index that covers the following questions to be able to measure tax morale:

1. Given present tax burdens, one can hardly blame tax evaders.
2. Given the easy availability of opportunities to evade taxes, one can hardly blame tax evaders.
3. If in doubt about whether or not to report a certain source of income, I would not report it.
4. Since the government gets enough taxes, it does not matter that some people evade taxes.
5. Taxes are so heavy that tax evasion is an economic necessity for many to survive.
6. If I receive $2000 in cash for services rendered, I would not report it.
7. Cheating on taxes is justifiable in light of the unfairness of the tax system.
8. Taxes are something which is taken away from me.
9. Since everybody evades taxes, one can hardly be blamed for doing it.
10. There is nothing bad about under-reporting taxable income on one's tax return

(1=strongly disagree; 2=disagree; 3=neutral; 4=agree, 5=strongly agree).

In general, single-item measures in cross-cultural comparisons should be treated with some caution. For example, in countries where tax revenues are collected to finance a "dictator's war machine", tax evasion might be justifiable, and there could even be a "moral duty" not to pay taxes. Similarly, in authoritarian political systems people will search for "voice" or "exit" mechanisms via tax resistance to express their preferences (Torgler, 2001). Moreover, there is still the potential problem in the survey studies that some individuals may excuse their non-cooperative behavior in the past by declaring relatively high tax morale values.

3. Correlation between Tax Compliance/Tax Evasion and Tax Morale

A number of previous studies have investigated the simple correlation between tax morale and the size of the shadow economy in Western societies, transition countries or Latin America (Alm and Torgler, 2006; Alm, Martinez-Vazquez and Torgler, 2006, Torgler, 2001, 2005a). These studies report a negative correlation with Pearson *r* values between -0.51 and -0.66. *Figures 1* and *2* show the correlation between tax morale in a country and the size of the country's shadow economy, using a sample of transition countries for which estimates of the informal sector as a percent of official GDP are available from Schneider and Klinglmair (2003). *Figure 1* measures the values based on data sets for the years 1999 and 2000. The results indicate a strong negative correlation between both variables (-0.657), significant at the 0.01 level. In order to increase the number of observations, in *Figure 2* we include countries that are not included in the WVS 1999-2000 but that were part of WVS 1995-1997 (19 observations in total). We observe also in *Figure 2* a strong negative correlation (Pearson r = -0.551), significant at the 0.01 level. Thus, transition countries with low tax morale show a clear tendency to have a large shadow economy. Indeed, a simple linear regression in both figures suggests that a decrease of tax morale by 1 unit would lead to an increase of the shadow economy of roughly 20 percentage points. Moreover, the variable tax morale can explain more than 30 percent of the total variance of the variable size of shadow economy.

However, these analyses give only information about the raw and not the partial effects. The observed correlation might be explained in terms of factors that affect the size of the shadow economy. It is important to investigate the causes as a whole with their interdependencies. An investigation that focuses on a simple correlation has a somewhat limited validity. Thus, multiple regressions help us to disentangle the effects of other factors from a possible tax morale effect. Multivariate studies indicate that tax morale has a very strong impact on the size of the shadow economy using a cross-sectional and a panel approach (see Torgler and Schneider, 2007a, 2009).

III. HOW IMPORTANT ARE INSTITUTIONS AND GOVERNANCE QUALITY?

1. Theoretical Considerations

As Cowell (1990) notes, "… the issue of evasion is, unlike other illegal activities, inseparably bound up with the instruments of fiscal control that the government attempts to use in carrying out its economic policy". While reducing evasion improves the government's revenue, it is a broader issue for the development of a civil order (Knack and Keefer, 1997). But, as discussed reducing tax evasion is not simply a matter of applying higher penalties and/or increasing the frequency of audits. Extreme penalties may backfire by creating a setting in which bribery and corruption are more prevalent and the end result may be lower tax compliance and a general loss of trust in the public institutions. Designing effective policies for reducing tax evasion requires an understanding of the behavioral aspects of the tax compliance decision. If we find that individual attitudes toward compliance are a function of social and cultural norms, enhancing these norms is a desirable policy instrument to complement the usual enforcement options.

Taxation and public finance matters are, in democratic states, resolved through political channels. History suggests that the need to secure an adequate degree of consensus has been a principle driver behind the gradual (over centuries) spread of democratic institutions. In an age of information and mobility, it is not possible for a non-dictatorial government to stay in power without securing a certain degree of consent from the populace in the area of taxation and government activities (Bird, Martinez-Vazquez and Torgler, 2008). For example, Lledo, Schneider, and Moore (2003, p. 47) stress, the key problem in Latin America is that most countries lack "…an (implicit) social contract between governments and the general populace of the kind that is embedded in taxation and fiscal principles and practices in politically more stable parts of the world".

State legitimacy thus rests to a considerable extent on citizens' "quasi-voluntary compliance" (Levi, 1988). Tyler's research (1990a, 1990b, 1997) provides support for the importance of legitimacy and allegiance to authority in compliance decisions. The way people are treated by the authorities affects their evaluations of authorities and their willingness to co-operate. Tyler (1997) argues that understanding what people want in a legal procedure helps to explain public dissatisfaction with the law and points towards directions for building public support for the law in the future. To secure such compliance, the government system must, over time, represent the basic values of at least a minimum supporting coalition of the population. In other words, it is not only the economic, but also the political system that affects formal and informal economic activities. The general performance in many countries may be explained by underlying political conditions. The political equilibrium position reflects the balance of political forces and institutions (Bird, Martinez-Vazquez, and Torgler, 2006). Taxes are the price paid for government services and taxpayers generally are sensitive to the way the government uses tax revenues. Therefore, taxpayers perceive their relationship with the state not only as a relationship of coercion, but also as one of exchange. Individuals will feel cheated if taxes are not spent efficiently. If citizens perceive that their interests (preferences) are properly represented in political institutions and they receive an adequate supply of public goods, their identification with the state increases alongside their willingness to contribute. On the other hand, an inefficient state where corruption is rampant will spawn citizens with little trust in authority and thus a low incentive to cooperate. In other words, a more encompassing and legitimate state increases citizens' willingness to contribute. Such a state may tend to increase taxpayers' positive attitudes and commitment to the tax system, with an accompanying positive effect on tax compliance (see, e.g., Smith, 1992). Hayoz and Hug (2007, p. 10) stress: "The state being considered as a part of the community and not as the hostile other or "they" can reasonably expect to secure tax compliance. This is also true about governance, about citizen participation in the management of the rules of the game. In some regions of Eastern Europe such experiences were never made: here a "culture of distrust" imply also a "culture of tax evasion". The more people are involved in establishing rules, the stronger is their sense of obligation (Kidder and McEwen, 1989; Cialdini, 1989; McEwen and Maiman, 1986; Lempert, 1972). There are various tax compliance studies that indicate, e.g., that giving individuals the chance to vote on setting the rules increases compliance (Alm, Jackson and McKee, 1993; Feld and Tyran, 2002; Torgler and Schaltegger, 2005). Voting procedure and public discussions prior to votes, creates a sense of civic duty, as taxpayers become aware of the importance to contribute to public goods. Voting possibilities also provide utility in itself. Citizens value the right to participate, because it produces a kind of procedural utility as the opportunity set increases. It leads to an outcome (acceptance of the amnesty or not) more favourable compared to the situation where no such voting possibility exists.

If the government and the administration have a great discretionary power over the allocation of resources, corruption is enhanced where the rulers are non-benevolent. A sustainable tax system is based on a fair tax system and responsive government, achieved with a strong connection between tax payments and the supply of public goods (Bird et al., 2006). Agents such as the political elite, administration staff, and legislators wield discretionary power if institutions are neither credible nor working well. This has the negative consequence that citizens lose their trust in the authority. In countries where corruption is systemic and the government budget lacks transparency and accountability the obligation of paying taxes cannot be assumed to be an accepted social norm. Institutional instability, lack of transparency and rule of law undermine the willingness of frustrated citizens to be active in the formal economy. Furthermore, there might be a crowding-out effect of morality among the tax administrators when there are a great number of corrupt colleagues. Moreover, regulatory restraints and bureaucratic procedures not only limit competition and the operation of markets, but also provide a better foundation for corrupt activities. If individuals and businesses believe that neither contracts will be enforced nor productive efforts protected, their incentive to be active in the shadow economy increases. Citizens will feel cheated if they believe that corruption is widespread, their tax burden is not spent well, their government lacks accountability, and that they are not protected by the rules of law.

2. Empirical Evidence on the Impact of Institutions, Governance and Tax Reforms

Frey and Torgler (2007) explore the determinants of tax morale in Eastern and Western Europe using the European Values Survey (EVS) 1999/2000. The study covers a large set of countries[3] using a micro data set at the individual level (covering more than 32'000 observations). To investigate whether institutional quality matters they use six proxies of the governance indicators developed by Kaufmann, Kraay, and Mastruzzi (2004). The variables measure the process by which governments are selected, monitored, and replaced (voice and accountability, political stability and absence of violence), the capacity of the government to formulate and implement sound policies (government effectiveness, regulatory quality) and the respect of citizens and the state for the institutions that govern economic and social interactions (rule of law and control of corruption). All scores estimated by Kaufmann, Kraay, and Mastruzzi (2004) range

[3] Eastern European countries (Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovak Republic, Ukraine), Western European countries (Austria, Belgium, Great Britain, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Malta, Netherlands, North Ireland, Portugal, Spain, Sweden).

between –2.5 and 2.5 with higher scores corresponding to better institutions or outcomes. *Table A1* in the Appendix provides a summary of the 12 regression results focusing only on the institutional coefficients. In all estimations, the coefficients of the institutional variables have a statistically significant positive effect on tax morale. The strongest quantitative effects are observable for voice and accountability, political stability and regulatory quality. For example, an increase in the voice and accountability scale by one unit increases the probability of stating that tax evasion is never justified by 7.5 percentage points. Frey and Torgler (2007) also explored the relationship between vertical trust (trust between taxpayers and the state). Trust in the state may influence the willingness to pay taxes but it is not necessarily related to conditional cooperation among the citizens. Smith (1992) shows that positive actions by the state are intended to improve taxpayers' attitudes and their commitment to the tax system and lead to compliant behavior. If the state acts in a trustworthy way, taxpayers are more willing to comply with taxes. To check for robustness, Frey and Torgler (2007) use two trust variables: trust in the justice system and trust in the parliament. These variables allow them to analyze trust at the constitutional level, e.g., trust in the legal system, thereby focusing on how the relationship between the state and its citizens is established. This also allows them to analyze trust more closely at the current politico-economic level, e.g., trust in the parliament. In addition, they analyze the impact on tax morale of individuals' satisfaction with the way democracy is developing in a country, namely satisfaction with democracy. In general, a government that pre-commits to democratic rules imposes restraints on its own power and thus signals its willingness to treat taxpayers as responsible persons. Strong democratic rules indicate that citizens are not perceived to be ignorant or uncomprehending voters, which may create or maintain social capital stock. If taxpayers think they are in a better position to monitor and control politicians, their willingness to pay taxes and cooperate increases. Therefore, a higher degree of satisfaction with a country's democratic institution should lead to higher tax morale. The results indicate that these factors have statistically significant positive effect on tax morale. For example, an increase in trust in the justice system or in the parliament by one unit raises the percentage of persons reporting the highest tax morale by more than 3 percentage points. Similarly, a one-unit increase in satisfaction with the way democracy is developing raises the proportion of persons stating that tax evasion is never justified by 1.5 percentage points. These findings demonstrate the relevance of institutions that enhance political participation and trust in the parliament and the justice system. Such institutions have beneficial effects on social capital and the political outcome not only in Western Europe but also in Eastern Europe as Frey (2003a) shows.

Torgler and Schneider (2007a, 2009) show that that improving governance and institutional quality and tax morale helps lessen a possible incentive to go underground. The results are quite robust using more than 25 proxies of governance and institutional quality, testing for endogeneity and running a broad variety of specifications. *Table 1* provides an overview of the results. Working with a survey done in the Czech and Slovak Republics, Hungary, and Poland, Hanousek and Palda (2004) find strong support that there is a positive correlation between tax evasion and the perceived government services based on the taxes paid.

If institutions affect tax morale and the shadow economy, it may be worthwhile to explore also its impact on tax performance. The level of tax performance is related to the availability of what may be called the "exit option" of the so-called shadow economy. In general, the larger the shadow economy, the lower we would expect tax effort to be. Hence, one can measure the extent of tax effort to discover whether institutional quality (measured by corruption and voice and accountability) affects that behavior. In other words, it may be important to explore not only traditional variables such as tax burden, the sectoral composition, the richness of a country or the labor market conditions - but also institutional and governance quality. The more taxpayers believe that others work in the shadow economy, the lower the moral costs of behaving dishonestly and evading taxes by moving their own activities to the shadow economy. In this way the potential intrinsic motivation to comply and contribute to public sector activities gets crowded out. This relationship has been shown empirically by Bird et al. (2006). Public finance matters are usually resolved through political channels, hence, as mentioned previously, history suggests that the need to secure an adequate degree of consensus from the taxed is one of the principal ways in which democratic institutions have spread. A better political system is more interested in providing citizens what they want, and it transmutes individuals' and firms' preferences into policy decisions in a more efficient manner (Bird et al., 2008).

Moreover, Kaufmann et al. (2004) stress that “corruption is often a manifestation of a lack of respect of both the corrupter (typically a private citizen or firm) and the corrupted (typically a public official or politician) for the rules that govern their interactions, and hence represents a failure of governance according to our definition” (p. 255). If the formal economy does not represent the preferences of the citizens, the resulting loss of respect may increase participation in underground activities. Johnson, Kaufmann, and Shleifer (1997) model the shadow economy as a substitute for the official economy, from the assumption that individuals are mutually exclusively employed in the official economy and the shadow economy. If more people are in the shadow economy, this reduces the tax revenue and reduces the money available for public goods or institutional reform, which increases the returns to participation in the shadow economy. The erosion of the tax base by the size of the shadow economy might reduce the ability of the government to make effective policy (Dreher et al., 2009). Katsios (2006) observes this effect in Greece, where the inability to tax the underground economy weakens the ability of the government to stabilize and manage the economy. This can increase social problems which might decrease social capital and trust in the economy, which can lead to further deterioration of institutional conditions. Dreher and Schneider (2010, p. 6) state that “better institutional quality… increases the benefits entrepreneurs can derive from operating in the official sector…”; reduces the shadow economy, and “… should thus reduce corruption and the size of the shadow economy alike”. Once operations are transferred to the shadow economy, the entrepreneur can no longer benefit from the public goods available in the formal economy (Choi and Thum, 2005, p. 829). However, the value of those public goods will depend on the level of corruption, as the greater the level of corruption, the lower the tax effort, and hence the lower the resources available for public goods.

The issue of low tax effort in developing countries has been quite relevant in Latin America and lessons can be learned for transition countries. Over the last forty years, most Latin American countries found it difficult to achieve a sustainable policy balance given the often conflicting and frequently changing forces, external and internal, economic and political, they have faced. It is thus not surprising that their tax policies have changed considerably over this period-- though much less in either level or structure than might have been expected. Indeed, it may be that countries tend to achieve an equilibrium position with respect to the size and nature of their fiscal systems that largely reflects the balance of political forces and institutions, and stay at this position until 'shocked' to a new equilibrium (Bird et al., 2008). An interesting case is, e.g., Mexico (see Bird et al. 2006). Martinez-Vazquez (2001) notes that one of the most striking features of the various major tax changes that have taken place over the decades has been how very little apparent effect they have had on Mexico's tax-GDP ratio, which has remained almost constant. Tax policy and tax administration reforms over the last two decades have given Mexico a tax structure that is in many ways comparable to that in many developed countries but the tax system has continued to perform poorly in raising adequate revenues. The management of tax policy seemed to have been a crucial element. The good fundamental structure of Mexico's tax system and its revenue performance has been undermined by numerous ad hoc policy measures. With respect to the tax on enterprise profits, several economic sectors benefited from a special regime in which the tax base was calculated on a cash-flow basis. Agriculture and some other sectors also benefited from substantial lower tax rates. These and many other exceptions to the supposedly general income and sales taxes added excess burdens, cost revenues, and undermined the confidence of taxpayers in the fairness of the system. The summation of these impacts is likely to have reduced voluntary compliance in the system. Tax administration in Mexico has also faltered because tax policy measures have ignored the ability of the tax administration to enforce complex tax issues, and in part because the tax administration has failed to modernize (and may in some respects even have gone backwards with respect to some of the institutional improvements achieved in earlier periods). In sum, it appears that reforms in tax structure (1) may have been undermined by unrelated ad hoc measures, or (2) they may have been offset by administrative deterioration. Similar relative constancy can be seen in other countries (e.g. Colombia) over the decades despite repeated tax reforms (McLure and Zodrow, 1997). Bird et al. (2006) stress that a "good tax reform" is comparable to a "good' seat belt law". If everything else stayed the same, lives can be saved (the tax ratio would increase), but things do not stay the same leading some people to drive faster when they are belted in, so death rates (tax ratios) may show little change.

Bird et al. (2006) measure tax effort as tax revenue as a share of gross domestic product (GDP). Data for both measures of the dependent variable came from the World Development Indicators (WDI). The model was estimated using cross-section data with mean values for the years 1990 to 1999 for 110 transitional and developing countries.[4] *Table A2* in the Appendix presents a summary of the results. It can be seen that institutions and governance play a significant role in the determination of the level of tax effort in transition and developing countries using the Kaufmann et al. (2004) data set and the International Country Risk Guide database. The ICRG provides an alternative set of data to the Quality of Governance Index, with special emphasis on aspects affecting private foreign investment decisions. The data contain annual values for indicators of the quality of governance, constructed by Stephen Knack and the IRIS Center, University of Maryland, and provided by The PRS Group. The results indicate the institutional factors are always statistically significant at the 1% level with substantial quantitative effects. Using panel data Torgler et al. (2010) extend the previous studies covering a time period of 16 years using the ICRG risk guide data (1990-2005). They also implemented the Kaufmann et al. (2006) data set working with the years 1996, 1998, 2000, 2002, and 2004. Such an analysis goes beyond the previous studies that have explored this framework, mainly in a cross-sectional environment (e.g., Bird et al. 2006, 2008). Their results also indicate that governance and institutional conditions have a strong impact on tax performance.

Looking at further factors and focusing more on tax administration using US and data from Turkey, Torgler, Demir, Macintyre and Schaffner (2008) report that positive attitudes towards the tax authority (e.g., how taxpayers rated tax administrations' job, their honesty and fairness, and their helping and information behavior) and tax system significantly increase tax morale. As Smith (1992) argues, "cycles of antagonism between the tax administration and the taxpayer might begin to break with a positive concession by the administrator" (p. 226). He points out that a respectful and fair treatment of taxpayers induces respect for the tax system and thus leads to co-operation. On the other hand, a higher perceived tax burden crowds out the intrinsic motivation to pay taxes. Interestingly, complexity does not have a significant effect on tax morale,

[4] The use of average values over a period allows maximizing the number of observations.

while the awareness of tax issues correlates with lower tax morale. However, the coefficient was not significant in all cases. Trust in public officials, the state and other people has a highly significant positive effect on tax morale. Similarly, a higher perceived level of corruption decreases the willingness to contribute. Moreover, a higher sense of obedience and religiosity lead to a higher tax morale.

Torgler and Murphy (2004) report a strong increase of tax morale in Australia during the 1980s and 1990s. In early 1980s, the government faced numerous complaints about the existing income tax system (Smith, 1993). There was prevalent perception amongst the public that many were not meeting their taxation obligations and it was clear that taxpayer compliance had eroded. "Tax evasion was also contributing to public resentment towards the existing and highly visible income tax burden" (Smith, 1993, p. 111). For example, during the late 1970s, the scandalous "bottom of the harbor" schemes were being widely publicized. Here, company profits were being stripped before they could be taxed and the records conveniently lost (Levi, 1988). The more widespread the knowledge that others were not paying their share, the more non-compliance increased. As a consequence taxation reform was a prominent issue to taxpayers during the mid to late 1980s, and the reforms "substantially improved the fairness of the tax system at the time" (Mathews, 1985, p. 424). In the 1986/87 financial year, the ATO (Australian Taxation Office) introduced a self-assessment system to taxation. As discussed by D'Ascenzo and Poulakis (2002) the move to a self-assessment system came about following an ATO review of the effectiveness of its traditional system of assessing income tax returns. The ATO review concluded that the original assessment system was not cost effective and had little effect on taxpayer compliance. Not only is the self-assessment system of taxation a more cost effective system for the ATO, but if one reviews the literature on regulatory theory, such a system is what regulatory scholars call a self-regulatory system. Regulatory scholars (e.g., Ayres and Braithwaite, 1992; Sparrow, 2000) consistently argue that if those being regulated are allowed to self-regulate themselves in the first instance, then this serves to improve their voluntary compliance in the long-term. This is because self-regulation is important for building and maintaining trust among regulators and regulatees. Several empirical studies have been able to show that trust can serve to nurture voluntary compliance (e.g., Ayres and

Braithwaite, 1992; Braithwaite and Makkai, 1994; Torgler, 2007a). Trust appears to be a resource like no other; it is not depleted through use but rather through lack of use (Gambetta, 1988). Hence, the more that regulatory interactions are based on trust, the more likely regulators such as the ATO should be able to nurture the development of reciprocal trust relationships. Of course, for such a system to be sustainable long-term, it also requires that a backup strategy be in place to detect and penalize those who may attempt to cheat the system (hence, the purpose of post-assessment audits and penalties for illegitimate returns). Moreover, the 1980s saw public administration being faced with growing state and public demands to become more market-focused, service oriented, open and efficient (Job and Honaker, 2003; Hughes, 1994). To respond to this, the ATO adopted a new organizational structure designed to make them more efficient and customer-focused. Instead of focusing so much on compliance management, risk control, or structuring the application of enforcement discretion, the ATO slowly became more focused on service, customers, quality, transparency and process improvement (see Job and Honaker, 2003). In fact, the ATO was amongst the first tax administrations in the world to implement a new client-based organizational structure (the client based model is where staff members are assigned to units that focus on specific groups of customers; for example, salary and wage earners, small business income taxpayers, and large business income tax payers)[5]. One of the advantages of such a client-based structure is that it allows tax administrations to better match their enforcement and educational programs to the compliance patterns of different groups (Vehorn and Brondolo, 1999). According to Verhorn and Brondolo (1999, p. 505), such a system has "the potential for delivering higher quality service to taxpayers and achieving high levels of compliance". If taxpayers feel that such an approach is likely to achieve better compliance levels among other taxpayers, then this may go on to influence their own tax morale. Such a client-focused approach is also likely to increase trust among taxpayers, as taxpayers are more likely to feel that their needs are being considered in the regulatory process.

Another example is Japan. The country had to be reorganized after World War II. In 1949 the National Tax Agency (NTA) was established and a self-assessment system

[5] Prior to this, a function-based structure was used by the ATO (e.g., a separate division for processing tax returns, another for auditing taxpayers, and another for collecting areas).

for the main taxes was introduced signaling trust in taxpayers (Okada, 2002). Usui (2002, p. 6) reports that in 1948 around 70 percent of the taxpayers who were required to fill-out the tax return had made filling mistakes or had not filled the returns at all. The percentage of tax delinquency exceeded 40 percent. After continues reforms tax compliance improved. Okada (2002) points out that at the tax agency made great efforts to provide the public with tax information via television, radio, internet and newspapers, distributing pamphlets and booklets and organizing every November a "Know-Your-Tax" (p. 2) with round-table discussions and essay competitions for students about taxation. It is interesting to see how taxpayers are treated by the tax administration. If taxpayers make obvious errors they are informed and the result of the examination is explained to them, to make them understand the errors. Such procedures indicate that the tax administration in Japan tries to be fair to the taxpayers. Institutions and procedures taxpayers perceive as fair and efficient might have a positive effect on tax morale. Okada (2002) also gives a broad survey on training programs for tax administrators. The central organization is the National Tax College (NTC) including 12 branches nationwide, which work together with academics, among them, many university professors, giving lectures at the college. Such a structure shows that Japan, contrary to its Asian counterparts, invests substantial efforts into developing a highly trained tax administration. Furthermore, the salaries of the tax administrators according to Okada (2002) are slightly higher than for officials engaged in other government sections, which are paid at a level comparable to the private sector. This reduces the incentive for tax officials to demand bribes. Focusing on Asia, Torgler (2004) observes that Japan has relatively high tax morale values within the region.

Feld and Frey (2002a) using a data set of tax authorities' behavior in Switzerland (26 cantonal tax authorities), they find that tax authorities of cantons with more direct participation rights treat taxpayers more respectfully and are less suspicious if taxpayers report too low incomes than the authorities in cantons with less direct democracy. On the other hand, non-submissions of tax declarations attract heavier fines. Feld and Frey (2002b) continue using this framework and argue that tax morale is supported or even raised when tax officials treat taxpayers with respect and on the other hand is reduced when the administration considers taxpayers as individuals who have to be *forced* to pay the taxes: “The feeling of being controlled in a negative way, and being suspected of tax cheating, tends to crowd out the intrinsic motivation to act as an honorable taxpayers and, as a consequence, tax morale will fall. In contrast, if the tax official makes an effort to find out the reason for the error by contacting the taxpayer in an informal way, the taxpayer will appreciate this respectful treatment and tax morale will be upheld” (p. 4). They divide respectful treatment, by the tax administration into two components (p. 5): (i) transparent and clear procedure, (ii) respecting taxpayers’ character. Their empirical analysis shows that treating taxpayers respectfully reduces tax evasion.

Alm and Torgler (2006) combine a large number of Western European countries into an empirical study using multiple regression analysis. They differentiated between Romanic and Northern Countries. The results indicate that people from Northern Europe possess higher tax morale than people from Southern Europe. The marginal effects indicate that being from a Romanic country rather than from Northern Europe reduces the probability of stating that tax evasion is never justified by 1.3 percentage points. Similarly, Weck (1983), Weck, Pommerehne, and Frey (1984), and Frey and Weck-Hannemann (1984) use cross-country survey results for the years 1960, 1965, 1970, 1975, and 1978 in order to develop an aggregate, country-level “tax immorality” index for various countries. Their index indicates that Romanic countries have a higher tax immorality than most other countries. In this context, Kirchgässner (1999) argues that state and religious authority were largely held by one person in the northern states of Europe (in contrast to the majority of Catholic countries in the south). Offenses against the state were therefore also religious offenses and consequently a sin. Torgler and Schneider (2007b) looking at Switzerland, Spain and Belgium observe that cultural and regional differences within a country also affect tax morale in both Switzerland and Spain.

Looking at Europe and the US, Alm and Torgler (2006) also find that the highest tax morale is observed in the United States and in Switzerland, two countries with very strong direct democratic traditions. Taxpayers are treated as “citizens” with extensive rights and obligations (Frey, 2003b). The possibility of taxpayers voting on fiscal issues, and thereby being involved directly in the political decision process might enhance their sense of civic duty (Feld and Frey, 2002a) and thus their tax morale. The instrument of direct democracy helps spend taxes according to citizen preferences, and the motivation to pay taxes may increase. Such results are similar to some previous findings. Two studies have explored Switzerland due the fact that the level of direct democracy varies among the 26 cantons. Pommerehne and Weck-Hannemann (1996) use cross-section/time series regressions with Swiss data and find that tax evasion is lower in cantons with a higher degree of direct political control. Torgler (2005b) also finds with Swiss survey data that a higher direct democracy leads to a higher tax morale. Looking at papers on voting and tax compliance, Alm, McClelland, and Schulze (1999), Feld and Tyran (2002) and Torgler and Schaltegger (2005) use experimental methods, and show that voting on tax issues has a positive effect on tax compliance. Moreover, more recently the link between local autonomy and tax morale and tax compliance has been analyzed (Torgler, Schneider and Schaltegger, 2010). The advantage of smaller structures in tax policy is that citizens' preferences are able to be better served than in a framework where a uniform tax system is designed for a population with heterogeneous preferences. Moreover, there is an intensive everyday interaction between taxpayers and local politicians and bureaucrats. This closeness between taxpayers, the tax administration and the local government may induce trust and thus enhance tax morale. Politicians and members of the administration are better informed about the preferences of the local population. Furthermore, there is a politico-institutional aspect: if politicians are elected at the local level, they have an incentive to take the preferences of their constituency into account and thus to spend the local tax revenues according to local preferences (see Frey and Eichenberger, 1999). Decentralization brings the government closer to the people. Many economists point out the relevance of giving sub-national governments the taxing power (see, e.g., Bahl, 1999). One of the strengths of a decentralized system is greater transparency between the tax price and the public services received. Taxes are comparable to prices in some sense, especially at the local level (Blankart, 2002). Even the (progressive) income tax is a good instrument for a local structure. It is always under individuals' test, providing citizens the opportunity to use the instruments of exit and voice (see Hirschman, 1970). The mechanism of fiscally induced migration in federal states provides a strong incentive to provide public services in accordance to taxpayers' preferences. Moreover federalism and local autonomy is connected to innovation.

Federalism serves as a laboratory for policy inventions (Oates, 1999). Looking at Switzerland, at the cantonal level, evaluating the impact of federalism on tax morale and the size of the shadow economy, Torgler, Schneider and Schaltegger (2010) provide evidence that a higher level of local autonomy is correlated with higher tax morale and a lower shadow economy.

3. Evidence from Developing Countries: The Case of South Africa and Botswana

Further insights that might be relevant for transition countries might be derived from comparative evidence in developing countries, under a relatively controlled environment. Cummings, Martinez-Vazquez, McKee and Torgler (2009) have compared Botswana and South Africa. Both countries have experienced strikingly different social histories, despite being neighbors. Thus, these countries offer a natural experiment for the investigation of the effects of tax morale stemming from perceptions of government. Analyses of data from surveys of public attitudes toward government show that perceptions of government fairness and efficacy are considerably higher in Botswana and self-reported tax compliance appears to be higher as well. Using controlled laboratory experiments Cummings et al. (2009) are able to confirm that these reported differences in tax attitudes can be explained by social norms. In the experiments, the same tax reporting and enforcement regimes were imposed in sessions conducted in both countries. Given the experimental control, the authors argue that observed differences in compliance behavior are the result of differing social norms. Similarities in the tax systems allow employment of the same jargon in each country, and since English is widely used in both countries, the authors were able to conduct the experiments in a common language. These facilitate comparisons of tax compliance behavior across these otherwise widely divergent countries. Their laboratory experiments were conducted in the fall of 1999 and the survey data were collected during 1999 – 2000.

We have seen in the previous part of the report that tax compliance not only depends on enforcement effort, but also on the inhibitors that are inherent in the individual-government relationships. For the personal income tax (PIT), the self-assessment and audit processes are similar in both countries although there are varying degrees of aggressiveness in enforcement. Both countries rely on some form of withholding during the year and individual self-assessment and reporting of final tax liabilities. Tax evasion is treated as a serious crime in South Africa; the tax authority exploits high profile cases to reinforce its reputation for tough enforcement.[6] The South Africa Revenue Service (SARS) has a policy of not revealing the audit rules or penalties. In Botswana, on the other hand, the attitude of the tax authority seems to be more accommodating. For example, a general tax amnesty was conducted in 1999. This was yet to occur in South Africa during conduct of the present study.

The respective computations of the tax bases are quite similar in South Africa and Botswana. In South Africa, the PIT base consists of wages and salaries as well as passive income (e.g., interest and dividends) but not capital gains. In Botswana, the PIT base includes wages and salaries as well as all investment income (interest, dividends, and capital gains). In Botswana the marginal rate is capped at 25 percent, which is lower than the rates in South Africa (45 percent) and other neighboring countries. Various exemptions and deductions (but no dependent deductions) are offered in Botswana. Thus, there are substantial differences across the countries in terms of maximum marginal rates. In Botswana, the investigative division carries out in-depth case examination where tax evasion is suspected. Civil penalties can be imposed for failure to file if taxes are owed. These penalties consist of interest at the rate of two percent per month and a penalty not to exceed the tax owed. Criminal penalties not to exceed one year can be imposed for egregious evasion and or fraud. In South Africa the penalty structure is generally harsher. Any person required to file a return who fails to do so within the period mentioned above, is liable to a penalty not exceeding R2,000 and/or to imprisonment for a period not exceeding twelve months. Further, his/her taxable income may be estimated and three times the amount of tax charged thereon. Any taxpayer who knowingly and willfully makes any false statement in his/her return or evades or attempts to evade taxation and any person who assists a taxpayer to do so, is liable to a penalty not exceeding R1,000 and/or to imprisonment for a period not exceeding two years. The taxpayer is, in addition, liable to be assessed and charged three times the amount of the tax, which he/she sought to evade.

[6] About the time of our experiments, a South African newspaper article reported that Bishop Desmond Tutu's son Trevor was sentenced to 12 months in jail for tax evasion (*The Star*, October 28, 1999 p 6, Johannesburg, SA).

The level of sophistication of the tax enforcement apparatus differs considerably between Botswana and South Africa. SARS implemented a modern computerized tax collections and administration monitoring system in 1997, which was hoped to improve data integrity, reduce human intervention, and increase effectiveness and productivity. Botswana's tax administration system is evolving but enjoys less resources. Both countries take steps to associate taxation with the provision of government services. For example, the tax legislation of South Africa explicitly states, "taxes are not a punishment, they are the price paid for government services".

A comparison of tax morale in Botswana and South Africa is certainly natural. Although geographic neighbors, the social histories of the two countries could not differ more. Botswana's political history is virtually unique among African countries. Although it was a colony (British) and only recently (1966) gained independence, diamond-rich Botswana is one of Africa's oldest multiparty democracies and has successfully transitioned to self-governance. Several elections have been held since independence and all have been quiet affairs with none of the violence or corruption charges that have accompanied elections in neighboring countries. In fact, the government of Botswana takes great pride in its stability and refers to itself as the "gem of Africa" in many official publications. A message is clear: the government is working for you – paying taxes constitutes part of this social contract. Acemoglu, Johnson and Robinson (2002) report that pre-colonial tribal institutions developed by the Tswana tribes, encouraged cooperation and participation and helped to constrain political elites. The Botswana experience is in marked contrast with South Africa with its well-known history of apartheid and social discord. Indeed elections in South Africa held prior to our period of analysis have been controversial and often accompanied by violence. Both the white and black populations have reason to be suspicious of the government. The white population has been concerned about protection of property rights (especially in the face of proposals for land reform) while the black population has little reason to trust any government until it has been demonstrated that such trust is warranted. The political history of South Africa has been conflictive with the government struggling to establish trust. Crime rates are very high (one of the highest in the world, in fact) and there is a feeling that the social order is somewhat fragile, although, the government has recently undertaken steps to address these sentiments.

Table A3 provides detailed institutional comparisons. Transparency International's Corruption Perception Index, which relates corruption perceptions of various countries' government, indicates considerable differences between Botswana and South Africa: Botswana's score is some 20 percent higher (better) than South Africa's. These results are consistent with the Quality of Governance Index provided by Kaufmann et al. (2004). Botswana has higher control of corruption values than South Africa. Similarly, the Rule of Law Index, which measures the degree of agents' confidence in and compliance with social rules, is more than three times larger in Botswana. Consequently, the respect of citizens for the state and the institutions that govern economic and social interactions is higher in Botswana. The capacity of the government to effectively formulate and implement sound policies (represented as the government effectiveness and regulatory quality) is higher in Botswana, which also has a higher level of political stability and absence of violence. Only voice and accountability are higher in South Africa, referring to the process by which governments are selected, monitored and replaced. Overall, the values of these six governance dimensions for the periods 1998 and 2000 clearly indicate a higher level of institutional quality in Botswana compared to South Africa. These results are also supported by the *International Country Risk Guide* (ICRG). *Table A3* also shows that political rights and the level of civil liberty are similar in both countries. To measure the variable income inequality – we use the newest available data set, Estimated Household Income Inequality (EHII), constructed by Galbraith and Kum (2005)[7]. The GINI coefficients indicate that income inequality is slightly greater in Botswana. The Index of Economic Freedom clearly indicates a higher fiscal burden[8] for South Africa, but also less government interventions in South Africa. The Polity IV data set shows, in line with previous data sets, that Botswana has more

[7] Galbraith and Kum (2005) estimate gross household income inequality from a regression between the Deininger and Squire (1996) inequality measures and the UTIP-UNIDO pay inequality measures.

[8] The index of fiscal burden measures the burden a government imposes on its citizens. The following variables have been integrated in the index: top income tax rate, tax rate an average taxpayer faces, top corporate tax rate and government expenditures measured as a percentage of GDP. To get the index, the scores of the income tax rate and the corporate tax rate are measured separately and then averaged to get a single taxation score. The final score for the fiscal burden consists of the averaged scores for income and corporate taxation and for government expenditures.

stable political institutions than South Africa. Some studies have shown tendencies exists for ethnic fractionalization to negatively influence economic success and the quality of institutions (see, e.g., Easterly and Levine, 1997; La Porta et al., 1999; Alesina et al., 2003). Easterly and Levine (1997) found that for Africa, greater ethnic diversity goes in line with low schooling, underdeveloped financial systems, distorted foreign exchange markets, and insufficient infrastructure.

In general, these results were confirmed using a survey data set from the Afrobarometer, a relatively new survey measuring the social, political and economic atmosphere in more than ten countries in Africa. Examining these results, we observe that individuals in Botswana are more compliant than those in South Africa. The marginal effects indicate that being a resident of Botswana rather than of South Africa increases the probability of reporting the highest tax honesty by around 6 percentage points. This result is robust across various specifications. *Figure A1* in the Appendix reports the results of the experiment. It shows a clear difference in behavior between subjects from Botswana and South Africa throughout most of the different experimental treatments. Moreover, the results obtained also indicate that tax culture effect overwhelms the enforcement effort. Thus, increasing audit probability and/or the penalty for South African subjects leads to lower compliance.

IV. HOW STABLE IS TAX MORALE AND HOW IMPORTANT ARE SOCIAL INTERACTIONS?

We have seen in the previous section that values and preferences are affected by policy or institutional changes. Thus, these results support Bowles' (1998) argument that "we can neither accurately predict nor coherently evaluate the likely consequences of new policies or institutions without taking account of preference endogeneity" (p. 75). This can be seen as an indicator that tax morale does not remain stable over time. Changes in the political system have a substantial impact on tax morale. In the fields of behavioral law and economics, the importance of social norms in studying compliance with the law has been emphasized for several years (Ellickson, 1991; Tyler, 1990b; Sunstein, 1996; Cooter, 1998). Accordingly, social norms are shaped by law and by social interactions. In addition to the direct deterrence effects of legal sanctions, Posner (1998, 2000a, b) argues that deterrence signals social norms to citizens in order to educate them what they should do. Smith and Mackie (2000, p. 377) note: "Norms must be brought to mind before they can guide behavior. They can be activated by deliberate reminders or by subtle cues, such as observations of other people's behavior". Kahan (1997) suggests that the decision to commit crimes is highly interdependent, based on the perceived behavior of others: "When they perceive that many of their peers are committing crimes, individuals infer that the odds of escaping punishment are high and the stigma of criminality is low. To the extent that many persons simultaneously draw these inferences and act on them, moreover, their perceptions become a self-fulfilling reality." (p. 394). As a consequence, individuals' beliefs about crime are altered, suggesting that social influence affects criminality and the propensity to commit crimes. Furthermore, Kahan (1997) suggests that the law is able to shape these perceptions by the way in which it creates information about the compliance/deviance of citizens. These findings suggest that there is an effect of social learning on tax compliance. The relevance of social interaction and crime is explored by Glaeser, Sacerdote and Scheinkman (1996) who focus on the United States in their analysis both across cities and across precincts in New York. The results indicate that social interaction models provide a framework for understanding variances of cross-city crime rates. Individuals are more likely to commit crimes when those around them do. Fortin, Lacroix and Villeval (2007) analyze the impact of social interaction on individual tax decisions in an experimental setting.

In this section of the report this aspect is explored further. The focus will be on a comparison of East and West Germany directly after unification as a quasi-natural experiment. Results might provide valuable insights how tax morale changes when societies and nations are integrated in new institutional environments. Such insights may provide valuable guidance whether we may observe a tax morale adaption process in the Eastern enlargement process of the European Union. Moreover, this section will also explore the importance of social interactions focusing on Eastern and Western Europe.

Feld, Torgler and Dong (2008) analyse the differences in tax morale between East and West Germany and the convergence of morale across time between 1990 and 1999 German unification provides valuable insights for the analysis of tax morale because many factors can be controlled for which are similar in both parts of the country, e.g., a common language, similar education systems and a shared cultural and political history after the Second World War and prior to the separation. As a consequence, an East-West comparison has a methodological advantage as compared to cross-country studies. Thus, it is possible to observe how taxpayers adapt to a new legal environment that provides signals to them how they should behave and how others behave regarding taxation. As the Iron Curtain fell, former GDR citizens became exposed to the West German system including the social welfare state, the tax system and the whole set of formal and informal rules. The question remains how fast individuals may change their social norms. In the focus countries, people gradually internalized norms and values they were forced to respect for years before the reunification. Feld et al. (2008) were interested in exploring these social learning effects on tax morale over time. The unification process provides for a unique opportunity to study this research question. East German citizens faced different legal systems before and after unification. While deterrence was generally high in the old GDR, black markets and the shadow economy were ubiquitous. Thus, each GDR citizen could observe that their fellow citizens engaged in the shadow economy. After unification, East German taxpayers were confronted with new laws and new deterrence levels which have only been slowly increased across time. East Germans could also realize the tax morale of the West German taxpayers and adjust their behavior accordingly. So far, the literature on tax compliance has failed to explore social learning, herding behavior or convergence processes in general. This paper addresses this shortcoming by exploring the unification process in Germany using three World Values Survey/European Values Survey waves between 1990 and 1999. German unification is interesting for the analysis of tax morale over time and the exploration of a social learning process. As mentioned, many factors can be controlled (e.g., a common language, similar education systems and a shared cultural and political history prior to the separation after the Second World War). Feld et al.'s (2008) findings indicate that tax morale converged after unification in Germany. While tax morale was significantly different in East compared to West Germany in 1990, both regions do not differ significantly in their tax morale levels in 1999. This result holds whether descriptive analysis, non-parametric tests or a differentiated multivariate analysis is conducted.

Within just nine years after unification, tax morale values strongly converged, due in particular to a significant change in the level of tax morale in the East. Interestingly, older individuals in the East who were exposed for a longer time to the old regime, were less likely to change their social norms. As Kasper and Streit (1999) argue, the East Germans had to unlearn the old institutions and learn new ones, which requires some time and practice.

Looking at social interactions, one can argue that the behavior of other taxpayers is of great importance in understanding taxpayers' compliance. Individuals pay their taxes conditionally, depending on the pro-social behavior of other taxpayers. They are more willing to pay their taxes if they perceive others to be honest. The extent to which others also contribute, triggers more or less cooperation and systematically influences the willingness to contribute. Relying on surveys from 30 European countries (EVS 1999/2000), Frey and Torgler (2007) show that if taxpayers believe tax evasion to be common, their tax morale decreases. In contrast, if they believe others to be honest, their tax morale increases. This result is consistent with the literature on conditional cooperation (see, e.g., Rabin, 1998; Falk and Fehr, 2002; Tyran and Feld, 2006). Lewis (1982, p. 144) argues for the possible existence of a "tax subculture, with its own set of unwritten rules and regulations. Thus I am more likely to evade not only because I have friends who, I know, have got away with it (so why shouldn't I?) but also because evasion is ethically acceptable among my friends … Furthermore, 'no friends of mine can be criminals' …'What's good enough for fine, upstanding citizens like Fred Bloggs, John Doe, Donald Campbell, Herman Schmitt and Hans Anderson is good enough for me'".

Frey and Torgler (2007) use a non-linear ordered probit model (due to ranking information of the scaled dependent variable), and control for a large set of factors. They employ the following question to investigate the impact of conditional cooperation: *"According to you, how many of your compatriots do the following: Cheat on taxes if they get the chance?" (4=almost all, 1=almost none)*. Consistent with the social interaction and conditional cooperation literature, the estimation results indicate that the higher is the perceived tax evasion of other individuals, the lower is the respondent's tax morale. The size of the effect is substantial; if perceived tax evasion rises by one unit, the percentage of persons reporting high tax morale falls by 7.4 percentage points. *Table A4* indicates the importance of conditional cooperation focusing on all single countries individually summarizing the results of 30 regressions reporting only the coefficient for conditional cooperation. In 27 of the 30 countries, the coefficients are highly statistically significant and have a negative sign. This is strong evidence of conditional cooperation in most Eastern and Western European countries. The more individuals expect others members of society to cooperate, the higher the individual’s intrinsic motivation to pay taxes.

V. EVIDENCE FROM A EUROPEAN COUNTRY: A CASE STUDY ON SPAIN

To better understand potential developments of tax morale in transition countries, one may focus on a European country that has a history of being part of the European Union and that has experienced substantial changes over time. It is therefore valuable to focus on Spain; the country has undergone fundamental changes in the public sector since its transition to a democratic system after the death of General Francisco Franco in 1975. The previous two sections of this report would suggest that such changes should affect tax morale in Spain. These very significant changes in Spanish society during the last 30 years offer an opportunity to examine citizens’ attitudes toward paying taxes and the ways in which these attitudes are affected by changes in government policies and institutions. Martinez-Vazquez and Torgler (2009) use survey data from the World Values Survey (WVS) and the European Values Survey (EVS) to observe the evolution of tax morale in Spain at four benchmark years: 1981, 1990, 1995, and 1999/2000. Although these years do not coincide with any particular key event in the recent history of Spain, they cover a period long enough to incorporate many of the important reforms of the Spanish public sector. The study of the evolution of tax morale in modern Spain is particularly interesting because of the constitutional and political changes after Franco died in 1975. The advent of a fully democratic state, deep tax policy and tax administration reforms, a significant push for decentralization, joining the European Community and so on provide excellent benchmarks for institutional changes that are expected in the compliance literature to change tax morale. The issue of tax morale in Spain so far has attracted little attention in the literature (for exceptions, see Prieto

Rodriguez, Sanzo-Pérez and Suárez Pandiello, 2005; Molero and Pujol, 2005; Alm and Torgler, 2006; Alm and Gomez, 2009) and as a novelty Martinez-Vazquez and Torgler (2009) focus on the inter-temporal evolution of tax morale in a country using data from different WVS survey waves.

The last 30 years represent a period of radical transformation for Spain, which could have profoundly affected the way citizens view the state and ultimately, their tax morale. The state of tax morale was quite low at the end of Franco's regime. As reported by Comin (2007), at the end of the 1970s, tax evasion in Spain was estimated at 40 percent of tax receipts and above 90 percent of all Spanish taxpayers recognized the existence of fiscal fraud. In addition, at the time the fiscal system provided ample tax evasion opportunities for the wealthy, and there was no political will to prosecute fiscal fraud. In particular, tax evasion was not a criminal offense and evaders only received small administrative sanctions. After Franco's death, the first democratic elections took place in 1977 and were won by a center-right coalition (the UCD — Unión de Centro Democrático). The highlight of this period was the coalescence of all political forces in the country in what became known as the Moncloa Pacts of 1977. These Pacts set the foundations for political reform, with a new Constitution being approved in 1978. These Pacts also set the blueprints for deep fiscal reform, including legislation making tax evasion a crime. The goals of the Moncloa Pacts were to introduce policy and institutional reforms in the public and private sectors, that would bring Spain up to par with the system Spain's European neighbors had put in place almost three decades earlier following the end of World War II (see Comin, 2007). The period subsequent to the Moncloa Pacts was one of political indecision, poor economic performance and political turmoil - including a failed coup by a small group of security forces in 1981. It appeared that the government had withdrawn from its commitments made in the Moncloa Pacts in terms of policy reforms, including the modernization of the tax administration and the fight against tax evasion.

Fiscal and other institutional reforms gained momentum with the new Socialist Party: the Partido Socialista Obrero Español (PSOE) government after their election victory in 1982. The PSOE would stay in power until the general elections of 1996. Several important changes and reforms took place during this period. Perhaps the most significant event was joining the European Economic Community (EEC) in 1986. The accession to the EEC meant, among other things, the introduction for the first time in Spain of the Valued Added Tax (VAT), required by the harmonization of Spain's tax system with EEC rules.

But even before the accession to the EEC the government embarked on a series of fiscal reforms. The first Socialist government tax reforms that took place between 1983 and 1987 developed the vision of the Moncloa Pacts. Besides the introduction of the VAT, the Personal Income Tax was overhauled with an emphasis on vertical equity and progressivity. Also important for the evolution of tax morale in this period, a major effort got under way to modernize the tax administration apparatus. These reforms in tax administration included the territorial reorganization of the tax agency, the computerization of services, upgraded professional careers for tax officials, and setting up other instruments for increasing voluntary taxpayer compliance and fighting tax evasion. Following the Supreme Court ruling declaring the use of the "family" as the unit of taxation unconstitutional, the 1998 tax reform sought to slow down the pace of government growth, lower tax rates and broaden tax bases to increase economic efficiency and horizontal fairness. This was alongside a general aim to bring the Spanish tax system in line with the, then existing reform trends, in the Organization for Economic Cooperation and Development (OECD) countries.

As noted by Comin (2007), the 1998 reform package represented an end to the Spanish welfare state even before the task had been completed. In a way, Spain was still trying to catch up with its European peers when the rules of the game had shifted. Thus, the fiscal reforms of the first twenty years of democracy, were now also in need of reform. Although many of these necessary reforms were introduced by the Socialist government, some were delayed until the change in government. After the right-center Partido Popular (PP) took office in 1996, fiscal reform continued to move in the direction of increasing the relative importance of indirect over direct taxes and reducing the budget deficit and debt levels in order to join the European Monetary Union. Economic realities had already forced many of Spain's European neighbors to follow suit with tax changes in the United States and elsewhere in the world lowering rates, broadening tax bases, putting more emphasis on consumption taxes, and containing the costs associated with social insurance contributions. Potentially more important for tax morale, these reforms worldwide were now accepting the limitations of significant income redistribution through progressive income taxes. The tax reforms initiated by the PP embraced all these principles. For example, tax rates on capital gains were reduced in 1996 and in 1998, and a new, more favorable, tax regime for small and medium sized companies was enacted. The PP reforms of the Personal Income Tax in the first years of the new millennium were further oriented toward reducing the tax burden, especially at the low end of the income distribution; more visible were the reductions of marginal tax rates across the board, including the top rate. The PP government at the time also pursued strict budget discipline, generating low deficits or surpluses and reducing the outstanding public debt, in order to meet the EU's requirements in the Stability and Growth Pact.

Aside from these reforms, there were many other events that potentially shaped ordinary citizens' views of the state. These included the already mentioned coup attempt in 1981; a sizable bout of corruption by public officials during the last Socialist government in the mid-1990s; and a profound fiscal, administrative and political decentralization enabled by the 1978 Constitution. The state also had to contend with centrifugal separatist forces, especially in the Basque Country with the terrorist activity by Euskadi Ta Askatasuna (ETA). On the side of general performance of the economy, the country witnessed massive and much needed privatization of state-owned enterprises and a rise in unemployment due to a rigid system of labor institutions. Nevertheless the Spanish economy continued to experience high rates of economic growth for most of the transition period.

Martinez-Vazquez and Torgler's (2009) estimation results support the conjecture that during this time, Spain succeeded in designing general institutional reforms, including tax policy and tax administration reforms that led to significant increases in tax morale, even though some deterioration of tax morale was present between the 1995 and 1999/2000 observations. A key empirical result in this paper is the significant changes in tax morale in Spain over time, as reflected by the time effects estimated across the four time periods when the surveys were conducted. The time effects remain statistically significant in different specifications of the estimating equation. Tax morale increased steadily from 1981 to 1995 and then declined slightly, but nevertheless significantly through

1999/2000. The tax and other institutional reforms that got started with the Moncloa Pacts and continued through the accession to the European Economic Community quite likely helped boost Spanish citizens' tax morale. The small but significant decline in tax morale during the second half of the 1990s still remains somewhat of a puzzle. However likely causes identified include institutional changes such as corruption in the public sector, a perception of lower levels of tax fairness, or even high levels of unemployment in the economy.

In sum, the dramatic increase in tax effort in a relatively short period of time in Spain accompanied by improved taxpayer morale, can provide useful lessons to transition countries in how to execute fiscal reform. Exemplified methods include increasing tax revenues to finance basic public services and infrastructure underpinning sustainable economic growth.

VI. EVIDENCE FROM A TRANSITION COUNTRY: A CASE STUDY ON RUSSIA

In many Eastern European countries fundamental changes in the role and effectiveness of the public sector have occurred during the transition years in the 1990s. It may therefore, be interesting to explore a key and important player in Eastern Europe, namely Russia. In November 1991, the Soviet Union ceased to exist, and the Russian Federation was born after Russia and other former Soviet republics refused to remit tax revenues to the Soviet government (Martinez-Vazquez and Boex, 2001). Many difficult policy choices had to be made in this new era including the role of the public sector in general and the structure of the tax system in particular. Indeed, two of the biggest challenges were to reinvent the state, which had endured (during Soviet times mostly) a record of ineffectiveness and corruption, and to convince citizens who had not paid taxes directly under the Soviet regime, to start complying voluntarily with their new tax obligations.

The dynamic changes in Russia during the transition decade of the 1990s offer an excellent opportunity to examine citizens' attitudes toward paying taxes. In particular, they are helpful in analyzing the ways in which these attitudes are affected by (or reflected in) changes in government policies and institutions. Alm, Martinez-Vazquez and Torgler (2006) use therefore micro-level data for Russia from the World Values Survey and the European Values Survey for the years 1991, 1995, and 1999 to examine how these attitudes have changed during the tumultuous events of the 1990s.

The 1990s were a transforming decade for Russia. This period begins with the dissolution of the Union of Soviet Socialist Republics in December 1991. It spans the presidency of Boris Yeltsin, who was elected President by popular vote in June 1991 and who served until December 1999, when he resigned and Vladimir Putin became acting President. Putin was elected president shortly after with considerable popular support and authority to carry out a backlog of reforms. The 1990s were also a period during which major legislation was enacted[9]. Abstracting these legal changes, many other events also shaped the perceptions of ordinary citizens toward the new state. Notable socio-political events include: the August 1991 coup attempt; the political struggle and final victory of Yeltsin over the communist-dominated parliament; the centrifugal separatist forces in ethnic regions from Chechnya to Tatarstan to Bashkiria; the massive privatization of state assets and the rise of the Russian oligarchs; the questionable alliance of the oligarchs with the Kremlin for Yeltsin's reelection; the financial crisis and debt default of August 1998; the beginning of the economic recovery and the consolidation of power in Putin's hands the next year. The Russian Federation is characterized by strong ethnic, economic, and fiscal disparities between the regions, including some sorts of secessionist forces (Polishchuck, 1996). In general, the relationship between the Krelim and the regions during the 1990s went from laissez faire in the early Yeltsin years, to open conflict and full defiance in the middle of decade when many of the regions maintained secret bilateral treaties with Moscow, to recentralization and the imposition of more uniform discipline toward the end of the decade, especially after Putin took power. However, the relationship between Moscow and the 89 regions varied considerably across regions. Since then, richer, better-off regions have pushed for higher retention rates of tax

[9] This legislation transformed the Russian Federation: the Law on Basic Principles of the Tax System in the Russian Federation (December 1991); the new Constitution of 1994; the Law on the General Principles of Organization of Local Self-government in the Russian Federation (August 1995); the introduction in 1997 and 1998 of important reforms based on the draft Tax Code, the Budget Code, the Law on Financial Foundations of Local Self-governments, and the Concept of Reform of Intergovernmental Fiscal Relations in the Russian Federation.

revenues collected within their borders, while poorer, transfer-dependent regions have been supportive of more centralized finances. Many of the heavily ethnic regions have supported more autonomy from Moscow, while those regions with heavy Russian populations identified more with the Russian state. The dominant political color of the regions has also played a role; those regions with a high level of communist party support have been traditionally more antagonist toward Moscow (Martinez-Vazquez, 2002). Because of these differences, Alm et al. (2006) stress that attitudes toward paying taxes may differ across these regions during the transition years. Subsequently, their data sets for 1995 and 1999 allow us to analyze the different levels of tax morale in 11 different territories of the Russian Federation. Their results indicate a decay in tax morale in the first four years of the transition from 1991 to 1995, and a small recovery in 1999 (see *Figure A2* in the Appendix). Interestingly, Hanousek and Palda (2008) observe a similar pattern exploring tax evasion using survey data from 2000, 2002, 2004, and 2006 from the Czech Republic to measure its development for the years 1995 to 2006. Their results indicate that the number and percentage of evaders increased until the early millennium and started to decrease calling such an inverse-U shape "an evasional Kuznets curve" (p. 3) stressing also that this might be an indication that hysteresis "may not be a feature of evasion in a transition economy" (p. 3).

These results from Russia are consistent with the relevance of social norms in tax compliance. The widespread perception of tax evasion along with the economic convulsions revealed inadequate social institutions, and led to an initial crowding out of the intrinsic motivation to pay taxes from 1991 to 1995. These results also suggest restoration of higher trust levels in the state in 1999, after progress in the transition to a market economy had been made - a transition that positively influenced individual attitudes toward paying taxes. The analysis of disaggregated data for Russian regions also shows significant regional differences in tax morale, reflecting self-interest and the degree of trust different regions have toward Moscow's institutions and policies. Looking at the distribution of tax morale scores in each of the three different years, the results indicate large differences between the percentage of individuals with a high tax morale (a score of 3) and those with the lowest scores across these years (see *Figure A3*). The deterioration in tax morale in Russia from 1991 to 1995 was strongly affected by a reduction in the share of those citizens who believe that tax evasion is never justifiable (the score of 3), and an increase in the share of individuals who believe that tax evasion is justifiable (the score of 0). The tax morale improvement between the 1995 and 1999 is based mainly on the reduction of the share represented by those who believe that tax evasion is justifiable (the score of 0) and also on steady but small increases in the share of individuals in the other three categories. The results indicate that there is a significant difference between 1991 and 1995 and also between 1991 and 1999, with higher z-values for the year 1991. However, the differences between 1995 and 1999 are not statistically significant at conventional levels (see *Table A5*). These results indicate that, once tax morale was crowded out in the early years of the transition, it recovered only slowly toward the end of the period. The data for 1999 may be too close to the financial crisis of 1998 and other recent negative experiences for a marked improvement in tax morale to take hold. Nevertheless, these broad swings in tax morale in the aggregate data parallel quite well what was happening to and around Russian citizens at those different periods during the transition. Although government was still providing many basic services just before the beginning of the transition process in 1991, the overall performance of the public sector was poor and corruption levels were high. From the very start of the transition at the end of 1991 and through the early months of 1992, the socio-economic conditions confronting Russian citizens suddenly deteriorated, on a massive scale, as the level and quality of public services declined even further. The rapid collapse of institutional structures produced a vacuum in the country, followed by worsening income inequality and poverty rates. Quite likely, taxpayers reacted adversely to the economic and tax policy changes that were necessary for the transition from a centrally controlled to a market economy.

Overall, then, in the first years of the transition, Russia did not succeed in designing tax systems, tax administrations, or other government structures and institutions (especially improved public service delivery) that would have helped to maintain tax morale. Further, as Kasper and Streit (1999) stress, law and order were strongly violated in the former Soviet Union and later in Russia. The lack of a “rule of law” tradition did not help with the institutional transformation process or the improvement of tax morale, at least in the first phases of the transition. Corruption also increased in the early years, reducing citizens' trust in government authority (Levin and Satarov, 2000) whilst corruption was likely heightened by a privatization process that lacked effective legal regulation and impartial oversight.[10] It has also been criticized that in resource-based states such as Russia the state elite has the incentive and ability to generated revenues and increase the control over resources relying therefore less on taxes which leads to an under-development of tax performance and a reduced level of political accountability (Hayoz and Hug, 2007). The evolution of tax reform also likely played a role on the behavior of tax morale. Despite the declared federal objectives for decentralization of the public finances, the system remained highly centralized as regional shares and local revenues or expenditures were dictated by a higher level of government (Lavrov, Litwack, and Sutherland, 2000). As Levin and Satorov (2000) point out, the suspicious processes imbedded in the centralized structure of the tax system, where the taxes collected regionally were directed first to the central government, before returning to the regions in the form of transfers, contributed little to local citizens' beliefs that their preferences counted at all.[11] Even so, there was a trend toward an improvement in tax morale from 1995 to 1999. There are several factors that may explain this improvement. The increase may have been influenced by the start of reform discussions related to the draft Tax Code and the Budget Code and also by some new initiatives such as the Law on Financial Foundations of Local Self-government and the Concept of Reform of Intergovernmental Fiscal Relations in the Russian Federation, both of which had the goal of increasing revenue autonomy at the subnational level.

In addition, changes in tax morale over time are also likely to be related to the performance of the economy. If taxpayers can relate poor economic performance to poor government policy decisions, then this will affect negatively voluntary compliance with the taxes. Conversely, taxpayers may credit improved economic performance to improved government performance, and thereby increase their willingness to pay taxes. In this respect, several authors have contrasted the relative economic performances of

[10] Levin and Satarov (2000) calculate that the level of corruption in the early years of the Russian transition exceeded the total expenditures on science, education, health care, culture, and art and that, in some industrial branches, criminal groups spent up to 50 percent of their revenues to bribe officials. They also report that in 1995 there were 270 cases of illegal tax inspector activities that were exposed.

[11] Several authors (Bahl and Wallich, 1995; Martinez-Vazquez and Boex, 2001) criticized the lack of transparency in the fiscal system and the failure to provide sub-national governments with adequate resources to meet their responsibilities.

Russia and China during the 1990s. Stiglitz (1999) emphasizes that, over the decade beginning in 1989, China's gross domestic product (GDP) doubled while Russia's GDP almost halved. Different explanations have been offered for these two performances. For example, Blanchard and Shleifer (2001) explain China's better performance on the basis of the existence of strong central control of the economy by the Communist Party, which kept centrifugal forces under check; in contrast, they claim that a weak federal government in Russia was unable to control destructive behaviors of the regions. Similarly, Fisher and Sahay (2000) argue that Russia lagged in the implementation of structural reforms and failed to solve its fiscal problems, which led to large fiscal deficits and ultimately to the financial collapse in August of 1998. Shleifer and Treisman (1999) blame Russia's poorer performance on the common pool incentive problem created in Russia by the revenue sharing of all main taxes between the federal government and the regions. In contrast, Montinola, Qian, and Weingast (1995) and Qian and Weingast (1996) argue that China's revenue assignments were "market preserving" (unlike Russia's) in that the Chinese assignments stimulated local governments to become entrepreneurial and to seek the growth of their local economies. Whatever the explanation for the poorer economic performance of Russia, the fact is that large proportions of the Russian population suffered income declines throughout much of the 1990s. For example, Graham and Pettinato (2002) use data from the Russia Longitudinal Monitoring Survey, and find that 77 percent of the population sampled had income declines from 1995 to 1998. Interestingly, at the time of the third Longitudinal Survey in 1999 the Russian economy experienced positive rates of growth. Alm, Martinez-Vazquez, and Torgler (2006) observe significant regional differences in individuals' attitudes toward paying taxes. There are strong ethnic, economic, and fiscal disparities across the Russian regions. Each region generally shows a diverse picture, with significant changes between 1995 and 1999 in tax morale. The newest data they analyzed suggest a tendency for wealthier regions to have a higher tax morale than poorer ones. Furthermore, the data suggests a tendency toward lower tax morale prevails in regions possessing strong separatist sentiments, a prevalent belief that the region has been exploited by the central government, and a general political dislike for Moscow. The results also indicate that vertical trust (trust in the government and the legal system) is a key driving force to understand what shapes tax morale in Russia.

There are several possible reasons for this evolution in attitudes. The transition imposed a higher and more visible tax burden at a time that a crumbling economy meant that many public services had to decline in quality and coverage. Meanwhile, a nescient tax administration adopted highly repressive and antagonistic policies toward taxpayers, even those who wanted to comply with the tax laws. During the 1990s, the Russian tax enforcement strategy was strongly based on coercion methods, mainly increasing the mandate of law enforcement agents. The tax police gained increased power, and grew into a bureaucracy with around 50,000 employees, or one third of the size of the tax administration. As a consequence, the number of criminal investigations by the tax police increased from 2,500 in 1994 to 16,000 in 1999, a number that represents four times more investigations than in the United States in 1999 (Easter, 2007). It took time for the federal tax authorities to realize that a strategy that emphasizes enforcement and punishment alone cannot be the only solution to improving voluntary tax compliance. Indeed, it is likely that such a strategy had a counter-productive effect. If the majority of taxpayers are not treated as responsible persons with an intrinsic motivation to pay taxes, they may soon feel that they may as well be opportunistic. Even so, such strict enforcement policies are not expected to crowd out the tax morale of honest taxpayers, provided honest taxpayers perceive the stricter policy to be directed mainly against dishonest taxpayers (Frey, 1997).

VII. DIFFERENCE BETWEEN CENTRAL EASTERN AND FORMER SOVIET UNION COUNTRIES

One of the most interesting features in this research is the transition process of former Communist countries. Around one quarter of the world population lived in such countries (see Martinez-Vazquez and McNab, 1997). Frey (2003a) stresses that it is important to have social capital in terms of mutual trust and honesty in the transition deregulation and privatization process. Citizens in planned socialist economies, like that of the Soviet

Union, were not aware of directly paying taxes (Kornai, 1990). Indeed, during the Soviet era, "taxpayers" were "large in size and small in number", and the state had many other levers of control besides taxes (Martinez-Vazquez and Wallace, 1999). However, in a shift from a centrally controlled to a market economy, the fiscal system needed to be reformed. These changes represented significant shocks to ordinary citizens. In particular, individuals were faced for the first time with the direct payment of taxes, including being asked to file different tax returns. The transition process brought up many policy questions, among others: the tax system, the structure of tax administration, and the degree of political participation. There are numerous research papers regarding the transition process. However, less evidence is available in regards to tax compliance. Voluntary compliance and self-filing, two important pillars in a modern tax system, were completely absent just after the planned socialism (Martinez-Vazquez and McNab, 2000). Following the early transition, tax evasion and avoidance reached very high levels, as the new tax administration was not prepared to enforce taxes in a market-based economy with large numbers of taxpayers. Further, the connection between the payment of taxes and the provision of public goods had been largely concealed under socialism, which might have reduced the identification with the state and thus the willingness to pay taxes. Easter (2007) reports the findings of a poll conducted by the tax administration in the Tambov region in the early years of the transition, which indicated that only one-third of the respondents argued that paying taxes to the state would provide any benefit to themselves. Fiscal concerns might be a key element and it is also often argued that tax evasion is widespread in transition countries (see, e.g., Alm and Martinez-Vazquez, 2003; Martinez-Vazquez and McNab, 2000). Alm and Martinez-Vazquez (2003) point out that "In developing and transition countries (DTCs) in particular, tax evasion is often widespread and, indeed, systematic. Thus, the problem of tax evasion tends to have far more serious consequences in DTCs than in developed economies" (p. 147). In the transition process, revenue needs are an important issue. Gordon (1994) points out that in the reform process, governments in Eastern Europe are confronted with expenditure needs such as investment demand, infrastructure improvements, and social insurances. In such situations, the degree of the individuals' tax morale might be a key determinant. 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, were not prepared to do their work in a modern income tax system. A main problem was the lack of skills and experience of the tax administration with market-oriented taxes, alongside the failure of salaries to attract quality personnel to the tax administration profession. Moreover, weaknesses in the application of tax practices have induced substantial problems. Unstable tax policies had damaging effects to the economic and social system. Sloppy tax legislation and the arbitrariness of rulings on behalf of the tax administration (Owsiak, 2007) have reduced state's credibility. New procedures have only been implemented slowly (for an overview see Martinez-Vazquez and McNab, 1997). Casanegra de Jantscher, Silvani and Vehorn (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 amount of taxpayers it becomes much more difficult to detect tax evaders or avoiders. In this context it might be interesting to see to which extent tax morale has changed over time and what shapes tax morale in Central and Eastern European countries (CEE).

Frey and Torgler (2007) explore differences in tax morale between Western and Eastern Europe because the reform process in the transition countries caused disorientation and a heavy economic burden according to Kasper and Streit (1999) and Gërxhani (2004). The rapid collapse of institutional structures produced a vacuum in many countries that led to large social costs, especially in terms of worsening income inequality and poverty rates and bad institutional conditions based on uncertainty and high transaction costs. The countries in CEE have more secure property rights, because the transition process occurred earlier and more rapidly. Gërxhani (2004) points out that many transition countries have an institutional crisis after the collapse of communism. She argues that an institutional crisis produces a gap between old institutional destruction and the establishment of new institutions. A reform process imposes high costs of disorientation and economic burden (Kasper and Streit, 1999). It is thus useful to observe the development of tax morale as a dependent variable over time, controlling for many factors. It is interesting to analyze the development over time in various Central and

Eastern European countries as countries started the course of transition from different historical backgrounds, physical endowments and reform processes. One of the most difficult processes is the transformation of social contracts. Stiglitz (1999) points out: "If "reformers" simply destroy the old norms and constraints in order to "clean the slate" without allowing for the time-consuming processes of reconstructing new norms, then the new legislated institutions may well not take hold" (p. 9). *Table A6* reports higher institutional quality in CEE countries, than in FSU countries using six proxies of the governance indicators developed by Kaufmann, Kraay, and Mastruzzi (2004). Thus individual uncertainty was reduced leading to a better transition process with more stable institutions. 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 strong 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). Campos and Coricelli (2002) stress that reforms progressed much faster in CEE countries than in FSU countries. Moreover, Martinez-Vazquez and McNab (2000) argue that, in countries negotiating their accession to the European Union, the accession intention acted as a catalyst for rapid tax reform shaped along western lines. As a consequence, one would predict significantly lower tax morale in Former Soviet Union (FSU) economies than in CEE economies. Rose-Ackerman (2001) reports that citizens are critical regarding the transition process and state institutions and officials and that the "sense of stasis is highest for the former parts of the Soviet Union" (p. 419).

Table 2 presents mean tax morale values for transition countries in the first 9 years transition periods based on a scale from 0 to 3, were 3 is the highest tax morale (tax morale is never justifiable) while value 0 integrates values 4 to 10 (see Torgler, 2003). 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. One can also see a high decay of tax morale in the Baltic countries Latvia, Lithuania and Estonia. However, between the years 1995-1997 and 1999-2000, a stabilization of tax morale in the FSU countries and an increase of tax morale in CEE countries is observed. However, the main disadvantage in this case is the fact that only a small number of countries participated in all three survey waves.

Poland shows a consistent increase of tax morale over time. Kasper and Streit (1999) point out that Poland's strategy after the fall of the Berlin Wall, was a continuous and systematic institutional transformation without the unnecessarily rapid approach favored amongst other nations. We find a strong economic growth in the years 1994 to 1997. Between 1989 and 1997 Poland had an average annual rate of GDP growth of 1.6, which was the highest among the transition countries. Thus, it is not surprising that Poland in our analysis improved tax morale over time. Kornai (2000) stresses that the main explanations for the success of development in Poland were the successful macro stabilization, the bottom-up growth of the private sector, and the inflow of foreign capital. Furthermore, Poland was the first transition country after Hungary to reform its income tax (Martinez-Vazquez and McNab, 2000). Several Central and Eastern European countries have tried in the last decade to simplify their tax systems which may have contributed to an increase in tax compliance reducing the tax compliance costs (Hayoz and Hug, 2007). Changes in the tax system in line with developed countries on the road to integration with the EU (Owsiak, 2007). Interestingly, Bulgaria also shows a strong increase of tax morale. Bulgaria fell into a depression with a strong decline in the beginning of the 90s. Between 1989 and 1997, the real GDP fell by 37.2% and unemployment increased from 2% (1991) to 14% (1997). Furthermore, real living standards decreased with subsequent reductions in consumption (Bristow, 2000). Bogetić

(1995) points out that the initial transformation conditions in Bulgaria were more similar to FSU countries than to CEE countries. Bulgaria had a strong decline in revenues in the first years after the collapse of traditional tax bases, similar to the countries Albania, Moldova, Lithuania, Armenia, Georgia. However, at the end of 1994 considerable efforts have been made to liberalize the economy enabling output to commence growing anew. But Bogetić and Hassan (1997) criticize the income tax development in Bulgaria. The 1993 amendments have complicated the tax system and increased the marginal tax rates from 40 to 52 %. On the other hand, Martinez-Vazquez (1995) states that in 1994 Bulgaria has already established good revenue assignment systems as, e.g., local own-source revenues. Looking at the 1999-2000 data for CEE countries we observe low values from Romania. Uslaner (2007, p. 36) stresses that it "may not make much sense to have much faith in the legal system where the courts and the police cannot – or will not – control corruption or where citizens cannot see that their contribution to the public weal actually makes the public more wealthy. In this sense, Romania is not exceptional: There may be less reason for Romanians to have faith in their leaders, who have been unable to control corruption or to bring its citizens prosperity."

Frey and Torgler (2007) use a multivariate approach to explore country differences working with the EVS 1999-2000. The estimated coefficient for the Western Europe dummy, suggests that the institutional crisis in many transition countries in Eastern Europe after the collapse of communism, tended to affect negatively the tax morale of citizens. The marginal effects indicate that being a citizen of a Western European country, rather than an Eastern European country, increases the probability of responding that tax evasion is never justified by more than 3 percentage points. Frey and Torgler (2007) also explored single country differences with *Table A7* in the Appendix presenting the results. Country dummies are included in the estimation equation, using GERMANY as a reference. It is interesting to note that the Central Eastern European (CEE) countries, Hungary, Czech Republic, Slovak Republic, Bulgaria, Croatia, and Poland exhibit *higher* tax morale than Germany. The coefficient of the first four countries is statistically significant. *Table A7* also reveals that Former Soviet Union (FSU) countries, such as Russia, Belarus, Ukraine, Lithuania, Estonia or Latvia have lower tax morale than Central Eastern European (CEE) countries. It seems that CEE countries have been more successful than FSU countries at designing tax systems, tax administrations, and government structures in which taxpayers can put their trust. Hence, our results suggest that CEE countries have been more successful than FSU countries at designing tax systems, tax administrations, and government structures in which taxpayers can place their trust. Such institutional improvements and observable changes may help to explain the higher willingness to cooperate in CEE countries, some of which exhibit higher values of tax morale than some Western European countries.

Torgler (2007) explores the differences between CEE and FSU in different stages, namely in 1989-1993, 1995-1998 and 1999-2001 across 22 transition countries. Using a multivariate analysis, the study finds that that in most of the three time periods there is a statistically significant difference between CEE and FSU countries; interestingly, the difference between CEE and FSU is statistically significant in all specifications. The marginal effects are much higher in the years 1995-1998, indicating a higher divergence between the regions. The study also indicates that the respondents originating 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 (compared to around 2 percentage points in 1989-1993). Looking at the 1999-2001 data, FSU countries have still significantly lower tax morale than the CEE countries. However, the marginal effects have not increased as in the previous years and some are even observed to be lower (close to 9 percentage points).

What are the driving forces that shape tax morale in Central Eastern and Former Soviet Union countries? Trust in the government and the legal system seemed to be key factors. Governments fulfill a leading role in the transition process; institutional changes are connected to uncertainty. Institutions provide a reduction of uncertainty by designing the provided structure of interaction. As a consequence, greater certainty in the political process is gained. Ensley and Munger (2001) argue that "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). Thus, 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 undermines state revenues and thus the government's ability to perform its function. Trust in public officials might tend to increase taxpayers' positive attitudes and commitment to the tax system and tax-payment, which finally exerts a positive influence upon tax compliance. As seen before in the previous sections, institutions taxpayers perceive as fair and efficient might have a positive effect on tax morale, conditionally depending on whether society views taxes as a price paid for government's positive actions. Thus, if taxpayers trust their 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, Haerpfer, Nowotny and Wallace (2001) found that in transition countries, social capital in the form of civic participation and trust in public institutions has a significant impact on growth. Weakness of the legal system is a major problem in a process of transition. Levin and Satorov (2000) stress that after the collapse of socialism, "judicial weakness left a legal vacuum that remains unfilled" (p. 120). 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. As Casanegra de Jantscher et al. (1992) pointed out several years ago: "A major challenge for countries in transition will be to develop tax systems that facilitate, rather than complicate compliance" (p. 140).

Another driving force is corruption. In many former centrally planned economies, the government and the administration still maintain a strong discretionary power over the allocation of resources, implicitly enhancing corruption. Levin and Satarov (2000), e.g., analyze corruption and institutions in Russia. They criticize that corruption is an integral part of Russia's economy. 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"

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 who become frustrated. 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 producers which offers the largest 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).

Figure 3 visualizes this point, checking 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. Focusing only on the corruption ratings one should note a higher values go in line with lower corruption. 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). In other words, a higher level of tax morale is correlated with lower corruption. This result is consistent with Uslaner (2007) in showing that high levels of perceived corruption are associated with high levels of tax evasion.

Torgler (2007b) using a multivariate analysis indicates that there is a significant negative correlation between tax morale and the perceived size of corruption. The advantage of this study is that perceived corruption was collected at the individual level. The use of 'perceived corruption' is in line with other indexes employing measures of perceptions (such as the Transparency International index). However, perceptions are not objective, nor are they quantitative measures of the actual degree of corruption. Rather, perceptions are an indirect mechanism for measuring corruption (Tanzi, 2002). However Treisman (2000, pp. 410-411), in his analysis of the Transparency International index, was able to present valid arguments as to why data based on perceptions should be taken seriously. Components of the surveys and ratings are highly correlated among themselves, even though they have been conducted with different methodologies, different inputs and in different time periods. Such consistency allows us to conclude that factors are almost free of biases such as a "temporal mood" or guesses. A practical method by which one can test whether the World Values Survey question about the perceived corruption is through the use of a useful proxy to check whether the variable is correlated with other well-known indexes on corruption. Thus, comparing the WVS variable with the corruption indexes TI (Transparency International), International Country Risk Guide (ICRG) and Quality of Government (Control of Corruption) developed by Kaufmann, Kraay, and Mastruzzi (2004). The WVS corruption ratings (higher values=lower corruption) are highly correlated with the TI (r= -0.878), the ICRG (r=-0.680) and the Quality of Government rating (r=-0.827)[12]. Torgler's (2007b) results indicate that an increase in the perceived level of corruption by one unit increases the

[12] The sign is negative because for all three ratings used (TI, ICRG and Quality of Government), a higher score corresponds to a lower corruption.

share of subjects indicating the highest tax morale by more than 1.7 percentage points. Thus, a higher degree of perceived corruption crowds out tax morale. If taxpayers notice that many public officials are corrupt and many other taxpayers evade taxes, they might get the feeling that their intrinsic motivation is not recognized or honored. Thus, taxpayers get the feeling that they too can be opportunistic. The moral costs to evade taxes decrease.

Interestingly, Torgler (2003) also observe that the 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 unduly inefficient government activities[13]. States' position and its reputation was affected due to numerous mistakes in the tax practices since the beginning of the transformation process: "The state's attitude in many instances can be described as blatantly irresponsible. This usually took the form of continuously modified tax policy concepts (partially implemented). When observing the politicians' behavior in the area of taxes, one could get the impression that they juggled with tax instruments without fully realizing that these "toys" could go off one day. This attitude is typical of almost all governments of post-communist countries where the applied fiscal tools fail to ensure financial stability but their reform is opposed by the society" (Owsiak, 2007, p. 202). This induced a higher level of tax awareness, reputation costs, and a higher sensibility towards unfair treatments: "All attempts to improve the tax system on the part of the state are treated with suspicion and highly criticized by the media" (p. 194).

VIII. CONCLUSIONS

It seems to be important to consider the moral dimension of complying with societies' rules, underlying legal structure and countries' security of property rights. A failure of a country's legal system undermines tax morale and tax compliance. Also, regulatory restraints and bureaucratic procedures limit the operation of markets, enhancing the

[13] Djankov et al. (2002) 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.

incentives to act in the shadow economy or to evade taxes. A more legitimate and responsive state appears to be an essential precondition in generating compliance. If individual and business contracts are not enforced and productive efforts not protected, the incentive to be active illegally increases. Citizens feel cheated if corruption is widespread, their tax burden is not spent well, and that they are not protected by the rules of law. Such a situation also increases the incentive not be compliant. Discussing tax reforms in transition Owsiak (2007, p. 223) stresses that "reforms under way in post-communist countries should not, at the present stage of in-depth restructuring of the economy, rely exclusively on tax cuts but instead should concentrate on measures enhancing citizen trust in law and on the removal of sources of tax-related abuse. The establishment of a legal framework that would render the tax system stable, transparent, simple, friendly to taxpayers, accompanied by concurrent implementation of a rational mechanism for allocating and controlling public spending, highlighting the relation between collected taxes and the benefits gained by local communities, would ultimately determine whether society will welcome the development of tax-related civil behavioral patterns" (p. 223). Evidence in the tax morale literature indicates that positive attitudes towards the tax authority and tax system significantly increase tax morale. A respectful and fair treatment of taxpayers induces respect for the tax system and thus leads to co-operation. On the other hand, a higher perceived tax burden and inefficiencies and unfairness in the interaction between the tax administration and the taxpayers crowds out the intrinsic motivation to pay taxes. International evidence also shows that instead of focusing so much on compliance management, risk control, or structuring the application of enforcement discretion, it may make sense if the tax administration becomes more focused on service, customers, quality, transparency and process improvement.

Social norms or social capital are key factors in understanding the motivation for compliance in transition countries and other regions. Moreover, social capital seems to be an important determinant of economic phenomena like macroeconomic performance. For example, Knack and Keefer (1997) find, in a cross-sectional analysis, a strong and significantly positive relationship between social capital variables (civic duty) and economic growth. Schaltegger and Torgler (2007), using data for a synthetic panel of Swiss cantons over the 1981–2001 period, show that accountability enhances fiscal performance. As Slemrod (1998) argues, social capital – measured as the willingness to pay taxes voluntarily – lowers the cost of government operations and of equitably assigning such cost to citizens. Such research justifies a closer look at social capital and societal institutions. A high level of governance and institutional quality allows one to express one's own preferences, involvement and participation in the political process. It also enhances identification with the state's institutions, counteracting inclinations to be non-compliant. Participation and identification therefore reduce free-rider problems. If citizens and authorities interact with a sense of collective responsibility under inspiring institutional structures, the system may be better governed and the policies more effective, as accountability promotes effectiveness through its impact on government behavior (Schaltegger and Torgler, 2007). The institutional architecture and governance quality seem to be a key component in the understanding of tax morale, the shadow economy and tax performance.

Changes in the political system have a substantial impact on tax morale. This can be seen as an indicator that tax morale does not remain stable over time. Moreover, social norms are not only shaped by formal and informal institutions but also by social interactions. Evidence shows that if taxpayers believe tax evasion to be common, their tax morale decreases. In contrast, if they believe others to be honest, their tax morale increases. Results also indicate that social learning explains the observed conformity and compliance with social norms after the unification of Germany. Tax morale within Germany had slowly converged after unification and it seems that the convergence process has been driven by a change in tax morale among East German individuals. As a further natural experiment it may be interesting to look at tax morale changes over time in the Czech and Slovak Republics due to the separation in 1992.

In general, in most of the studies on tax morale and tax compliance, research has focused on personal income tax. Business tax evasion has received very little attention. This is a surprise taking into account the economic importance of the business sector and the importance of business taxation for tax administrations. Work in this area is therefore highly relevant for transition countries as results indicate that self-employed taxpayers have a lower tax morale. Working with the Business Environment and Enterprise

Performance Survey could provide further valuable insights (see, e.g., Hellman and Kaufmann, 2002; Uslaner, 2010).

No matter how good political institutions may be, however, countries will always encounter difficulties in dealing with distributive issues. How one thinks about taxes and inequality reflects ideas of fairness or social justice (Bird et al., 2006). Income inequality is a central social and economic problem in many transition countries. Surprisingly, the link between income inequality and tax morale, tax compliance and tax performance is not well explored. As inequality in the distribution of wealth and income is strongly connected with public views as to how well the fiscal system addresses social objectives with respect to fairness, social justice and redistribution, a higher level of income inequality may lead to lower levels of trust in institutions and eventually to lower tax effort because of widespread tax avoidance and evasion. Highly unequal distributions of income can also lead to low levels of solidarity by the elites toward lower income groups. Furthermore, income inequality may be associated with political instability (Alesina and Perotti, 1996). It may therefore be interesting to explore empirically the link between income inequality and tax morale/tax compliance and tax performance in transition countries (exploring also CEE and FSU countries independently).

In addition, it is important to better understand tax administration's behavior, its behavior and its structure in CEE and FSU countries over time. Results in the literature indicate that if the tax administration tries to be honest, fair, informative, and helpful, acting as a *service* institution and thus treating taxpayers as partners and not inferiors in a hierarchical relationship, tax morale increases and taxpayers have stronger incentives to pay taxes honestly. One could, e.g., conduct surveys with tax administrations to generate further insights.

In summary, the findings clearly indicate the relevance of models of tax compliance that go beyond the conventional economics-of-crime approach and which capture the role of institutions, more in particular, how individuals perceive their governments, in explaining why individuals pay taxes. The report indicates the importance of accountability, democratic governance, efficient, and transparent legal structures and therefore trust within the society to enforce tax compliance and tax morale.

Citizens' perceptions how governments work and how compliant other citizens are have a strong impact on their willingness to comply.

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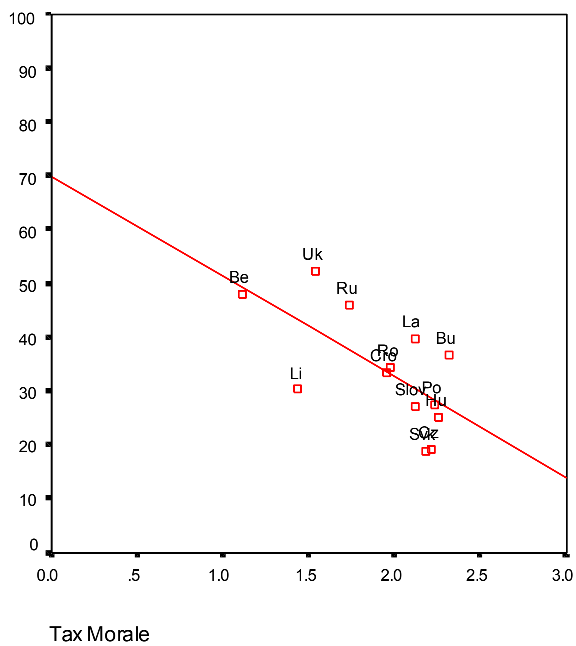
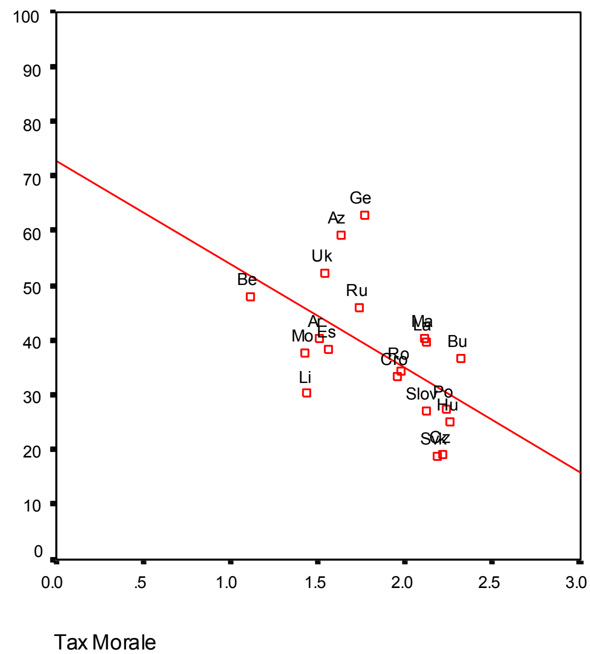
FIGURES AND TABLES

Figure 1: Correlation between Tax Morale and the Size of Shadow Economy in Transition Countries (1999-2000)



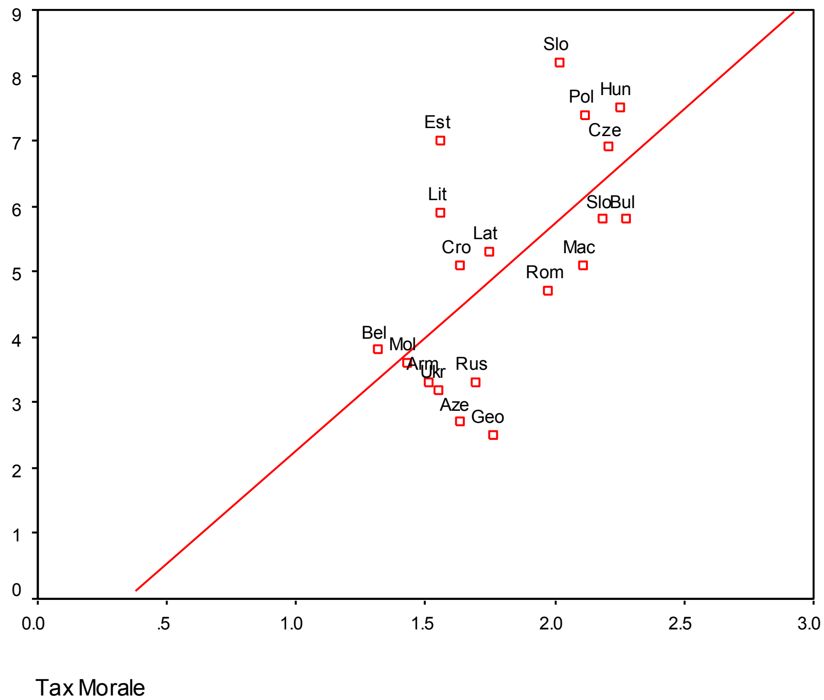
Notes: Be – Belarus; Bu – Bulgaria; Cr – Croatia; Cz – Czech Republic; Hu – Hungary; La – Latvia; Li – Lithuania; Po – Poland; Ro – Romania; Ru – Russia; Skv – Slovak Republic; Slo – Slovenia; Uk – Ukraine.

Figure 2: Correlation between Tax Morale and the Size of Shadow Economy in Transition Countries (1994-1997 and 1999-2000)



Notes: Countries are denoted as in the previous figure together with: Az – Azerbaijan; Ar – Armenia; Es – Estonia; Ge – Georgia; Ma – Macedonia; and Mo – Moldova.

Figure 3: 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 1: Shadow Economy, Tax Morale and Institutions

VARIABLES	Source	Results
DEPENDENT VARIABLE		
SHADOW ECONOMY	Schneider (2005a, b)	
GOVERNANCE/INSTITUTIONAL Q.		
ICRG		
COMPOSITE RISK RATING	ICRG	-
POLITICAL RISK RATING	ICRG	-
BUREAUCRATIC QUALITY	ICRG	-
CORRUPTION	ICRG	-
DEMOCRATIC ACCOUNT.	ICRG	(-)
GOVERNMENT STABILITY	ICRG	(-)
LAW AND ORDER	ICRG	-
INTERNAL CONFLICT	ICRG	-
MILITARY INTERFERENCE	ICRG	-
AGGR. GOVERNANCE INDICATORS		
INDEX GOVERNANCE	Kaufmann et al. (2004)	-
CONTROL OF CORRUP.	Kaufmann et al. (2004)	-
POLITICAL STABILITY	Kaufmann et al. (2004)	-
GOVERNMENT EFFECTIV.	Kaufmann et al. (2004)	-
VOICE AND ACCOUNT.	Kaufmann et al. (2004)	(-)
RULE OF LAW	Kaufmann et al. (2004)	-
REGULATORY QUALITY	Kaufmann et al. (2004)	(-)
ECONOMIC FREEDOM		
LEGAL SYSTEM	The Fraser Institute	-
LAW AND ORDER	The Fraser Institute	-
JUD. INDEPENDENCE	The Fraser Institute	-
IMPARTIAL COURTS	The Fraser Institute	-
PROPERTY RIGHTS	The Fraser Institute	-
MILITARY INTERFERENCE	The Fraser Institute	-
ADMINISTR. CONDITIONS	The Fraser Institute	-
BUREAUCRACY (TIME)	The Fraser Institute	(-)
STARTING BUSINESS	The Fraser Institute	(-)
IRREGULAR PAYMENTS	The Fraser Institute	-
BUSINESS REGULATIONS	The Fraser Institute	-
WILLIGNESS TO PAY TAXES	World Values Survey	
TAX MORALE		-
CONTROL VARIABLES		
LOG (GDP PER CAPITA)	World Development Indicators	
AGRICULTURE (% of GDP)	World Development Indicators	
URBANIZATION	World Development Indicators	
LOG (POPULATION)	World Development Indicators	
LOG (LABOR FORCE)	World Development Indicators	
TRADE (% GDP)	World Development Indicators	
TOP MARGINAL TAX RATE	The Fraser Institute	
PRICE CONTROLS	The Fraser Institute	
LABOR MARKET REGULATIONS	The Fraser Institute	

Notes: Tendencies: - Reduction of the shadow economy, always statistically significant.. (+) and (-) mostly or sometimes statistically significant ((+)), ((-)), (almost) never statistically significant. Econometric specification: $SHADOW_{it} = \alpha + \beta_1\, CTRL_{it} + \beta_2\, GOVINST_{it} + \beta_3\, TAXMORALE_{it} + TD_t + REGION_i + \varepsilon_{it,}$ where *i* indexes the countries in the sample, $SHADOW_{it}$ denotes countries' size of the shadow economy as a percentage of the official GDP over the periods 1990, 1995 and 2000. $GOVINST_{it}$ are indicators for governance and institutional quality and *TAXMit* the level of tax morale. *CTRLi* are the control variables (see table). To control for time as well as regional invariant factors, we include fixed time, *TDt*, and fixed regional effects, *REGIONi* differentiating between developed, Asian and developing or transition countries. εit denotes the error term.

Table 2: Tax Morale in Transition Countries

	Mean	*Mean*	*Mean*
Countries	*1990-1993*	*1995-1997*	*1999-2000*
Central and Eastern Europe			
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	
Average	2.077	1.886	2.154
Former Soviet Union			
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
Average	1.994	1.576	1.584

Notes: 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.

APPENDIX

Table A1: Tax Morale and Institutional Quality in Western and Eastern Europe

WEIGHTED ORDERED PROBIT	*Coeff.*	*z-Stat.*	*Marg. Effects*	*Coeff.*	*z-Stat.*	*Marg. Effects*	*Coeff.*	*z-Stat.*	*Marg. Effects*	*Coeff.*	*z-Stat.*	*Marg. Effects*	*Coeff.*	*z-Stat.*	*Marg. Effects*	*Coeff.*	*z-Stat.*	*Marg. Effects*
INDEPENDENT V.	1			2			3			4			5			6		
Voice and Accountability	0.189***	15.99	0.075															
Political Stability				0.221***	18.75	0.088												
Government Effectiveness							0.079***	10.80	0.031									
Regulatory Quality										0.160***	14.97	0.064						
Rule of Law													0.093***	12.03	0.037			
Control of Corruption																0.061***	9.20	0.024
OTHER VAR. INCLUDED																		
Pseudo R2	0.033			0.034			0.030			0.032			0.031			0.030		
Prob > chi2	0.000			0.000			0.000			0.000			0.000			0.000		
clustering on countries																		
PERCEIVED TAX EVASION	-0.193***	-5.25	-0.077	-0.192***	-5.49	-0.076	-0.184***	-4.73	-0.073	-0.190***	-5.23	-0.076	-0.186***	-4.80	-0.074	-0.185***	-4.78	-0.074
GOVERNANCE																		
Voice and Accountability	0.189**	2.59	0.075															
Political Stability				0.221**	3.27	0.088												
Government Effectiveness							0.079*	1.77	0.031									
Regulatory Quality										0.160***	2.63	0.064						
Rule of Law													0.093**	2.12	0.037			
Control of Corruption																0.061*	1.69	0.024
OTHER VAR. INCLUDED																		

Notes: Number of observations: 31’857. Tax morale as a dependent variable (four-point scale from 0 to 3). The results are presented with robust standard errors. The symbols *, **, *** represent statistical significance at the 10%, 5% and 1% levels, respectively. The table report the marginal effects of the highest tax morale score (3). Recognizing that including aggregated country variables produces downwardly biased standard errors, we address the problem of heteroscedasticity by presenting standard errors adjusted for clustering on cantons in the lower part of the table. The estimation controls for a large set of control variables (socio-demographic, occupation and marital status, religiosity, conditional cooperation, Western Europe dummy).

Table A2: The Effects of Institutions on Tax/Revenue Effort in Transition and Developing Countries

Model *Dependent Variables*	*OLS* *Tax Effort*		*OLS* *Tax Effort*		*OLS* *Tax Effort*		*OLS* *Tax Effort*		*OLS* *Tax Effort*	
Independent Variables	*Beta*	*t-Stat.*	*Beta*	*t-Stat.*	*Beta*	*t-Stat.*	*Beta*	*t-Stat.*	*Beta*	*t-Stat.*
e) INSTITUTIONS										
INDEX GOVERNANCE	0.357***	2.95								
VOICE AND ACCOUNT.			0.388***	3.37						
POLITICAL STABILITY					0.303***	2.79				
RULE OF LAW							0.318***	2.85		
CONTROL OF CORRUPTION									0.381***	3.35
Observations	104		104		104		104		104	
Prob > F	0.000		0.000		0.000		0.000		0.000	
R-squared	0.445		0.499		449		0.428		0.454	
INDEX ICRG	-0.504***	3.85								
RULE OF LAW			0.390***	2.69						
BUREAUCRATIC QUALITY					0.356***	2.97				
ETHNIC TENSION							0.291***	3.05		
CORRUPTION									0.432***	3.87
Observations	73		73		73		73		73	
Prob > F	0.000		0.000		0.000		0.000		0.000	
R-squared	0.476		0.438		0.436		0.411		0.495	

Notes: The dependent variables are: TAX EFFORT 9tax revenues/GDP). Significance levels: * 0.05 < p < 0.10, ** 0.01< p < 0.05, *** p < 0.01. Regressions with robust standard errors. Estimating *beta* or *standardized* regression coefficients. Control variables: development, openness, economic structure and regions.

Table A3: Governance and Country Indicators in Botswana and South Africa

	Botswana	South Africa	Year
CPI [a]	6.1 (Ranking 24)	5 (Ranking 34)	1999
GOVERNANCE INDICATORS[b]			
Control of Corruption	0.53	0.42	1998
	1.02	0.57	2000
Rule of Law	0.66	0.21	1998
	0.67	0.28	2000
Regulatory Quality	0.69	0.33	1998
	0.79	0.12	2000
Government Effectiveness	0.52	0.17	1998
	0.98	0.43	2000
Political Stability	0.89	-0.80	1998
	0.90	-0.13	2000
Voice and Accountability	0.77	0.87	1998
	0.78	1.05	2000
ICRG[c]			
Composite Risk Rating	81.00	66.75	January, 1999
Political Risk Rating	76.00	69.00	January, 1999
Economic Risk Rating	42	31.5	January, 1999
Law and Order	4	3	January, 1999
Bureaucratic Quality	2	2	January, 1999
Ethnic Tensions	5	3	January, 1999
Democratic Accountability	3	4	January, 1999
Corruption in Government	3	3	January, 1999
External Conflict	10	9	January, 1999
Government Stability	11	11	January, 1999
Internal Conflict	12	9	January, 1999
EHII INEQUALITY[d]	48.37	44.68	1998
Index of Economic Freedom[e]			
Fiscal Burden	2.6	4.3	1999
Government Intervention	4.5	2.5	1999
Property Rights	2	3	1999
Regulation	3	2	1999
Informal Market	4	4	1999
POLITY IV[f]			
Institutionalized Democracy	9	9	1999
Regime Durability	33	5	1999
ETHNIC FRACTIONALIZATION[g]	0.410	0.752	1997-2001

Notes: [a] Transparency International Corruption Perceptions Index (10= highly clean, 1= highly corrupt). [b] Source Kaufmann et al. (2004). Values between –2.5 and 2.5, with higher scores corresponding to better institutions (outcomes). [c] The higher the rating, the lower the risk and vice versa, see Knack (1999). [d] Higher GINI coefficient implies more inequality (source: Galbraith and Kum 2005). [e] The scores range from 1 to 5 (1=environment/set of policies are most conducive to economic freedom, 5= least conducive), see 2005 Index of Economic Freedom handbook, chapter 5 (see http://www.heritage.org/research/features/index/. [f] The Democracy indicator is an additive eleven-point scale (0-10). Regime Durability: number of years since the most recent regime change or the end of transition period defined by the lack of stable political institutions (see http://www.cidcm.umd.edu/inscr/polity/). [g] Higher ethnic score implies a stronger ethnic fractionalization (source: Alesina et al., 2003).

Table A4: Conditional Cooperation in Eastern and Western Europe

WEIGHTED ORDERED PROBIT	*Coeff.*	*z-Stat.*	*Marg. Effects*
VARIABLE: PERCEIVED TAX EVASION			
COUNTRIES			
Western European Countries			
Germany	-0.330***	-6.47	-0.129
Austria	-0.290***	-4.22	-0.113
Belgium	-0.406***	-9.36	-0.152
Great Britain	-0.346***	-3.75	-0.136
Denmark	-0.479***	-7.72	-0.174
Finland	-0.318***	-4.48	-0.126
France	-0.211***	-4.35	-0.084
Iceland	-0.250***	-3.37	-0.098
Ireland	-0.373***	-5.63	-0.145
Italy	-0.303***	-6.47	-0.119
Malta	-0.587***	-5.2	-0.154
Netherlands	-0.480***	-7.47	-0.19
North Ireland	-0.150*	-1.96	-0.058
Portugal	0.162**	2.12	0.064
Spain	-0.086*	-1.68	-0.034
Sweden	-0.395***	-5.28	-0.157
Eastern European Countries			
Belarus	-0.235***	-4.59	-0.074
Bulgaria	-0.167**	-2.32	-0.061
Croatia	-0.385***	-4.33	-0.145
Czech Republic	-0.282***	-5.74	-0.109
Estonia	-0.196***	-3.46	-0.075
Greece	-0.114**	-2.08	-0.043
Hungary	-0.236**	-2.43	-0.085
Latvia	-0.101**	-1.99	-0.04
Lithuania	-0.267***	-3.7	-0.1
Poland	-0.294***	-4.11	-0.114
Romania	0.059	0.83	0.023
Russia	-0.188***	-4.6	-0.074
Slovak Republic	-0.009	-0.18	-0.003
Ukraine	-0.227***	-3.67	-0.075

Notes: The results are presented with robust standard errors. The symbols *, **, *** represent statistical significance at the 10%, 5% and 1% levels, respectively. The table report the marginal effects of the highest tax morale score (3). The specification is based on a large set of control variables considering each country value for the coefficient of the variable PERCEIVED TAX EVASION.

Table A5: Two-sample Wilcoxon Rank-sum (Mann-Whitney) Tests

Hypothesis	z-value	Prob > |z|
H_0: Tax Morale Russia 1991 = Tax Morale Russia 1995	-4.330	0.0000
H_0: Tax Morale Russia 1991 = Tax Morale Russia 1999	-3.216	0.0013
H_0: Tax Morale Russia 1995 = Tax Morale Russia 1999	1.467	0.1423

Table A6: Institutional Quality in Former Soviet Union and Eastern European Countries

Former Soviet Union and Eastern European Countries	Aggregate Governance Indicators 1998						Shadow Economy in % of GDP (1999)
	Voice and Accountability	Political Stability	Government Effectiveness	Regulatory Quality	Rule of Law	Control of Corruption	
FSU countries							
Belarus	-0.98	-0.15	-0.83	-2.01	-1.08	-0.60	48.1
Estonia	0.82	0.95	0.45	1.06	0.54	0.49	38.40
Latvia	0.72	0.54	0.19	0.72	0.08	-0.10	39.90
Lithuania	0.84	0.54	0.18	0.21	0.19	0.07	30.30
Russia	-0.26	-0.62	-0.62	-0.37	-0.78	-0.69	46.10
Ukraine	-0.14	-0.19	-0.97	-0.89	-0.76	-0.89	52.20
CEE countries							
Bulgaria	0.40	0.44	-0.94	0.47	-0.22	-0.50	36.9
Croatia	-0.30	0.46	0.30	0.34	-0.04	0.04	33.4
Czech Republic	1.14	0.97	0.72	0.78	0.62	0.35	19.1
Greece	0.92	0.38	0.78	0.83	0.66	0.85	28.70
Hungary	1.15	1.19	0.78	1.15	0.78	0.69	25.10
Poland	1.01	0.80	0.86	0.83	0.57	0.49	27.60
Romania	0.24	0.20	-0.61	0.30	-0.25	-0.38	34.40
Slovakian Republic	0.45	0.95	0.08	0.29	0.13	-0.08	18.90

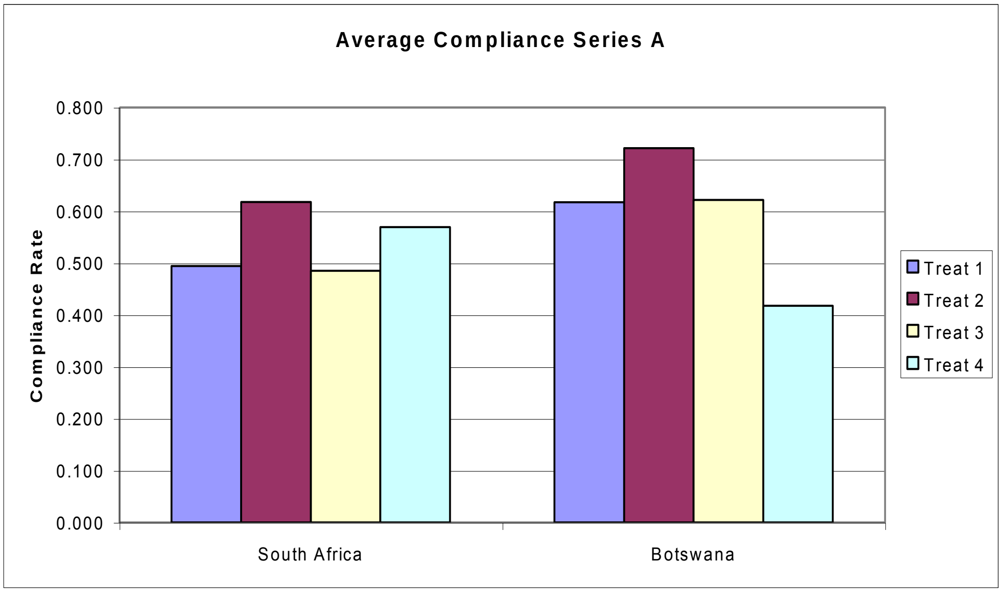
Notes: Aggregated governance indicators taken from Kaufmann et al. (2004). The values range between –2.5 and 2.5, with higher scores corresponding to better institutions or outcomes. Data for the share of the shadow economy are from Schneider (2004, p. 24), using the DYMIMIC and Currency Demand Method.

Table A7: Tax Morale Among Different Countries

WEIGHTED ORDERED PROBIT	*Coeff.*	*z-Stat.*	*Marg. Effects*
INDEPENDENT V.	Eq. 3		
Western European Countries			
Germany	ref. group		
Austria	0.083*	1.650	0.033
Belgium	-0.530***	-11.000	-0.206
Great Britain	0.002	0.040	0.001
Denmark	0.246***	4.630	0.096
Finland	-0.048	-0.870	-0.019
France	-0.288***	-5.830	-0.114
Iceland	0.185***	3.410	0.073
Ireland	0.072	1.220	0.028
Italy	0.099**	2.160	0.039
Malta	0.737***	12.380	0.264
Netherlands	-0.251***	-4.760	-0.100
North Ireland	0.026	0.410	0.010
Portugal	0.044	0.650	0.017
Spain	-0.124**	-2.380	-0.049
Sweden	-0.067	-1.150	-0.027
Eastern European Countries			
Belarus	-0.835***	-14.760	-0.308
Bulgaria	0.217***	3.690	0.085
Croatia	0.065	0.900	0.026
Czech Republic	0.189***	4.060	0.074
Estonia	-0.409***	-7.660	-0.161
Greece	-0.200***	-3.840	-0.080
Hungary	0.536***	8.650	0.200
Latvia	-0.018	-0.320	-0.007
Lithuania	-0.592***	-8.790	-0.228
Poland	0.083	1.470	0.033
Romania	-0.011	-0.200	-0.004
Russia	-0.272***	-6.100	-0.108
Slovakian Republic	0.115**	2.270	0.045
Ukraine	-0.473***	-8.940	-0.185
ALL OTHER VARIABLES INCLUDED			
Number of observations	32610		
Prob > chi2	0.000		

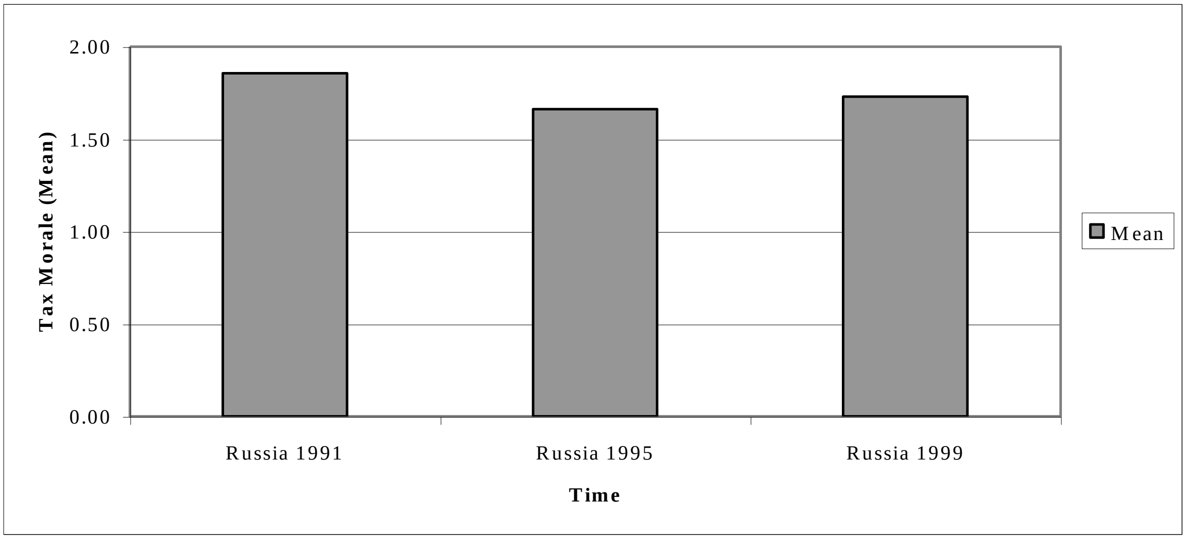
Notes: 30 regressions. Dependent variable: tax morale on a four point scale (0 to 3). Large amount of control factors not reported in the table. Significance levels: * 0.05 < p < 0.10, ** 0.01< p < 0.05, *** p < 0.01. Marginal effect = highest tax morale score (3).

Figure A1: Tax Compliance in Experiments done in South Africa and Botswana



Notes: Compliance rate (declared income/obtained income). The experimental design replicates most of the elements of the basic structure of the personal income tax system in the study countries, as described in Table 4. In the experiment, individuals receive income, pay taxes on income voluntarily reported and face a probability of audit. If they are detected cheating, individuals must pay a financial penalty on taxes not reported. Of course, incarceration is not a possible penalty in the experimental setting. There are three basic fiscal parameters that affect decisions on tax compliance: tax rate, probability of detection, and penalty (or fine) rate. The maintained hypothesis is that risk attitudes are the same across the cultures being investigated. This is tested with a willingness to bear risk experiment and confirmed with the results being reported below. The experimental setting controls for tax rate, probability of detection, and penalty rates. The different pools are subjected to the same parameters. Thus, the observed differences in tax compliance behavior are interpreted as being motivated by: differences in those institutional features affecting attitudes toward the government (the fiscal exchange) and by other possible factors that may be described as differences in the inhibitors or social norms across the countries. To the extent that social norms can be influenced by the same factors that affect attitudes toward government, or by the perceived fiscal exchange, the maintained hypothesis is that all these factors can be represented by the perceptions about government fairness.

Figure A2: Aggregate Tax Morale in the Russian Federation – 1991, 1995, and 1999



Notes: Mean values in these three time periods, calculated as the simple average across all individuals in the data sets. We observe a significant decay of tax morale between 1991 and 1995, from 1.86 to 1.66. (Recall that a higher number indicates higher tax morale.) In the next four years tax morale recovered, with an increase from 1.66 to 1.73. Thus, we observe on average a decline in the willingness to pay taxes during the first 4 years of the transition and a less than full recovery in the following 4 years.

Figure A3: The Distribution of Aggregate Tax Morale in the Russian Federation – 1991, 1995, and 1999