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**International Studies Program  
Working Paper 16-08  
August 2016**

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**August 2016**

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**Politicians, bureaucrats, and tax morale:  
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**Gabriel Leonardo and Jorge Martinez-Vazquez\***

Abstract

What actions do governments take that may affect individual trust? Although the literature on tax morale has reported a positive relationship between trust in government and tax morale, it is less known what is that government does to elicit trust among taxpayers. Which government organizations are most likely to produce those actions? This paper examines how governments elicit tax morale by testing the proposition that trust in government is built by the way citizens are treated when receiving their share of public goods and services from government institutions charged with the delivery of those goods and services, known as the output side (Rothstein, 2005). We use data from close to forty countries in the 2005-2007 wave of the World Values Survey (WVS) and after controlling for the level of political rights and civil liberties, we find that trust in administrative (output) government institutions positively influences tax morale, especially in the case of people living in democratic countries.

Keywords: Tax morale, tax compliance, trust in government, government institutions

JEL classification H260, H730, K420, O170, Z130

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**1. Introduction**

The question of why people pay taxes may be as old as taxes themselves, but age has not brought us much closer to having an answer regarding why we pay taxes ‘voluntarily.’ The seminal paper by Allingham and Sandmo (1972) (“AS”) provided the theoretical underpinnings for an answer based on the economics of crime approach (Becker, 1968, 1974). In this approach, individuals would evade taxes as long as the payoff from tax evasion outweighs the costs of being caught evading. Increasing the costs of cheating – more audits, and stiffer penalties - should reduce tax evasion. Despite the elegance, simplicity and wide attraction of the approach in the past literature on tax evasion, the trouble has been that the AS model fails to predict well the actual behavior of taxpayers. The average level of taxpayer compliance would appear to exceed what the AS model would predict on the bases of existing probabilities of getting caught in tax audits and the penalties actually applied (Alm et al. 2010).

In addition to the inability to explain why observed levels of tax compliance in empirical studies and in experiments are higher than the model’s theoretical predictions based on probabilities of detection and penalties, the model’s exclusive reliance on incentives may crowd out voluntary tax compliance (Feld and Frey, 2002; 2007)<sup>1</sup>. Moreover, in order to assimilate non-compliance with tax evasion, the model assumes a clear demarcation between compliant and non-compliant behavior, which ignores that tax non-compliance may also be the result of

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<sup>1</sup> After reviewing evidence from several experiments regarding the effect of incentives on human behavior, Bowles (2008) contended that the choice of incentives provides agents with clues about the principals’ beliefs about the trustworthiness of the agents, which in turn would affect agents’ behavior in ways not foreseen when choosing the incentives. For instance, taxpayers may read authorities’ increased reliance on penalties and audits as a sign that they are not trusted, and choose to reciprocate authorities’ mistrust by evading their taxes instead of increasing their compliance like the neoclassical model predicts.

<sup>2</sup> In the mid-1990s, some Australian investors started investing in certain financial schemes to gain tax deductions;

mistakes in understanding tax laws. As a result, what constitutes tax compliance and what is considered tax evasion is sometimes unclear even for tax authorities,<sup>2</sup> which in turn relates to the phenomenon of creative tax compliance where following the letter of the tax law is done in a way to undermine the legislators' intentions when drafting the tax code.

Perhaps the most salient shortcoming of the neoclassical model is its assumption that not all individuals behave like homo economicus. Although taxpayers are modeled as being self-interested, the model surprisingly assumes tax officials' behavior to deviate from their own self-interest to fulfill the goals of the state instead. Had they been modeled as self-interested agents, the application of sanctions to tax cheaters would depend on the benefits and costs derived by the tax official for reporting and sanctioning non-compliant taxpayers versus the benefits and costs derived from not reporting it and instead engaging in an exchange with the tax evader in order to get a personal benefit. This situation seems to have been contemplated by Slemrod (2007) when asserting that a corrupt tax official would use harsher penalties to non-compliant taxpayers as a way to extract a larger benefit for herself.

The limitations of the traditional model have prompted the search for alternative models that may better capture the complexity of tax compliant behavior (Alm 1999, Alm and Torgler 2011). Theoretical concerns focused on the role of norms in explaining tax compliance behavior or attitudes about complying with taxes (e.g. Cullings and Lewis 1997, Schnellenbach 2006). Myles and Naylor (1995) combine the AS model with social customs and group conformity to account for moral costs incurred by taxpayers for any deviation from the underlying norm. In the

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<sup>2</sup> In the mid-1990s, some Australian investors started investing in certain financial schemes to gain tax deductions; at first, tax authorities granted those deductions, but later reversed course by not only backtracking from granting the deductions, but also by accusing those investors of having incurred in tax evasion demanding overdue back taxes, interests and penalties. Finally, in light of public outcry, authorities backtracked asking only for past due taxes, giving taxpayers the possibility to pay in installments without interests or penalties (Braithwaite Murphy and Reinhart 2007).



same spirit, Traxler (2010) incorporates tax morale into the AS model as a social norm towards tax compliance. This gives rise to a societal interdependence as the optimal taxpayer behavior is conditional on other taxpayers' compliance. Taxpayers may comply with their taxes because they feel tax compliance is a duty, which in turn increases the costs of engaging in tax cheating (Scholz and Pinney 1995). In turn, the duty to comply with one's tax payments may increase when taxes decrease (Scholz and Lubell 1998a), or when taxpayers trust government and other taxpayers to hold onto their side of the tax contract (Scholz and Lubell 1998b). Therefore, taxpayers may have an intrinsic motivation to comply with taxes, termed tax morale (Torgler 2003b, 2006), which is shaped by individual and institutional norms (Torgler 2003b). Unlike the traditional model of tax evasion, taxpayers' rationality is assumed as limited; norms act as devices helping individuals to make their own tax compliance decisions (Torgler 2003b). Although limited by the still developing links between tax compliance attitudes and tax compliant behavior (Halla, 2010) empirical results show plausibly that tax morale may influence taxpayer behavior (Alm and Torgler 2006, Torgler and Schneider 2007).

The main goal of this paper is to increase our understanding of the finding that trusting government appears to positively affect tax morale (e.g. Alm and Torgler, 2006; Torgler 2005a, 2005b; Martinez-Vazquez and Torgler, 2009). In particular, it is not yet entirely clear what government does to elicit taxpayers' trust. We are interested in finding out what actions governments take that may affect individual trust and which government organizations are most likely to produce those actions. We draw from the recent literature on social capital and institutional trust and their concern that treating trust in different government institutions as being similar to a general "trust in government", glosses over the difference by which citizens come to trust those institutions (Rothstein and Stolle, 2008). By posing the two questions of what

government institutions do that elicits individual trust in them and which government organizations are the ones that would carry out those actions, we contend that tax morale is affected the level of trust in government organizations that implement and deliver public goods and services to the citizenry.

The plan for the rest of the paper is as follows. The second section reviews the literature on the impact of trust in government on tax morale. In the third section we develop a conceptual framework for the avenues in which governments elicit trust and ultimately affect individuals' willingness to comply with taxes. The fourth section presents the empirical analysis and results based on the World Values Survey data. The fifth section concludes.

## **2. Literature review**

Tax morale is defined as the intrinsic motivation to pay taxes (Torgler, 2006). A more inclusive definition is offered by Luttmer and Singhal (2014) who highlight five mechanisms through which tax morale could influence individual tax compliance: intrinsic motivations, reciprocity, peer effects and social influences, culture, and information. That motivation to comply is assumed to be shaped by individual and institutional norms, and unlike in the traditional model of tax evasion, taxpayer rationality is assumed to be limited. Using survey data from Italy, Filipin, Fiorio, and Viviano (2013) also identify stricter formal law enforcement as an institutional factor that can enhance tax morale.

Norms act as devices helping individuals to make their own tax compliance decisions (Torgler, 2003b). This fits with the more general view of the role of norms as guiding individual behavior and reducing uncertainty in exchange (North, 1994). Instead of a single model of taxpayer behavior, there is a diversity of behaviors (Torgler, 2003b; Alm, 1999b); with regards

to sensitivity to social norms, some individuals may be affected by what others around them think (or do) about complying with taxes (Frey and Torgler, 2007) and comply or evade based on what others say or do.<sup>3</sup> By contrast, others behave as if they were impervious to what happens around them and comply with taxes nevertheless, while some would try cheating on their taxes regardless of the compliance climate around them. Recent clinical evidence based on a physiological marker also points towards a potential link between social norms and tax compliance. Dulleck et al. (2016) proxy psychic costs through a measure of heart rate variability and find a positive association between psychic stress and tax compliance.

Given the failure of the conventional utility maximizing model to explain actual tax compliance, the tax morale literature has labored to uncover what makes individuals more willing to comply with their tax obligations. A consistent finding in this literature is that trust in government positively affects individuals' willingness to comply with their tax obligations. In particular, higher trust in the country's legal system, the government, and the parliament, have all been found to increase individual tax morale (Torgler, 2003a,b, 2005; Cummings et al., 2004; Alm and Torgler, 2006; Torgler and Schneider, 2007; and Martinez-Vazquez and Torgler, 2009; and Lago-Peñas and Lago-Peñas, 2010) Other factors such as upholding religious beliefs, support for democracy, and pride in one's national origin also have been found to influence tax morale in a positive way (Torgler 2005b, 2006). Orviska and Hudson (2003) emphasize the roles of civic duty and 'law abidance' in deterring tax evasion. Using information from the British Social Attitudes Survey they find that law abidance and civic duty can influence tax evasion by shifting perceptions towards tax evasion.

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<sup>3</sup> Because tax compliance can be interpreted to be quasi-voluntary (Levi, 1998; Braithwaite, 2003), individuals may also learn social norms on compliance (Ostrom, 1997).

Although these reported empirical findings strongly indicate that trusting government is associated with higher willingness to comply with taxes, it is much less well-known what is that government does to trigger taxpayers' trust. Two main explanations on how governments affect trust may be found in the literature. First, it has been theorized that governments may elicit trust when they deliver what taxpayers demand. For instance, widespread support for the programs provided by government legitimates government actions and may impose a social norm towards paying taxes (Alm and Martinez-Vazquez, 2007). Second, it has been suggested that governments that are perceived as being fair may elicit individual trust (Alm and Torgler, 2006).<sup>4</sup> We will review both main explanations next because they hinge on different foundations for how governments elicit trust in taxpayers and affect their tax morale.

There seems to be no problem in principle with the idea that individuals would be more willing to comply with taxes when their preferences for public services are met. On closer inspection, however, the proposed explanation raises some questions. First, it suggests that those who believe their tax monies are spent in ways they do not favor would not be willing to comply with their tax obligations. However, under democratic regimes, voters supporting the winning party would expect it to implement the policies they favor (Rothstein and Stolle, 2008), which means that government policies earn trust from those who support them and disappoint and lose trust from those voters who oppose them (Citrin, 1974). Thus, it is totally understandable that individuals would distrust those officials who implement policies they do not favor. The partisan character of government policies, however, goes both ways. If alignment between policy preferences and policy choices is assumed to reduce tax compliance, trust in government is ultimately not necessary; trust in government is necessary when individuals pay the cost of

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<sup>4</sup> The presence of referendum institutions could be another potential mechanism through which trust is linked to tax morale (Hug and Spörri, 2011). However, this does imply that referendum institutions do not directly influence tax morale.

policies and do not receive the benefits (Hetherington, 2004) whereas those whose policy preferences are met do not need to trust government officials.

A second aspect arises regarding how governments learn about the preferences of the population. In order to deliver policies that would reduce tax evasion governments should know what the preferences of the electorate are. However, getting to know population preferences may be more difficult than commonly assumed. Considering that a sizable part of the population in advanced democracies simply refrains from voting, governments may not be sure what their citizens want done especially considering the multiple voting alternatives citizens face even in a two-party election (O'Donnell, 2001)<sup>5</sup>.

A final point may be made regarding measures of trust in government. If we follow Citrin's (1974) evaluations of trust in government in general and in political government organizations in particular (e.g. trust in parliaments, trust in the president/prime minister) we may measure not only trust in incumbents, but also satisfaction with the performance of those institutions, or trust in the institution as a result of the approval of the political regime from which it is part of. Overall, the contention that meeting individual policy preferences would affect tax compliance does not appear to be so clear.

Examining the second alternative of government being perceived as fair as a requisite to elicit tax compliance, experimental evidence suggests that individuals are more compliant when they have a voice in how their taxes are spent (Alm, Jackson, and McKee 1993) and have a say in how tax enforcement should be done (Alm, McClelland, and Schulze, 1999). Consistent with the idea that democracy gives individuals an opportunity to get the public goods they desire

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<sup>5</sup> When taxpayers face an election between, say, two competing parties, they have at least six alternatives before them (O'Donnell, 2001). Voters may either vote for one party, for the other party, casting a blank vote, casting an invalid vote, refraining from voting, or adopting some random procedure allowing them to select either or the previous five options. In those circumstances, it is difficult to ascertain the message coming from voting from those who, for instance, just abstained from voting.

(Rohrschneider, 2005), taxpayers tend to be more compliant when they are given an outlet to express their opinion about what policies should be adopted. Taxpayers may interpret being asked about their policy preferences as a signal that government considers them as partners (not subordinates) in governance, and in turn reciprocate that treatment by being willing to comply with their tax obligations. For example, survey evidence from Switzerland found a relationship between being allowed to decide on policy matters directly – direct democracy – and being more satisfied because of that (Frey and Stutzer, 2005). Those findings complement earlier results that in those cantons where direct democratic rights were more developed, the average size of tax evasion was smaller (Pommerehne and Weck-Hannemann, 1996, Torgler 2005a).

In this paper we use the insights from recent findings in the literature on institutional trust to develop the hypothesis that it is governments' direct interaction with individuals that affects taxpayers' trust and ultimately tax morale. Two broad questions will guide the inquiry developed in the next section: 1) Which actions do governments take that may affect individual trust? and 2) Which government organizations are most likely to produce those actions?

### **Government actions and organizations, trust, and tax morale**

In order to answer the two questions above – which government actions elicit trust, and where in government those actions are carried out – we will separate government organizations into *input* and *output* organizations (Rothstein, 2005). In a nutshell, the input side of government is its political side; it converts individual preferences into policies that will produce the goods and services that individuals want government to provide. The output side fulfills an administrative role of adjudicating the goods and services decided upon on the input side.

*The input side of government as builder of trust*

The input side is constituted by the political organizations of government – the legislative and executive branches. Their members are elected to advance the policies favored by the electorate who supported them. Therefore, parliaments and the executive branches are controlled by the political faction or factions that gathered the broadest support among voters. By extension, the policies they advance may certainly favor certain groups over others (Rothstein 2005). For instance, a legislature may have to choose whether unemployed people should receive help in their predicament versus cutting taxes on businesses to generate jobs. Whatever decision is made, it will have different effects on different individuals, likely granting benefits to some and imposing costs on others.

The partisan character of input organizations makes them very unlikely to elicit widespread trust among taxpayers. Although it may be argued that those policies - and the politicians behind them - seek to serve the common good, the argument fails to consider that input organizations and their members would serve the version of the common good that has received the broadest support among the electorate (or in the legislature). Moreover, even though charismatic political figures may sometimes elicit widespread trust among individuals such occurrence would most likely be exceptional because of the partisan character of politics and *input* organizations (Levi and Stoker, 2000). Thus Rothstein (2005) notes that in Sweden - arguably, one of the most advanced democracies in the world - people place higher trust in government organizations whose members were not elected (e.g. public schools, health care system, and the police) than in the representative organizations of democracy such as political parties or parliaments. In recent decades trust in *input* organizations has been on the decline; for example, Dalton (1996) reported that individual trust in political institutions was at rock bottom levels compared to those from the 1950s and 1960s.

Another obstacle with the input side of government as generator of trust stems from the fact that voting does not necessarily ensure fair results. Madison (1788) observed this shortcoming of democracy, and went as far as to say that individual freedoms are threatened not only by government actions, but also by the decisions of majorities that might undermine minorities' freedoms. Levi (1998) pointed out that the introduction of safeguards to protect minorities may reduce the danger of a "dictatorship of the majority", but that comes at the expense of generating resentment because of minorities' obstruction of majorities' will. Consequently, it seems unlikely that input government organizations would elicit from their actions a high level of taxpayers' trust (and tax morale); and this is regardless of earlier empirical results (a point to which we shall return shortly). Let us turn our attention to government organizations on the *output* side.

*The output side of government and trust*

*Output* organizations are in charge of delivering public goods and services to individuals which are previously decided upon by the input institutions of government. Therefore, *output* organizations are not concerned with what should be delivered, but instead with how those goods and services are delivered. Talking about tax compliance, some of the recent literature emphasizes building a relationship of trust between taxpayers and the tax administration (an organization of the output side of government) to increase voluntary tax compliance (Alm and Martinez-Vazquez, 2007). More specific advice on how tax administrations elicit taxpayers' trust includes tax authorities treating taxpayers with consideration and respect, applying clear and fair procedures to all taxpayers, and helping them to fulfill their tax obligations. Taxpayers are no longer seen as subordinates of the state, but instead as partners of the tax administration that



would willfully comply when they are treated according to standards of objectivity, impartiality, and rule of law, which are the same principles that make people trust government institutions (Rothstein, 2005). When treating taxpayers in such a way, tax authorities deliver good governance that is supportive of democratic principles (Braithwaite, 2003). A similar demand for good governance applies to other organizations of the output side of government; the concrete role of administrative institutions of government (of which the tax administration is one example) is supplying citizens with their democratic and social rights (Rothstein, 2005).

By focusing on building a relationship of trust between taxpayers and tax authorities as condition for eliciting voluntary tax compliance, the recent literature on tax compliance highlights two elements. One is the role that direct interaction between government officials and taxpayers may have in eliciting voluntary tax compliance, and the other concerns how taxpayers are treated by authorities. Direct contact between individuals is at the cornerstone of building a trust relationship because it provides the parties with superior clues regarding the other side's trustworthiness (Ostrom, 1998). Taxpayers would trust (or distrust) tax authorities as a result of their experiences dealing with them in direct interactions. However, tax administrations are not the only government institution taxpayers deal with; depending on the way taxes are structured, taxpayers may have a more limited exposure to tax authorities. Because other institutions of the output side of government should also deliver governance consistent with democratic principles, they may also influence individual willingness to comply with taxes. In general, contacts with government authorities inform citizens about how the state regards them (Rohrschneider, 2005; Rothstein, 2005, 2009; Rothstein and Teorell, 2008).

The emphasis on how authorities should treat taxpayers - according to fair and transparent procedures consistent with democratic principles - highlights the role that procedural

justice considerations play in making taxpayers accept government authority and decisions. Procedural justice refers to the fairness of the procedures by which decisions are made<sup>6</sup> (Wenzel, 2003). Tyler (1988) showed that procedural justice explained why individuals submit to decisions made by authorities even when those decisions are costly to them. Individuals do not care only about what they want, but also about how they get it; this is what makes procedural justice especially relevant. In fact, the issues affecting individuals may exceed their ability to understand them (Tyler, 1988; Ayers, 1992), and because of such inability, subjects may instead focus on how authorities treated them during the process leading to the decision in order to evaluate its acceptance or rejection – they would assess whether they have had a voice in the process, whether their arguments have been taken into account in the decision, and so on. The treatment received from authorities tells individuals how they are viewed by those authorities either as equals or partners, or as subordinates. There is a broad consensus on how issues of fairness and legitimacy affect trust in authorities in a variety of arenas impacting: voluntary compliance with their norms and requests (Levi, 1998; Levi and Stoker, 2000; Rothstein, 2005, 2009; Rothstein and Teorell 2008); tax compliance (Feld and Frey 2002, 2007; Murphy, 2004; Alm and Martinez-Vazquez 2007); law enforcement (Sunshine and Tyler, 2003); and cooperation with authorities (De Cremer and Tyler, 2007).

The importance of procedural justice may be further highlighted by referring to what happens when it is absent. For this, corruption offers a good illustration. Corruption effectively undermines procedural justice by making access to public goods and services, to which individuals are otherwise entitled, contingent on entering into a private transaction with

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<sup>6</sup> Procedural Justice is different from distributive justice, the latter referring to the fairness of the outcomes of a decision. Political institutions in government routinely make decisions dealing with the fair allocation of resources (e.g. who would be receiving a government subsidy, or who would pay what taxes). Individuals may be unhappy with what the input side of government (its political institutions) has decided upon, but those decisions should be applied fairly and consistently to all of those involved for government to be trusted (Rothstein, 2005).

government officials to pay a bribe. Corruption further undermines the democratic ethics of equality as well as individual trust (Seligson 2002; Warren 2004). The principle of political equality that legitimates elections on the input side – one person, one vote – is neglected by corruption on the output side because access to public goods and services becomes contingent upon paying a bribe to those officials controlling access to the resource. Under those circumstances, it is understandable that those affected by the discriminatory practices enabled by corruption would be more unwilling to contribute their taxes to sustain a government unable or unwilling to stop corruption. Discriminatory practices that undermine individual trust are not restricted to corruption; favoring or discriminating against certain social groups (e.g., ethnic, religious) is likely have a similar effect on willingness to comply with government norms and decisions.

It is interesting to note that the salience of procedural justice is not limited to the relationship between individuals and government, as individuals may derive direct satisfaction from fair treatment in general. For example, individuals in the marketplace often care about how they are treated (Lane, 1988), and economists have started to explore whether procedural justice is a source of satisfaction for individuals in the same way that consumption of goods and services increases individual utility. Procedural Utility – the term suggested in that literature - has been used to describe the utility derived from the process leading to outcomes (Benz, Frey, and Stutzer 2002; Frey and Stutzer, 2005). Obtaining satisfaction from receiving fair treatment may be the reason behind the experimental finding that allowing taxpayers to vote leads to increased tax compliance (Alm, Jackson, and McKee, 1993; Alm, McClelland, and Schulze 1999; Feld and Tyran, 2002; Wahl, Muehlbacher, and Kirchler, 2010); even though subjects may not obtain the goods and services they favored, they may value the opportunity to express their opinion on what

governments should do with tax moneys. Interestingly, trust among adversary policymakers is built primarily on considerations of fairness and legitimacy in the negotiating process rather than on the results of those negotiations (Leach and Sabatier, 2005) In supporting our conjecture, experimental evidence from psychology and neuroscience shows that individuals derive satisfaction from receiving signals of trust, exhibiting unique patterns of brain activity that are different from when subjects only obtain positive outcomes (Sanfey, 2007; Lee, 2008, Krueger et al. 2007), even experiencing unique changes in the level of neurotransmitters (Zak, Kurzban, and Matzner, 2005). Conversely, subjects also exhibit physiological responses to distrust signals (Zak et al. 2005).<sup>7</sup> In summary, there is a confluence of different streams of research towards a similar result showing that fairness considerations drive trust and legitimacy and that they are likely to be powerful factors in explaining how governments build (or destroy) trust among their citizens.

Finally, individuals do not treat government institutions as a single monolithic entity. Instead, individuals value the trustworthiness of different government organizations on different bases. Rothstein and Stolle (2008) evaluated whether individuals trust all government institutions the same way or they use different bases for trusting in them. Using individual level data from the third wave (1995-97) of the World Values Survey (WVS) comprising individuals from 56 countries, their factor analysis revealed that different dimensions of institutional trust emerge. Institutions belonging to the input side of government such as parliaments, political parties, and government fall within the same dimension, whereas institutions from the output side such as the police, the army, and legal institutions, load on a different dimension. An additional analysis

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<sup>7</sup> Also in those experiments recipients of trust signals were more likely to reciprocate and trust the other party in return, which parallels insights from the tax compliance literature that a relationship of trust between government officials and taxpayers would drive compliance up. Thus, the salience of procedural justice in eliciting individual trust rests on supportive evidence from different fields that individuals care about, and derive satisfaction from, being treated fairly and impartially.

using Sweden's SOM survey produced similar results. Therefore, government is far from being a monolithic construct before the eyes of the citizenry; they do distinguish between their roles and attributes.

The different streams of literature suggest that the kind of trust in government that would affect tax morale comes from the treatment received by individuals by its output side. What the output side of government does affects not only individual well-being, but also gives insights on how government regards its citizens (North, 1994). Rothstein (2009) made a compelling account of what happens when individuals are treated unfairly by the output side of government,

*“...if the police do not protect you because you are an X-type citizen, if the fire-brigade does not come to your house because you are a Z-type citizen, if your children are systematically discriminated against in the schools because they are Y-type children, and if the doctors at the hospital ignore you because you are a P-type person, then you are in real trouble...what the state does on the output side may be life threatening...” (p. 323)*

Governments that allow their citizens to be treated in the way described in the quote above do not seem to have high regard for the well-being of their citizens – and taxpayers would read precisely that from the unfair treatment received from government officials from the output side.

We therefore pose the following hypotheses: First, individuals who trust government would show higher tax morale than those who do not trust it, and second, individuals who trust the output organizations of government would show even stronger tax morale. We proceed to test these hypotheses in the next two sections.

### 3. Empirical approach and data

#### *Basic specification*

The basic model we estimate is given by:

$$TM_i = \beta_0 COUNTRY + \sum_{j=1..4} \beta_{ji} \cdot TRUSTG_{ji} + \lambda_1 \cdot SUPPDEM_i + \lambda_2 \cdot RELIG_i + \lambda_3 \cdot NPRIDE_i + \sum_{l=1..5} \beta_{li} \cdot OTHER_{li} + \varepsilon_i \quad (1)$$

Where our dependent variable  $TM_i$  is Tax Morale, measuring individual  $i$  willingness to comply with taxes; specifically, the question in the WVS asks individuals to what extent certain actions are justifiable, as follows;

*“Please tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between (1-10 scale: 1: “never justifiable; 10: always justifiable)” ...Cheating on taxes if you have a chance”*

Although this is the standard measure used in the tax morale literature, it is not free of the general shortcomings of using self-reported answers. A prominent shortcoming is that individuals’ answers to the question may not correlate with actual tax behavior<sup>8</sup>; some individuals may want to make up for past behavior by asserting high tax morale in survey responses. However, the way the question is asked in the WVS may not be as sensitive to such individual manipulation. First, it does not intrude by asking past behavior; instead, it is a probing question about a hypothetical situation (whether the individual would consider cheating if he had a chance to do so). Second, the question appears in the questionnaire in a group of questions that

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<sup>8</sup> Although the direct relationship between Tax Morale and actual compliance behavior has yet to be developed in detail, average levels of Tax Morale in a country appear to be correlated with the country’s size of the underground economy which has been interpreted as the impact of Tax Morale on tax evasion (Torgler and Schneider 2007; Alm and Torgler, 2006). The same problem affects the neoclassical model of tax evasion; intentions are assumed to be known from observed non-compliant behavior, but observed non-compliance may be also due to misinterpretation of tax laws or lack of resources when filling out one’s taxes (Braithwaite, Reinhart, and Smar, 2010).

asks about other individual attitudes such as - the justifiability of homosexuality, divorce, accepting bribes, euthanasia, and suicide, among others – all of which lowers the possibility of respondents giving a prepared answer. Other issues contemplated in the literature such as the problems derived from using a single question to measure tax morale, are counter-balanced by the difficulties in assembling indexes in terms of correlation among components, and deciding on the relative importance (weights) of each component (Alm and Torgler, 2006).

*Explanatory variables*

We have first a vector of four variables,  $\sum TRUSTG_i$

which are the variables used to test the proposition that government organizations on the output side are more salient in driving tax morale.<sup>9</sup> In the WVS, the question that asks individuals how much they trust different government organizations (and other types of social organizations as well) reads:

*“I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (4-scale item, coded 1=a great deal... 4=none at all)”*

The four measures of trust in government organizations that we include in the estimations are the following:

*Trust in the Civil Service.* We use this explanatory variable as a way to measure individual trust in government bureaucracies with which individuals may interact in order to access their share of goods and services –health, education, social services, and so on. A possible limitation of this variable is the extent to which “civil service” actually captures individual

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<sup>9</sup> We could also use the variable “trust in government” directly but that would not allow us to examine the question of whether there are differentiated bases for trusting different government organizations.

experience with the output side of government<sup>10</sup>; using measures of trust in specific organizations (e.g. school system or social welfare) would be a better alternative, but they are not available<sup>11</sup>. Another possible limitation is that “civil service” may be associated in some cases with government organizations on the input side of government (Rothstein and Stolle, 2008) because their leaders may be appointed by politicians. We expect a positive sign; if individuals trust civil service institutions they would be more likely to report higher tax morale.

*Trust in Police.* Its role is to protect individuals’ lives and property, detecting norm-deviant behavior and capturing those suspected of conducts breaking the law. Police actions fall right into the realm of procedural justice; in particular, individual protection of individuals’ lives and patrimony does not admit exception and capturing suspected criminals should be done showing concern and respect for their rights. We expect a positive relationship between trust in police and tax morale.

*Trust in the Courts.* The role of the courts and the legal system in eliciting individual Tax Morale has been explored in previous studies and found to be empirically supported (Torgler 2003a, 2003b, 2003c, 2004, Torgler and Murphy 2005). One possible issue concerns the extent to which individuals get exposed and involved with the legal system and courts. Unlike with the police, the extent to which the common citizen may get involved with courts is limited to those with legal affairs to settle. However, the lack of appropriate data has not allowed previous researchers and will not allow us either to address this concern.

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<sup>10</sup> Rothstein and Stolle (2008) contended that trust in Civil Service may be considered as trust in the political appointees that are nominated to populate the high ranks of state organizations. If that is the case, then they may be closer to political institutions in the input side than those in the output side of government.

<sup>11</sup> Even if we were to have measures of individual trust from several output organizations, we have no way to ascertain the relative relevance of each in shaping individual Tax Morale; not only because different individuals may interact with different agencies, but also because the international basis of the WVS means different government arrangements and different functions. For instance, healthcare in the U.S. is provided mainly by private providers with little or no intervention from the government, whereas in many Western European countries, Canada, and Japan, the arrangements include government organizations in varied degrees.



*Trust in Parliament.* Higher trust in legislatures has been found in the previous literature to increase tax morale (Torgler 2003a, 2004; Torgler and Murphy 2005, Martinez-Vazquez and Torgler 2009). The interpretation of the variable is complicated by the fact that trust in parliament may gauge not only trust in the institution but also trust in the incumbents (Citrin, 1974)<sup>12</sup> which responds to different political parties. Again, the data available do not allow us to discern among these possibilities. Besides the “Trust in Government” variables of interest we also include several other control variables:

*Support for democracy (SUPPDEM):* Individual support for democracy has been found in the previous literature to positively affect tax morale (Torgler, 2003c, 2004b, 2005b; Torgler and Schneider, 2007). Moreover, availability of direct democratic practices such as referenda increase tax morale among Swiss taxpayers (Torgler 2005a). However, Inglehart (2003) examined the issue of how to measure support for democracy and noted that measures of overt support may be misleading because a substantial proportion of democracy supporters also support non-democratic regime types, even among those living in well-established democracies. Consequently, we will use a measure of democratic support where what is gauged is individuals’ rejection of non-democratic regimes following Linde (2009). Those who reject all non-democratic alternatives offered in the WVS are coded 1 and 0 otherwise. We expect a positive effect of “rejecting all non-democratic regime alternatives” on tax morale.

*Religiosity (RELIG):* This variable accounts for individual involvement with formal religion, gauged by attendance at religious services. Based on the findings of earlier studies (Torgler 2003a, 2005a, 2006, Alm and Torgler 2006, Torgler and Schneider 2007, Torgler and Martinez-Vazquez 2009), we anticipate that individuals who reported being religious exhibited higher tax morale than those who did not.

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<sup>12</sup> Even other interpretations are possible here (Citrin, 1974).

*National Pride (NPRIDE)*: Also it has been found in previous studies that individuals reporting being proud of their nationality were more likely to report willingness to comply with taxes (Torgler 2005b, Torgler and Schneider 2004, Martinez-Vazquez and Torgler 2009, Konrad and Qari 2012).

Other control variables (  $\sum_{i=1..5} \beta_{li} \cdot OTHER_{li}$  ) were included involving personal characteristics of the respondents, which also have been generally found to be significant determinants of tax morale in previous studies: gender, age, education level, marital status, and employment status. Finally, note that we use specific dummy variables (COUNTRY) to control for country fixed effects.

The variables to be used in the estimations are listed in Table 1, which also shows the item number in the WVS and the expected sign of the regression coefficient.

<b>Table 1. List of Variables</b>		
<b>Variable</b>	<b>Measure in the WVS</b>	<b>Expected sign</b>
Tax Morale	(v200) Cheating on Taxes	
Trust in Government	(v141) Trust in Civil Service	( + )
	(v136) Trust in Police	( + )
	(v137) Trust in Courts and Justice System	( + )
	(v140) Trust in Parliament	( + )
Rejection of Non-democratic alternatives		( + )
	(v148) ruled by strong leaders	
	(v149) ruled by experts	
	(v150) ruled by the military	

<b>Table 1. List of Variables</b>		
<b>Variable</b>	<b>Measure in the WVS</b>	<b>Expected sign</b>
Other variables	(v186) Religiosity (attendance to services)	( + )
Controls	(v209) National Pride	( + )
	(v235) Female (gender)	( + )
	(v237) Age	( + )
	(v253) Income	( - )
	(v238) Education	varies
Country-specific dummies	(v55) Marital status	varies
	(v241) Employment Status	varies
		varies

### *Data and estimation issues*

The core data used in the estimations are based on the last available wave of the World Values Survey (WVS) collected from 2005 to 2008 for a large number of countries. The WVS collects opinions on a large array of topics from individuals living in different countries (more than 40 countries in the 2005-08 wave)<sup>13</sup> and different political systems from full-fledged democracies to one-party governments.

One relevant issue concerns the differences between political systems because they may influence how individuals come to trust authorities. Democratic systems give individuals a chance to get their policy preferences implemented through selecting the candidates that propose the policies they favor. Individuals appreciate the trust government places in them and in turn become more willing to comply with taxes. Voting on how taxes should be spent has been found to increase tax compliance in experiments (Alm, Jackson and McKee, 1993; Wahl, Muehlbacher, and Kirchler, 2010). Thus, higher tax compliance results from government delivering not only

<sup>13</sup> Working with data from individuals living in different countries raises the issue of the accuracy of survey questions across different languages. The WVS team controls the accuracy of surveys by providing the main questionnaire (in English) to each country team which translates it into the local language(s). In turn, the local teams submit the local questionnaires to a different translator who translates it back to English; both versions are sent to the central WVS team that develops the main questionnaire for approval.

goods and services but also from governance practices consistent with democratic principles (Braithwaite, 2003a). This is a basis for trusting government different from the basis used in a country without democratic institutions and political competition. Experimental evidence suggests individuals have lower tax compliance when they do not have a voice on how their taxes are spent (Wahl, Muelhbach, and Kirchler, 2010). It is for these reasons that we need to control for the differences in political regimes in general and between full-fledged democracies and other types of regimes in particular.

To control for the different ways that governments interact with their citizens derived from the political system they are in, we will use the Freedom in the World survey produced by Freedom House to separate those countries where the political systems are democratic (free, in the parlance of the survey) from those whose political systems are different<sup>14</sup>. The survey ranks annually most countries in the world based on the level of political rights and civil liberties effectively available to their citizens, which in turn are combined into a single number that, among other things, allows countries to be separated into three categories: so-called free countries (with scores from 1 up to 2.5), partially-free countries (between three and five) and not-free countries (scores 5.5 and above). We run two separate sets of regressions, one with individuals from democratic countries which all fall within the category of “free”, and the second set is for individuals from the rest of the countries (partially-free and not-free). With that arrangement we expect to isolate the different basis for trust that arises from different political regimes.

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<b>Table 2. List of Countries</b>			
<b>Free Countries</b>			
Germany	Italy	Spain	Canada

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<sup>14</sup> The survey assesses a country’s level of political rights and civil liberties enjoyed by their inhabitants based on questionnaires that score how they perform on political rights and civil liberties. Each dimension generates a rank from 1 to 7 with lower values meaning higher degree of political and civil rights.

Australia	Norway	Sweden	Finland
Poland	Switzerland	Chile	Slovenia
Taiwan	Uruguay	Cyprus	United States
Japan	South Africa	South Korea	Bulgaria
Mexico	Brazil	India	Romania
Ukraine	Indonesia	Serbia	Mali
Trinidad and Tobago			
<b>Partially Free and Not Free Countries</b>			
Turkey	Moldova	Georgia	Thailand
Burkina Faso	Ethiopia	Zambia	
China	Vietnam		

Table 2 shows the list of countries included in each set of regressions. A second estimation issue is that we are interested in what makes individuals more likely to report that cheating on their taxes is not justifiable, (that is, to exhibit tax morale). A non-linear estimation method is necessary because predicted probabilities may become negative or larger than unity when using a linear regression approach (Kennedy, 1993). Because of that we will follow previous empirical work and use Probit estimation (Wooldridge, 2002). In addition, in the estimations we need to use weights to reflect a country's share of the total sample. Finally, because of the way the answers are distributed – on average about sixty percent of respondents report that cheating on taxes is never justifiable, and the other forty percent appear scattered on the other nine possible values – as customary, we recode the ordinal measure of tax morale into a binary variable where one stands for “cheating on taxes is never justifiable” and zero otherwise.

#### **4. Results**

First we discuss the results for individuals from 29 democratic (free) countries presented in Table 3. Our specifications include a number of combinations of our variable of interest, Trust in Government.

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**Table 3. Trust In Government and Tax Morale - Free Countries**

	1	2	3	4	5	Marginal Effects
Justice and Courts			0.0310** (0.0125)		0.00459 (0.0146)	0.00177 (0.0056)
Parliament			-0.00129 (0.0132)		-0.0204 (0.0147)	-0.00789 (0.0057)
Civil Service				0.0129 (0.0129)	0.0215 (0.0147)	0.00831 (0.0057)
Police				0.0467*** (0.0125)	0.0469*** (0.0145)	0.0181*** (0.0056)
Support for Democracy		0.194*** (0.0205)	0.193*** (0.0208)	0.193*** (0.0209)	0.197*** (0.0211)	0.0754*** (0.0080)
National Pride	0.161*** (0.0120)	0.156*** (0.0130)	0.153*** (0.0133)	0.149*** (0.0134)	0.150*** (0.0135)	0.0580*** (0.0052)
Religiosity (attendance to services)	0.0214*** (0.0046)	0.0237*** (0.0050)	0.0244*** (0.0051)	0.0228*** (0.0051)	0.0235*** (0.0052)	0.00909*** (0.0020)
Gender (female)	0.118*** (0.0176)	0.126*** (0.0190)	0.121*** (0.0194)	0.125*** (0.0194)	0.126*** (0.0196)	0.0486*** (0.0076)
Age	0.00736*** (0.0008)	0.00745*** (0.0009)	0.00753*** (0.0009)	0.00760*** (0.0009)	0.00754*** (0.0009)	0.00291*** (0.0003)
Income	-0.0123*** (0.0039)	-0.0158*** (0.0043)	-0.0161*** (0.0044)	-0.0160*** (0.0044)	-0.0156*** (0.0044)	0.00602*** (0.0017)
Constant	-0.604*** (0.0779)	-0.666*** (0.0833)	-0.730*** (0.0881)	-0.811*** (0.0890)	-0.806*** (0.0902)	
Observations	32,976	27,939	27,062	26,998	26,544	26,544

All specifications include indicators for education (secondary education omitted), marital status, employment status, and country (USA omitted) of respondent. Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results suggest that tax morale is influenced by individual trust in government organizations in the output side and specifically those with which individuals are more likely to interact. The full-fledged specification (model 5) shows that Trust in Police is statistically significant at the one percent level and shows the expected positive sign. Higher trust in police makes individuals more likely to report that they would never justify cheating on their taxes.<sup>15</sup>

<sup>15</sup> Several other considerations may be behind the strong results for trust in police. For example, results from behavioral experiments indicate that direct, face-to-face communication is superior to other forms of interaction in promoting trust and cooperation (Ostrom, 2000). Similarly, experiments in neuroscience show unique physiological

The results give additional support to the hypothesis that building a relationship of trust and cooperation between taxpayers and authorities would improve individual tax compliance (Alm, 1999; Alm and Martinez-Vazquez 2007).

Regarding the other Trust in Government variables, none of them is statistically significant in the full-fledged specification, although Trust in Civil Service and in Justice and Courts show the expected positive sign. Possible reasons for those results may be the lack of specificity in the Civil Service case (it may have different meanings for different people) and the lack of direct involvement with the courts and the judiciary in the other. Trust in Justice is statistically significant only when the two Trust in Government variables that are newly proposed in this paper were not included (model 3). From our discussion above, there are reasons to expect that Trust in Parliament may not be related to tax morale, in particular if individuals associate parliament with incumbent members. Overall, the results support our hypothesis that individuals assess whether to trust government by the way its agencies exercise their powers over the citizenry. In other words, they assess government legitimacy by the way it exercises its power over its citizens (Rothstein, 2009; Rothstein and Teorell, 2008).

For the other control variables, the results show that support for democratic regimes affects the willingness to comply with taxes. Those individuals who reject non-democratic alternatives are more likely to report willingness to comply with taxes; this variable has the expected positive sign and it is statistically significant at the one percent level. Even though the results we obtain are similar to those from earlier studies, the measure of democratic support used in this paper accounts for the problems with measures of overt support - simultaneous support for democracy coexisting with support for regimes that are not democratic. The results

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patterns – brain activity and neurotransmitters - when subjects are trusted (Sanfey, 2007) and also when they are mistrusted (Zak et al., 2005).

for the other control variables are within expectations. Both religiosity and national pride are positive and statistically significant – higher religious values and pride in one’s national origin are associated with higher tax morale. Women are more likely to exhibit higher tax morale than men, and the same holds for older individuals compared to younger ones.

One limitation of Probit estimation is that unlike linear regression - where the coefficients of the independent variables give the size of the impact on the dependent variable - Probit coefficients report the change in the z-score of the dependent variable of a one-unit change in the independent variable, holding other explanatory variables at pre-determined values. For that reason, we computed marginal effects measuring the change in the probability of reporting tax morale of a unit change in the independent variables, holding all other variables constant at their means (the last column in Table 3). For our variable of interest, one unit increase in Trust in Police increases the probability of reporting tax morale by about two percentage points. Although the size of the impact is arguably small, it is otherwise in line with earlier results. The impact of individual support for democracy on willingness to comply with taxes is larger; those who reject all non-democratic regime alternatives are about seven percent more likely to report tax morale than those who support at least one non-democratic regime. Similarly, an increase of one point in national pride increases the probability of reporting tax morale by about six percent, holding all other variables at their means. The impact of religiosity is also positive, but smaller still - about one percent. The small impact of religiosity echoes Dalton’s (1996) observation that religious affiliation is losing its relevance in providing individuals with guidance about political issues. Females are more likely to report tax morale by about five percentage points compared to males that are otherwise average in all other respects. Finally, older individuals are more likely to report tax morale than younger ones.



Table 4. Trust In Government and Tax Morale - Partial-Free and Not-Free Countries

	1	2	3	4	5	Marginal Effects
Justice and Courts			0.0490** (0.0195)		0.0463** (0.0234)	0.0181** (0.0092)
Parliament			-0.0075 (0.0209)		0.0030 (0.0241)	0.0012 (0.0094)
Civil Service				0.0013 (0.0211)	-0.0151 (0.0242)	-0.0059 (0.0095)
Police				0.0310 (0.0198)	0.0084 (0.0239)	0.0033 (0.0094)
Support for Democracy		0.201*** (0.0325)	0.197*** (0.0346)	0.207*** (0.0347)	0.207*** (0.0350)	0.0797*** (0.0133)
National Pride	0.250*** (0.0205)	0.263*** (0.0230)	0.232*** (0.0262)	0.238*** (0.0263)	0.236*** (0.0266)	0.0922*** (0.0104)
Religiosity (attendance to services)	0.0315*** (0.0065)	0.0240*** (0.0072)	0.0112 (0.0090)	0.0096 (0.0091)	0.0099 (0.0091)	0.0039 (0.0036)
Gender (female)	0.0225 (0.0262)	0.0057 (0.0299)	0.0004 (0.0322)	0.0009 (0.0324)	0.0012 (0.0326)	0.0005 (0.0128)
Age	0.00255** (0.0011)	0.00206* (0.0012)	0.0010 (0.0014)	0.0010 (0.0014)	0.0010 (0.0014)	0.0004 (0.0006)
Income	-0.0474*** (0.0060)	-0.0384*** (0.0068)	-0.0391*** (0.0077)	-0.0421*** (0.0078)	-0.0399*** (0.0078)	-0.0156*** (0.0031)
Constant	-0.0879 (0.1050)	-0.1060 (0.1180)	-0.0525 (0.1370)	-0.0131 (0.1370)	-0.0655 (0.1400)	
Observations	14,707	11,783	8,496	8,428	8,279	8,279

All specifications include indicators for education (secondary education omitted), marital status, employment status, and country (Turkey omitted) of respondent. Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

We also perform some heterogeneity analysis. Table 4 presents the estimation results for respondents living in nine countries whose regimes either fall short of being full-fledged democracies or are a different type of political regime. As explained earlier, we have separated the WVS sample between democratic countries and the rest because democratic regimes may build trust in their citizens in ways that non-democratic regimes cannot (e.g. by allowing individuals to express their voice regarding the policies they want enacted). For instance, allowing individuals to express their policy views may make taxpayers trust political

organizations of government that may not be trusted (or be trusted under different basis) in those regimes that are not democratic.

Talking specifically about the results, support for the proposition that government institutions in the output side are what drive tax morale is verified, although the results differ from those obtained for individuals from democratic countries. The most notable difference is that Trust in Police is not statistically significant though the sign of the coefficient was as expected. By contrast, Trust in Justice is statistically significant at the five percent level and shows the expected positive sign; the higher the level of trust the more likely respondents to report that cheating on taxes is never justifiable (holding all other variables at their means). From the input side, neither trust in Parliament (which in earlier studies positively influenced tax morale) nor trust in the Civil Service (one of the measures we propose) is statistically significant. However, Probit coefficients only tell the direction of the relationship and not its intensity so we also computed marginal effects. Because of the ordinal nature of the dependent variable, we computed marginal effects only for the highest value of the tax morale variable – cheating on taxes is never justifiable. One point improvement in Trust in Justice increases tax morale of respondents by about two percentage points.

There are several possible reasons behind this difference in results for the two groups of countries. One possibility is that the situation of rights and freedoms in partial-free and not-free countries might limit survey respondents' willingness to report their views to the interviewer for fear of reprisals<sup>16</sup>. However, several arguments lessen the plausibility of such explanation;

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<sup>16</sup> To illustrate, in Turkey's country report, Freedom House (2011) noted that although the constitution provided for an independent judiciary, in practice the government influenced its decisions, for instance condoning questionable practices such as accepting confessions extracted under torture. Also individuals may be incarcerated and prosecuted for discussing issues such as the division of Cyprus, the 1915 mass killings of Armenians by Turks, or insulting the armed services. Individuals may also be incarcerated and prosecuted for denigrating "Turkishness" (quotes in original). As a result of all these issues, the exercise of freedom of speech may well be affected.

interviewers do not collect any information that would allow identification of particular respondents. Also, limitations in political and civil rights in the “partial-free and not-free countries” vary a great deal, and it is not clear why respondents would be less fearful to tell their opinions about the Courts and the Legal System (which shows the predicted sign and is statistically significant) than their opinions about the Police or about Parliaments. All these observations make it less likely that a fear to speak the truth is a factor explaining the empirical results.

A second reason stems from the possibility that government organizations in democratic countries may work differently in partial-free and not-free countries. Even though their formal functions may be similar, differences in the societies’ informal rules (North, 1994) that never considered democratic concepts such as individual rights and freedoms for all (O’Donnell, 2001) would end up making those institutions work differently compared to those in democratic countries. As a result, taxpayers in “partial-free” and “not-free countries” may not have the same expectations regarding those organizations compared with their counterparts in democratic countries. Finally, the police may be perceived as the most visible instrument of government repression with little variation across “partial-free” and “not-free” countries while the judiciary could be more independent in some cases thus contributing to explain differences in tax morale.

Regarding the results for the other control variables, support for democracy and national pride appear associated with higher probability of reporting tax morale. Both coefficients have the expected positive signs and are statistically significant at the one percent level. The marginal effect indicates that those rejecting all non-democratic government alternatives are about eight percent more likely to report higher tax morale than those who do support at least one non-democratic alternative, but are otherwise average in all other respects. Likewise, one point

increase in national pride increases the likelihood of reporting tax morale by about nine percent (other things being average). Given that in this group of countries governments either fall short of being democratic or do not resemble a democratic system at all, we would have expected some kind of alignment between regime preferences and the current regime on the one hand, and willingness to comply with taxes on the other. Willingness to comply with taxes is one sure way to contribute to the sustainability of the preferred regime. The way we constructed the support for democracy variable would allow for collecting the preferences of those who support non-democratic systems to exhibit tax morale (the value 0 means that at least one non-democratic regime is preferred), but what we see is that rejection of non-democratic regime alternatives appear associated with higher willingness to comply with taxes.

For the other control variables, religious beliefs, gender, and age do not affect the willingness to comply with taxes. Religiosity and age are only statistically significant in the models without the trust in government and democratic support variables, whereas gender is never statistically significant. In any event, none of those factors may be influenced by government action and so if they were relevant it would be more like parameters or restrictions on what governments may do about influencing other tax morale factors.

## **5. Conclusions**

In recent years scholars have shifted their focus to ask what makes people willing to comply with taxes beyond the incentives provided by audit probabilities and potential fines which were emphasized in the classical Allingham and Sandmo (1972) model. Considerable research has now been conducted verifying the important the role played by tax morale in tax compliance behavior (Luttmer and Singhal 2014). This in turn has led to asking the question of

what shapes tax morale. In this paper we have argued that trust in government and therefore the willingness to pay taxes is affected by the way citizens are treated when interacting with government institutions in the regular delivery of public goods and services. The evidence available from other fields strongly supports the argument that trust plays a fundamental role in fostering cooperation among individuals, and thus provides independent support for the hypothesized mechanism for building tax morale— trust emerges out of direct contact between individuals. We empirically test the propositions that individuals who trust government are more likely to exhibit higher tax morale and that trust in the output organizations of government in particular is even more likely to increase tax morale. For the empirical estimation we use data from over thirty countries covered in the 2005-2007 wave of the World Values Survey (WVS). Our empirical results suggest that tax morale is influenced by individual trust in government organizations especially on the output side. These are the government organizations with which individuals are more likely to interact. The results are particularly strong for the subset of “free countries” while generally weaker for the “partial-free” and “not-free” countries. From the results we may draw some lessons.

First, the results in this paper are consistent with the recommendation in the tax compliance literature that building a relationship of trust and cooperation between taxpayers and tax authorities is necessary to elicit voluntary tax compliance (e.g. Braithwaite, 2003; Alm and Martinez-Vazquez, 2007). Furthermore, the results in this paper suggest the need to expand that recommendation to all the output organizations of government (and not only where taxpayers meet tax authorities) because individuals who trust those output organizations are more likely to reciprocate and become more willing to comply with their tax obligations and government norms in general.

Second, tax administration reform should be just one part of a broader reform in the public sector to bring governance in line with more government horizontal accountability or the extent to which government agencies are legally and factually able to exercise control on one another and impose sanctions or mandate redress of state power abuses (O'Donnell 1998, 2004). If individuals are at the mercy of government agents that demand bribes in exchange for goods and services individuals are entitled to get, impose sanctions that may not be appealed, or even worse, possibly imprison individuals without due process or subject them to torture, horizontal accountability is severely undermined and citizens cannot be expected to voluntarily comply with taxes or support other government activities. Building a professional and impartial bureaucracy may be a good step in building trust in government and in fellow citizens (Rothstein, 2000; Rothstein and Stolle, 2008).

Third, the differences in our results between “free” versus “partial-free” and “not-free” countries leads us to consider several implications for policy reform. Because of differences in how government institutions work in democratic and not democratic countries, the effectiveness of tax reforms developed and implemented on the basis of what has worked in democratic countries would appear to be open to question. On the one hand, some technical elements of reform may improve individual compliance with taxes, provided taxpayers are asked to do what lies within their abilities and are supported by the authorities. On the other hand, creating an atmosphere of trust between taxpayers and authorities to replace the old paradigm of command and control would seem difficult to achieve where government bureaucrats have little restraint on how they exercise their power over the citizenry. Priority should be given to reforming government organizations in the output side and specifically those with which individuals are more likely to interact.

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