

2003 CONFERENCE
Third International Research Conference
Responsive Regulation: International Perspectives on Taxation

TAX MORALE IN LATIN AMERICA

by

Benno Torgler*

Abstract: In the tax compliance literature, we observe a lack of empirical evidence on the degree of tax morale in developing countries. Thus, our paper as a novelty focuses on Latin America, analysing tax morale as dependent variable and searching for factors that systematically affect tax morale, working with the two data sets Latinobarómetro and World Values Survey. Our findings indicate that there is a significant correlation between tax morale and the size of shadow economy. Furthermore, people who said they knew/have heard about practised tax avoidance have a significant lower tax morale than others. Looking at individuals' perception of reasons for tax evasion we found that the tax burden, lacking honesty, and corruption are seen as the main factors. We observed a significantly lower tax morale in South America/Mexico than in the Central America/Caribbean area. Furthermore, trust in the president and the officials, the belief that other individuals obey the law and a pro democratic attitude have a significant positive effect on tax morale.

JEL classification: *H260, K420, 9160*

Keywords: *tax morale, tax evasion, tax avoidance, shadow economy*

* University of Basel, Wirtschaftswissenschaftliches Zentrum (WWZ), Abteilung Wirtschaftspolitik, Petersgraben 51, Basel (Switzerland). E-Mail: benno.torgler@unibas.ch. For advice and suggestions thanks are due to Doris Aebi and René L. Frey.

I. INTRODUCTION

Tax morale and tax compliance are important factors for guaranteeing an adequate provision of public goods. Especially in times when the costs of running public office have strongly increased, governments search for strategies to generate revenues. A high degree of tax evasion creates misallocations in resource use (see Alm and Martinez-Vazquez 2001). In developing countries tax evasion is often widespread (see, e.g., de Soto 2000). Such a high level of tax evasion reduces government's ability to work and thus to provide adequate services. Over the last decades, developing countries as, e.g., in Latin America have made considerable efforts to implement major reforms in tax policies and to improve the effectiveness of their tax administrations:

“These efforts frequently took place under unfavourable macroeconomic circumstances. Tax administrators often had to cope with a barrage of tax reforms, interspersed with numerous ad hoc changes in tax rates, exemptions, and payment periods introduced largely for revenue reasons” (Casanegra de Jantscher and Bird 1995, pp. 1-2).

In general, the empirical evidence in the tax compliance literature is rare. Pyle (1993) points out in a survey:

The solution should lie in the results of empirical studies. Alas, the current harvest of such studies is remarkably thin (p. 73).

However, it is interesting to notice that there is hardly any empirical evidence about the degree of tax morale in developing countries. Thus, the focus on Latin America in this paper is novel. We analyse tax morale as a dependent variable and search for factors that systematically affect tax morale. It is important to analyse the determinants that influence tax morale in developing countries as the environment is different from developed countries. On the other hand, if we observe similar tendencies, some effects might be independent of cultural environments. To get a robust picture we are going to analyse two different data sets: the World Values Survey (WVS) and the Latinobarómetro. The WVS covers the years from 1981 to 1997 and the Latinobarómetro the year 1998¹. In Section II we are going to give an overview about the tax system and tax administration in Latin America. Section III starts with a descriptive analysis evaluating the degree of tax morale in different Latin American

countries and checking if there is a correlation between tax morale, tax avoidance and the size of shadow economy. In a second step, multiple regressions will be estimated pooling together developing countries in a cross-section analysis, and differentiating between Middle and South America. The paper finishes with some concluding remarks.

II. TAX POLICY: THE ART OF THE POSSIBLE RATHER THAN THE PURSUIT OF THE OPTIMAL

Taxation in developing countries is a challenging topic and has attracted increasing attention in the last two decades. Many problems observed as, for example, poor administration performances failing to collect sufficient tax revenues, tax structures where tax horizontal and vertical equity considerations are not integrated, lack of government and economic stability. Compared to OECD countries, the levels of tax revenues in percent of the GDP are much lower (around 18 percent compared to around 40 in OECD countries, see, e.g., Tanzi and Zee (2000, p. 303). We are going to pay attention to the tax administration as it plays an essential role in the tax policy, especially in those countries in which formal institutions are less stable and credible. In many developing countries we observe a low capacity of the tax administration to monitor compliance among taxpayers. Tanzi (2000) reports a case in Peru where corruption in the tax administration was so common that the government had to close down the existing administration to replace it completely. In many countries there was a very high demand for poorly paid jobs in the tax administration, which indicates that applicants were aware of the possibility to get extra incomes. Furthermore, in some countries these jobs can be bought (see also Tanzi 2000).

Most countries traditionally have not a self-filling procedure but employed deductions. Bahl and Martinez-Vazquez (1992) criticised that developing countries have imitated the complex tax structures of developed countries with the disadvantage of lower tax administration capabilities. Tax reforms in the 80s had the intention to increase the stability in the revenue system. The 90s fiscal crises might have been motivating factors for reforms (see Das-Gupta and Mookherjee 1995). Jenkins (1995) points out that the income tax has performed very badly in Latin America, tending to give modest amounts of revenue. In general, it can be argued that an important aim of a tax reform is to find a good way to raise revenues, promoting equity and efficiency without crowding out tax morale.

¹ *Table A1* in the Appendix presents the years when the surveys have been carried out.

We can also observe a fiscal decentralisation process in the 80s, delegating functions downwards but without increasing much the local fiscal autonomy. Aghón and Casas (1999) give an overview on fiscal decentralisation in Latin America. They point out that countries as Argentina, Brazil, Colombia, and Chile have a limited participation at the subnational governmental level with a strong dependency on intergovernmental transfers. On the other hand, Peru, Bolivia, Paraguay, Ecuador and Central America have the tendency to a higher revenue and expenditure centralisation. Looking at the distribution of revenues by source and government level, we observe, e.g., in Argentina (1995) that property taxes and indirect taxes play an essential role for municipalities and provinces. Income taxes on the other hand covered only around 11 percent of the consolidation of tax revenues (see Rezk 1999). A similar picture can be observed in other Latin American countries. Personal income tax revenues are very low in an international comparison (around 1 percent of the GDP, OECD countries around 11 percent), and have been constant over the last two decades (see, e.g., Tanzi and Zee 2000). However, in Brazil, the income tax assignment is divided between the union (33.3 percent revenue disposition), the states (24.5 %) and the municipalities (22.5%) (Rezk 1999, p. 112). Characteristics as, for example, a large agriculture sector, a high degree of shadow economy, small establishments, and a small proportion of wage income according to Tanzi and Zee (2000) reduce the possibility for developing countries to rely on modern taxes, such as personal income taxes (see also, Burgess and Stern 1993). The uneven income distribution with the political and financial power concentrated in the top prevent modern tax reforms as the use of personal income or property taxes. Thus, it is not surprising that radical reforms can hardly be seen in such countries.

Latin American countries generally have their expenditures much more centralised than OECD countries. On the revenue side, national legislators set tax bases and tax rates. However, Aghón and Casas (1999) state that in the last years local taxes gained importance and local governments act mostly as tax collectors.

In 1991 important reforms were enacted in Peru creating an increase in revenues measured as a percentage of the GDP. The tax administration (Superintendencia Nacional de Administración Tributaria) reduced their workforce implementing higher standards and increased the salary to be competitive with the private sector (Bejaković 2000).

In Bolivia at the end of 80s, tax receipts increased rapidly. Strong changes in the tax system and the tax administration have been done. Silvani and Radano (1992) analyse Bolivia and Uruguay. In both countries changes supported by international organisations have been done between 1985 and 1990. A main intention was to simplify the tax system, taxation and

auditing procedures. Uruguay's changes were more gradual and thus less radical than in Bolivia, where new taxes were introduced and the fines adapted (from 50 percent to 100 percent of the unpaid taxes). Cabezas (1992) points out that drastic and sweeping changes have been necessary as the situation was chaotic before 1985. Tax area reforms have been done hand in hand with government changes. The Bolivia economy was restricted by strong government regulations and the public sector produced enormous fiscal deficits. The reforms tried to increase tax collection, to simplify the tax system, and to reduce tax evasion (Cabezas 1992). They eliminated the business income tax and replaced it by a net wealth tax. A further objective was to avoid contact between taxpayers and administrators. It can be criticised that such a strategy might not be so efficient. Certainly, the objective was to reduce a discretionary and arbitrary behaviour of the tax administration. Corruption in the tax administration is a real problem in developing countries. There are many opportunities for a tax official to demand bribes. The effective tax burden might therefore be much higher than the official tax burden, e.g., due to the "special payments" to the tax officials. Tanzi (2000) offers a set of arguments why corruption is likely to be a major problem in tax administrations (p. 113):

- “1. the laws are difficult to understand and can be interpreted differently so that taxpayers need assistance in complying with them;
2. the payment of taxes requires frequent contacts between taxpayers and tax administrators;
3. the wages of the tax administrators are low;
4. acts of corruption on the part of the tax administrators are ignored, not easily discovered or, when discovered, are penalized only mildly;
5. the administrative procedures (for example, the criteria for the selection of taxpayers for audits) lack transparency and are not closely monitored within the tax or customs administrations;
6. 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; and
7. more broadly, when the controls of the state (the principal) over the agents charged with carrying out its functions are weak”.

It might be more important that tax administration procedures in the contact with taxpayers are transparent and clear than to search for strategies to avoid contact with them. Feld and Frey (2002a) points out

“If they treat taxpayers as partners in a psychological tax contract, instead of inferiors in a hierarchical relationship, taxpayers have incentives to pay taxes honestly” (p. 5).

Research findings indicate that a personal interaction between taxpayers and the tax administration is a key determinant regarding the degree of tax evasion. Feld and Frey (2002a) show empirically that taxpayers’ honesty and tax morale is enhanced when tax officials treat them with respect. Thus, it might be more convenient to reduce corruption by imposing, for example, a periodical geographical mobility on civil servants, removing them from regions with close social or family relationships (see Tanzi 2000). Such a strategy can especially be used in large countries (for example in South America). The privatisation of the revenue collection might be an alternative strategy, done in Indonesia in 1985 where a customs assessment has been made by a foreign firm, or in Mexico where commercial banks collect domestic taxes (see Burgess and Stern 1993).

In Chile tax administration has been confronted with strong modernisation tendencies. Resources have been invested in education courses for the administration staff. Transparency has been increased informing via internet about the tax system (see Bejaković 2000).

In Guatemala in 1987 a tax reform created a dramatic increase of tax evasion. The government had missed the possibility to reform the tax administration and the changes in the tax base enhanced the incentives to avoid taxes, increasing the number of exemptions and deductions. Whereas the revenues increased from 1986 to 1988 (from 8.9 percent to 10.1 percent of the GDP), they fell back in the following years (in 1990, 6.5 percent of the GDP) (Bahl and Martinez-Vazquez 1992). Results indicate that the reform has produced only short-run effects. According to Pineada (1992, p. 116), less than 1 percent of the registered businesses were audited (200 out of 30’000) and in the years 1966-67, only 51 percent of the registered businesses (24’300) paid taxes.

Colombia reformed the tax administration in 1974. However, no increase in the tax revenues was achieved before the reforms in the late 80s which integrated tax system reforms as, e.g., tax simplification (Bejaković 2000). McLure and Pardo (1992) stress the positive effects of reforms on tax morale:

“Colombia has one of the best income taxes of any developing country ... Reforms ... in processing collections and refunds – have led to an improvement of taxpayer morale – at least, the morale of honest taxpayers. Rather than facing the prospect of dealing with dishonest officials who will demand bribes or otherwise cause trouble for the taxpayer ... the taxpayer can be relatively confident that payments will be handled properly” (pp. 124, 135).

However, too many reforms can produce instability in the tax system. In Mexico reforms took place in 1978-80, 1983, 1985, 1986, 1988, 1989, 1990-91, 1993, 1994, 1995-97, and 1998 (Martinez-Vazquez 2001, p. 29). Martinez-Vazquez (2001) points out that instability of the tax system makes tax enforcement more difficult and might lead to a lower tax revenue. Changes demand too much of the tax administration, create uncertainty and confusion among taxpayers and increase tax compliance costs. Contrary to other Latin American countries Mexico has a very modern tax revenue structure based on income taxes as the most important source of revenue (31 percent of total federal revenues in 1998). However, the structure is very centralised, leaving the subnational government only 6 percent of the government revenues (Martinez-Vazquez 2001, p. 9)

III. EMPIRICAL EVALUATION

In our analysis we are going to use two data sets: the World Values Survey and the Latinobarómetro. The Latinobarómetro has been conducted annually from 1997 to 2000 in seventeen countries covering most of Latin America with the exception of Cuba, the Dominican Republic, and Puerto Rico. In the survey of 1998 which we take as the basis of our analysis, tax compliance questions have been asked. The World Values Survey data covers 10 Latin American countries, and for some of them we have data from different years. Both data sets help get a relatively robust picture of the degree of tax morale and the determinants that shape tax morale in Latin America. To reduce possible bias in cross-country analysis, it makes sense to consider a relatively homogeneous region with similar characteristics.

1. Descriptive Analysis

1. Tax Morale and Tax Evasion

In the World Values Survey the general question for assessing the level of tax morale in a society in the World Values Survey is:

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

Table 1 in the columns 2, 3 and 4 shows for each country the percentage of individuals saying that tax evasion is never justifiable. Columns 5, 6, and 7 give the mean value for all countries based on a scale from 0 to 3, where 3 is the highest tax morale (value 0 integrates the values 4 to 10). It is difficult to get a clear idea about the development of tax morale over time, as only few countries have participated in the first two World Values Survey waves.

Table 1

Tax Morale Over Time (World Values Survey)

country	Tax Evasion Is Never Justifiable (%)			Mean		
	1981-1984	1990-1993	1995-1997	1981-1984	1990-1993	1995-1997
Argentina	64.4	80.5	72.1	2.136	2.563	2.314
Brazil		60.8	46.8		2.006	1.608
Chile		75.7	64.2		2.442	2.180
Colombia			72.2			2.382
Dominican Republic			70.4			2.399
Mexico	48.9	37.3	54.7	1.375	1.453	1.844
Peru			62.7			2.202
Puerto Rico			74.4			2.369
Uruguay			80.3			2.512
Venezuela			70.6			2.417
Average	56.7	63.6	66.8	1.756	2.116	2.223

Notes: Own calculations from the World Values Surveys. Columns 2, 3, and 4: percentage of individuals saying that tax evasion is “never justified”. Columns 5, 6, 7: mean of the degree of tax morale, scale from 0 to 3, where 3 means the highest tax morale.

Three out of four countries have a lower tax morale in the years 1995-1997 compared to 1991-1993. Only in Mexico tax morale has increased having been at a very low level in 1991-1993 and in 1981-1984. The low tax morale in Mexico corresponds to the low revenue performance (also compared to other developing countries), despite the tax structure is comparable to many OECD countries. Martinez-Vazquez (2001) tries to explain this so-called paradox. As he mentions, the modern tax system structure is undermined by factors as i) ad hoc policy measures, ii) lack of an adequate ability of tax administrations to deal with a

modern tax system, and iii) Mexican's authority policy to keep tax efforts measured as the ratio of revenues to GDP relatively constant, based on an agreement between the government and the private sector.

The Latinobarómetro 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.

To compare both data sets tax morale has been coded as previously (3=highest tax morale, 0=lowest tax morale).

Table 2

Tax Morale and Tax Evasion 1998 (Latinobarómetro)

Country	Tax Evasion Is Never Justifiable (%)	Mean	Tax Avoidance
Argentina (Arg)	66.3	2.266	34.2
Bolivia (Bol)	49.2	2.044	34.8
Brazil (Bra)	65.1	2.165	37.8
Columbia (Col)	65.3	2.214	26.8
Costa Rica (Cos)	63.2	2.100	23.0
Chile (Chi)	60.4	2.209	22.2
Ecuador (Ecu)	52.6	1.910	43.0
El Salvador (El)	61.4	2.205	28.2
Guatemala (Gua)	78.7	2.556	17.7
Honduras (Hon)	79.6	2.519	24.9
Mexiko (Mex)	50.2	1.732	36.5
Nicaragua (Nic)	74.2	2.395	42.2
Panama (Pan)	66.7	2.228	24.7
Paraguay (Par)	68.5	2.373	34.6
Peru (Per)	53.1	2.058	33.6
Uruguay (Uru)	50.5	1.948	31.7
Venezuela (Ven)	68.8	2.310	35.0
Average	63.2	2.190	31.2

Notes: Own calculations from the Latinobarómetro. Column 2: percentage of individuals saying that tax evasion is "never justified". Column 3: mean of the degree of tax morale, scale from 0 to 3, where 3 means the highest tax morale. Column 4: percentage of individuals saying that they know or have heard that someone has managed to avoid taxes.

The average values in *Table 2* are in line with the findings obtained with the World Values Survey. 63.2 percent of the individuals state that tax evasion is never justifiable. The mean

value 2.190 is lower than the WVS value in the period 1995-1997. In general, Central America seems to have a higher tax morale than South America. Guatemala has the highest tax morale among all Latin American countries, followed by Honduras. It is interesting to notice that Guatemala reduced the penalties in the tax reform of 1996. Before, penalty was twice the amount of the understated taxes. The basic sanction had been reduced to 160 percent with the possibility to even reduce this amount if a mistake has not been discovered by the tax administration (only 10 percent penalty, formally 100), or if taxpayers agree to settle at the time of the initial field audit by the tax administration (20 percent, formerly 200). Furthermore, the following ways reduce the penalty: i) taxpayers' avowal to have evaded before going to court reduces penalty by 40 percent, (ii) acceptance after court but before the final judicial determination by 80 percent. In 1990 an increase in the tax collection of 2.9 million US\$ was observed (McLure and Santiago 1992). Such results indicate that there are alternatives to a stronger deterrence (punishment) policy.

Compared to the World Values Survey the Latinobarómetro has the advantage to cover additional tax compliance questions. We have focussed on the following variable which we define as TAX AVOIDANCE:

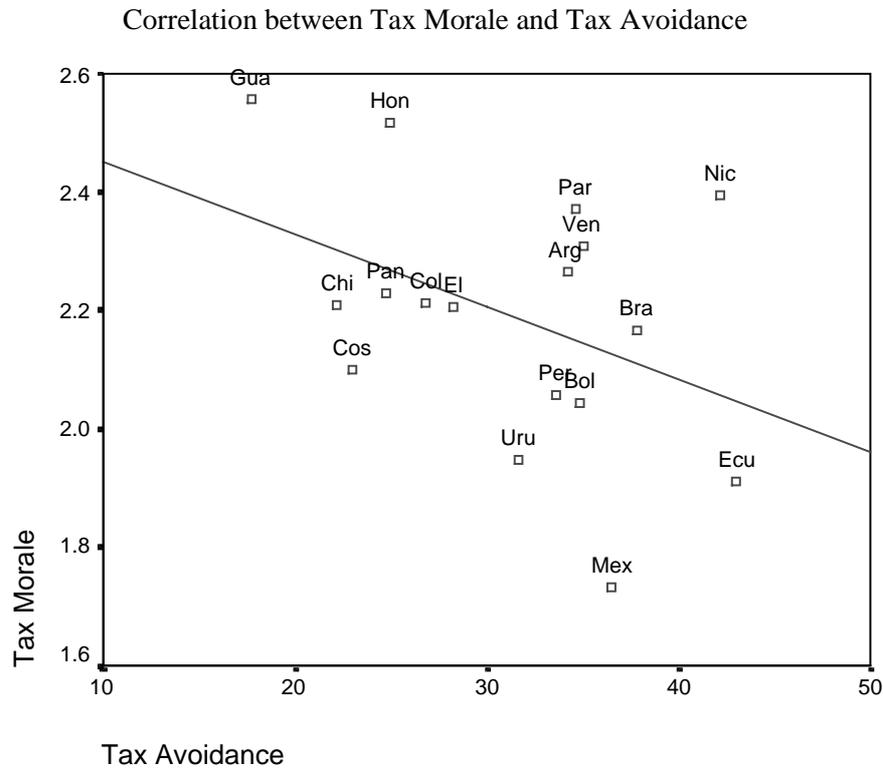
Could you tell me if recently you have known someone or have heard someone you know comment about somebody who has: Managed to avoid paying all his tax (1=yes, 0=no).

Table 2 indicates that countries with a high tax morale has a low rate of individuals stating that they know/heard about tax avoidance. One reason might be that individuals notice that many individuals evade taxes which crowds out intrinsic motivation to comply with taxes. Evasion is a signal that intrinsic motivation is not recognised. Thus, taxpayers get the feeling that they can as well be opportunistic. The moral costs to evade taxes decrease.

Guatemala has the lowest average rates. On the other hand, in Mexico we can not only observe a low tax morale but also a high degree of tax evasion. This result corresponds to the findings of Casanegra de Jantscher et al. (1996), measuring the level of tax evasion in Mexico for the VAT in 1996 as 59 percent.

To better check such a tendency we analyse if there is a significant correlation between both variables. *Figure 1* shows a strong negative correlation between the variables (-0.412), being significant at the 0.05 level (p-value = 0.05, sign. 2-tailed).

Figure 1



In a next step we are going to analyse individuals' perceptions of the reasons why people evade taxes (see *Table 3*). Differences among countries and among reasons might give clues to enhancing tax morale in a specific country.

1. Tax Burden

Taxpayers are often concerned about the burden of taxation. Over 46 percent of the respondents in Latin America considered a high tax burden to be reason why people do not pay taxes. *Table 3* shows that tax burden ("because taxes are too high") has the highest percentage of all reasons mentioned. Anti-tax feelings arise if the tax burdens are seen as too high. Especially, self-employed might feel the tax burden more as taxes become more visible to them². The highest values in *Table 3* are observed in Argentina (65.6 percent), followed by

² Analysing Swiss data, Torgler (2002) found empirical evidence that individuals living in cantons with a higher fiscal burden have a significantly lower tax morale than others.

Uruguay (63.7 percent) and Colombia (62.8 percent). The lowest values have been obtained from Guatemala, Venezuela and Chile.

2. Lack of Honesty/Lack of Civic Conscience

Lacking civic conscience and honesty have been mentioned very often (average percentage 44.5). Honduras (49.3), Ecuador (49.3) and Panama (41.1) have the highest values, Argentina (17.7) and Uruguay (20.3) the lowest. Honesty restricts the possibility set of an individual to act illegally. Taxpayers may be aware that their evasion could damage the welfare of the community they live in. As a consequence, evasion can produce psychological costs. People may not be comfortable with dishonesty (see Spicer 1986). The findings of Orviska and Hudson (2002) evaluating the British Social Attitudes Survey 1996 indicate that civic conscience has an impact on individuals' perceptions of whether tax evasion is right or wrong. Furthermore, Torgler (2003) shows with the Taxpayer Opinion Survey that a higher obedience and respect for the authority leads to a significantly higher tax morale.

3. Corruption

The presence of corruption undermines tax morale of the citizens who become frustrated. As we can see in *Table 3*, on average 44.2 percent of the individuals in Latin America state that individuals evade taxes because there is corruption. Ecuador, Mexico, and El Salvador have the highest values, Argentina, Chile, and Peru the lowest.

There might be a crowding-out effect of morality among the tax administrators when there is a big number of corrupt colleagues. Corruption can be reduced with fair procedures. In the tax compliance literature, most studies include the assumption that tax collectors are intrinsically motivated (see, e.g., Hindriks, Keen and Muthoo 2002). Discretionary power over resource allocation can induce corruption. Especially in developing countries, agents as the political elite, administration staff, and legislators have a discretionary power, because institutions are neither credible nor working well. Over-regulation on the one side and a lack of democratic procedures on the other hand offer a good field for illegal activities. Corruption reduces the efficiency of allocation and produces delays in transactions to acquire additional payments (see, e.g., Rose-Ackerman 1997, Jain 2001). In some countries tax collectors wages

have been raised to reduce the incentive for them to engage in corruption. Interestingly, such a strategy can also be reported from Ancient Egypt, where pharaohs increased the salary of tax agents (scribes) or trained special agents to check corruption in the revenue bureaus (see Adams 1994). Hindriks et al. (1999) searched for anecdotal evidence in the literature and report that in Taiwan 94% of interviewed tax administrators admit having let themselves be bribed and that in India 76% of all government tax inspectors took bribes. De Soto (1989) and his research team conducted an experiment, setting up a small garment factory in Lima, with the aim to comply with the bureaucratic procedures and thus behave in accordance with the law. He reports that 10 times they were asked for a bribe to speed up the process and twice it was the only possibility to continue the experiment. It took 10 months in total to start the business. Similar to these findings our descriptive analyses indicate that people believe corruption to be a real problem in Latin America.

4. Benefits from Public Spending

Taxpayers are sensitive regarding the way the government uses the taxes. There is an input-output relation between what an individual pays with his/her taxes and what comes back from the government. Thus, individuals' tax compliance might be influenced by the benefits received from the government in form of public goods compared to the price they paid for them. Individuals might feel cheated if taxes are not spent adequately. Moral costs of evading taxes decrease and tax morale is crowded out. The reason "because taxes are ill spent" catches such a fiscal connection between revenues and expenditures. On average, 32.4 percent mentioned this point. The highest value is measured in Mexico (50.3 percent), followed by El Salvador (46.4) and Ecuador (45.8), and the lowest values are observed in Guatemala (20.1), Chile (22.6) and Peru (23.2).

5. Fiscal Knowledge

A certain fiscal knowledge helps put into account the connection between taxes and benefits. Better educated taxpayers might know more about tax law and fiscal connections and thus would be in a better position to assess the degree of compliance (see Lewis 1982). However, it should be noticed that there might possibly be people with a lower education who have

acquired a high knowledge about taxation. This question can be measured with the following statement: “They don’t see the point in paying taxes”. Similar to other reasons mentioned, Mexico (49.9 percent) has the highest values followed by El Salvador (44.8) and Honduras (41.3). On the other hand, Guatemala (15.3) and Argentina (19.7) have the lowest values. Our data indicates that there is a significant correlation between education and the above statement. Furthermore, only a comparatively small amount of individuals mentioned that “because people are quick-witted and sly”, they do not pay their taxes. Interestingly and contrary to other reasons, the highest value is observed in Venezuela.

6. Detection and Punishment

Traditionally, the tax compliance literature has strongly focused on the effects of detection and punishment on tax evasion. However, the reason “because those that evade taxes go unpunished” has not been mentioned very often compared to the other reasons, indicating in *Table 3* with 23.1 percent the lowest average value of all the reasons. Mexico and El Salvador have the highest values, Peru and Columbia the lowest. Thus, this result indicates that an increase in detection and punishment might not be the only strategy to increase tax morale and tax compliance. Frey (1997, p. 44) points out that the “spirit of law, including specific rules, should acknowledge the citizens’ basic good will”.

Table 3

Reasons Why Individuals Evade Taxes

Why do people not pay their taxes?	Arg	Bol	Braz	Col	Cos	Chi	Ecu	El	Gua	Hon	Mex	Nic	Pan	Par	Per	Uru	Ven	Average
Because the taxes are too high	65.6	37.1	50.0	62.8	37.6	32.0	50.8	54.3	24.1	47.2	55.8	57.6	38.5	42.9	50.2	63.7	25.3	46.8
Lack of honesty	17.7	47.0	45.5	31.3	54.0	54.7	53.8	58.5	49.6	53.5	39.2	36.0	49.8	47.3	41.6	20.3	57.5	44.5
Because there is corruption	32.0	42.4	48.9	48.7	43.7	32.5	59.0	52.5	43.2	44.4	54.6	41.9	40.5	47.0	32.8	41.0	45.7	44.2
Lack of civic conscience	15.3	35.3	32.0	28.9	24.9	39.5	49.3	40.4	20.2	49.3	38.3	33.4	41.1	37.4	34.2	24.2	40.7	34.4
Because the taxes are ill-spent	26.7	40.4	29.7	40.4	27.8	22.6	45.8	46.4	20.1	35.1	50.3	33.7	27.5	29.9	23.2	25.1	26.6	32.4
They don't see the point in paying taxes	19.7	28.5	25.9	24.4	21.2	30.3	37.8	44.8	15.3	41.3	49.9	30.4	26.9	29.9	21.4	23.4	29.2	29.4
Because nationals are quick-witted and sly	14.8	17.6	31.8	17.8	29.2	44.4	47.2	25.8	12.8	28.3	25.4	16.2	32.7	8.9	25.6	30.5	39.9	26.4
Because those that evade taxes go unpunished	26.0	23.0	24.3	16.6	19.2	18.1	31.3	36.4	13.4	24.6	36.5	21.0	18.6	19.9	14.6	26.5	22.3	23.1

Note: Percentage of Individuals that mentioned reasons why people not pay their taxes.

1. Tax Morale and Shadow Economy

There is a lively discussion on how tax attitudes are related to individuals' action. Is there a correlation between tax morale and tax evasion? In a general context, social psychology literature has intensively focused on this topic (see, e.g., Ajzen and Fishbein 1980). Lewis (1982) points out that

“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).

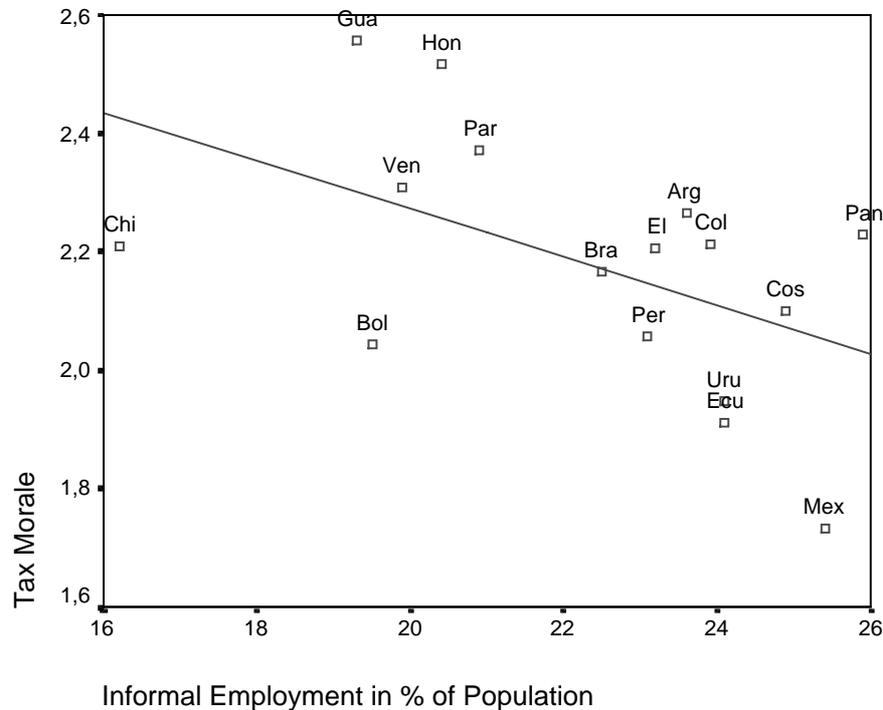
The connection between attitude and behaviour is an interesting question which can be analysed empirically. Torgler (2002a) shows in a multivariate analysis for the United States, using the *Taxpayer Opinion Survey*, that tax morale and tax evasion are negatively correlated. Furthermore, integrating European and Transition countries, Torgler (2001) observed a significant negative correlation between tax morale and shadow economy.

The informal sector plays an important role in developing countries. Employment in the informal sector seems to be a relevant income source for many people. Tanzi (2000) points out that it is realistic to assume that informal activities are more important in developing than in developed countries because it is easier to be underground as the exemption levels for income and value added taxes are lower, social security taxes higher and restrictions to enter formal economy activities also higher than in developed countries.

We are going to analyse whether there is a correlation between the size of shadow economy, measured as the degree of informal employment in percent of the total population (average 200/2001, estimated in Schneider 2002, p. 6), and tax morale (developed from the Latinobarómetro). *Figure 2* shows that there is a strong negative correlation between both variables (-0.511) significant at the 0.05 level (sign. 2-tailed: 0.043).

Figure 2

Correlation between Tax Morale and the Size of Shadow Economy



2. Multivariate Analysis (*Latinobarómetro*)

Taxpayers have different possibilities to express their attitudes towards a tax system. Research commonly treats tax evasion as an important reaction to express preferences. However, there are other possibilities as, e.g., tax avoidance. Tax avoidance and tax evasion are often not distinguished in economic studies. We have the possibility to analyse both components. Whereas the World Values Survey focuses on evasion, the *Latinobarómetro* puts into account tax avoidance. Tax evasion might produce higher moral costs than tax avoidance, as the latter is more broadly accepted being closer to a legal strategy to escape from tax payments (for a survey see Torgler 2002b).

Until now, we have only analysed whether there is a correlation between the variables. However, simple correlations do not per se tell us anything about causes and effects. In this subsection we therefore made a multivariate regression analysis in order to get deeper insights. First we are going to present some theoretical considerations about key determinants that may influence tax morale and thus allow to develop hypotheses. After that, weighted ordered probit estimations are going to be presented, using both data sets (*World Values Survey* and *Latinobarómetro*) pooling the countries together, but differentiating between

regions (South and Central America and Mexico). We have seen in the descriptive analysis that Mexico is a special case, indicating a very low tax morale. Furthermore, Mexico can be classified as an own region building the bridge between the United States and Central America. Thus, we use a separate dummy variable for Mexico. In general, a cross-country analysis with survey attitude questions might cause difficulties. Because of the biases connected with cross-country comparisons, we restrict our analysis to a comparable region as Latin America, building dummy variables to catch region differences. We are going to start with the Latinobarómetro as this data set with 17 countries offers a broader picture of Latin America than the World Values Survey. As dependent variable we use tax morale (scale from 0 to 3, see p. 9). Besides the control variables, in the first four estimations, we will consider some main factors.

1. Main Variables

1.1 Avoid Paying Taxes

We have already discussed this variable in the descriptive analysis observing a significant correlation between this variable and tax morale. We are going to check to which extent this correlation remains negative and significant, controlling for a couple of variables. Thus, we would hypothesise that taxpayers who know or have heard about citizens who have managed to avoid taxes have a lower tax morale than others. Individuals notice that many others evade taxes intrinsic motivation to comply is crowded out.

Lewis (1982, p. 144) points out that there might be 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’ may come the reply: ‘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’”.

1.2 Trust that People Obey the Law

This variable measures the contrary effect compared to the previous one. If we believe that most people obey the law and pay their taxes, moral costs of not being obedient increase³. The hypothesis would be that an increase in the level of “trust that other people obey the law” increases tax morale.

1.3 Perceived Probability of Being Caught

Traditionally, tax compliance literature stresses the relevance of deterrence factors as the probability of being caught and fine rates. However, complying or not is not only a function of opportunity, tax rates, and probability of detection, but depends also on social and moral attitudes, institutions, and procedures. Especially when we analyse tax morale as dependent variables, it can be doubted that the perceived probability of being caught has a positive effect on tax morale⁴. Frey (1997) points out that a high punishment can be an indicator that the government distrust individuals and that compliance is not honoured which may undermine tax morale.

1.4 Trust in the President

Governments with a certain authoritarian political structure are not untypical for developing countries. Thus, presidents have often a strong political role, and active democratic political participation is often disregarded. We are going to analyse whether trust in the president has a positive effect on tax morale⁵. The government plays an important role in developing countries, where greater difficulties must be confronted than in developed countries. Taxes can be seen as a price paid for government’s positive actions. If taxpayers trust the president, they are more inclined to be honest. On the other hand, if the president acts trustworthily, taxpayers might be

³ The following question has been asked: „In general, would you say that people always obey the law, or are there exceptions or particular occasions when people can follow their consciences even if it means breaking the law (1= Always obey the law, 0= follow their consciences).

⁴ The *Latinobarómetro* has asked the respondents the following question: Would you say that it is very possible, fairly, a little, or not at all possible that a person in our country who has committed an illegal act gets caught.

⁵ Trust in government has been measured the following way: Please tell me how much confidence you have in the president (1=not at all, 4=a lot).

more willing to comply with the taxes. This leads to the hypothesis that a higher degree of trust in the president leads to a higher tax morale.

2. Results

Table 4 presents the results. We have used a *weighted* ordered probit estimation to correct the samples and thus to get a reflection of the national distribution. The ordered probit models are relevant in such an analysis insofar as they help analyse the ranking information of the scaled dependent variable tax morale. However, as in the ordered probit estimation, the equation has a nonlinear form, only the sign of the coefficient can be directly interpreted and not its size. Calculating the marginal effects is therefore a method to find the quantitative effect a variable has on tax morale (see, e.g., Frey and Stutzer 2002). Only for the extreme value “tax avoidance is never justified” the marginal effects are presented. We can observe that South America and Mexico have a significantly lower tax morale than Central America (reference group). Being from South America (Mexico) rather than from Central America reduces the probability of stating that tax avoidance is never justified by more than 10 percentage points (20 percentage points). Knowing about individuals who avoid taxes has a significantly negative effect on tax morale. Thus, the first hypothesis cannot be rejected. An increase in the scale of the variable AVOID PAYING TAXES reduces the share of individuals arguing that tax avoidance is never justifiable by more than 6 percentage points. Furthermore, the hypotheses regarding the variables TRUST PEOPLE OBEY THE LAW and TRUST PRESIDENT cannot be rejected either, whereas not surprisingly PERCEPTION BEING CAUGHT is not significant showing a coefficient with a negative sign.

Looking at the control variables we observe that all age groups from 30 to 65+ have a significantly higher tax morale than the reference group 16-29. For example, the proportion of persons of the age 65+ who report the highest tax morale is 12.5 percentage points higher than for the reference age group. Marginal effects increase with an increase of the age. Furthermore there is the tendency that married people or people who live together have a significantly higher tax morale than singles. The proportion of self-employees, individuals salaried in a private company and people in charge of a household who report the highest tax morale is higher than for people salaried in a public company. A tax administration’s collecting problems affect the monitoring of self-employed individuals, as it is very difficult and costly to gather information about them. Thus many enterprises, especially small ones, remain invisible

(Burges and Stern 1993). Regarding tax morale such a situation does not mean that those individuals' morale is lower. On contrary, they do not feel the tax burden as the government and the administration have difficulties to capture their existence. This might also explain the difference between people salaried in a private and in a public company.

Table 4
Determinants of Tax Morale

<i>Weighted Ordered Probit</i>	<i>Eq. 1</i>		<i>Eq. 2</i>		<i>Eq. 3</i>		<i>Eq. 4</i>	
<i>Variable</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>
<i>a) Demographic Factors</i>								
AGE 30-49	0.086***	0.033	0.061**	0.023	0.068***	0.026	0.070***	0.026
AGE 50-64	0.167***	0.063	0.129***	0.048	0.148***	0.056	0.159***	0.060
AGE 65+	0.332***	0.125	0.264***	0.099	0.334***	0.126	0.321***	0.121
FEMALE	0.007	0.003	0.036	0.013	0.022	0.008	0.021	0.008
EDUCATION	0.005**	0.002	0.003	0.001	0.004*	0.002	0.004	0.001
<i>b) Marital Status</i>								
MARRIED/LIVING TOGETHER	0.047*	0.018	0.045*	0.017	0.043*	0.016	0.039	0.015
DIVORCED/WIDOWED	-0.033	-0.012	-0.052	-0.020	-0.040	-0.015	-0.044	-0.017
<i>c) Employment Status</i>								
SELFEMPLOYED	0.032	0.012	0.063*	0.024*	0.050	0.019	0.056	0.021
SALARIED IN A PRIVATE COMPANY	0.065*	0.025	0.072*	0.027*	0.070*	0.026	0.073**	0.028
UNEMPLOYED	-0.048	-0.018	-0.027	-0.010	-0.039	-0.015	-0.030	-0.011
RETIRED	0.010	0.004	0.058	0.022	0.006	0.002	0.000	0.000
IN CHARGE OF HOUSEHOLD	0.117**	0.044	0.109***	0.041***	0.121***	0.046	0.133***	0.050
STUDENT	0.037	0.014	0.041	0.016	0.036	0.014	0.049	0.018
<i>f) Regional Variable</i>								
SOUTH AMERICA	-0.300***	-0.113	-0.310***	-0.117	-0.289***	-0.109	-0.292***	-0.110
MEXICO	-0.626***	-0.236	-0.631***	-0.237	-0.639***	-0.241	-0.637***	-0.200
<i>g) Further Variables</i>								
AVOID PAYING TAXES	-0.172***	-0.065						
TRUST PEOPLE OBEY THE LAW			0.227***	0.086				
PERCEPTION BEING CAUGHT					-0.002	-0.001		
TRUST PRESIDENT							0.021***	0.008
Observations	14823		14409		15274		15282	
Prob(LM-statistic)	0.000		0.000		0.000		0.000	

Notes: Dependent variable: tax morale on a four point scale. In the reference group are AGE 16-29, MALE, SINGLE, SALARIED IN A PUBLIC COMPANY, CENTRAL AMERICA. Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Marginal effect = highest tax morale score (3).

It might be interesting to integrate a proxy for income into the estimations. The Latinobarómetro has no specific information about the income of the subjects. Thus, the following proxies are integrated into further equations: OWN HOUSE, SOCIO-ECONOMIC STATUS⁶ and FORTUNE⁷. Interestingly, all coefficients are not significant, showing low marginal effects. The coefficients for the regional variables remain significant.

Table 5

Tax Morale and Status

<i>weighted ordered probit</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>
	<i>Eq. 5</i>	<i>Effect</i>	<i>Eq. 6</i>	<i>Effect</i>	<i>Eq. 7</i>	<i>Effect</i>
<i>a) Demographic Variables</i>	included		included		included	
<i>b) Marital Status</i>	included		included		included	
<i>c) Employment Status</i>	included		included		included	
<i>d) Regional Variable</i>						
SOUTH AMERICA	-0.297***	-0.112	-0.283***	-0.107	-0.321***	-0.121
MEXICO	-0.626***	-0.236	-0.624***	-0.236	-0.650***	-0.245
<i>e) Fortune and Status</i>						
OWN HOUSE	0.024	0.009				
SOCIO-ECONOMIC STATUS			-0.007	-0.003		
FORTUNE					0.005	0.002
Number of observations	15371		14987		14567	
Prob(LM-statistic)	0.000		0.000		0.000	

Notes: Dependent variable: tax morale on a four point scale. In the reference group are AGE 16-29, MALE, SINGLE, SALARIED IN A PUBLIC COMPANY, CENTRAL AMERICA. Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01. Marginal effect = highest tax morale score (3).

3. Multivariate Analysis (World Values Survey)

In a second step we are going to evaluate World Values Survey (WVS) data. The data set covers a wider range of questions on attitudes issues and socio-economic characteristics. We

⁶ Socio-economic status (4=very good, 1=very bad).

are going to evaluate the wave 1995-1997, covering the highest amount of countries (see *Table 1*, p. 8). Similarly, we are going to build regional dummy variables. The WVS has the disadvantage that Central America has not been covered sufficiently. Thus, instead of differentiating between South and Central America, we build additional dummies for Mexico and the Dominican Republic (Caribbean area). *Table 6* indicates in line with the Latinobarómetro findings that Mexico has a significantly lower tax morale compared to the reference group (other Latino American countries).

Instead of trust in the present we use satisfaction with officials. This allows to check the robustness of the trust variable expanding it to other state agents. The coefficient is highly significant and the marginal effects show that an increase in the level of satisfaction by one unit raises the share of individuals stating that tax morale is never justifiable by 1 percentage point.

We have obtained comparable results regarding the control variables. A higher age has a positive effect on tax morale. Furthermore, married people (females) have a higher tax morale than singles (males). The coefficient of the variable EDUCATION has now a negative sign. However, the significant effect on tax morale is not robust throughout all equations. We also controlled for the economic situation of the individuals. The results show the tendency that the lowest group (reference group) has a higher tax morale than the groups with a better economic situation. However, only the coefficient for the variable LOWER MIDDLE CLASS indicates a significant difference to the variable LOWER CLASS. We also checked if people with a stronger religiosity have a higher tax morale⁸. Religiosity might act as a restriction to acting illegally. According to Hirschi and Stark (1969) religion might inhibit illegal behaviour because religion is a sanctioning system that legitimises and reinforces social values. Empirical studies have shown that states and counties with higher rates of religious memberships have significantly less violent and non-violent crime (see, e.g., Hull 2000, Hull and Bold 1989 and Lipford, McCormick and Tollison 1993). *Table 6* shows a positive correlation between tax morale and religiosity.

⁷ As a proxy for FORTUNE we take the aggregated sum of the following factors: colour tv, freezer, computer, washing machine, phone, car, second house, drinking water, sewage system (value 0 to 9).

⁸ We have developed a religiosity variable from the following question in the WVS: Independently of whether you go to church or not, would you say you are a religious person (value 3), not a religious person (2), a convinced atheist (1).

Table 6

Determinants of Tax Morale (1995-1997)

<i>Weighted Ordered Probit</i>	<i>Eq. 1</i>		<i>Eq. 2</i>		<i>Eq. 3</i>		<i>Eq. 4</i>	
<i>Variables</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>	<i>Coeff.</i>	<i>Marg.</i>
a) Demographic Factors								
AGE 30-49	0.090***	0.033	0.086***	0.032	0.101***	0.037	0.086***	0.032
AGE 50-64	0.304***	0.112	0.298***	0.109	0.284***	0.105	0.281***	0.104
AGE 65+	0.509***	0.187	0.500***	0.183	0.501***	0.184	0.441***	0.162
FEMALE	0.109***	0.040	0.101***	0.037	0.091***	0.034	0.109***	0.040
EDUCATION	-0.011	-0.004	-0.018***	-0.007	-0.014**	-0.005	-0.006	-0.002
b) Marital Status								
MARRIED	0.095***	0.035	0.081**	0.030	0.090***	0.033	0.076**	0.028
LIVING TOGETHER	-0.006	-0.002	-0.008	-0.003	-0.004	-0.001	-0.009	-0.003
DIVORCED	-0.067	-0.025	-0.042	-0.015	-0.042	-0.016	-0.045	-0.017
SEPARATED	0.017	0.006	0.019	0.007	-0.008	-0.003	0.034	0.013
WIDOWED	0.158**	0.058	0.116	0.043	0.139*	0.051	0.169**	0.062
c) Employment Status								
PART TIME EMPLOYED	0.013	0.005	0.038	0.014	0.030	0.011	0.018	0.007
SELFEMPLOYED	0.061	0.023	0.060	0.022	0.056	0.021	0.056	0.021
UNEMPLOYED	0.015	0.005	0.009	0.003	0.027	0.010	0.021	0.008
AT HOME	-0.034	-0.012	-0.008	-0.003	-0.019	-0.007	-0.022	-0.008
STUDENT	0.120***	0.044	0.116***	0.043	0.134***	0.049	0.106***	0.039
RETIRED	0.008	0.003	0.041	0.015	0.056	0.021	0.049	0.018
OTHER	0.021	0.008	-0.008	-0.003	0.015	0.006	-0.009	-0.003
d) Economic Situation								
UPPER CLASS	-0.027	-0.010	-0.072	-0.027	-0.015	-0.006	-0.037	-0.014
UPPER MIDDLE CLASS	-0.014	-0.005	-0.050	-0.019	-0.024	-0.009	-0.012	-0.004
LOWER MIDDLE CLASS	-0.098**	-0.036	-0.135***	-0.050	-0.115**	-0.042	-0.079*	-0.029
WORKING CLASS	-0.019	-0.007	-0.061	-0.022	-0.043	-0.016	-0.022	-0.008
e) Religiosity								
RELIGIOUS	0.092***	0.034	0.094***	0.034	0.091***	0.033	0.060***	0.022
f) Regional Variable								
MEXICO	-0.274***	-0.101	-0.239***	-0.088	-0.264***	-0.097	-0.285***	-0.105
DOMINICAN REPUBLIC	0.313***	0.115	0.239***	0.088	0.269***	0.099	0.280***	0.103
g) Further Variables								
SATISFACTION WITH NATIONAL OFFICERS	0.028***	0.010						
PRO DEMOCRACY 1			0.200***	0.073				
PRO DEMOCRACY 2					0.123***	0.045		
PRIDE							0.249***	0.092
Observations	7422		7233		7146		7483	
Prob(LM-statistic)	0.000		0.000		0.000		0.000	

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

Political participation is a social innovation for Latin America and produces beneficial effects. In the last decades we observe a strengthening of democracy in some Latin American countries, as, e.g., in Chile, Mexico and Argentina. Democracy offers citizens the possibility to express their preferences. A more active role helps citizens to better monitor and control politicians and thus to reduce the asymmetry of information between them and their agents (government), which reduces the discretionary power. This might influence citizens' tax morale. Thus we would hypothesise that a stronger pro democratic attitude has a positive effect on tax morale. We have built variables that measure individuals' support for democratic government (PRO DEMOCRACY 1⁹ and PRO DEMOCRACY 2¹⁰). *Table 6* indicates that pro democratic attitudes have a highly significant positive effect on tax morale. An increase in the pro democracy scale by one unit in both cases raises the proportion of persons indicating the highest tax morale by 7.3 (4.5) percentage points. We also analyse the effect of pride on tax morale. Being proud of her/his country enhances the identification with the state. It might give a basis to behave co-operatively and thus to find it important to pay the taxes. Thus, the expected sign for the variable PRIDE is positive. *Table 6* indicates that the hypothesis cannot be rejected. We find a positive correlation between pride and tax morale. An increase in pride by one unit raises the share of persons arguing that tax morale is never justifiable by 9.2 percentage points.

We also explore the effects of satisfaction variables on tax morale. We start with the variable FINANCIAL SATISFACTION which is more strongly related to tax payments. If the financial situation in a household is poor, the tax payments might be seen as a hard restriction in their possibility set, which might reduce tax honesty. To get a broader view, we include the variables SATISFACTION¹¹ and HAPPINESS¹². *Table 7* presents the results. All three variables significantly affect tax morale in a positive way. Interestingly, the variable HAPPINESS has the highest marginal effects.

⁹ The question is : "Would you say that having a democratic political system is a very good (4), fairly good (3), fairly bad (2) or very bad (1) way of governing this country" (scale 1 to 4).

¹⁰ "Democracy may have problems but it's better than any other form of government" (4=strongly agree, 1=strongly disagree).

¹¹ All things considered, how satisfied are you with your life as a whole these days? (scale 1 = dissatisfied to 10=satisfied).

¹² Taking all things together, would you say you are : very happy (4), quite happy (3), not very happy (2), not at all happy (1).

Table 7

Tax Morale and Satisfaction

<i>weighted ordered probit</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>	<i>Coeff.</i>	<i>Marg. Effect</i>
	<i>Eq. 5</i>		<i>Eq. 6</i>		<i>Eq. 7</i>		<i>Eq. 8</i>	
<i>a) Demographic Variables</i>	included		included		included		included	
<i>b) Marital Status</i>	included		included		included		included	
<i>c) Employment Status</i>	included		included		included		included	
<i>d) Economic Situation</i>	included		included		included			
INCOME							0.052***	0.019
<i>e) Religiosity</i>	included		included		included		included	
<i>f) Regional Variable</i>								
MEXICO	-0.302***	-0.111	-0.306***	-0.112	-0.256***	-0.094	-0.292***	-0.108
DOMINICAN REPUBLIC	0.289***	0.106	0.277***	0.102	0.299***	0.110	0.289***	0.107
<i>g) Satisfaction</i>								
FINANCIAL SATISFACTION	0.018***	0.006						
SATISFACTION			0.038***	0.014				
HAPINESS					0.199***	0.073		
Number of observations	7572		7580		7572		7052	
Prob(LM-statistic)	0.000		0.000		0.000		0.000	

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

IV. CONCLUSIONS

We find a couple of publications about the informal sector in Latin America, but hardly any study that has analysed tax morale. Most of the empirical evidence is centered on the USA, evaluating, e.g., the TCMP program or amnesty data. Thus, it is difficult to know to which extent findings from the United States can be transferred to other countries. Furthermore, audit and amnesty data have a selection bias as only specific individuals participate in an amnesty and not all individuals (especially tax evaders) are measured with audit data. Our data sets have also the advantage that they include a broad variety of socio-economic data. Working with two data sets (Latinobarómetro and World Values Survey) allows to get a robust picture about tax morale in Latin America. These two data sets offer the possibility to do a more refined study covering more than one year.

Our findings indicate that there is a significant correlation between tax morale and the size of shadow economy. Furthermore, people who said they knew/have heard about practised tax avoidance have a significantly lower tax morale than others. Looking at individuals' perceptions of reasons for tax evasion we found that the tax burden, the lack of honesty, and corruption are seen as the main factors. A tax system must be fair in the view of the taxpayers. If a taxpayer feels that she/he is in a sort of unfair contract she/he will probably be less likely to comply. 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. Taxpayers are more inclined to comply to the law if the exchange between the paid tax and the performed government services are found to be equitable.

In our multivariate analysis we use entire pooled samples to check the robustness of the findings. We could observe a significantly lower tax morale in South America/Mexico than in Central America/Caribbean Area. Especially Mexico has a very low tax morale.

In general, the results indicate that there are alternative tax policy strategies to those assuming that people are knaves who must be controlled to reduce their self-interested behaviour and thus tax evasion. It is not necessary to develop a constitution designed for knaves. Tax law should consider the "spirit of trust", i.e., should include specific rules as, self-declaration, which gives taxpayers more scope of their own and supports trustfulness as a motivation to pay taxes. Trust in the president and the officials, the belief that other individuals obey the law and a pro democratic attitude have a significant positive effect on tax morale. The governments and the tax administration have to create confidence in their credibility and their capacity to deliver promised returns for taxes. The relationship between

taxpayers and tax authorities, seen as a relational contract or psychological contract, involves strong emotional ties and loyalties. Such a psychological tax contract can be maintained by positive actions, based on trust (see Feld and Frey 2002b). If such rules yield good results and taxpayers make their decisions to comply with taxation according to past experiences, social capital associated with paying taxes can be created or maintained. Such a social capital stock can reduce the costs of running the government.

APPENDIX*Table A1*

Countries

country	years			
Argentina	1984 (WVS)	1991 (WVS)	1995 (WVS)	1998 (LatBa)
Bolivia				1998 (LatBa)
Brazil		1991-1992 (WVS)	1997 (WVS)	1998 (LatBa)
Columbia			1997-1998 (WVS)	1998 (LatBa)
Costa Rica				1998 (LatBa)
Chile		1990 (WVS)	1996 (WVS)	1998 (LatBa)
Dominican Republic			1996 (WVS)	
Ecuador				1998 (LatBa)
El Salvador				1998 (LatBa)
Guatemala				1998 (LatBa)
Honduras				1998 (LatBa)
Mexico	1984 (WVS)	1990 (WVS)	1995-1996 (WVS)	1998 (LatBa)
Nicaragua				1998 (LatBa)
Panama				1998 (LatBa)
Paraguay				1998 (LatBa)
Peru			1996 (WVS)	1998 (LatBa)
Puerto Rico			1995 (WVS)	
Uruguay			1996 (WVS)	1998 (LatBa)
Venezuela			1996 (WVS)	1998 (LatBa)

Notes: WVS: World Values Survey, LatBa: Latinobarómetro.

REFERENCES

- Adams, C. (1993) *For Good and Evil*. The Impact of Taxes on the Course of Civilization. London: Madison Books.
- Alm, J. and J. Martinez-Vazquez (2001). Societal Institutions and Tax Evasion in Developing and Transitional Countries, Conference Paper in Honor of Richard Bird, Public Finance in Developing and Transition Countries, April 4-6, Atlanta.
- Aghón G. and C. Casas (1999). Strengthening Municipal Financing: Difficulties and New Challenges for Latin America, in: K. Fukasaku and L. R. De Mello, Jr. (1999), *Fiscal Decentralisation in Emerging Economies*. Governance Issues. Paris: OECD: 75-86.
- Bahl, R. and J. Martinez-Vazquez (1992). The Nexus of Tax Administration and Tax Policy in Jamaica and Guatemala, in : M. Casanegra de Jantscher and R. M. Bird (eds.), *Improving Tax Administration In Developing Countries*: 66-110.
- Bejaković, P. (2000). Improving the Tax administration in Transition Countries, paper presented at the Conference *Global Entrepreneurship in the New Millenium*, School of Management Syracuse University, Syracuse, New York, USA , August 2000.
- Burgess, R. and N. Stern (1993). Taxation and Development, *Journal of Economic Literature*. 31: 762-830.
- Cabezas, R. M. (1992). Comments to: Tax Administration Reform in Bolivia and Uruguay, in : M. Casanegra de Jantscher and R. M. Bird (eds.), *Improving Tax Administration In Developing Countries*: 60-65.
- Casanegra de Jantscher, M. and R. M. Bird (1992). The Reform of Tax Administration, in : M. Casanegra de Jantscher and R. M. Bird (eds.), *Improving Tax Administration In Developing Countries*: 1-18.
- Casanegra de Jantscher, M. , P. dos Santos, J. Escolano, P. Castro (1996). Mexico : Fortalecimiento de la Administración Tributaria Federal, Fiscal Affairs Department, International Monetary Fund, Washington, D.C.
- de Soto, H. (1989). *The Other Path*. The Invisible Revolution in the Third World. New York: Harper & Row.
- de Soto, H. (2000). *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York: Basic Books.
- Das-Gupta, A. and D. Mookherjee (1995). Reforming Indian Income Tax Enforcement, IED Discussion Paper Series, No. 52, Institute for Economic Development, Boston University.
- Feld, L. P. and B. S. Frey (2002a). The Tax Authority and the Taxpayer. An Exploratory Analysis, paper presented the 2002 Annual Meeting of the European Public Choice Society Belgirate.
- Feld, L. P. and B. S. Frey (2002b). Trust Breeds Trust: How Taxpayers Are Treated, *Economics of Governance* 3: 87-99.

- Frey, B. S. (1997). *Not Just for the Money*. An Economic Theory of Personal Motivation. Cheltenham, UK: Edward Elgar Publishing.
- Frey, B. S. and R. Eichenberger (2001). The Political Economy of Stabilization Programmes in Developing Countries, in: B. S. Frey, *Inspiring Economics*. Cheltenham, UK: Edward Elgar: 163-183.
- Frey, B. S. and A. Stutzer (2002a). *Happiness and Economics*. How the Economy and Institutions Affect Well-Being. Princeton: Princeton University Press.
- Hindriks, J., M. Keen and A. Muthoo (1999). Corruption, Extortion and Evasion, *Journal of Public Economics*. 74: 395-430.
- Hirschi, T. and R. Stark (1969). Hellfire and Delinquency, *Social Problems*. 17: 202-213.
- Hull, B. B. and F. Bold (1994). Hell, Religion, and Cultural Change, *Journal of Institutional and Theoretical Economics*. 150: 447-464.
- Jain, A. (2001). Corruption: A Review, *Journal of Economic Surveys*. 15: 71-120.
- Jenkins, G. P. (1995). Perspectives for Tax Policy Reform in Latin America in the 1990's, Working Paper, Harvard Institute for International Development (HIID).
- Lewis, A. (1982). *The Psychology of Taxation*. Oxford: Martin Robertson.
- Lipford, J., R. E. McCormick and R. D. Tollison (1993). Preaching Matters, *Journal of Economic Behavior and Organization*. 21: 235-250.
- Martinez-Vazquez J. (2001). Mexico : An Evaluation of the Main Features of the Tax Administration, Working Paper, 01-12, Georgia State University, Atlanta.
- McLure, C. Jr. and S. R. Pardo (1992). Improving the Administration of the Colombia, in: M. Casanegra de Jantscher and R. M. Bird (eds.), *Improving Tax Administration In Developing Countries*: 66-110.
- Orviska, M. and J. Hudson (2002). Tax Evasion, Civic Duty and the Law Abiding Citizen, *European Journal of Political Economy*. 19: 83-102.
- Pyle, D. J. (1993). The Economics of Taxpayer Compliance, in : P. M. Jackson (ed.), *Current Issues in Public Sector Economics*. Houndsmills: Mcmillan: 58-93.
- Rezk, E. (1999). Experiences of Decentralisation and Intergovernmental Fiscal Relations in Latin America, in: K. Fukasaku and L. R. De Mello, Jr. (1999), *Fiscal Decentralisation in Emerging Economies*. Governance Issues. Paris: OECD: 101-120.
- Rose-Ackerman, S. (1997). The Political Economy of Corruption, in. K. A. Elliott (ed.), *Corruption and the Global Economy*. Washington DC: Institute for International Economics: 31-66.
- Schneider, F. (2002). The Size and Development of the Shadow Economies and Shadow Economy Labor Force of 16 Central and South American and 21 OECD Countries: First Results for the 90s, Working Paper, Johannes Kepler University of Linz.

- Silvani C. A. and A. H. J. Radano (1992). Tax Administration Reform in Bolivia and Uruguay, in : M. Casanegra de Jantscher and R. M. Bird (eds.), *Improving Tax Administration In Developing Countries*: 19-59.
- Smith, K. W. (1992). Reciprocity and Fairness: Positive Incentives for Tax Compliance, in: J. Slemrod (ed.), *Why People Pay Taxes. Tax Compliance and Enforcement*, Ann Arbor: University of Michigan Press: 223-250.
- Spicer, M. W. (1986). Civilisation at a Discount: The Problem of Tax Evasion, *Journal of Public Economics*. 46: 13-20.
- Tanzi, V. (2000). *Policies, Institutions and the Dark Side of Economics*. Cheltenham, UK: Edward Elgar.
- Tanzi, V. and H. H. Zee (2000). Tax Policy for Emerging Markets: Developing Countries, *National Tax Journal*. 53: 299-322.
- Torgler, B. (2001). What Do We Know about Tax Morale and Tax Compliance?, *International Review of Economics and Business (RISEC)*. 48: 395-419.
- Torgler, B. (2002a). Tax Morale and Institutions, WWZ-Discussion Paper 02/07, Basel: WWZ.
- Torgler, B. (2002b). The Economic Analysis of “Creative” Compliance, WWZ-Discussion Paper 02/04, Basel: WWZ.
- Torgler, B. (2003). Tax Morale and Tax Evasion: Evidence from the United States, WWZ-Discussion Paper, Basel: WWZ.