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Center for Research in Economics, Management and the Arts

Culture Differences and Tax Morale in the United States and in Europe

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James Alm and Benno Torgler*

Abstract

In recent years much research has investigated whether values, social norms, and attitudes differ across countries and whether these differences have measurable effects on economic behavior. One area in which such studies are particularly relevant is tax compliance, given both the noted differences across countries in their levels of tax compliance and the marked inability of standard economic models of taxpayer compliance to explain these differences. In the face of these difficulties, many researchers have suggested that the intrinsic motivation for individuals to pay taxes – what is sometimes termed their “tax morale” – differs across countries. However, isolating the reasons for these differences in tax morale is notoriously difficult. In a common approach, studies sometimes referred to as “cultural studies” have often relied upon controlled laboratory experiments conducted in different countries because such experiments can be set up with identical experimental protocols to allow cultural effects to be isolated. In this paper we first analyze a cross-section of individuals in Spain and the United States using the World Values Survey (WVS). In line with previous experiments, our findings indicate a significantly higher tax morale in the United States than in Spain, controlling in a multivariate analysis for additional variables. We then extend our multivariate analysis to include 14 European countries in the estimations. Our results again indicate that the United States has the highest tax morale across all countries, followed by Austria and Switzerland. We also find a strong negative correlation between the size of shadow economy and the degree of tax morale in those countries.

JEL Classification: H260; H730

Keywords: Tax Morale; Tax Compliance; Tax Evasion; Culture

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I. INTRODUCTION

In recent years much research has investigated whether values, social norms, and attitudes differ across countries and whether these differences have measurable effects on economic behavior. One area in which such studies are particularly relevant is tax compliance, given both the noted differences across countries in their levels of tax compliance and the marked inability of standard economic models of taxpayer compliance to explain these differences. Tax compliance seems to depend upon numerous factors beyond the standard economic ones of deterrence, and, given the level fines and audit rates in most countries (in combination with available estimates of risk aversion), deterrence models predict far too much compliance and far too little tax evasion (Alm, McClelland, and Schulze, 1992; Frey and Feld, 2002). Elffers (2000) points out that “...the gloomy picture of massive tax evasion is a phantom”. Long and Swingen (1991) argue that some taxpayers are “...simply predisposed NOT to evade”. and thus do not even search for ways to cheat at taxes (Frey and Foppa, 1986). Pyle (1991, 173) criticises the assumption that individuals are amoral utility maximisers: “Casual observation suggests that not all individuals think quite like that. Indeed, it seems that whilst the odds are heavily in favour of evaders getting away with it, the vast majority of taxpayers behave honestly”.

In the face of these difficulties, many researchers have suggested that the intrinsic motivation for individuals to pay taxes – what is sometimes termed their “tax morale” – differs across countries; that is, if taxpayer values are influenced by cultural norms, with different societal institutions acting as constraints and varying between different countries, then tax morale may be an important determinant of taxpayer compliance and other forms of behavior. However, isolating the reasons for these differences in tax morale is notoriously difficult.

In a common approach, studies sometimes referred to as “cultural studies” have often relied upon controlled laboratory experiments conducted in different countries because such experiments can be set up with identical experimental protocols to allow cultural effects to be

isolated. For example, Alm, Sanchez, and De Juan (1995) compared identical tax compliance experiments conducted in Spain and the United States, two countries with very different cultures and histories of compliance. They found that subjects in the United States consistently exhibited higher compliance than subjects in identical experiments in Spain, and attributed these differences to a higher “social norm” of compliance in the United States.

In this paper we further investigate whether tax morale differs in these two countries and beyond. We first analyze a cross-section of individuals in Spain and the United States using the World Values Survey (WVS) data because it seems likely that survey data on Spain and the United States should show a similar picture as the experimental results. In line with the experiments, our findings indicate a significantly higher tax morale in the United States than in Spain, controlling in a multivariate analysis for additional variables. We then extend our multivariate analysis to include 14 European countries in the estimations. Our results again indicate that the United States has the highest tax morale across all countries, followed by Austria and Switzerland. We also find a strong negative correlation between the size of shadow economy and the degree of tax morale in those countries.

In the next section we briefly discuss previous cross-country findings, and introduce the concept of tax morale. In section III we present our empirical results, first on Spain versus the United States and then on the full sample of European countries. In section IV we finish with some concluding remarks.

II. “CULTURAL” STUDIES IN ECONOMICS

In economics, there is often a lack of empirical and experimental evidence on the effects of culture. In the specific area of tax compliance, cross-culture studies are especially new, and most existing work is found in the experimental literature. Laboratory experiments are able to hold relevant tax-reporting factors constant, and so are able to better isolate possible culture differences. As noted earlier, Alm, Sanchez, and De Juan (1995) use experimental methods to

explore the role of social norms in Spain and the United States. In addition, Cummings, Martinez-Vazquez, McKee, and Torgler (2004) combine experimental and survey data from the United States, Botswana, and South Africa to investigate whether cross-cultural differences can explain tax compliance behavior across these countries. Their results indicate that the observed differences in tax compliance behavior and tax morale can be explained by differences in the fairness of tax administration, in the perceived equity of the fiscal exchange, and in the overall attitude towards the respective governments across the countries.

There are also some experimental results in other economic research areas, especially behavioral economics. However, the findings show a mixed picture. Ockenfels (1999) and Ockenfels and Weimann (1999) have performed public good and solidarity experiments in East and West Germany, and found differences in cooperation and solidarity, with East Germans less cooperative than West Germans. In contrast, Torgler (2003a) compares the tax morale of inhabitants of East and West Germany after the post-reunification period using the World Values Survey data for the years 1990 and 1997. He finds that inhabitants of East Germany have a higher tax morale than those of West Germany in both years, but also that the tax morale in the East seems to erode over time. Similarly, Mummert and Schneider (2002) report a significantly lower share of shadow economy labor in East Germany than in West Germany.

In other work, Heinrich et al. (2001) undertake a large cross-cultural experimental study of behavior using ultimatum, public good, and dictator games, and find a large variation across the different cultural groups. They argue that preferences and/or expectations are affected by group-specific conditions such as institutions or cultural fairness norms. Botelho, Harrison, Hirsch, and Ruström (2001) reconsider previously conducted experiments on bargaining behavior in different cultures. They find that there are differences among cultures but that the differences strongly interact with demographic characteristics of participants. Ashraf, Bohnet, and Piankov (2003) analyze trust in investment games, dictator games, and risky choice tasks in Russia, South Africa, and the United States, and they find that reciprocity seems to drive

Americans' trustworthiness, while in Russia and South Africa trustworthiness is related to kindness. Experimental findings of Brandts, Saijo, and Schram (2003) on voluntary contributions to public goods in different countries (e.g., Japan, the Netherlands, Spain, and the United States) do not find any cultural differences.

In general, the disparate findings suggest that a substantial body of evidence is needed to get a general idea of the impact of societal institutions in economics. Robustness can also be analyzed using different methodologies for the same question, and, if both instruments show the same tendencies, then we can suppose that the results are quite robust. In the next section, we return to the issue of tax morale and tax compliance, and we present some empirical estimates of the determinants of tax morale that are consistent with previous experimental studies.

III. ESTIMATING THE DETERMINANTS OF TAX MORALE

1. The Concept of Tax Morale

While some preliminary tax morale research was conducted during the 1960s by the “Cologne school of tax psychology” (Schmölders, 1970; Strümpel, 1969), the concept of tax morale has largely been neglected by tax researchers. A number of contemporary tax compliance scholars have mentioned the concept of tax morale in their papers or books (Lewis, 1982; Vogel, 1974), but only a select few have examined tax morale in any detail. Feld and Frey (2002) point out that:

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

This paper attempts to fill this gap by identifying cultural (and other) factors that have an impact on tax morale.

Recall that we have defined “tax morale” as the intrinsic motivation to pay taxes. The World Values Survey (WVS) allows us to analyze tax morale as a dependent variable. The

survey is a worldwide investigation of socio-cultural and political change collecting comparative data on values and belief systems among people around the world. It is based on representative national samples of at least 1000 individuals in a country, and has been conducted somewhat erratically over time in more than 40 countries. All surveys are done via face-to-face interviews at the respondents' homes and in their respective national languages. The sampling design consists of a multi-stage, random selection of sampling points with a number of points being drawn from all administrative regional units, after stratification by region and by degree of urbanization. The survey results can be weighted variable to represent national population parameters.¹

Because the WVS asks the identical question to respondents in the various countries, the survey allows cross-country (and cross-year) comparisons of societal attitudes toward religion, culture, and, especially for our purposes, tax compliance. The general question to assess the level of tax morale from the WVS 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).”

The dependent variable TAX MORALE is developed by recoding the ten-point scale into a four-point scale (0 to 3), with the value 3 standing for “never justifiable”. The value of 0 is an aggregation of the last 7 scale points, which were rarely chosen.

2. Spain and the United States

We estimate separately the determinants of TAX MORALE for the combined United States and Spain data set over two different time periods, 1990 and 1995, although we report only the results for 1990.² The analysis of two time periods helps give us a relatively robust picture of the levels of tax morale in Spain and the United States and the determinants that shape

¹ For a comprehensive discussion of the WVS, see Inglehart et al. (2000).

² These data fit into the time during which the experiment of Alm, Sanchez, and De Juan (1995) was conducted.

tax morale in the countries, especially whether statistically significant differences between both countries can be found. For each year, we include a separate dummy variable SPAIN, equal to 1 if a WVS respondent is a resident of Spain and 0 if otherwise. As suggested by the experimental results of Alm, Sanchez, and De Juan (1995), our expectation is that residents of Spain will, other things equal, exhibit a lower TAX MORALE than residents of the United States. We estimate all specifications using ordered probit methods, with a weighting variable on all observations to adjust the data to reflect the national distribution. The ordered probit models allow us to analyze the ranking information of the scaled dependent variable TAX MORALE. To obtain the quantitative impacts of the explanatory variables, we calculate the marginal effects of each variable.

Table 1 presents the results for 1990; the results for 1995 are similar and are not reported here.³ We report a large number of alternative specifications, and all specifications show the marginal effects of the explanatory variables on the highest value “Tax evasion is never justified”.

The variable of most interest is SPAIN. The estimated coefficient on SPAIN is negative and highly significant across all specifications, and indicates that tax morale is significantly higher in the United States than in Spain. The marginal effects indicate that being from Spain rather than from the United States reduces the probability of stating that tax evasion is never justified by around 9 percentage points in 1990.⁴ Thus our findings show that tax morale is unambiguously higher in the United States, though with a tendency for some decline in the differences during the observed five years.

To investigate whether the difference between Spain and the United States is largely driven by higher trust in the United States, we include several trust variables together with the SPAIN dummy variable in the same equations (see equations 1 to 4 in *Table 1*). In a general

³ All results are available upon request.

⁴ Similarly, the estimated coefficient on SPAIN for the 1995 estimates is negative and highly significant, with an impact on tax morale of roughly one-half its impact in 1990.

way, it can be argued that positive actions by the state are intended to increase taxpayers' positive attitudes and commitment to the tax system and thus to compliant behavior (Smith, 1992; Smith and Stalans, 1991). If the state acts in a trustworthy way, then taxpayers might be more willing to comply with the taxes. We use two trust variables, or TRUST IN LEGAL SYSTEM and TRUST IN PARLIAMENT, which are available for both countries (and both years) to check the robustness of the trust variables. These variables allow us to analyze trust at the constitutional level (e.g., trust in the legal system), thereby focusing on how the relationship between the state and its citizens is established; they also allow us to analyze trust more closely at the current politico-economic level (e.g., trust in the parliament). In all estimations both trust variables have a significantly positive effect on tax morale; that is, an increase in trust in the legal system or in parliament by one unit raises the share of persons indicating the highest tax morale by more than 3 percentage points.

Also robust across all specifications is the positive correlation between TAX MORALE and religion. Religiosity might influence people's habits, and might be a restriction to engage in tax evasion. As the religious variable, we use the variable frequency of CHURCH ATTENDANCE, which measures how much time individuals devote to religion. Empirical studies have tended to show that states and counties with higher rates of religious attendance and memberships have significantly less violent and non-violent crime (Hull, 2000; Hull and Bold, 1989; Lipford, McCormick, and Tollison, 1993). Thus, our result is in line with previous studies.

As for other variables, we observe that a higher financial satisfaction leads to a higher intrinsic motivation to pay taxes. Financial dissatisfaction might create a sense of distress, especially when taxes have to be paid, and so might increase the incentive to cheat on one's taxes. Marital status might influence legal or illegal behavior depending on the extent to which individuals are constrained by their social networks (Tittle, 1980), and such a constraint might affect tax morale. However, it should be noticed that this variable might interact with the tax

system, and differences in the degree of tax morale might be based on different tax treatments of married and non-married people. Evidence from the United States and Spain in *Table 1* indicates that married people have a higher tax morale than singles.

We also include additional variables that attempt to proxy for income. The income variable is scaled differently in Spain and in the United States, so that a direct measure of income cannot be included. However, we have included variables in which people had to self-classify themselves in different income groups (e.g., LOWER CLASS, WORKING CLASS, LOWER MIDDLE CLASS, UPPER MIDDLE CLASS, UPPER CLASS). In general, a higher economic class is correlated with a lower tax morale, and the marginal effects increase with an increase in the class. Also, women and older individuals tend to exhibit a higher TAX MORALE, but these coefficients are not statistically significant.

Overall, then, our estimation results in *Table 1* for 1990 (and similar but unreported results for 1995) consistently indicate that there the TAX MORALE in Spain is significantly lower than in the United States.

Table 1. Determinants of Tax Morale in Spain and the United States (1990)

| Weighted Ordered Probit | Coefficient | t-ratio | Marginal Effect | Coefficient | t-ratio | Marginal Effect | Coefficient | t-ratio | Marginal Effect | Coefficient | t-ratio | Marginal Effect |
|------------------------------|-------------|---------|-----------------|-------------|---------|-----------------|-------------|---------|-----------------|-------------|---------|-----------------|
| | (1) | | | (2) | | | (3) | | | (4) | | |
| Independent Variables | | | | | | | | | | | | |
| Culture Variable | | | | | | | | | | | | |
| SPAIN | -0.260*** | -8.021 | -0.098 | -0.246*** | -7.531 | -0.093 | -0.226*** | -6.959 | -0.086 | -0.248*** | -7.207 | -0.094 |
| Demographic Factors | | | | | | | | | | | | |
| AGE | 0.011*** | 11.493 | 0.004 | 0.011*** | 11.388 | 0.004 | 0.011*** | 11.156 | 0.004 | 0.011*** | 11.119 | 0.024 |
| WOMAN | 0.021 | 0.826 | 0.008 | 0.016 | 0.631 | 0.006 | 0.026 | 1.024 | 0.010 | 0.035 | 1.349 | 0.004 |
| Marital Status | | | | | | | | | | | | |
| MARRIED | 0.129*** | 4.204 | 0.049 | 0.133*** | 4.359 | 0.050 | 0.117*** | 3.755 | 0.044 | 0.123*** | 3.809 | 0.010 |
| LIVING TOGETHER | -0.038 | -0.679 | -0.014 | -0.035 | -0.623 | -0.013 | -0.031 | -0.558 | -0.012 | -0.035 | -0.568 | 0.046 |
| DIVORCED | -0.110* | -1.830 | -0.042 | -0.101* | -1.667 | -0.038 | -0.100 | -1.621 | -0.038 | -0.116* | -1.821 | -0.014 |
| SEPARATED | -0.144* | -1.928 | -0.054 | -0.149** | -1.987 | -0.056 | -0.158** | -2.144 | -0.060 | -0.154** | -2.009 | -0.045 |
| WIDOWED | 0.112* | 1.865 | 0.042 | 0.111* | 1.845 | 0.042 | 0.104* | 1.717 | 0.040 | 0.074 | 1.169 | -0.065 |
| Employment Status | | | | | | | | | | | | |
| PARTTIME EMPLOYED | -0.044 | -1.220 | -0.017 | -0.046 | -1.270 | -0.017 | -0.076** | -2.092 | -0.029 | -0.015 | -0.405 | 0.020 |
| SELFEMPLOYED | -0.130* | -1.767 | -0.049 | -0.132* | -1.787 | -0.050 | -0.101 | -1.326 | -0.038 | -0.132* | -1.739 | -0.011 |
| UNEMPLOYED | 0.065 | 1.395 | 0.024 | 0.049 | 1.055 | 0.019 | 0.043 | 0.901 | 0.016 | 0.040 | 0.809 | -0.050 |
| AT HOME | 0.125*** | 2.758 | 0.047 | 0.115** | 2.543 | 0.043 | 0.122*** | 2.671 | 0.046 | 0.090* | 1.900 | 0.001 |
| STUDENT | 0.031 | 0.578 | 0.012 | 0.043 | 0.802 | 0.016 | 0.002 | 0.035 | 0.001 | 0.056 | 1.016 | 0.034 |
| RETIRED | 0.032 | 0.748 | 0.012 | 0.022 | 0.513 | 0.008 | 0.019 | 0.419 | 0.007 | 0.004 | 0.079 | 0.030 |
| OTHER | -0.376*** | -3.804 | -0.142 | -0.412*** | -4.219 | -0.156 | -0.405*** | -4.083 | -0.154 | -0.750*** | -5.320 | 0.000 |

| | | | | | | | | | | | | |
|------------------------|----------|-------|-------|----------|-------|-------|----------|-------|-------|-----------|--------|--------|
| | | | | | | | | | | | | |
| Economic Situation | | | | | | | | | | | | |
| FINANCIALSATISFACT | 0.022*** | 4.489 | 0.008 | 0.022*** | 4.521 | 0.008 | 0.018*** | 3.653 | 0.007 | 0.025*** | 4.870 | -0.306 |
| UPPER CLASS | | | | | | | | | | -0.193*** | -3.630 | -0.055 |
| UPPER MIDDLE CLASS | | | | | | | | | | -0.134*** | -2.903 | -0.039 |
| LOWER MIDDLE CLASS | | | | | | | | | | -0.034 | -0.775 | -0.004 |
| | | | | | | | | | | | | |
| Religiosity | | | | | | | | | | | | |
| CHURCH ATTENDANCE | 0.043*** | 7.377 | 0.016 | 0.040*** | 6.874 | 0.015 | 0.040*** | 6.682 | 0.015 | 0.047*** | 7.655 | 0.019 |
| | | | | | | | | | | | | |
| Trust | | | | | | | | | | | | |
| TRUST IN LEGAL SYSTEM | | | | 0.091*** | 6.565 | 0.034 | | | | 0.081*** | 5.668 | 0.034 |
| TRUST IN PARLIAMENT | | | | | | | 0.140*** | 9.766 | 0.053 | | | |
| | | | | | | | | | | | | |
| Number of observations | 5592 | | | 5592 | | | 5460 | | | 5233 | | |
| Prob(LM-statistic) | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |

Notes: The dependent variable is TAX MORALE, measured on a four-point scale (0 to 3, with 3 being the highest tax morale). In the reference group for all dummy variables are MAN, SINGLE, FULL TIME EMPLOYED, WORKING CLASS (no observations for the LOWER CLASS), and USA. The Marginal Effect is calculated at the highest TAX MORALE score (or 3).

Significance levels: * 0.05 < p < 0.10, ** 0.01 < p < 0.05, *** p < 0.01.

2. United States and Europe

There are few studies that systematically analyze tax morale in different nations. Weck (1983), Weck, Pommerehne, and Frey (1984), and Frey and Weck-Hannemann (1984) developed a “tax immorality” index, and found a higher tax immorality in Romanic countries like France, Italy, and Spain compared to other European countries. Kirchgässner (1999) argues that in the northern states of Europe (in contrast to the majority of Catholic countries in the south) state and religious authority were held by one person. Offenses against the state were therefore also religious offenses and consequently a sin.

With the World Values Survey wave 1990-1993, we have the possibility of combining a large number of European countries into an empirical study using multiple regression analysis. As with the Spain-United States estimation, we include country dummy variables using the United States as the reference (and omitted) group. This allows us to determine whether there are differences in TAX MORALE between the United States and European countries. Using a single question also has the advantage that problems like complexity that are associated with the construction of an index can be reduced, especially regarding the measurement procedure or a low correlation between the items. However, in cross-cultural comparisons single item measures should be treated with some caution. In countries where tax revenues are collected to finance a “dictator’s war machine”, for example, tax evasion might be justifiable, and there could even be a “moral duty” not to pay taxes. Similarly, in authoritarian political systems people will search for “voice” or “exit” mechanisms via tax resistance to express their preferences (Torgler, 2001). As Europe and United States can be seen as relatively homogeneous, OECD countries, such problems are likely reduced. In a further estimation we differentiate between Romanic and Northern Countries with a dummy variable excluding the United States to check whether previous findings with data from the 1960s and 1970s (e.g., Weck, 1983) can be confirmed.⁵

⁵ Italy, France, Portugal and Spain have been defined as Romanic countries; Austria, Belgium, Denmark, Finland, Great Britain, Ireland, Netherlands, Norway, Switzerland, Sweden, Germany as Northern countries.

Data from a later World Values Survey in 1995-1997 do not allow such a comparison, as a smaller number of European countries have participated. To maximize the number of countries in the estimations, some previously used control variables in the United States and Spain estimations have been excluded. *Table 2* presents the results.

Table 2. Tax Morale in Europe and in the United States

| Weighted Ordered Probit | Marginal | | | Marginal | | | Marginal | | |
|----------------------------|-------------|---------|--------|-------------|---------|--------|-------------|---------|--------|
| | Coefficient | t-ratio | Effect | Coefficient | t-ratio | Effect | Coefficient | t-ratio | Effect |
| | (1) | | | (2) | | | (3) | | |
| Independent Variables | | | | | | | | | |
| Countries | | | | | | | | | |
| AUSTRIA | -0.084 | -1.881 | -0.034 | -0.083 | -1.859 | -0.033 | | | |
| BELGIUM | -0.884*** | -19.679 | -0.352 | -0.893*** | -19.588 | -0.356 | | | |
| DENMARK | -0.111** | -2.849 | -0.044 | -0.124** | -3.169 | -0.049 | | | |
| FINLAND | -0.536*** | -15.132 | -0.214 | -0.535*** | -15.043 | -0.213 | | | |
| FRANCE | -0.471*** | -12.380 | -0.188 | -0.468*** | -12.237 | -0.187 | | | |
| GERMANY | -0.254*** | -6.282 | -0.101 | -0.256*** | -6.296 | -0.102 | | | |
| GREAT BRITAIN | -0.279*** | -7.035 | -0.111 | -0.282*** | -7.053 | -0.112 | | | |
| IRELAND | -0.549*** | -14.271 | -0.219 | -0.544*** | -14.086 | -0.217 | | | |
| ITALY | -0.288*** | -5.719 | -0.115 | -0.292*** | -5.774 | -0.116 | | | |
| NETHERLANDS | -0.545*** | -15.209 | -0.217 | -0.565*** | -15.674 | -0.225 | | | |
| NORWAY | -0.527*** | -12.877 | -0.210 | -0.530*** | -12.893 | -0.211 | | | |
| PORTUGAL | -0.689*** | -19.359 | -0.275 | -0.672*** | -18.795 | -0.268 | | | |
| SPAIN | -0.227** | -3.080 | -0.090 | -0.223*** | -2.983 | -0.089 | | | |
| SWEDEN | -0.120** | -2.997 | -0.048 | -0.128** | -3.199 | -0.051 | | | |
| SWITZERLAND | -0.076 | -1.772 | -0.030 | -0.107* | -2.469 | -0.043 | | | |
| Demographic Factors | | | | | | | | | |
| AGE | 0.011*** | 22.717 | 0.004 | 0.011*** | 21.714 | 0.004 | 0.011*** | 22.266 | 0.004 |
| FEMALE | 0.236*** | 20.944 | 0.094 | 0.240*** | 21.093 | 0.096 | 0.251*** | 21.834 | 0.100 |
| Marital Status | | | | | | | | | |
| MARRIED | 0.060*** | 3.884 | 0.024 | 0.056*** | 3.623 | 0.023 | 0.042** | 2.639 | 0.017 |
| LIVING TOGETHER | -0.181*** | -8.288 | -0.072 | -0.180*** | -8.179 | -0.072 | -0.175 | -7.819 | -0.070 |
| DIVORCED | -0.009 | -0.345 | -0.004 | 0.002 | 0.078 | 0.001 | 0.024 | 0.865 | 0.010 |
| SEPARATED | -0.125** | -2.824 | -0.050 | -0.110* | -2.483 | -0.044 | -0.138** | -2.906 | -0.055 |
| WIDOWED | 0.067* | 2.342 | 0.027 | 0.074* | 2.572 | 0.030 | 0.076 | 2.621 | 0.030 |

| | | | | | | | | | |
|---------------------------|-----------|--------|--------|-----------|--------|--------|-----------|--------|--------|
| Employment Status | | | | | | | | | |
| PART TIME | | | | | | | | | |
| EMPLOYED | -0.070*** | -3.372 | -0.028 | -0.065*** | -3.103 | -0.026 | -0.080*** | -3.927 | -0.032 |
| SELFEMPLOYED | -0.160*** | -6.133 | -0.064 | -0.164*** | -6.257 | -0.066 | -0.146*** | -5.470 | -0.058 |
| UNEMPLOYED | -0.060* | -2.258 | -0.024 | -0.041 | -1.529 | -0.017 | -0.047 | -1.698 | -0.019 |
| AT HOME | -0.036 | -1.944 | -0.015 | -0.033 | -1.760 | -0.013 | -0.063*** | -3.458 | -0.025 |
| STUDENT | -0.054* | -2.265 | -0.021 | -0.067** | -2.817 | -0.027 | -0.108 | -4.457 | -0.043 |
| RETIRED | 0.054** | 2.657 | 0.022 | 0.060** | 2.895 | 0.024 | 0.034 | 1.671 | 0.014 |
| OTHER | -0.066* | -2.150 | -0.026 | -0.062 | -1.994 | -0.025 | -0.060 | -1.921 | -0.024 |
| Economic Situation | | | | | | | | | |
| FINANCIAL | | | | | | | | | |
| SATISFACTION | | | | 0.018*** | 8.065 | 0.007 | 0.019*** | 8.666 | 0.008 |
| Religious Variable | | | | | | | | | |
| CHURCH | | | | | | | | | |
| ATTENDANCE | 0.048*** | 16.555 | 0.019 | 0.046*** | 15.728 | 0.019 | 0.041*** | 14.875 | 0.016 |
| Culture | | | | | | | | | |
| ROMANIC | | | | | | | -0.045*** | -3.688 | -0.018 |
| Observations | | | | | | | | | |
| Prob(LM-statistic) | 25695 | | | 25410 | | | 23720 | | |
| | 0.000 | | | 0.000 | | | 0.000 | | |

Notes: The dependent variable is TAX MORALE, measured on a four-point scale 0 to 3, with 3 being the highest tax morale). In the reference group for all dummy variables are MAN, SINGLE, FULL TIME EMPLOYED, USA, and NORTHERN COUNTRIES. The Marginal Effect is calculated at the highest TAX MORALE score (or 3). To get an equal number of weighted observations (around 1500) for each survey, the original weight variable was multiplied by a constant for each country.

Significance levels: * 0.005 < p < 0.010, ** 0.001 < p < 0.005, *** p < 0.001.

As indicated in *Table 2*, we observe that the United States has the highest tax morale among all countries. Only Switzerland and Austria show coefficients that are not significant or on the border of significance with marginal effects between 3 and 4 percentage points. Countries such as Portugal or Belgium indicate the strongest differences compared to the United States, with marginal effects around 30 percentage points. It is interesting to observe the high tax morale of the United States and Switzerland, two countries with a strong direct democratic tradition. Taxpayers are treated as “citizens” with extensive rights *and* obligations (Frey 2003). The possibility for taxpayers to vote on fiscal issues might influence tax morale. Being involved in the political decision process enhances taxpayers’ sense of civic duty (Feld and Frey, 2002) and thus their tax morale. The instrument of direct democracy helps spend taxes according to their preferences, and the motivation to contribute paying their taxes may increase. Our results are in

line with previous findings. For example, Pommerehne and Weck-Hannemann (1996) use cross-section/time series regressions with Swiss data, and they find that tax evasion is lower in cantons with a higher degree of direct political control. Torgler (2003b) also finds with Swiss survey data that a higher direct democracy leads to a higher tax morale. Feld and Frey (2002) analyze how tax authorities treat taxpayers in Switzerland, and find that tax authorities of cantons with more direct participation rights, compared to cantons with less direct democracy, treat taxpayers more respectfully, are less suspicious if taxpayers report too low incomes, and more heavily fine unsubmitted tax declarations. Alm, McClelland, and Schulze (1999) and Feld and Tyran (2002) use experimental methods, and show that voting on tax issues has a positive effect on tax compliance.

The estimation in specification (3) in *Table 2* is also consistent with previous findings. People from Northern Europe have a significantly higher tax morale than people from Southern Europe. The marginal effects indicate that being from a Romanic country rather than from Northern Europe reduces the probability of stating that tax evasion is never justified by 1.8 percentage points.

IV. CONCLUSIONS

A significant body of research on tax compliance has been accumulated. Much work has concentrated on traditional topics, such as the impact of audit, penalty, and tax rates on compliance. However, there is overwhelming evidence that observed tax compliance behavior cannot be explained entirely with the traditional economic analysis that focuses mainly on deterrence components. Instead, there are several other factors that help explain why many people are compliant, especially the notion of “tax morale”. The focus in this paper was on social and institutional factors. We conducted a cross-country comparison of tax morale with World Values survey data. Tax morale, or the intrinsic motivation to pay taxes, might be a solution to the puzzle why so many individuals pay their taxes. Interestingly, this factor until

now has mostly been discussed as a residual explanation without investigating factors that shape tax morale. Analyzing tax morale as a dependent variable, the paper tries to fill a gap in the tax compliance literature.

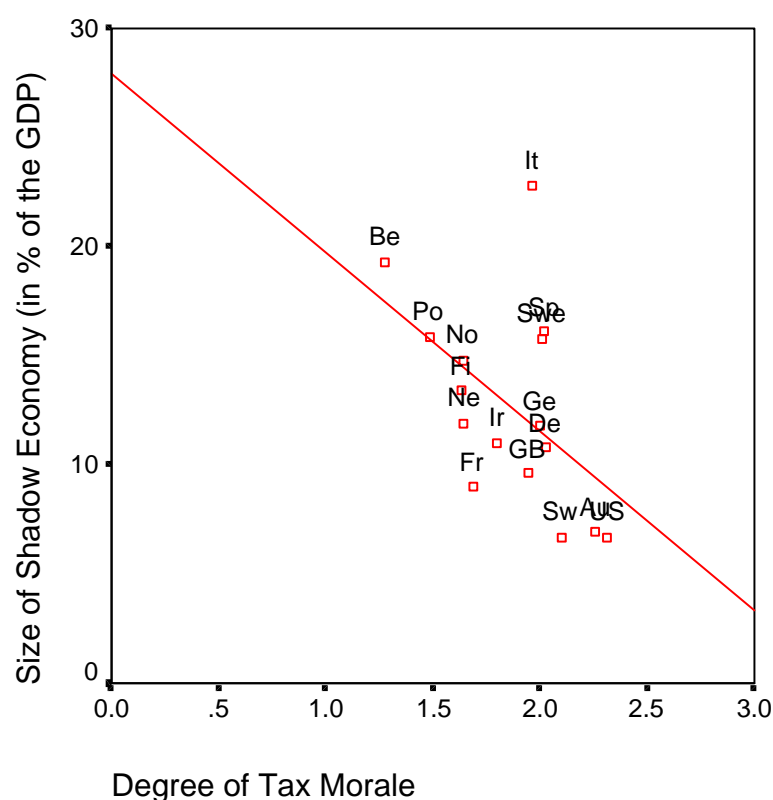
It is important to use a variety of methods such as experiments and surveys to get a deeper understanding of this complex topic. If different instruments show the same tendencies, we can suppose that the results tend to be robust. With data from the World Values Survey, we find evidence consistent with previous experimental results of Alm, Sanchez and De Juan (1995), who demonstrated that subjects in laboratory economic experiments in the United States consistently exhibited higher compliance than subjects in identical experiments in Spain. In our estimation results, individuals in the United States have a statistically significant higher tax morale than those in Spain, controlling in a multivariate analysis for additional factors. The marginal effects were quite high. We believe that these estimation results are consistent with a higher “social norm” of compliance in the United States than in Spain.

We then extend our multivariate analysis to include further 14 European countries in the estimations. Our results show that the United States has the highest tax morale across all countries, followed by Austria and Switzerland. The high tax morale values in the United States and in Switzerland might indicate that strengthening the direct democratic elements helps increase tax morale. Such institutional and political methods may enhance the identification and the loyalty with the state based on an active participation role in the political process expressing their preferences. Our results also indicate a higher tax morale in Northern European countries than in Romanic countries.

A relevant issue is whether these clear differences in tax morale across countries are reflected in any differences in real, or observed, behaviors in these countries. One area in which tax morale might be expected to have such real effects is in the size of the informal or shadow economy. The number of countries (16) used in *Table 2* allows us to exploit TAX MORALE at the aggregated level (e.g., using averages among countries) to analyze the simple correlation

between tax morale and the size of shadow economy. The size of the shadow economy is measured as a percent of official GDP, using the estimates of the shadow economy from Schneider and Klinglmaier (2003).⁶ *Figure 1* shows that there is a strong negative correlation (Pearson $r=-0.567$) significant at the 0.05 level. Analyzing the linear relationship in a simple regression indicates that the variable tax morale can explain more than 20 percent of the total variance of the variable size of shadow economy. Thus, the degree of tax morale has consequences for real behavior, and might be responsible for the size of shadow economy.⁷

Figure 1. Tax Morale and the Size of Shadow Economy



Notes: Au: Austria, Be: Belgium, De: Denmark, Fi: Finland, Fr: France, Ge: Germany, GB: Great Britain, Ir: Ireland, It: Italy, Ne: Netherlands, No: Norway, Po: Portugal, Sp: Spain, Sw: Switzerland, Swe: Sweden, US: USA.

⁶ See also Schneider and Enste (2002) for a detailed description of the DYMIMIC and currency demand approaches that are used.

⁷ We also examined simple correlation coefficients between tax morale and a number of additional variables, such as total tax revenues as a percent of GDP, per capita total tax revenues, and the shares of the major taxes in total tax revenues or in GDP. Although these correlations were generally of the expected signs (e.g., tax morale was negatively correlated with total tax revenues as a percent of GDP), they were seldom statistically significant.

In summary, our results indicate that tax morale differs significantly and systematically across countries. Our results also indicate that such differences seem likely to have real effects, and in particular may help explain the size of shadow economy in the countries analyzed in this paper. Further investigation of the determinants – and the resulting effects – of tax morale is called for.

APPENDIX

Table A1. Derivation of Some Variables in the World Values Survey

| Variable | Derivation |
|------------------------|--|
| TAX MORALE | 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 (4=never and 1=always) |
| CLASSES | People sometimes describe themselves as belonging to the working class, the middle class, or the upper or lower class. Would you describe yourself as belonging to the: <ol style="list-style-type: none"> 1. Upper class 2. Upper middle class 3. Lower middle class 4. Working class 5. Lower class |
| TRUST IN PARLIAMENT | Could you tell me how much confidence you have in the parliament: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (4= a great deal to 1=none at all) |
| TRUST IN LEGAL SYSTEM | Could you tell me how much confidence you have in the legal system: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all? (4= a great deal to 1=none at all) |
| FINANCIAL SATISFACTION | How satisfied are you with the financial situation of your household? (scale 1 = dissatisfied to 10=satisfied) |

Source: Inglehart et al. (2000).

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