

**Predicting Tax Burdens: An International Empirical Perspective Using Cultural Factors**

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## **ABSTRACT**

We examined the relationship between culture and tax rates. We used two sets of culture measures, Hofstede's dimensions (1980, 2001), and the GLOBE cultural dimension measures (House et al., 2004). Our regression results indicate the presence of an association between some cultural dimensions and tax rates. The dimensions for which associations were found are Hofstede's Uncertainty Avoidance, Power Distance, and Individualism/Collectivism. With respect to the GLOBE measures, Performance Orientation, In-Group Collectivism, and Assertiveness were found to be associated with tax rates. Further, the results for Hofstede's Uncertainty Avoidance and Individualism/Collectivism, and for the GLOBE measure of Performance Orientation continued with their significant association even after controlling for GDP and the Corruption Perception Index. The contributions of cultural variables to adjusted R square, after controlling for GDP and the Corruption Perception Index were significant and varied between 0.11-0.20. With the tax rate association tools thus discovered, companies, academic researchers, government officials, and other interested parties may be better able to predict future tax rates and resulting national and international micro and macroeconomic effects.

## INTRODUCTION

National tax systems are developed based on a number of factors, one of which is the value system of each nation. In this paper, we examine the relationship between tax rates in 31 different countries and two sets of cultural variables. The first is the well-known set developed by Hofstede (1980). The second set is based on the recently published GLOBE study (House et al., 2004). Previous research has demonstrated the relationship of culture and economic performance (Hofstede, 2001; Faria and León-Ledesma, 2003; Franke et al., 1991; Casson, 1993; Sowell, 1994; Gray, 1996; Johnson and Lenartowicz, 1998). In particular, elements of culture can affect economic production and investment decisions, efficient allocation of economic resources and openness to trade. The last two factors are related to the taxation system of a nation. There also exists research on the relationship between national tax structures and economic performance (Tosun and Abizadeh, 2005). However, in a review of the literature, we found only one article relating to the intersection of culture and taxation (Begue 1976).

### **Background and Research Questions**

In this section we develop research questions regarding the relationship between cultural variables and tax rates. In addition, we introduce two control variables, Gross Domestic Product per capita and the Corruption Perception Index (Transparency International, 1998). We do this in order to test the explanatory power of the cultural variables over and above these other country-level variables, that we expect to be related to both cultural variables and tax rates. . We believe that it is reasonable to expect a relationship between the cultural values and the level of taxation in a society. For example, casual observation indicates that Scandinavian nations tend to be both more collectivist and have higher tax rates than the United States. While there is a scarcity of

research on the relationship of culture and tax rates, it is important to understand the nature of factors affecting tax systems. To the extent that a society's cultural values impact taxation systems, this research adds to that understanding.

### ***The Hofstede Study***

According to Hofstede, culture is “the collective programming of the mind that distinguishes the members of one group or category of people from another.” (Hofstede 2001, p. 9). Hofstede developed an empirically based typology of cultural attributes by analyzing data obtained from surveys conducted among individuals in 53 nations in 1968 and 1972. Since all 116,000 respondents were employees of the same firm, IBM, Hofstede was able to hold constant the influence of industry and corporate culture. Based on the data obtained, he classified countries along four dimensions: Power Distance, Uncertainty Avoidance, Individualism/Collectivism, and Masculinity/Femininity. Hofstede rated each of the 53 countries in his study by these cultural dimensions (Hofstede, 2001). For example, compared to other cultures, the U.S. is very high in Individualism as opposed to Collectivism, somewhat below average in Power Distance, about average in Uncertainty Avoidance, and somewhat above average in Masculinity as opposed to Femininity. Table 1 shows some example countries with low and high values of each dimension.

[Insert Table 1 about here]

Power Distance refers to the extent to which a society accepts unequal power distribution between individuals, institutions and firms. A large Power Distance society means that people in that culture more readily accept wider differences in power compared to small Power Distance

cultures. For example, in some large Power Distance cultures, management decisions will mostly be centralized and hierarchical. In small Power Distance cultures, management decisions will be decentralized and more participative.

Taxation is sometimes designed to have an equalization effect on income (Hofstede, 2001, p. 112); however, Begue (1976) showed that taxation in France (a high Power Distance society) had an unequalizing effect on income. In addition, taxation was shown to increase inequality in some low Power Distance nations. It is also expected that nations with a desire to maintain equality (i.e., low Power Distance) will have more limits on free market mechanisms, taxation being an example of such a limit. Based on this mixed evidence of previous research, we have no expectation regarding the relationship of Power Distance and tax rates.

Uncertainty Avoidance reflects the extent to which members of a society are threatened by uncertain and ambiguous situations and try to avoid them. Firms in high Uncertainty Avoidance nations may have more rigid rules and exhibit less tolerance for new and uncommon ideas and behaviors. This dimension is related to a need for security, dependence on experts, and the application of information. The societal norm in countries with low Uncertainty Avoidance scores includes a tolerance for uncertainty (Hofstede, 2001). Johnson and Lenartowicz (1998) found that high economic freedom (less tax) is correlated with low Uncertainty Avoidance values. Nations with strong Uncertainty Avoidance will allow less freedom in economic markets, resulting in an expectation of higher tax rates and a strict monetary policy.

Another of the Hofstede cultural dimensions is Masculinity/Femininity. Masculine cultures are more assertive and oriented toward achievement and materialism. To the extent that a culture is feminine, the values of human relationships and concern for others are more important. Assertiveness, performance, success and competition are key factors in a masculine

culture; quality of life, service, and care for the weak are the hallmarks of a feminine culture. In order to maintain a welfare society favored by less masculine-oriented cultures, tax collections need to be higher. For example, Scandinavian nations as well as the Netherlands have adopted a minimum quality of life standard for all citizens by collecting tax-based wealth transfers from the rich to the poor. The economic problems of lower socioeconomic class citizens in many advanced industrialized nations, on the other hand, may be associated with lower tax rates on the rich (Hofstede, 2001, p. 317-318). Thus, we expect to see lower tax rates in masculine nations.

The remaining Hofstede dimension that we discuss here is Individualism/Collectivism. Individualism refers to a loosely coupled social network wherein people take care of themselves and move readily from one social group to another. In contrast, Collectivism refers to a tightly coupled social network where long lasting patterns of interdependence are recognized and a strong sense of group identity is present. People in collectivist societies tend to be linked to fewer, stronger, and longer lasting groups whose functions overlap between work, family, and friendship. Not only do the major types of groups such as work, family and friendship to which individuals are linked tend to be more distinct from one another in individualistic societies, but the strength of membership in each changes more easily (Triandis, 1995).

Highly individualistic societies (high Individualism/Collectivism values) usually are associated with more economic development (Hofstede, 2001, p. 519). Nations with better economies will tend to have better regulatory systems. Tax revenues generated in rich nations will be higher as people will be less inclined to cheat on their taxes (because of better regulatory systems, among other things) and people have the wherewithal to pay taxes. Therefore, on balance we expect that the association between Individualism/Collectivism and tax rates will be positive. This preceding discussion relates to the following research question.

**Research Question 1:** Which Hofstede cultural dimensions are associated with tax rates?

*The GLOBE Study*

House et al. (2004) recently added significantly to the understanding of culture. This large-scale study includes data from a total of 62 societies. While there is some degree of overlap with Hofstede, the authors of the GLOBE study argue for the added value of their dimensions. The study provides nine cultural dimensions. Some, but not all, of these use the same labels as Hofstede. In order to provide a balance with the number of Hofstede's cultural dimensions, and due to data constraints, we consider the four GLOBE measures that we anticipate to be most likely to influence tax rates. These four dimensions are: Institutional Collectivism, Performance Orientation, In-Group Collectivism, and Assertiveness. Discussion of each of these four follows immediately below.

Institutional Collectivism involves the extent to which societal institutions provide incentives for and otherwise encourage collective action. A collectively oriented society will be more inclined to tax the wealthy so as to increase the perceived collective good. A high degree to which society rewards collective effort should be correlated with a higher tax rate, as resources are redistributed from those generating individual rewards from individual effort, to those engaging more in collective efforts to benefit society in general.

Societies with high scores on Performance Orientation would tend to value achievement and individual effort. Societies that score high on performance orientation are expected to a) be more economically prosperous and competitively successful, b) have stronger societal support for competitiveness and c) enjoy higher levels of human development (House et al., 2004)

Therefore, a lower tax rate on this individual effort would be expected. Those individuals not performing at high levels would not expect to share in the rewards of those who are relatively high achievers. Such sharing would be deemed to provide less of an incentive to perform, thus reducing the overall performance of the society.

In-group Collectivism involves the extent to which individuals feel connected to their families and organizations. A high degree of expressed group or family loyalty should correlate with a lower tax rate, as cohesion within a family group would be associated with furthering family rather than societal goals. Furthering these goals requires resources, so those expressing high degrees of family loyalty would be expected to object to being taxed at higher rates. A high degree of In-group Collectivism will foster an attitude of placing a high value on what is best for the family or other societal subgroup. Less group funds in the form of taxes will be shared with other elements of society.

Assertiveness refers to the extent to which social relationships are characterized by aggressiveness and confrontation. These aspects of society are not generally considered negative but rather they are expected. A high degree of Assertiveness should be associated with a higher tax rate, as assertive individuals may be expected to approve of assertively changing society. Changes to society generally require more resources and hence higher tax rates. Assertiveness leads those with the least to forcefully make their wishes and needs known, resulting in higher tax rates to accommodate the resources thus required. This leads to the next research question.

**Research Question 2:** Which GLOBE cultural dimensions are associated with tax rates?

### ***Control Variables – Gross Domestic Product and the Corruption Perception Index***

We anticipate a positive relationship between GDP and tax rates. Tosun and Abizadeh (2005) found a positive relationship between GDP per capita growth and taxes on personal income. While we use the level of GDP per capita rather than the growth (i.e., change) in GDP per capita, we expect the same relationship to hold. In addition, previous research has established a relationship between economic performance and cultural variables (Casson, 1993; Franke et al., 1991; Johnson and Lenartowicz, 1998; Hofstede, 2001; Faria and León-Ledesma, 2003; Sowell, 1994; Gray, 1996). However, what is less clear, and is the core of the research question below, is whether economic growth moderates the relationship between cultural variables and tax rates at the country level.

Institutional factors that vary between countries have been demonstrated to impact the usefulness of financial accounting information (Ball et al., 2000; Ball et al., 2003). We anticipate similar effects with respect to tax rates. For example, the impact of corruption on an economy is well known (Shleifer & Vishny, 1993; Mauro, 1995). A simple definition of corruption is “the abuse of public power for private benefit” (Tanzi, 1998). According to Mauro (1995), a negative correlation exists between the Corruption Perception Index and economic growth rate (GDP or investment growth rate). Rose-Ackerman (1999) observes that the process of economic growth (reforms etc.) often generates forces which reduce the effect of corruption. The shadow economy, also referred to as the illegal, informal or underground economy, exists outside the reach of tax and regulatory authorities. The extent of corruption and the size of the shadow economy are highly related. These are assumed to be substitutive (Rose-Ackerman, 1997) or complementary. Johnson et al. (1998) found a strong relationship between the shadow economy and corruption.

Higher tax and social-security burdens are associated with an increased shadow economy at the national level (Tanzi, 1999), due to the shadow economy's effect of reducing contributions to tax revenues. Individuals driven by higher income motives tend to increase their participation in the informal economy in high tax rate nations. In addition, the percentage of household income to be declared to tax authorities is also directly linked to the rate of tax in a nation. Also, high indirect tax rates and high marginal income tax rates are associated with a high amount of labor and goods bought and sold in the underground sector of the economy (Schneider and Enste, 2000). However, conflicting research results also exist. Friedman et al. (2000) found that higher official tax rates are related to less unofficial activity (as in a shadow economy) as a % of GDP. Since these two variables, corruption and the shadow economy, are strongly correlated we decided to use a measure of corruption (the Corruption Perception Index) in our study to assess its impact on tax burden. As with economic growth, we anticipate that corruption will also be related to tax rates. Inserting control variables results in the remaining research questions.

**Research Question 3:** Which Hofstede cultural dimensions are associated with tax rates after controlling for GDP per capita and the Corruption Perception Index?

**Research Question 4:** Which GLOBE cultural dimensions are associated with tax rates after controlling for GDP per capita and the Corruption Perception Index?

## **DATA AND METHODOLOGY**

Our dependent variable is 1998 corporate tax revenues as a percentage of GDP obtained from the World Bank database. We refer to this variable as the Tax Rate. This year is selected because GLOBE cultural data were collection ended around 1997. Our independent variables are the Hofstede cultural dimensions (Hofstede 2001), the GLOBE cultural dimensions (House et al.,

2004), 1998 Gross Domestic Product per capita (World Bank 1998), and the Corruption Perception Index is for 1998 (Transparency International, 1998). The cultural dimensions are, as mentioned, taken from the Hofstede and GLOBE studies and are one-time measures, so time-series analysis was not possible. The GLOBE project output is based on data from middle managers from three industries in the 1990s, while Hofstede's project is based on data from marketing and service employees of IBM in the 1980s. While Hofstede's dimensions are somewhat dated but still frequently used in many studies, GLOBE data is recent and is likely to be used by management researchers overwhelmingly in the future, as it has been meticulously developed by management scholars from around the world. The GLOBE study presents two sets of measures for each of its dimensions, societal values and societal practices. We use the societal practices scores. These items ask respondents to describe the values "as exist or practiced" in social structures of a nation. These variables and their sources are presented in Table 2.

[Insert Table 2 about here]

The 31 nations represented in our study in our overall data set were European or North American or from the OECD group which includes some third world nations. These nations are: Argentina, Australia, Austria, Brazil, Canada, China, Colombia, Costa Rica, Denmark, Finland, Germany, Greece, Hungary, India, Indonesia, Italy, Mexico, the Netherlands, New Zealand, the Philippines, Poland, Portugal, Russia, Singapore, South Africa (Black), Sweden, Switzerland, Thailand, Turkey, the United Kingdom, and the United States. This combination of nations is a function of data availability. However, the set does contain a mix of developing and developed

nations. Table 3 provides a sample of nations and the associated Hofstede and GLOBE cultural dimension scores.

[Insert Table 3 about here]

In order to examine the research questions, we used two sets of multiple regression models, one with and one without the two control variables. We first do ordinary least squares regression with only the cultural variables. Equation (1) uses the Hofstede measures and equation (2) uses the GLOBE measures.

The model equations without control variables are:

$$(1) \text{ TaxRate} = a_0 + a_1 * \text{PDH} + a_2 * \text{UAH} + a_3 * \text{MF} + a_4 * \text{ICH}$$

$$(2) \text{ TaxRate} = a_0 + a_1 * \text{ICG} + a_2 * \text{IG} + a_3 * \text{PO} + a_4 * \text{A}$$

PDH = Power Distance (Hofstede)  
UAH = Uncertainty Avoidance (Hofstede)  
MF = Masculinity/Femininity (Hofstede)  
IC = Individualism/Collectivism (Hofstede)  
ICG = Institutional Collectivism (GLOBE)  
IG = In-Group Collectivism (GLOBE)  
PO = Performance Orientation (GLOBE)  
A = Assertiveness (GLOBE)

In the next set of regressions, we add our control variables to the cultural dimension measures that were significant from regressions (1) and (2). Our control variables are Gross Domestic Product (and the Corruption Perception Index. Also, in this part of the analysis we use a stepwise regression procedure, due to an increase in number of independent variables and small sample size. We began with all four cultural dimensions in the Hofstede portion and all nine in the GLOBE portion.

## RESULTS

### **Without GDP and the Corruption Perception Index control variables**

Regression results indicate that three of the four Hofstede dimensions are associated with tax rates for 1998. The regression model is significant with adjusted  $R^2$  of 0.531 ( $p < .001$ ). The three significant dimensions are Power Distance ( $p < .05$ ), Uncertainty Avoidance ( $p < .10$ ), and Individualism/Collectivism ( $p < .05$ ). Of these, Power Distance is negatively associated with the tax rates indicating that tax rates tend to be lower in high Power Distance societies. The other two significant dimensions are both positively related with tax rates. This indicates that tax rates tend to be higher in high Uncertainty Avoidance societies and highly individualistic societies. These results are presented in Table 4, panel A. This answers research question 1.

With respect to the GLOBE dimensions, the regression results indicate that three of the four dimensions are associated with tax rates for 1998. The adjusted  $R^2$  of this regression model is 0.408 ( $p < .005$ ). The significant cultural dimensions are Performance Orientation ( $p < .05$ ), Assertiveness ( $p < .10$ ), and In-Group Collectivism ( $p < .01$ ). Of these, Assertiveness and In-Group Collectivism are both negatively associated with the tax rates indicating that tax rates tend to be lower in high Assertiveness and In-Group Collectivism societies. The other significant dimension, Performance Orientation, was positively related to tax rates. This indicates that tax rates tend to be higher in high Assertiveness societies. These results are also presented in Table 4, panel A. This provides the answer to research question 2.

[Insert Table 4 about here]

### **With GDP and the Corruption Perception Index control variables**

These two regressions were computed using stepwise regression. In both regressions (the regression including the Hofstede dimensions and the one including the GLOBE dimensions) the two control variables were introduced, followed by the cultural variables. In the presence of the control variables and based on the stepwise procedure, only two dimensions remained significant of the four Hofstede dimensions (Uncertainty Avoidance and Individualism/Collectivism). In addition, only one of the nine GLOBE dimensions (Performance Orientation) remained significant. The final equations are given below:

$$(3) \text{ TaxRate} = a_0 + a_1 * \text{UA(H)} + a_2 * \text{IC} + a_3 * \text{GDP} + a_4 * \text{CPI}$$

$$(4) \text{ TaxRate} = a_0 + a_1 * \text{PO} + a_2 * \text{GDP} + a_3 * \text{CPI}$$

GDP = Gross Domestic Product per capita

CPI = Corruption Perception Index

If only the two control variables GDP and the Corruption Perception Index are independent variables, the regression is statistically significant at the  $p < .005$  level with an adjusted  $R^2$  of 0.314. However, neither of the control coefficients is significant. This is due to the high level of collinearity between GDP per capita and the Corruption Perception Index ( $r = 0.846$ ,  $p < .000$ ). This is the expected positive relationship between GDP per capita and the Corruption Perception Index (which is measured with more corrupt countries receiving lower scores).

With respect to the Hofstede dimensions, the stepwise regression yielded two cultural dimensions that are significant in the presence of the control variables. These are Uncertainty Avoidance and Individualism/Collectivism. Similar to the tests that excluded the control variables, the coefficients on both of these variables indicate a positive relationship with tax rates. We also examined the contribution of these cultural variables to adjusted  $R^2$ , after the introduction of controls. As stated above, the adjusted  $R^2$  of the regression with only the control variables was 0.314. The subsequent inclusion of Uncertainty Avoidance increased adjusted  $R^2$  to 0.423 ( $p < .05$ ). When Individualism/Collectivism is introduced into the regression, adjusted  $R^2$  increases to 0.514 ( $p < .05$ ). So the contribution of cultural variables to the adjusted  $R^2$  value was 0.20 and significant, even after accounting for the influences of the control variables. This answers research question 3.

The stepwise regression tests of the GLOBE dimensions yielded one cultural dimension, Performance Orientation, which is significant in the presence of the control variables. As with the tests that excluded the control variables, the coefficient on Performance Orientation indicates a negative relationship with tax rates. We also examined the contribution of this cultural variable to adjusted  $R^2$ , after the introduction of controls. The inclusion of Performance Orientation increased adjusted  $R^2$  to 0.423 ( $p < .05$ ) as seen in Table 4, Panel B. So the contribution of this GLOBE cultural variable to the adjusted  $R^2$  value was 0.11 and significant, even after accounting for the influences of the control variables. This provides the answer to research question 4.

## CONCLUSION

In this preliminary study we examined the relationship of cultural dimensions and tax rates in various nations. National culture is an important factor to consider in international studies such as this. As House et al noted (2004, p. 1) “As economic borders come down, cultural barriers will most likely go up...” Using 31 nations in our two sets of analyses, we found that cultural variables are associated with the tax burdens of various nations. These results were robust in empirical tests including control variables for both GDP per capita and the Corruption Perception Index. The results support the notion that a relationship exists between national tax rates and cultural factors measured at the society level. While society does not always equate to nation, there is in the vast majority of cases a very close relationship. The results indicate further that this relationship holds even after controlling for other country-level variables that are associated with cultural dimensions. This research is relevant to our overall understanding of the underpinnings of national tax rates. In addition, it may be relevant to business decision-makers to the extent that there is a need to at least partially understand factors affecting the process by which tax rates are derived. Further, to the extent that this is understood, it may be able to predict future changes in tax rates based on current cultural trends at the national level. Thus many of the significant cultural dimensions of GLOBE and Hofstede are correlated. This is in line with Peterson (2004). He argues that both projects (Hofstede and GLOBE) “...share much in common, and many of the measures are empirically and conceptually associated, yet there are sufficient differences to treat them as complementary.”

Government policies and actions are derived from and are reflections of societal values (House et al., 2004). Our results demonstrate that a high tax rate is associated with a high uncertainty avoidance and a high individualistic value as derived using Hofstede’s dimensions.

These relationships can be justified as follows: a high tax rate results from, among other things, an effort by governments to avoid uncertainty. This is often done with the help of a cumbersome and complicated regulatory framework resulting in a big government (House et al., 2004, p. 256). Research on the relationship between individualism and economic growth has been controversial (House et al., 2004, p. 481). A nation with highly collectivistic values (and correspondingly low individualistic values) may have public sectors that are supportive of economic success. In order to promote such success, a low taxing system may be needed. Also GLOBE's in-group collectivism dimension (which has a strong negative correlation with Hofstede's high individualism:  $r=-.82$ ,  $p<.01$ ,  $n=62$ ) has a negative relationship with economic prosperity and competitiveness. (House et al., 2004, p. 481-482) The economic health of a nation is usually associated with a low tax rate as more economically healthy nations are endowed with better regulatory systems. Our results also show that societies which are more performance-oriented (a GLOBE cultural "as is" dimension) have less intrusive tax systems with lower tax rates. The United States, for example, has less intrusive government policies, resulting in a lower tax rate compared to other developed nations. Its PO index (as is) value is quite high at 4.45 compared to the average of 4.08.

In the current study, we examined the relationship between cultural dimensions and tax rates at a single point in time. Pending the availability of data, future research could examine this relationship longitudinally. The study could also be extended using other institutional and economic factors, including the political philosophy of various nations, as controls. This endeavor would be influenced by the potential multicollinearity of various independent variable candidates as national culture is a fundamental variable and possible candidates for independent variables may not really be exogenous in nature. It could be that some of the institutional,

political and economic indicators could be strongly correlated to various cultural dimensions (House et al., 2004).

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**TABLE 1**  
**Examples of Low and High Hofstede Cultural Dimension Nations\***

<b>Low Individualism</b> Uruguay, Mexico, Pakistan, Peru, Philippines.	<b>High Individualism</b> Australia, Canada, Denmark, Finland, France, India, U.S., U.K.
<b>High Power Distance</b> Brazil, France, India, Uruguay, Mexico, Peru, Philippines, Venezuela.	<b>Low Power Distance</b> Austria, Australia, Canada, Denmark, Finland, U.S., U.K.
<b>High Uncertainty Avoidance</b> Austria, Brazil, France, Japan, Uruguay, Mexico, Peru, Venezuela.	<b>Low Uncertainty Avoidance</b> Australia, Canada, Denmark, Finland, India, Philippines, U.S., U.K.
<b>High Masculinity</b> Austria, Australia, Canada, India, Japan, Mexico, Philippines, Venezuela, U.S., U.K.	<b>Low Masculinity</b> Denmark, Finland, France, Uruguay, Peru, Spain, S. Korea, Sweden.

\* The values of each of these cultural dimension indices are considered high if it is above the mean value of all nations; otherwise, it is considered low.

**TABLE 2**  
**Variables and Data Sources**

<b>Variables</b>	<b>Data Source</b>	<b>Variable descriptions and abbreviations</b>
<b>Hofstede's Cultural Dimensions</b>	Hofstede (1980)	Four cultural dimensions: Uncertainty Avoidance (UAH), Power Distance (PDH), Individualism/Collectivism (ICH) and Masculinity/Femininity (MF). Measured in year 1980.
<b>GLOBE Cultural Dimensions</b>	House (2004)	Nine cultural dimensions (as practiced): Uncertainty Avoidance (UAG), Future Orientation (FO), Power Distance (PD), Institutional Collectivism (ICG), Humane Orientation (HO), Performance Orientation (PO), In-Group Collectivism (IG), Assertiveness (A), and Gender Egalitarianism (GE)
<b>GDP</b>	World Bank (1998)	Annual national domestic per capita gross output Domestic Product per capita (GDP). Measured in purchasing power parity (PPP).
<b>Tax Rate</b>	World Bank (1998)	Tax revenue as a % of GDP (TaxRate)
<b>Corruption Perception Index</b>	Transparency International (1998)	An index of how much corruption is perceived (CPI) . A high value denotes a low level of corruption in the society.

**TABLE 3**  
**Selected Nations and Cultural Variable Scores**

<b>Nation</b>	<b>Hofstede</b>				<b>GLOBE</b>			
	<b>PDH</b>	<b>UAH</b>	<b>ICH</b>	<b>MF</b>	<b>ICG</b>	<b>PO</b>	<b>IG</b>	<b>A</b>
Argentina	49	86	46	56	3.66	3.63	5.51	4.18
Germany (former West)	35	65	67	66	4.16	4.42	4.16	4.66
India	77	40	48	56	4.25	4.11	5.81	3.70
U.K.	35	35	89	35	4.31	4.16	4.08	4.23
U.S.	40	46	91	40	4.21	4.45	4.22	4.50

**TABLE 4**  
**Regression Results**  
**Panel A – Without Control Variables**

(1)  $\text{TaxRate} = a_0 + a_1 \cdot \text{PD(H)} + a_2 \cdot \text{UA(H)} + a_3 \cdot \text{MF} + a_4 \cdot \text{IC}$

(2)  $\text{TaxRate} = a_0 + a_1 \cdot \text{IC} + a_2 \cdot \text{IG} + a_3 \cdot \text{PO} + a_4 \cdot \text{A}$

	<b>a0</b>	<b>a1</b>	<b>a2</b>	<b>a3</b>	<b>a4</b>	<b>Adj. R<sup>2</sup></b>
<b>Equation (1)</b> <b>[Hofstede]</b>	19.508 2.843** *	-0.411 -2.417**	0.267 2.030*	-.115 -0.841	0.458 2.557**	0.531
<b>Equation (2)</b> <b>[GLOBE]</b>	31.320 0.834	0.298 1.360	-0.437 -2.510**	0.346 1.864*	-0.588 -3.464***	0.408

**Stepwise Regression Results**  
**Panel B – With Control Variables**

(3)  $\text{TaxRate} = a_0 + a_1 \cdot \text{UA(H)} + a_2 \cdot \text{IC(H)} + a_3 \cdot \text{GDP} + a_4 \cdot \text{CPI}$

(4)  $\text{TaxRate} = a_0 + a_1 \cdot \text{PO} + a_2 \cdot \text{GDP} + a_3 \cdot \text{CPI}$

	<b>a0</b>	<b>a1</b>	<b>a2</b>	<b>a3</b>	<b>a4</b>	<b>Adj. R<sup>2</sup></b>
<b>Equation (3)</b> <b>[Hofstede]</b>	-4.751 -0.83	0.426 2.888** *	0.457 2.463*	-0.137 -0.475	0.585 2.097**	0.514
<b>Equation (4)</b> <b>[GLOBE]</b>	43.656 3.384** *	-0.408 -2.508**	0.242 0.875	0.566 1.895*		0.423

Note: The top number in each cell is the coefficient estimate and the bottom number in each cell is the t-value. All coefficient estimates on independent variables are standardized coefficients.

\*p < .10, \*\*p < .05, \*\*\*p < .01