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Governance, Trust, and Taxes: On the Determinants of Tax Havens*

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Abstract

This paper examines the role of social capital (trust) vis-à-vis the propensity of a country to be a tax haven. The empirical analysis corroborates that better governed countries have a higher ceteris paribus probability to be tax havens. However, social capital counteracts the effect of governance quality. This effect is so strong that the partial effect of governance quality is reversed for countries with the trust index in the top quartile – making these high trust countries less likely to be tax havens – even as governance quality is increased. Thus it is crucial to consider the interaction between institutions and social capital, since the same governance institutions have a different impact on the tax haven propensity for countries with different social capital.

Keywords: tax havens, governance, institutions, trust, social capital.

JEL classification: D71, H25, H87, K10.

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1. Introduction

This paper broadens our understanding of why some countries choose to be tax havens by investigating the role of social capital (trust) and its interaction with governance quality. The analysis corroborates previous findings that tax havens are small, affluent, and have high-quality governance institutions (Dharmapala and Hines, 2009) and expands our knowledge of tax haven determinants by showing that social capital counteracts the effects of governance quality. Countries with higher levels of general trust have a significantly lower probability of being tax havens if they also have high governance quality.

In recent years, research on tax havens has proliferated (Dharmapala and Hines, 2009; Palan et al. 2010; Rawlings, 2004; Rixen, 2011; Sharman, 2012; Shaxson, 2012). One branch of this literature focuses on international policies against tax competition (Sharman 2006). Another branch focuses on the development of tax havens and their role in the global economy (Palan et al. 2010; Shaxson 2012). A third branch, investigates the determinants of tax havens (Dharmapala and Hines 2006, 2009). This paper builds directly on Dharmapala and Hines (2009) by highlighting how the tax haven propensity changes with the interaction between governance quality and social capital. We thus contribute to the literature on the determinants of tax havens by highlighting the importance of social capital and its interaction with governance institution quality. Social capital has been found to be important for economic outcomes such as economic growth (Knack and Keefer, 1997), institutional design and performance (Djankov et al., 2003), financial development (Guiso, Sapienza, and Zingales, 2004, 2008), crime (Glaeser, Sacerdote, and Scheinkman, 1995), firm size (La Porta et al., 1997), secondary education (Goldin and Katz, 2001), and family ties (Alesina and Giuliano, 2010). We document its importance vis-à-vis tax haven status.

There is a substantial theoretical literature on the attractiveness for a country to be a tax haven (Kanbur and Keen, 1993; Hansen and Kesser, 2001; Slemrod and Wilson, 2009). Several characteristics of tax havens are well-documented in the literature: Tax havens are usually small countries with a population below one million and more prosperous than other countries (Dharmapala and Hines 2006, 2009). Dharmapala and Hines (2009) further document that governance quality has a statistically significant effect on the probability of being a tax haven. This suggests that the range of a country's sensible tax policy options is constrained by the quality of its governance institutions, since better governed countries are more likely to be tax havens. We show that the effect of governance quality is counteracted – even reversed – by social capital, as countries with a high level of trust tend to be less likely to be tax havens *and* have a significantly lower effect of higher governance quality. This result is driven by the supply side, since even as demand for offshore financial services increases with governance quality, the willingness to supply such services decreases even more as equity and fairness concerns become more important locally. This could be because high levels of trust indicate high trust in institutions to perform redistributive and other social objectives. This also suggests that a country's tax policy options can be subject to a more cultural or social constraint. In light of this result, it is pivotal to consider the interaction between institutions (governance quality) and social capital (trust), since the same institutions have different impact on the tax haven propensity for countries with different social capital.

The rest of the paper is structured as follows: Section 2 describes the data, the empirical results are presented in Section 3, and Section 4 concludes.

2. Data

The empirical analysis investigates the role of social capital and governance vis-à-vis the propensity to be a tax haven. We expand the dataset used by Dharmapala and Hines (2009) with a measure of social capital, namely the trust index from the World Values Survey (WVS)[2], the European Values Study (EVS), and the GlobalBarometer Surveys (GBR). The trust index is constructed from the question of *interpersonal trust*, usually asked in the following terms: "*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*", where we focus on the two feasible answers "*most people can be trusted*" and "*can't be too careful*". The trust index is given by:

$$\text{Trust Index} = 1 + (\text{\% most people can be trusted}) - (\text{\% can't be too careful}) \qquad (1)$$

Hence, an index higher than one corresponds to countries where a majority of people trust others, while an index lower than one corresponds to countries where a majority of people think one can never be too careful when dealing with others. This social capital measure appears stable over time and the merged index is the country average over survey waves during the period 1995-2009.

The Dharmapala and Hines (2009) dataset includes a governance index, also labeled the World Governance Indicators (WGI) and developed by Kaufmann, Kraay and Mastruzzi (2005).[3] The components of the measurement of governance quality are based on the following six dimensions: (1)

[2] WVS has executed five waves of surveys from 1981 to 2008. Representative national samples are interviewed, using a standardized questionnaire that measures changing values concerning e.g. social capital. For more information on WVS; see www.worldvaluessurvey.org, EVS; see www.europeanvaluesstudy.eu, and GBR; see www.globalbarometers.org.

[3] The WGI indicators are available at: http://info.worldbank.org/governance/wgi/index.asp. Including a description and response to critics of the WGI indicators at: http://info.worldbank.org/governance/wgi/resources.htm.

Voice and Accountability – measuring political, civil and human rights. (2) Political Instability and Violence – measuring the likelihood of violent threats to, or changes in, government, including terrorism. (3) Government Effectiveness – measuring the competence of the bureaucracy and the quality of public service delivery. (4) Regulatory Burden – measuring the incidence of market-unfriendly policies. (5) Rule of Law – measuring the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence. (6) Control of Corruption – measuring the exercise of public power for private gain, including both petty and grand corruption and state capture.

Following Dharmapala and Hines (2009) our empirical analysis includes five of the above governance dimensions. The regulatory dimension is excluded from the analysis because some of the underlying measures used to calculate regulatory quality are directly related to a country's tax system, and may therefore be mechanically correlated with tax rates and tax haven status. The remaining five dimensions are aggregated into a composite governance index for each country, using the unweighted mean of the available measures in 2004.

Tax havens are defined the same way as in Dharmapala and Hines (2009). Thus the analysis uses as its definition a list of 41 countries and territories provided in Appendix 2 of Hines and Rice (1994, p. 178). The dependent variable in the analysis is an indicator variable for whether or not a country is classified as a tax haven. The explanatory variables of primary interest here are the measures of social capital and governance quality as specified above, namely the trust index and the governance index. The data also includes several other control variables and summary statistics are presented in Table 1. They show similar patterns as previous research (Dharmapala and Hines, 2009) and suggest that tax havens are small, affluent, likely to be islands, and large proportions of their population lives close to coasts. They have open economies, and are physically close to major capital exporters. Moreover, they are less likely to have Scandinavian and Socialist origins, and more likely to have British legal origins and parliamentary systems, to use English as an official language, and to have substantially smaller natural resources than non-havens.

As also noted by Dharmapala and Hines (2009), one of the most striking differences in Table 1 is that tax havens have a substantially higher governance index than non-havens, suggesting that strong governance institutions is almost a prerequisite for becoming a tax haven. Table 1 confirms that the characteristics of the tax havens and non-havens are similar for the sample of countries with non-missing trust index. We further examine whether the trust index is non-randomly missing from the full sample of countries and territories by regressing an indicator of missing values on the country characteristics, as well as imputing the trust index where missing in the empirical analysis. All in all, this does not give us reason to worry about sample selection issues, as it does not significantly affect our main empirical result.

Table 1. Descriptive Statistics of Tax Havens and Nonhavens.

	Tax Havens		Nonhavens		Havens - Nonhavens
	N	Mean (Std.Dev.)	N	Mean (Std.Dev.)	Mean Diff.
Governance Index	33	0.73 (0.72)	176	-0.13 (0.90)	0.86
Trust Index	11	0.53 (0.22)	103	0.50 (0.27)	0.04
Confidence in Institutions Index	11	0.99 (0.36)	102	0.86 (0.35)	0.14
Confidence in Welfare System Index	9	1.14 (0.20)	86	1.02 (0.09)	0.12
Cheat-Tax Index (1 versus 10)	9	1.62 (0.15)	82	1.59 (0.17)	0.03
Cheat-Tax Index (1-5 versus 6-10)	9	1.81 (0.11)	82	1.79 (0.13)	0.03
UN subregions:					
Trust Index	36	0.46 (0.21)	162	0.47 (0.24)	-0.02
Confidence in Institutions Index	36	0.76 (0.32)	162	0.88 (0.32)	-0.12
Confidence in Welfare System Index	36	1.05 (0.12)	162	1.01 (0.07)	0.04
Legal origins:					
Trust Index	39	0.47 (0.06)	189	0.48 (0.13)	-0.01
Confidence in Institutions Index	39	0.99 (0.14)	189	0.87 (0.15)	0.12
Confidence in Welfare System Index	39	1.02 (0.01)	189	1.03 (0.02)	0.00
Control variables:					
GDP per capita (PPP, thousands USD)	39	18.51 (14.68)	188	9.55 (10.22)	8.96
Population (thousands)	39	1,146 (2,043)	189	33,354 (126,476)	-32,208
UN member	39	0.67	189	0.87	-0.21
Distance by air (km)	39	2,965 (1,899)	189	4,429 (2,645)	-1,464
Landlocked	39	0.10	189	0.20	-0.09
Regional controls:					
Asia / Pacific	39	0.18	189	0.22	-0.04
Europé and Central Asia	39	0.26	189	0.24	0.02
the Americas	39	0.44	189	0.18	0.26
Middle East and Africa	39	0.13	189	0.35	-0.22
Instrumental Variables:					
Latitude (abs. value)	31	0.28 (0.17)	176	0.28 (0.19)	0.00
British legal origin	39	0.72	186	0.30	0.42
French legal origin	39	0.23	186	0.46	-0.23
German legal origin	39	0.05	186	0.03	0.02
Scandinavian legal origin	39	0.00	186	0.03	-0.03
Socialist legal origin	39	0.00	186	0.18	-0.18

Note: The table displays descriptive statistics of independent variables of main interest (i.e. governance and trust index), instrumental variables, and control variables separately by tax haven status. Mean (standard deviation) and fraction of sample for indicator variables.

3. Empirical Results and Interpretation

In this section we analyze the relationship between governance, trust, and tax haven status in more detail. There is a high positive correlation between the governance and the trust index (0.49). Likewise, GDP per capital (which is found to be a determinant of tax haven status) is highly correlated with both the governance (0.86) and the trust index (0.45). We employ a regression analysis in an attempt to control for various factors that may be highly correlated with both tax haven status and the explanatory variables of main interest, namely governance and trust, and thus confound the regression estimates. Table 2 presents the key findings of the empirical analysis. We corroborate the positive relationship between governance quality and tax haven status in the sample of 209 countries and territories used by Dharmapala and Hines (2009), but the relationship is weaker in the sample of 114 countries for which the trust index exists.[4] We document that countries with higher levels of trust have a significantly lower impact of governance quality on the probability of being a tax haven.[5]

Table 2. Determinants of Tax Haven Status.

	All Countries and Territories				UN members			GDP/capita ≥ USD1000			Population ≤ 1 mill	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Governance Index	**0.1188** ***	0.0983	**0.2322** ***	**0.2711** ***	0.1189	**0.2526** ***	**0.2819** ***	0.0982	**0.2920** ***	**0.3157** ***	**1.3761** ***	**1.7155** ***
	(0.0418)	(0.0855)	(0.0715)	(0.0741)	(0.0837)	(0.0694)	(0.0710)	(0.0879)	(0.0752)	(0.0767)	(0.4154)	(0.6169)
Trust Index		-0.0593	-0.0392	0.1184	-0.0774	-0.0858	0.0994	-0.0606	-0.0025	0.1209	**2.3349** *	**3.0039** *
		(0.1405)	(0.1506)	(0.1577)	(0.1360)	(0.1442)	(0.1506)	(0.1477)	(0.1570)	(0.1656)	(1.1558)	(1.6585)
Trust * Governance Index		**-0.0017** *	**-0.2231** **	**-0.2854** **	**-0.0019** **	**-0.2676** ***	**-0.3069** ***	-0.0017	**-0.2742** ***	**-0.3163** ***	**-2.0403** **	**-2.9038** **
		(0.0010)	(0.1059)	(0.1159)	(0.0010)	(0.1017)	(0.1103)	(0.0011)	(0.1093)	(0.1188)	(0.8386)	(1.2085)
Trust Index (UN subregion)			+			+			+		+	
Trust Index (legal origin)				+			+			+		+
Number of observations	**209**	**114**	**184**	**209**	**111**	**170**	**191**	**109**	**169**	**191**	**39**	**56**

Note: Dependent Variable: Indicator for Tax Haven Status (=1 for Tax Havens). All regressions include Control Variables for region, GDP per capita, population, UN member, landlocked, and distance by air. ***, **, and * indicate significance at the 10%, 5%, and 1% level.

Similar control variables and robustness checks are applied in this analysis as in Dharmapala and Hines (2009). The control variables in the baseline regressions include: GDP per capita, population, UN member, landlocked, distance by air, and regional controls. The robustness checks also include: the country's land area, whether it is an island, fraction of population within 100 km of the coast, parliamentary systems, use of English as an official language, ethnolinguistic fractionalization, government expenditures as a percentage of GDP, telephone lines per capita, and exogenous natural resource endowment (subsoil assets). Our main result is neither sensitive to including all these nor groups of these additional control variables. Similar results are yielded when estimating the baseline regressions on subsamples of UN members, countries with a high GDP per capital, and small countries.

[4] The countries with missing trust index are smaller territories, less likely to be UN members, more likely to be Asian/Pacific, and have lower governance quality on average.

[5] Replacing the linear additive form of the governance and trust index with an indicator for having a governance and trust index in the top quartile in specification (2) shows that countries with both the governance *and* the trust index in the top quartile have a 32 percentage points lower probability of being tax havens.

The positive relationship between governance and tax haven status and its interaction with trust tend to be even stronger for small countries, while trust even has a positive and significant partial effect on the tax haven propensity for smaller countries. This result is in line with Dharmapala and Hines (2009) and Hansen and Kessler (2001) arguing that it is more socially acceptable for smaller countries to lower tax rates, but the sample size is very small so this is a cautious conclusion.

To increase sample size we also include specifications where the trust index has been replaced by the UN subregion average and the average for countries with same legal origin.[6] Comparative case studies document the importance of region – particularly the attitude of the metropole for dependencies considering to become tax havens (Joensen et al., 2013) and legal origins have been found to be important for various social and economic outcomes – including financial development (La Porta et al., 1997, 1998; Glaeser and Shleifer, 2002). The positive partial effect of governance quality and the negative partial effect of its interaction with trust just become even stronger in these specifications. Our results are thus both to both aggregation on region and legal origin.[7]

4. Conclusion and Further Research

This paper documents a crucial interaction between social capital and governance quality. Particularly having a high level of trust in the country counteracts the effects of strong governance institutions. Countries with both strong governance and high levels of trust have a 32 percentage points lower probability of being tax havens. The main results are largely robust to looking at subgroups of countries, imputing the missing values of the trust index, including additional control variables, and employing an IV strategy with latitude and legal origins as instruments for the trust and governance index.

The analysis gives rise to a number of new research questions. In particular, it triggers the question why the presence of high levels of trust counteracts the probability of tax haven activities in countries or territories otherwise prone to be tax havens? One possible explanation could be that high levels of trust indicate high trust in institutions to perform redistributive and other objectives, as well as more "pro-social" behavior (more solidarity). Since tax havens are often associated with being "anti-social" (Palan et al. 2010; Shaxson 2012), countries characterized with high levels of trust (social capital) refrain from

[6] No trust index is available for the UN subregions: Melanesia, Micronesia, Polynesia, and Middle Africa.

[7] We so employ an instrumental variables (IV) estimation strategy, where we instrument governance with legal origin, trust with absolute latitude, and their interaction with the instrument interactions. The IV results are consistent with our main finding, but the instruments are weak and consequently the estimates are imprecise. Provided that legal origins and latitude do not directly impact tax haven status – other than their impact on governance and trust – the IV estimates give consistent estimates of the effect of governance and trust. These estimates should thus be free of bias caused by correlation between unobserved factors affecting tax haven status and the governance quality and the trust level, respectively. Our conclusions are also robust to using a probit and a Heckman type correction model instead of OLS and 2SLS, respectively. Results are not tabulated here, but available upon request.

tax haven activities perhaps because of conforming to social norms and on a basis of logic of appropriateness (DiMaggio and Powell, 1991). These mechanisms tend to only exist when governance quality also is high – most likely because institutions then are capable of performing their (redistributive) objectives. In this regard it is a striking fact that no countries with Scandinavian and Socialist legal origins are tax havens, suggesting that perhaps some welfare regimes are less prone to become tax havens than others – with the Scandinavian model being perhaps the least likely type of regime to become a tax haven (Esping-Andersen, 1990). These hypotheses would be interesting to test more directly in future research. Our results are consistent with an economic model whereby the supply of OFC services decreases with the level of social capital in the economy and the foreign demand of OFC services increases with governance quality. In such a model, the tax haven probability will increase (decrease) as governance quality (trust) increases; thus, the partial effect of governance quality will depend on the level of trust. The results in Table 2 show that it is even reversed; thus, the interaction between governance and trust cannot be ignored when analyzing the determinants of tax havens. This is a complex interaction that would be interesting to explore further in future research.

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